

3510

**ACETONE, HPLC GRADE, BURDICK & JACKSON, CAT. AH010**

Assay ..... 99.9% min.

**Maximum limit of impurities (%)**  
 Water ..... 0.5  
 Residue ..... 3mg/L

**Max. UV. Absorbance:**

|                |       |       |       |       |       |
|----------------|-------|-------|-------|-------|-------|
| $\lambda$ (nm) | 330   | 340   | 350   | 375   | 400   |
| Absorbance     | 1.000 | 0.080 | 0.010 | 0.005 | 0.005 |

**Pack Size:** 4L

585

**ACETONE, SPECTROSOL**

Description: clear liquid; characteristic odour.

For U.V. spectroscopy.

Assay (by GLC) ..... 99.5% min.

Colour (APHA) ..... 10 max.

Density (@ 25°C ) ..... 0.7857g/mL max.

**U.V absorbance**

|                |      |     |      |      |
|----------------|------|-----|------|------|
| $\lambda$ (nm) | 330  | 340 | 350  | 400  |
| Max abs.       | 1.00 | 0.1 | 0.02 | 0.01 |

**Maximum limit of impurities (%)**  
 R.A.E. .... 0.001  
 Sol. in H<sub>2</sub>O ..... To pass test  
 Titratable acid ..... 0.03 mmol H  
 Titratable base ..... 0.06 mmol OH  
 Aldehyde (as HCHO) ..... 0.002  
 CH<sub>3</sub>OH ..... 0.05  
 Propan-2-ol ..... 0.05  
 Subs. red. KMnO<sub>4</sub> (as O) ..... 0.0005  
 H<sub>2</sub>O ..... 0.5  
 Conforms to ACS

**Pack Size:** 500mL

6

**ACETONE, UNIVAR**

Description: clear liquid with a characteristic odour.

Assay( by GLC) ..... 99.5% min.

Colour (APHA) ..... 10 max.

Density (@ 25°C) ..... 0.7857g/mL max.

**Maximum limit of impurities (%)**

|                                    |              |          |          |
|------------------------------------|--------------|----------|----------|
| R.A.E. ....                        | 0.001        | Cd ..... | 0.000005 |
| Sol. in H <sub>2</sub> O .....     | To pass test | Pb ..... | 0.000005 |
| Titratable acid .....              | 0.03 mmol H  | Ca.....  | 0.00005  |
| Titratable base .....              | 0.06 mmol OH | Zn ..... | 0.00005  |
| Aldehyde (as HCHO) .....           | 0.002        | Na ..... | 0.00005  |
| Methanol, Propan-2-ol (each) ..... | 0.05         | K .....  | 0.00005  |
| Fe .....                           | 0.00002      | Cr.....  | 0.000002 |
| Subs. red. KMnO <sub>4</sub> ..... | To pass test | Co ..... | 0.000002 |
| H <sub>2</sub> O .....             | 0.5          | Cu ..... | 0.000002 |
| Al .....                           | 0.00001      | Mn ..... | 0.000002 |
| Mg .....                           | 0.00001      | Ni ..... | 0.000002 |
| Ba .....                           | 0.000005     | Sr ..... | 0.000002 |

Conforms to ACS

**Pack Size:** 500mL, 2.5L, 10L, 20L, 200L

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**ACETONE, UNILAB**

Relative density (@20°C) ..... 0.790 - 0.793

| <b>Maximum limit of impurities</b> | <b>(%)</b>   |
|------------------------------------|--------------|
| Residue on evaporation .....       | 0.005        |
| Acidity or alkalinity .....        | To pass test |
| Related substances .....           | To pass test |
| Matter insoluble in water .....    | To pass test |
| Appearance of solution .....       | To pass test |
| Water (K.F.) .....                 | 0.3          |
| Reducing substances .....          | To pass test |

Chemical &amp; Physical parameters conform to BP

**Pack Size:** 500mL, 2.5L, 20L, 200L**ACETONITRILE****CAS** 75-05-8**Synonyms** : Methyl CyanideCH<sub>3</sub>CN = 41.05

Density ..... about 0.78g/ml

U.N Number ..... 1648

ADG Class..... 3

Packing Group ..... II

3484

**ACETONITRILE, Biosyn, BURDICK & JACKSON, CAT. 017**

Assay ..... 99.9% min.

| <b>Maximum limit of impurities</b>    | <b>(%)</b> |
|---------------------------------------|------------|
| GC (ECD, as Heptachlor epoxide) ..... | 10ng/L     |
| Water .....                           | 0.002      |
| Residue .....                         | >1mg/L     |

**Max. UV. Absorbance:**

|            |       |       |       |       |       |       |
|------------|-------|-------|-------|-------|-------|-------|
| λ(nm)      | 190   | 200   | 225   | 250   | 350   | 400   |
| Absorbance | 1.000 | 0.050 | 0.010 | 0.005 | 0.005 | 0.005 |

**Pack Size:** 4L

3446

**ACETONITRILE, HPLC/GC/PESTICIDE, BURDICK & JACKSON, CAT. 015**

Assay ..... 99.9% min.

| <b>Maximum limit of impurities</b>    | <b>(%)</b> |
|---------------------------------------|------------|
| GC (ECD, as Heptachlor epoxide) ..... | 10ng/L     |
| Water .....                           | 0.01       |
| Residue .....                         | 1mg/L      |

**Max. UV. Absorbance:**

|            |       |       |       |       |       |       |
|------------|-------|-------|-------|-------|-------|-------|
| λ(nm)      | 190   | 220   | 225   | 250   | 350   | 400   |
| Absorbance | 1.000 | 0.050 | 0.010 | 0.005 | 0.005 | 0.005 |

**Pack Size:** 4L

3448

**ACETONITRILE, PESTICIDE GRADE, BURDICK & JACKSON, CAT. 016**

High purity solvent for pesticide residue analysis &amp; gas chromatography.

Assay ..... 99.9% min.

| <b>Maximum limit of impurities</b>    | <b>(%)</b> |
|---------------------------------------|------------|
| GC (ECD, as Heptachlor epoxide) ..... | 10ng/L     |
| Water .....                           | 0.05       |
| Residue .....                         | 1mg/L      |

**Pack Size:** 4L
**COSMOS SUPPLY CO., LTD**  
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**2315****ACETONITRILE, 190 GRADE, UNICHROM**

Description: clear liquid with a characteristic ethereal odour, with no odour of amines.

Specially purified for HPLC Filtered through 0.45 micron filter.

Assay (by GLC) ..... 99.7% min.

R.I. .... 1.344

**U.V absorbance**

|                |      |      |      |     |
|----------------|------|------|------|-----|
| $\lambda$ (nm) | 280  | 254  | 214  | 190 |
| Max abs.       | 0.01 | 0.02 | 0.15 | 1.0 |

|                                         |            |
|-----------------------------------------|------------|
| <b>Maximum limit of impurities</b>      | <b>(%)</b> |
| Non-vol. ....                           | 0.001      |
| Acidity (as CH <sub>3</sub> COOH) ..... | 0.005      |
| H <sub>2</sub> O (by K.F.) .....        | 0.1        |

**Pack Size:** 2.5L, 4L**2316****ACETONITRILE, 210 GRADE, UNICHROM**

Description: clear liquid with a characteristic ethereal odour, with no odour of amines. Specially purified for HPLC Filtered through 0.45 micron filter.

Assay (by GLC) ..... 99.7% min.

R.I. .... 1.344

**U.V. Absorbance**

|                |     |      |      |
|----------------|-----|------|------|
| $\lambda$ (nm) | 210 | 254  | 280  |
| Max abs.       | 1.0 | 0.02 | 0.01 |

|                                         |            |
|-----------------------------------------|------------|
| <b>Maximum limit of impurities</b>      | <b>(%)</b> |
| Non-vol. ....                           | 0.001      |
| Acidity (as CH <sub>3</sub> COOH) ..... | 0.01       |
| H <sub>2</sub> O (by K.F.) .....        | 0.1        |

**Pack Size:** 2.5L**3511****ACETONITRILE, HPLC GRADE, BURDICK & JACKSON, CAT. AH015**

Assay ..... 99.9% min.

|                                    |            |
|------------------------------------|------------|
| <b>Maximum limit of impurities</b> | <b>(%)</b> |
| Water .....                        | 0.05       |
| Residue .....                      | 3mg/L      |

**Max. UV. Absorbance:**

|                |       |       |       |       |       |       |
|----------------|-------|-------|-------|-------|-------|-------|
| $\lambda$ (nm) | 190   | 200   | 210   | 250   | 350   | 400   |
| Absorbance     | 1.000 | 0.070 | 0.040 | 0.005 | 0.005 | 0.005 |

**Pack Size:** 4L

3477

**ACETONITRILE, UV anhydrous, UNICHROM**

A super-dry grade for optimum results with peptide synthesis, sequencing & also for HPLC as an excellent mobile phase.

Colour (APHA) ..... 10  
Assay (by GLC) ..... 99.9% min.

**UV Absorbance:**

|                 |       |       |      |      |      |      |      |
|-----------------|-------|-------|------|------|------|------|------|
| Wavelength (nm) | 300   | 54    | 230  | 220  | 210  | 200  | 190  |
| Absorbance      | 0.005 | 0.005 | 0.01 | 0.02 | 0.04 | 0.05 | 1.00 |

**Maximum limit of impurities (%)**

Non volatile residue ..... 0.0002  
Acidity (as CH<sub>3</sub>COOH) ..... 0.01  
Water (by KF) ..... 0.001

**Pack Size:** 4L

3452

**ACETONITRILE, anhydrous, UV, BURDICK & JACKSON, CAT. 017**

Assay ..... 99.9%

**Maximum limit of impurities (%)**

Water ..... 0.003  
Residue ..... 1mg/L

**Max. UV. Absorbance:**

|            |       |       |       |       |       |       |
|------------|-------|-------|-------|-------|-------|-------|
| λ(nm)      | 190   | 200   | 210   | 250   | 350   | 400   |
| Absorbance | 1.000 | 0.050 | 0.010 | 0.005 | 0.005 | 0.005 |

**Pack Size:** 4L

1535

**ACETONITRILE, UNIVAR**

Description: clear liquid with a characteristic ethereal odour, with no odour of amines.

Assay (GC) ..... 99.5% min.  
Colour (APHA) ..... 10max

**Maximum limit of impurities (%)**

R.A.E. .... 0.005  
Titratable acid ..... 8.0 meq/g  
Titratable base ..... 0.6 meq/g  
H<sub>2</sub>O ..... 0.3

Conforms to ACS

**Pack Size:** 500mL, 2.5L, 20L

710

**ACETONITRILE, UNILAB**

Density ..... about 0.78g/mL  
B.R.(95% min.) ..... 80-82°C

**Maximum limit of impurities (%)**

Non-vol. .... 0.02  
Acidity (as CH<sub>3</sub>COOH) ..... 0.1  
H<sub>2</sub>O ..... 0.5

**Pack Size:** 2.5L, 20L

848

## ACETOPHENONE, UNILAB

**Synonyms:** Methyl Phenyl Ketone**CAS** 98-86-2 $C_6H_5COCH_3 = 120.15$ 

Assay ..... 98.0% min.

Density ..... 1.030 g/mL

Boiling Point ..... 202°C

**Maximum limit of impurities (%)**Acidity (as  $C_6H_5CO_2H$ ) ..... 0.03

Residue after evaporation ..... 0.01

**Pack size:** 500mL**2-ACETOXYBENZOIC ACID** (see Acetylsalicylic Acid page 49)

9

## ACETYLACETONE, UNILAB

**CAS** 123-54-6**Synonyms:** 2,4-Pentanedione $CH_3COCH_2COCH_3 = 100.12$ 

Assay (GC) ..... 99.5% min.

**Maximum limit of impurities (%)**Acidity (as  $CH_3COOH$ ) ..... 0.2 $H_2O$  ..... 0.2**Pack Size:** 2.5L

U.N Number ..... 2310

ADG Class ..... 3

Subsidiary Risk ..... 6.1

Packing Group ..... III

## ACETYL CHLORIDE

**CAS** 75-36-5 $CH_3COCl = 78.50$ 

Description: clear liquid with irritating vapour.

Density ..... about 1.10g/mL

U.N Number ..... 1717

ADG Class ..... 3

Subsidiary Risk ..... 8

Packing Group ..... II

10

## ACETYL CHLORIDE, UNIVAR

Assay ..... 99.0% min.

R.I. @20°C ..... about 1.388

**Pack size:** 100mL

1293

## ACETYL CHLORIDE, UNILAB

Assay ..... 98.0% min.

**Pack Size:** 500mL

3142

**N-ACETYL-L-CYSTEINE, UNIVAR****CAS** 616-91-1 $C_5H_9NO_3S = 163.2$ 

Description: White crystalline powder

Assay ..... 99.0% min.

U.N Number ..... 1759

ADG Class..... 8

Packing Group ..... III

**Maximum limit of impurities****(%)**

Ca ..... 0.0005

Fe ..... 0.0005

Pb ..... 0.001

R.O.I ..... 0.5

Cu ..... 0.0005

Insoluble matter ..... 0.1

Na ..... 0.1

**Pack size:** 100g**ACETYLENE TETRABROMIDE** (see sym-Tetrabromoethane page 391)

849

**ACETYSALICYLIC ACID, UNILAB****CAS** 50-78-2**Synonyms:** 2-Acetoxybenzoic Acid, Aspirin $CH_3COOC_6H_4COOH = 180.16$ 

Description: colourless crystals or white crystalline powder; odourless or almost odourless.

M.P. .... about 143°C

Assay ..... 99.5-101.0%

**Maximum limit of impurities****(%)**

Appearance of soln. .... To pass test

Sulph. ash ..... 0.1

L.O.D. .... 0.5

H.M. (as Pb) ..... 0.0020

Salicylic acid ..... 0.05

Related substances ..... To pass test

Chemical &amp; Physical parameters conform to BP

**Pack Size:** 500g**ACID BLUE 74** (see Indigo Carmine page 205)**ACID BLUE 83** (see Coomassie Brilliant Blue R 250 page 135)**ACID DICHROMATE, CLEANING SOLUTION** (see Glassware Cleaning Solution page 182)**ACID GREEN** ( see Light Green page 224)**ACID ORANGE 10** ( see Orange G page 272)

3171

**ACRIDINE ORANGE, LABCHEM****CAS** 10127-02-3 $C_{17}H_{20}ClN_3 \cdot \frac{1}{2}ZnCl_2 = 370.0$ 

Description: brown coloured powder

Dye content ..... about 80%

Absorption maximum ..... 491 – 495 nm (in 50% ethanol)

L.O.D (110°C) ..... 5.0% min.

Suitability for electrophoresis ..... To pass test

U.N Number ..... 3143

ADG Class..... 6.1

Packing Group ..... III

**Pack size:** 5g

**304**

### ACRIFLAVIN, LABCHEM

**CAS** 8048-52-0

$C_{14}H_{14}ClN_3 = 259.7$

Description: Orangish, yellow uniform powder

pH (1%w/v soln. @ 25°C) ..... 2.5

**Pack size:** 50g

**1305**

### ACRYLAMIDE, for Electrophoresis, UNIVAR



**CAS** 79-06-1

$C_3H_5NO = 71.08$

Appearance: White crystalline powder

Assay ..... 99.9% min.

U.N Number ..... 2074

ADG Class..... 6.1

Packing Group ..... III

#### Maximum limit of impurities

|                 | (%)           |                            |               |
|-----------------|---------------|----------------------------|---------------|
| DNases .....    | None detected | Cl .....                   | 0.005         |
| RNases .....    | None detected | SO <sub>4</sub> .....      | 0.005         |
| Proteases ..... | None detected | Cd .....                   | 0.0005        |
| Ca .....        | 0.001         | Phosphatases .....         | None detected |
| Fe .....        | 0.005         | Heavy metals (as Pb) ..... | 0.0005        |

**Pack size:** 100g

**2434**

### ACTI-DIONE, LABCHEM



**CAS** 66-81-9

**Synonyms:** Cycloheximide

$C_{15}H_{23}NO_4 = 281.35$

Grey-yellow cryst powder.

Assay (by TLC) ..... 94% min.

U.N Number ..... 2811

ADG Class..... 6.1

Packing Group ..... I

**Pack Size:** 1g, 5g

### ACTIVATED ALUMINA (see Anti-bumping Granules page 77)

**3299**

### ADA (N-2-ACETAMIDO)-2-IMINODIACETIC ACID), BIOLOGICAL BUFFER, UNIVAR

**CAS** 26239-55-4

$C_6H_{10}N_2O_5 = 190.2$

Description: White powder

Assay ..... 98.0% min.

pKa ..... 6.4 – 6.8

**Pack size:** 100g, 1Kg

### ADIPIIC ACID CHLORIDE (see Adipoyl Chloride page 50)

**2350**

### ADIPOYL CHLORIDE, LABCHEM



**CAS** 111-50-2

**Synonyms:** Adipoyl Dichloride, Adipic Acid Chloride

$(CH_2CH_2COCl)_2 = 183.04$

Density ..... about 1.25g/mL

Assay (ex Cl)..... 97% min.

U.N Number ..... 1760

ADG Class..... 8

Packing Group ..... III

**Pack Size:** 25mL

**ADIPOYL DICHLORIDE** (see Adipoyl Chloride page 50)**863****AGAR**, coarse powder, LABCHEM

|                               |          |
|-------------------------------|----------|
| Gel strength .....            | 800g/mL  |
| Moisture .....                | 22% max. |
| Insol. in boiling water ..... | 2% max.  |
| Crude Ash .....               | 4% max.  |

**Pack Size:** 100g, 500g**6249****AGAROSE ME, for Electrophoresis**, LABCHEM**CAS** 9012-36-6

Description: White crystalline powder

|                                |                            |
|--------------------------------|----------------------------|
| EEO .....                      | 0.15 – 0.2                 |
| Gel strength (1% gel) .....    | 1000g/cm <sup>2</sup> min. |
| Gelling Point (1.5% gel) ..... | 31.5 – 34.5 °C             |
| Melting Point .....            | 85 – 90 °C                 |

**Pack size:** 25g**3002****L-ALANINE**, UNIVAR**CAS** 56-41-7 $C_3H_7NO_2 = 89.09$ 

Description: White and odourless crystalline powder having a sweetish taste

|             |            |
|-------------|------------|
| Assay ..... | 99.0% min. |
|-------------|------------|

| <i>Maximum limit of impurities</i> | <i>(%)</i> |
|------------------------------------|------------|
| Ca .....                           | 0.001      |
| Fe .....                           | 0.0005     |
| L.O.D .....                        | 0.05       |
| Pb .....                           | 0.0005     |
| R.O.I. ....                        | 0.05       |
| Cl .....                           | 0.005      |
| SO <sub>4</sub> .....              | 0.0055     |
| Foreign amino acid .....           | 0.3        |

**Pack size:** 100g**40046****ALCIAN BLUE 8GX CERTIFIED**, OP**CAS** 33864-99-2 $C_{56}H_{68}Cl_4CuN_{16}S_4 = 1298.88$ 

Description: White and odourless crystalline powder having a sweetish taste

|                     |            |
|---------------------|------------|
| Assay .....         | ≥50%       |
| Melting Point ..... | 85 – 90 °C |

**ALGIN** (see Sodium Alginate page 340)**ALIZARINE SULPHONATE SODIUM** (see Alizarin Red S page 52)



2354

**ALIZARIN RED S, LABCHEM (CI 58005)****CAS** 130-22-3**Synonyms:** Alizarin Sulphonate Sodium $C_{14}H_7O_7SNa = 342.26$ 

Adsorption and pH indicator.

**Pack Size:** 25g

3174

**ALIZARIN YELLOW, LABCHEM****CAS** 10127-02-3 $C_{13}H_9N_3O_5 \cdot \frac{1}{2}ZnCl_2 = 287.2$ 

Description: Yellow-coloured crystalline powder

Solubility: Soluble in water, slightly in alcohol, acetone and cellosolve. Insoluble in other organic solvents.

**Colour change:**

pH 1.9-3.3 ..... red to yellow

pH 10.0-12.1 ..... yellow to violet

**Pack size:** 5g**ALUM** (see Aluminium Potassium Sulphate page 55)**ALUMINA** (see Aluminium Oxide page 54)

1657

**ALUMINIUM, fine powder, TECHNICAL****CAS** 7429-90-5

Al = 26.98

Ave. particle size ..... 40 micrometres

**Pack Size:** 100g, 500g, 10kg

875

**ALUMINIUM, foil, UNIVAR****CAS** 7429-90-5

Al = 26.98

Thickness ..... approx. 0.1 mm.

Approx dimension: ..... 20 cm x 20 cm x 0.1 mm thick.

Approx 50 sheets / pack.

Assay ..... 99% min.

**Pack Size:** 500g

3005

**ALUMINIUM, wire, UNIVAR****CAS** 7429-90-5

Al = 26.98

Description: a bright silver-grey metal.

Assay ..... 99.9% min.

**Maximum limit of impurities****(%)**

Acid insol. Matter ..... 0.005

N cpds (as N) ..... 0.001

Si ..... 0.005

Cu ..... 0.005

Fe ..... 0.008

Mn ..... 0.002

Ti ..... 0.03

Conforms to ACS

**Pack Size:** 500g

2620

## ALUMINIUM 1000ppm SINGLE ELEMENT ICP STANDARD, UNIPURE



A 1000 ppm Aluminium standard, ready for use.  
Al in 6.5% nitric acid.

U.N Number ..... 3264  
ADG Class ..... 8  
Packing Group ..... II

Traceable to NIST

Pack Size: 100mL

14

## ALUMINIUM AMMONIUM SULPHATE, UNIVAR

CAS 7784-26-1

Synonyms: Ammonium Aluminium Sulphate, Ammonium Alum

 $\text{AlNH}_4(\text{SO}_4)_2 \cdot 12\text{H}_2\text{O} = 453.33$ 

Description: colourless crystals or crystalline powder.

Assay ..... 99% min.

pH (5% soln @ 25°C) ..... 3.0 min.

**Maximum limit of impurities****(%)**

Insol. .... 0.005  
Cl ..... 0.002  
NO<sub>3</sub> ..... 0.001  
PO<sub>4</sub> ..... 0.0025  
SiO<sub>2</sub> ..... 0.002

As ..... 0.00005  
Fe ..... 0.0005  
H.M. (as Pb) ..... 0.0005  
K ..... 0.1  
Na ..... 0.005

Pack Size: 500g, 25kg

879

## ALUMINIUM CHLORIDE, hydrated, UNIVAR



CAS 7446-70-0

Synonyms: Aluminium Trichloride

 $\text{AlCl}_3 \cdot 6\text{H}_2\text{O} = 241.43$ 

Assay ..... 95.0-102.0%

pH (5%) ..... 2.5-3.5

**Maximum limit of impurities****(%)**

SO<sub>4</sub> ..... 0.01  
Fe ..... 0.001  
H.M. (as Pb) ..... 0.001  
NH<sub>4</sub> ..... 0.01  
As ..... 0.0004

K ..... 0.01  
Ca ..... 0.02  
Mg ..... 0.01  
Na ..... 0.1

Chemical and physical parameters conform to USP

Pack Size: 500g, 5Kg

1692

## ALUMINIUM HYDROXIDE, UNILAB

CAS 21645-51-2

Synonyms: Hydrated Alumina

 $\text{Al}(\text{OH})_3 = 78.00$ 

Assay ..... 98% min.

**Maximum limit of impurities****(%)**

Cl ..... 0.002  
SO<sub>4</sub> ..... 0.005  
Fe ..... 0.005  
H.M. (as Pb) ..... 0.005

Pack Size: 1kg, 20kg

**ALUMINIUM NITRATE**

CAS 7784-27-2  
 $\text{Al}(\text{NO}_3)_3 \cdot 9\text{H}_2\text{O} = 375.13$

U.N Number ..... 1438  
 ADG Class..... 5.1  
 Packing Group ..... III

**17****ALUMINIUM NITRATE, UNILAB**

Assay ..... 98.0%  
 pH (5%) ..... 2.5 – 3.5

**Maximum limit of impurities (%)**  
 Ca ..... 0.02  
 Mg ..... 0.005  
 Fe ..... 0.005  
 Na ..... 0.02  
 K ..... 0.05  
 H.M.(as Pb) ..... 0.001  
 Cl ..... 0.005  
 $\text{SO}_4$  ..... 0.005

**Pack Size:** 500g, 5kg, 20kg, 25kg

**901****ALUMINIUM NITRATE, LABCHEM**

Assay ..... 95.0% min.

**Maximum limit of impurities (%)**  
 H.M.(as Pb) ..... 0.005  
 Cl ..... 0.005

**Pack Size:** 500g

**2605****ALUMINIUM NITRATE, AAS Standard, SPECTROSOL**

A 1000 ppm aluminium standard, ready for use.  
 Each mL contains 1.00 mg +/- 0.005mg of Al in 6.5% nitric acid.

U.N Number ..... 3264  
 ADG Class..... 8  
 Packing Group ..... II

**Traceable to NIST**

**Pack Size:** 500mL

**ALUMINIUM OXIDE**

CAS 1344-28-1  
**Synonyms:** Alumina  
 $\text{Al}_2\text{O}_3 = 101.96$

**1736****ALUMINIUM OXIDE, UNIVAR**

Description: white powder.  
 Assay ..... 98% min.

**Maximum limit of impurities (%)**  
 Alkali (as  $\text{Na}_2\text{O}$ ) ..... 0.3  
 L.O.I. (@1100°C) ..... 0.5  
 Cl ..... 0.005  
 $\text{SO}_4$  ..... 0.05  
 Fe ..... 0.03  
 H.M (as Pb) ..... 0.005  
 $\text{SiO}_2$  ..... 0.1

**Pack Size:** 500g

18

**ALUMINIUM OXIDE, calcined, UNILAB**

Assay ..... 95% min.

**Maximum limit of impurities (%)**

L.O.I. (@1000°C) ..... 2

Fe<sub>2</sub>O<sub>3</sub> ..... 0.1**Pack Size:** 500g, 5kg

1660

**ALUMINIUM OXIDE, B A 1 Basic, LABCHEM**

Suitable for chromatography.

Basic, Brockman activity I.

**Pack Size:** 1kg

816

**ALUMINIUM OXIDE, B A 1 Neutral, LABCHEM**

Suitable for chromatography. Neutral, Brockman activity I.

**Pack Size:** 1kg

1661

**ALUMINIUM OXIDE, B A 2 Basic, LABCHEM**

Suitable for chromatography. Basic, Brockman Activity II.

pH (aqueous suspension) ..... 9.0-10.5

L.O.I. .... 8%

Water soluble matter ..... 0.5%

**Maximum limit of impurities (%)**

Cl ..... 0.005

SO<sub>4</sub> ..... 0.01

Cu ..... 0.005

Ni ..... 0.005

Fe ..... 0.005

Pb ..... 0.005

**Pack Size:** 1kg**ALUMINIUM POTASSIUM SULPHATE****CAS** 7784-24-9 10043-67-1**Synonyms:** Potassium Aluminium Sulphate, Potassium AlumAlK (SO<sub>4</sub>)<sub>2</sub>.12H<sub>2</sub>O = 474.38

Description: colourless crystals or crystalline powder.

21

**ALUMINIUM POTASSIUM SULPHATE, UNIVAR**

Assay ..... 98.0-102.0%

**Maximum limit of impurities (%)**

Insol. .... 0.005

Cl ..... 0.0005

As ..... 0.0002

Fe ..... 0.001

H.M. (as Pb) ..... 0.001

Na ..... 0.02

NH<sub>4</sub> ..... 0.005

Conforms to ACS

**Pack Size:** 500g, 5kg, 25kg

22

### ALUMINIUM POTASSIUM SULPHATE, UNILAB

Assay ..... 98.0-102.0%

**Maximum limit of impurities (%) :**

Cl ..... 0.01  
Fe ..... 0.01  
H.M. (as Pb) ..... 0.01  
NH<sub>4</sub> ..... 0.05

**Pack Size:** 500g, 5kg

### ALUMINIUM SILICATE (see Kaolin page 213)

### ALUMINIUM SULPHATE

**CAS** 7784-31-8

Al<sub>2</sub>(SO<sub>4</sub>)<sub>3</sub>.18H<sub>2</sub>O = 666.45

Description: Colourless, lustrous crystals or crystalline powder.

24

### ALUMINIUM SULPHATE, UNIVAR

Assay (anhydrous) ..... 54.0-59.0%  
pH (2% @ 20°C) ..... 2.5-4  
Water ..... 41.0 to 46.0%

**Maximum limit of impurities (%) :**

Clarity & colour of solution ..... To pass test  
As ..... 0.0005  
Fe ..... 0.01  
H.M. (as Pb) ..... 0.004  
NH<sub>4</sub> ..... 0.05  
Alkaline+Alkaline earth metals ..... 0.4

Chemical and physical parameters conform to BP and USP

**Pack Size:** 500g, 5kg

25

### ALUMINIUM SULPHATE, UNILAB

Assay ..... 96% min.  
pH (2%,20°C) ..... 3 approx.

**Maximum limit of impurities (%) :**

Fe ..... 0.04  
H.M(as Pb) ..... 0.05

**Pack Size:** 500g, 25kg

### ALUMINIUM TRICHLORIDE (see Aluminium Chloride page 53)

882

**ALUMINON, UNIVAR****CAS** 569-58-4**Synonyms:** Ammonium Aurine Tricarboxylate, Aurinetricarboxylic Acid Ammonium salt{NH<sub>4</sub>OCOC<sub>6</sub>H<sub>3</sub>(OH)}<sub>2</sub>C:C<sub>6</sub>H<sub>3</sub>(COONH<sub>4</sub>):O = 473

Description: brown-red crystalline powder.

Reagent for aluminium.

**Maximum limit of impurities (%)**  
 Sensitivity to aluminium ..... To pass test

**Pack Size:** 10g

1698

**AMBERLITE IR 120 STANDARD, LABCHEM**

Cation exchange resin. Strongly cationic, polystyrene sulphonic acid resin bead, sodium form.

**Pack Size:** 500g

1706

**AMBERLITE IR 402 STANDARD, LABCHEM**

Anion exchange resin. A strongly basic unifunctional chloromethylated cross-linked polystyrene resin in bead form, containing aryl trimethyl ammonium groups.

**Pack Size:** 500g

1702

**AMBERLITE MB 1, LABCHEM**

A mixture of a strongly acidic nuclear grade cation resin and a strongly basic nuclear grade low chloride anion resin.

**Pack Size:** 500g

1703

**AMBERLITE MB 3A, LABCHEM**

A self-indicating monobed ion exchange resin. A dyed mixture of IR 120 and IRA 410 resins in the hydrogen and hydroxide forms.

**Pack Size:** 500g**AMIDOSULPHONIC ACID** (see Sulphamic Acid page 384)**AMINOACETIC ACID** (see Glycine page 185)**AMINOMETHANE** (see Methylamine page 250)

3008

**4-AMINOANTIPYRINE, OP****CAS** 83-07-8**Synonyms:** 4-AminophenazoneC<sub>11</sub>H<sub>13</sub>N<sub>3</sub>O = 230.24

Assay ..... 99% min.

M.P. .... 107-109°C

**Maximum limit of impurities (%)**  
 L.O.D. .... 0.5  
 L.O.I. .... 0.1

**Pack Size:** 25g

**AMINO BENZENE** (see Aniline page 76)

**1-AMINO BUTANE** (see n-Butylamine page 105)

**4-AMINO BENZENESULPHONIC ACID** (see Sulphanilic Acid page 385)

**886**

**4-AMINO BENZOIC ACID, UNILAB**

**CAS** 150-13-0

$\text{NH}_2\text{C}_6\text{H}_4\text{COOH}$  = 137.14

Assay ..... 99% min.

M.P. .... 186-189°C

Store below 4°C (refrigerate)

**Pack Size:** 250g

**4-AMINOPHENAZONE** (see 4-Aminoantipyrine page 57)

**p-AMINO-N,N-DIMETHYLANILINE** (see N,N-Dimethyl-p-phenylenediamine page 159)

**2-AMINOETHANOL** (see Ethanolamine page 168)

**2-AMINO-2(HYDROMETHYL)-PROPANE-1,3-DIOL** (see Tris (hydroxymethyl)-methylamine page 407)

**1-AMINO-2-HYDROXY-4-NAPHTHALENESULPHONIC ACID**

(see 1-Amino-2-naphthol-4-sulphonic acid page 58)

**DL-2-AMINO-4-(METHYLMERCAPTO) BUTYRIC ACID** (see DL-Methionine page 249)

**2378**

**1-AMINO-2-NAPHTHOL-4-SULPHONIC ACID, LABCHEM**

**CAS** 116-63-2

**Synonyms:** 1-Amino-2-Hydroxy-4-Naphthalenesulphonic Acid

$\text{NH}_2\text{C}_{10}\text{H}_5(\text{OH})\text{SO}_3\text{H}$  = 239.25

Sens. to  $\text{PO}_4$  ..... 1 in 2,900,000.

Assay ..... 98% min.

Darkens on storage.

**Maximum limit of impurities (%)**:

$\text{H}_2\text{O}$  ..... 5

Sulph Ash ..... 0.5

**Pack Size:** 25g

**1297**

**2-AMINOPHENOL, UNILAB**

**CAS** 95-55-6

$\text{C}_6\text{H}_7\text{NO}$  = 109.13

Assay ..... 98.0% min.

Melting Point ..... 170 - 174°C

**Pack size:** 100g

U.N Number ..... 2512

ADG Class... 6.1

Packing Group ..... III



190

**3-AMINOPHENOL, UNILAB**

CAS 591-27-5  
 $C_6H_7NO = 109.13$   
 Assay ..... 98.0% min.  
 Melting Point ..... 120 - 124°C

U.N Number ..... 2512  
 ADG Class ..... 6.1  
 Packing Group ..... III

**Pack size:** 100g

703

**2-AMINOPYRIDINE, UNILAB**

CAS 504-29-0  
 $C_5H_6N_2 = 94.12$   
 Assay ..... 98.0% min.  
 Melting Point ..... 54 - 58°C

U.N Number ..... 2671  
 ADG Class... ..... 6.1  
 Packing Group ..... II

**Pack size:** 100g

**AMMONIA SOLUTION, 28%**

CAS 1336-21-6  
**Synonyms:** Ammonium Hydroxide  
 $NH_4OH = 35.05$   $NH_3 = 17.03$   
 Description: colourless liquid with a characteristic pungent odour.  
 Free from suspended matter or sediment.

U.N Number ..... 2672  
 ADG Class... ..... 8  
 Packing Group ..... III

Density ..... about 0.89g/mL

43

**AMMONIA SOLUTION, 28%, UNIVAR**

Assay (as  $NH_3$ ) ..... 28.0-30.0% w/w  
 Colour (HU) ..... 10 max.

**Maximum limit of impurities****(%):**

R.A.I. .... 0.002  
 Carbon dioxide ( $CO_2$ ) ..... 0.002  
 Cl ..... 0.00005  
 H.M. (as Pb) ..... 0.00005  
 $SO_4$  ..... 0.0002  
 $PO_4$  ..... 0.0002  
 Nitrate (as  $NO_3$ ) ..... 0.0002  
 Subs. red.  $KMnO_4$  ..... To pass test  
 Al ..... 0.00002  
 Fe ..... 0.00002  
 Zn ..... 0.00002  
 K ..... 0.0001  
 Ca ..... 0.0001

Na ..... 0.0005  
 Mg ..... 0.00001  
 Cd ..... 0.00001  
 Ba ..... 0.00001  
 Sr ..... 0.000002  
 Cr ..... 0.000002  
 Co ..... 0.000002  
 Mn ..... 0.000002  
 Mo ..... 0.000002  
 Ni ..... 0.000002  
 Pb ..... 0.000005  
 Cu ..... 0.000005

Conforms to ACS

**Pack Size:** 500mL, 2.5L, 18L



790

### AMMONIA SOLUTION, 28%, UNILAB

Assay (as NH<sub>3</sub>) ..... 25.0 - 30.0%w/w  
Density ..... 0.892-0.910g/mL

**Maximum limit of impurities**

|                                              |              |                                       |
|----------------------------------------------|--------------|---------------------------------------|
|                                              | <b>(%):</b>  |                                       |
| Non-volatile residue .....                   | 0.002        | Carbonate ..... 0.006                 |
| Appearance of solution .....                 | To pass test | Readily oxid. subs. .... To pass test |
| Fe ..... 0.000025                            |              | SO <sub>4</sub> ..... 0.0005          |
| H.M. (as Pb) ..... 0.0001                    |              | Cl ..... 0.0001                       |
| Pyridine & related substances .....          | To pass test |                                       |
| Chemical & physical parameters conform to BP |              |                                       |

**Pack Size:** 18L

### AMMONIUM ACETATE

**CAS** 631-61-8

**Synonyms:** Acetic Acid Ammonium salt

CH<sub>3</sub>COONH<sub>4</sub> = 77.08

Description: colourless moist crystals.

27

### AMMONIUM ACETATE, UNIVAR

Assay ..... 97% min.  
pH (5% soln. @ 25°C) ..... 6.7-7.3

**Maximum limit of impurities**

|                              |             |                          |
|------------------------------|-------------|--------------------------|
|                              | <b>(%):</b> |                          |
| Water insol matter .....     | 0.005       | Cu ..... 0.0001          |
| R.A.I. .... 0.01             |             | Fe ..... 0.0001          |
| Cl ..... 0.0005              |             | Mg ..... 0.0001          |
| PO <sub>4</sub> ..... 0.0005 |             | Pb ..... 0.0001          |
| Ca ..... 0.0005              |             | K ..... 0.001            |
| NO <sub>3</sub> ..... 0.001  |             | Na ..... 0.001           |
| SO <sub>4</sub> ..... 0.001  |             | H.M (as Pb) ..... 0.0005 |

Conforms to ACS

**Pack Size:** 500g, 5kg, 25kg

28

### AMMONIUM ACETATE, UNILAB

Assay ..... 96.0% min.  
pH (5% Soln. @ 25°C) ..... 6.5 min.

**Maximum limit of impurities**

|                            |             |
|----------------------------|-------------|
|                            | <b>(%):</b> |
| Sulph. Ash .....           | 0.035       |
| Cl ..... 0.005             |             |
| SO <sub>4</sub> ..... 0.01 |             |
| Fe ..... 0.001             |             |
| H.M. (as Pb) ..... 0.001   |             |

**Pack Size:** 500g, 5kg, 25kg

**AMMONIUM ALUM** (see Aluminium Ammonium Sulphate page 53)

**AMMONIUM ALUMINIUM SULPHATE** (see Aluminium Ammonium Sulphate page 53)

**AMMONIUM AURINE TRICARBOXYLATE** (see Aluminon page 57)

**AMMONIUM BICARBONATE** (see Ammonium Hydrogen Carbonate page 65)

**AMMONIUM BIFLUORIDE** (see Ammonium Hydrogen Difluoride page 66)**887****AMMONIUM BROMIDE, UNIVAR**

CAS 12124-97-9

 $\text{NH}_4\text{Br}$  = 97.94

Description: White odourless crystals

Assay ..... 99.0% min.

| <i>Maximum limit of impurities</i> | <i>(%)</i> |
|------------------------------------|------------|
| H.M. (as Pb) .....                 | 0.005      |
| Cl .....                           | 0.1        |
| $\text{SO}_4$ .....                | 0.005      |

**Pack size:** 500g**AMMONIUM CARBONATE**

CAS 506-87-6

 $(\text{NH}_4)_2\text{CO}_3$ 

Description: white translucent lumps with strong odour of ammonia.

**29****AMMONIUM CARBONATE, UNIVAR**Assay (as  $\text{NH}_3$ ) ..... 30.0% min.

| <i>Maximum limit of impurities</i> | <i>(%)</i> |
|------------------------------------|------------|
| Insol. ....                        | 0.005      |
| Non-vol. ....                      | 0.01       |
| Cl .....                           | 0.0001     |
| S cpds (as $\text{SO}_4$ ) .....   | 0.0002     |
| Fe .....                           | 0.0005     |
| H.M. (as Pb) .....                 | 0.0005     |
| R.O.I.(as $\text{SO}_4$ ) .....    | 0.005      |
| As .....                           | 0.0001     |
| Zn .....                           | 0.0001     |
| Cu .....                           | 0.0001     |

Conforms to ACS

**Pack size:** 500g, 25Kg**30****AMMONIUM CARBONATE, UNILAB**Assay (as  $\text{NH}_3$ ) ..... 30% min.

| <i>Maximum limit of impurities</i> | <i>(%)</i> |
|------------------------------------|------------|
| Non-vol. ....                      | 0.02       |
| Cl .....                           | 0.002      |
| S cpds (as $\text{SO}_4$ ) .....   | 0.002      |
| Fe .....                           | 0.02       |

**Pack Size:** 500g, 25kg**AMMONIUM CERIC NITRATE** (see Ammonium Cerium (IV) Nitrate page 62)

889

**AMMONIUM CERIUM(IV) NITRATE, UNIVAR**

CAS 16774-21-3

**Synonyms:** Ammonium Hexanitratecerate (IV), Ammonium Ceric Nitrate $(\text{NH}_4)_2\text{Ce}(\text{NO}_3)_6 = 548.23$ 

Description: orange-yellow crystalline powder.

Assay ..... 98.5% min.

U.N Number ..... 1477

ADG Class..... 5.1

Packing Group ..... II

**Maximum limit of impurities (%)**

|                                           |       |
|-------------------------------------------|-------|
| Insol. (in dil. $\text{H}_2\text{SO}_4$ ) | 0.05  |
| Cl                                        | 0.01  |
| $\text{PO}_4$                             | 0.02  |
| Fe                                        | 0.005 |

Conforms to ACS

**Pack size:** 100g, 500g**AMMONIUM CERIC SULPHATE** (see Ammonium Cerium (IV) Sulphate page 62)

1180

**AMMONIUM CERIUM(IV) SULPHATE, TECHNICAL**

CAS 10378-47-9

 $(\text{NH}_4)_4\text{Ce}(\text{SO}_4)_4 \cdot 2\text{H}_2\text{O} = 632.56$ **Pack Size:** 500g**AMMONIUM CHLORIDE**

CAS 12125-02-9

 $\text{NH}_4\text{Cl} = 53.49$ 

Description: white crystalline powder.

31

**AMMONIUM CHLORIDE, UNIVAR**

Assay ..... 99.5% min.

pH (5% soln. @ 25°C) ..... 4.5-5.5

**Maximum limit of impurities (%)**

|                     |        |                   |        |
|---------------------|--------|-------------------|--------|
| Insol. ....         | 0.005  | Na .....          | 0.005  |
| R.A.I. ....         | 0.01   | Pb .....          | 0.0002 |
| $\text{PO}_4$ ..... | 0.0002 | Mg .....          | 0.0002 |
| $\text{SO}_4$ ..... | 0.002  | As .....          | 0.0003 |
| Ca .....            | 0.001  | L.O.D .....       | 0.05   |
| Fe .....            | 0.0001 | K .....           | 0.005  |
| Cu .....            | 0.0001 | H.M (as Pb) ..... | 0.0005 |

Conforms to ACS

**Pack Size:** 500g, 1kg, 2kg, 5kg, 25kg

32

**AMMONIUM CHLORIDE, UNILAB**

Assay(after drying) ..... 99.0 - 100.5%

**Maximum limit of impurities (%)**

|                                              |              |                     |        |
|----------------------------------------------|--------------|---------------------|--------|
| Clarity & colour of soln. ....               | To pass test | $\text{SO}_2$ ..... | 0.0150 |
| Sulph. Ash .....                             | 0.1          | Ca .....            | 0.020  |
| L.O.D.@105 °C .....                          | 1.0          | Fe .....            | 0.0020 |
| Acidity or alkalinity .....                  | To pass test | H.M. (as Pb) .....  | 0.0010 |
| Br & I .....                                 | To pass test |                     |        |
| Chemical & physical parameters conform to BP |              |                     |        |

**Pack Size:** 500g, 5kg, 25kg

902

**AMMONIUM CHLORIDE, LABCHEM**

Assay (Dry basis) ..... 98.0% min.

**Maximum limit of impurities (%)**SO<sub>4</sub> ..... 0.05

H.M. (as Pb) ..... 0.01

**Pack Size:** 500g**AMMONIUM CITRATE, DIBASIC** (see di-Ammonium Hydrogen Citrate page 66)**tri-AMMONIUM CITRATE****CAS** 3458-72-8(NH<sub>4</sub>)<sub>3</sub>C<sub>6</sub>H<sub>5</sub>O<sub>7</sub> = 243.22

Description: colourless crystals.

890

**tri-AMMONIUM CITRATE, UNIVAR**

Assay ..... 98.5 - 101.0%

pH (5% soln.) ..... 6.0-7.5

**Maximum limit of impurities (%)**

Insol. .... 0.005

Cl ..... 0.001

Oxalate (C<sub>2</sub>O<sub>4</sub>) ..... 0.01SO<sub>4</sub> ..... 0.005

Cu ..... 0.00005

Red. subs. .... To pass test

K ..... 0.003

Na ..... 0.004

Pb ..... 0.0005

Readily carb. subs. .... To pass test

Fe ..... 0.0005

**Pack Size:** 500g

850

**tri-AMMONIUM CITRATE, UNILAB**

Assay ..... 98.0% min.

pH (5% soln.) ..... 6.0-7.5

**Maximum limit of impurities (%)**

Sulph. Ash ..... 0.05

Cl ..... 0.01

SO<sub>4</sub> ..... 0.01**Pack Size:** 500g

34

**AMMONIUM DICHROMATE, UNILAB****CAS** 7789-09-5(NH<sub>4</sub>)<sub>2</sub>Cr<sub>2</sub>O<sub>7</sub> = 252.07

Assay ..... 97% min.

L.O.D. @ 105°C ..... 3%

U.N Number ..... 1439

ADG Class... ..... 5.1

Packing Group ..... II

**Maximum limit of impurities (%)**

Cl ..... 0.005

SO<sub>4</sub> ..... 0.02

Fe ..... 0.005

Na ..... 0.01

**Pack Size:** 500g, 20kg

**AMMONIUM DIHYDROGEN ORTHOPHOSPHATE**

CAS 7722-76-1

**Synonyms:** Ammonium Phosphate monobasic $\text{NH}_4\text{H}_2\text{PO}_4 = 115.03$ 

Description: colourless crystals or crystalline powder.

**35****AMMONIUM DIHYDROGEN ORTHOPHOSPHATE, UNIVAR**

Assay ..... 98.0 min.  
 pH (5% soln. @ 25°C) ..... 3.8-4.4

| <b>Maximum limit of impurities (%)</b> |        |                           |
|----------------------------------------|--------|---------------------------|
| Insol.....                             | 0.005  | As ..... 0.00005          |
| $\text{NH}_4\text{OH}$ ppt.....        | 0.005  | Fe ..... 0.001            |
| Cl .....                               | 0.0005 | H.M. (as Pb) ..... 0.0005 |
| $\text{NO}_3$ .....                    | 0.001  | K ..... 0.005             |
| S cpds (as $\text{SO}_4$ ) .....       | 0.005  | Na..... 0.005             |

Chemical and physical parameters conform to FCC  
 Conforms to ACS

**Pack Size:** 500g**36****AMMONIUM DIHYDROGEN ORTHOPHOSPHATE, UNILAB**

pH (5% soln.) ..... about 4.0  
 Assay ..... 98.0% min.

| <b>Maximum limit of impurities (%)</b> |        |
|----------------------------------------|--------|
| Cl .....                               | 0.005  |
| S cpds (as $\text{SO}_4$ ) .....       | 0.01   |
| As .....                               | 0.0005 |
| Fe .....                               | 0.002  |
| H.M. (as Pb) .....                     | 0.002  |

**Pack Size:** 500g**AMMONIUM FERRIC SALTS** (see Ammonium Iron (III) salts page 69)**AMMONIUM FERROUS SALTS** (see Ammonium Iron (II) salts page 68)**AMMONIUM FLUORIDE**

CAS 12125-01-8  
 $\text{NH}_4\text{F} = 37.04$

U.N Number ..... 2505  
 ADG Class ..... 6.1  
 Packing Group ..... III

**851****AMMONIUM FLUORIDE, UNIVAR**

Assay ..... 98.0% min.

| <b>Maximum limit of impurities (%)</b>                          |        |                                                   |
|-----------------------------------------------------------------|--------|---------------------------------------------------|
| Ammonium Hydrogen Difluoride ( $\text{NH}_4\text{HF}_2$ ) ..... | 1      | Na ..... 0.002                                    |
| Water insoluble matter .....                                    | 0.005  | Pb ..... 0.0005                                   |
| R.O.I. (as $\text{SO}_4$ ) .....                                | 0.005  | Zn ..... 0.0005                                   |
| Cd .....                                                        | 0.0005 | H.M. (as Pb) ..... 0.0005                         |
| Cu .....                                                        | 0.0005 | Cl ..... 0.0005                                   |
| Fe .....                                                        | 0.0005 | Hexafluorosilicate (as $\text{SiF}_6$ ) ..... 0.1 |
| K .....                                                         | 0.002  | $\text{SO}_4$ ..... 0.005                         |

Conforms to ACS

**Pack size:** 500g

894

**AMMONIUM FLUORIDE, UNILAB**

Assay ..... 95.0% min.

| <i>Maximum limit of impurities</i> | <i>(%)</i> |
|------------------------------------|------------|
| Fe .....                           | 0.005      |
| H.M. (as Pb) .....                 | 0.001      |
| SO <sub>4</sub> .....              | 0.01       |

**Pack size:** 500g

852

**AMMONIUM FORMATE, UNIVAR****CAS** 540-69-2HCOONH<sub>4</sub> = 63.06

Description: colourless, deliquescent crystals.

Assay ..... 97.0% min.  
pH (5% soln.) ..... 6.0 - 7.0

| <i>Maximum limit of impurities</i> | <i>(%)</i> |
|------------------------------------|------------|
| Insol. ....                        | 0.001      |
| Non-vol. ....                      | 0.01       |
| Cl .....                           | 0.001      |
| SO <sub>4</sub> .....              | 0.005      |
| Cu .....                           | 0.0001     |
| Fe .....                           | 0.0005     |
| Pb .....                           | 0.0001     |

**Pack Size:** 500g**AMMONIUM HEPTAMOLYBDATE** (see Ammonium Molybdate page 70)**AMMONIUM HEXANITRATECERATE(IV)** (see Ammonium Cerium(IV) Nitrate page 62)**AMMONIUM HYDROGEN CARBONATE****CAS** 1066-33-7**Synonyms:** Ammonium BicarbonateNH<sub>4</sub>HCO<sub>3</sub> = 79.06

Description: white crystalline powder with a slight ammoniacal odour.

603

**AMMONIUM HYDROGEN CARBONATE, UNIVAR**

Assay ..... 99.0 - 101.0%

| <i>Maximum limit of impurities</i> | <i>(%)</i> |                                 |
|------------------------------------|------------|---------------------------------|
| Insol. ....                        | 0.005      | As ..... 0.0002                 |
| R.A.I. ....                        | 0.01       | Fe ..... 0.001                  |
| Cl .....                           | 0.005      | H.M. (as Pb) ..... 0.001        |
| Mg .....                           | 0.01       | Sulphide ..... To pass test     |
| SO <sub>4</sub> .....              | 0.007      | Tarry matter ..... To pass test |
| Ca .....                           | 0.01       |                                 |

**Pack Size:** 1kg, 25kg

897

**AMMONIUM HYDROGEN CARBONATE, UNILAB**

Assay ..... 98.0% min.

| <i>Maximum limit of impurities</i> | <i>(%)</i> |
|------------------------------------|------------|
| Cl .....                           | 0.01       |
| SO <sub>4</sub> .....              | 0.01       |
| Fe .....                           | 0.004      |
| H.M. (as Pb) .....                 | 0.0005     |

**Pack Size:** 500g, 5kg, 25kg

1301

**di-AMMONIUM HYDROGEN CITRATE, UNILAB**

**CAS** 3012-65-5

**Synonyms:** Ammonium Citrate Dibasic

(NH<sub>4</sub>)<sub>2</sub>HC<sub>6</sub>H<sub>5</sub>O<sub>7</sub> = 226.19

Assay ..... 98% min.

pH (5% soln. @ 20°C) ..... 4.5-5.5

| <i>Maximum limit of impurities</i> | <i>(%)</i> |
|------------------------------------|------------|
| Cl .....                           | 0.005      |
| SO <sub>4</sub> .....              | 0.01       |
| Fe .....                           | 0.001      |
| H.M. (as Pb) .....                 | 0.001      |

**Pack Size:** 500g, 5kg

853

**AMMONIUM HYDROGEN DIFLUORIDE, UNILAB**

**CAS** 1341-49-7

**Synonyms:** Ammonium Bifluoride

NH<sub>4</sub>HF<sub>2</sub> = 63.06

Description: colourless, deliquescent crystals.

Assay ..... 95% min.

| <i>Maximum limit of impurities</i> | <i>(%)</i> |
|------------------------------------|------------|
| Non-vol. ....                      | 0.02       |
| Cl .....                           | 0.003      |
| SO <sub>4</sub> .....              | 0.01       |
| Fe .....                           | 0.005      |
| H.M. (as Pb) .....                 | 0.005      |

**Pack Size:** 500g, 5kg, 25kg

U.N Number ..... 1727

ADG Class..... 8

Packing Group ..... II



**Silica Gel for Chromatography**

See Cat. No. 1454 page 333

**di-AMMONIUM HYDROGEN ORTHOPHOSPHATE**

CAS 7783-28-0

**Synonyms:** Ammonium Phosphate Dibasic $(\text{NH}_4)_2\text{HPO}_4 = 132.06$ 

Description: colourless crystals or crystalline powder.

**41****di-AMMONIUM HYDROGEN ORTHOPHOSPHATE, UNIVAR**

Assay ..... 98.0% min.

pH (5% soln. @ 25°C) ..... 7.7 – 8.1

**Maximum limit of impurities (%)**

Insol. .... 0.005

NH<sub>4</sub>OH ppt. .... 0005

Cl ..... 0001

NO<sub>3</sub> ..... 0.003S cpds (as SO<sub>4</sub>) ..... 0.01

As ..... 00003

Fe..... 0.001

H.M. (as Pb)..... 0.001

K ..... 0.005

Na ..... 0.005

F ..... 0.001

Chemical and physical parameters conform to FCC

Conforms to ACS

**Pack Size:** 500g**42****di-AMMONIUM HYDROGEN ORTHOPHOSPHATE, UNILAB**

pH(5% soln. @25°C) ..... about 8.0

Assay ..... 97.0% min.

**Maximum limit of impurities (%)**

Cl ..... 0.005

S cpds (as SO<sub>4</sub>) ..... 0.02

Fe ..... 0.002

H.M. (as Pb) ..... 0.002

**Pack Size:** 500g, 5kg**AMMONIUM HYDROXIDE** (see Ammonia Solution page 59)**900****AMMONIUM IODIDE, UNILAB**

CAS 12027-06-4

NH<sub>4</sub>I = 144.94

Assay (after drying) ..... 99.0% min.

**Maximum limit of impurities (%)**

Sulph. Ash ..... 0.05

SO<sub>4</sub> ..... 0.01

As ..... 0.0005

Pb ..... 0.001

**Pack Size:** 100g, 500g, 5kg



892

**AMMONIUM IRON(III) CITRATE, green, UNILAB**

CAS 1185-57-5

**Synonyms:** Ammonium Ferric Citrate

Description: Greenish -yellow powder.

Assay (as Fe) ..... 14.0 - 16.0%

| <i>Maximum limit of impurities</i> | <i>(%)</i> |
|------------------------------------|------------|
| SO <sub>4</sub> .....              | 0.4        |
| As .....                           | 0.0004     |
| Pb .....                           | 0.003      |
| Cl .....                           | 0.02       |

**Pack Size:** 500g, 5kg

1586

**AMMONIUM IRON(III) CITRATE, brown, TECHNICAL**

CAS 1185-57-5

Assay(as Fe) ..... 20.5 - 22.5%

**Pack Size:** 500g, 5kg**AMMONIUM IRON(II) SULPHATE**

CAS 7783-85-9

**Synonyms:** Ammonium Ferrous Sulphate(NH<sub>4</sub>)<sub>2</sub>SO<sub>4</sub>.FeSO<sub>4</sub>.6H<sub>2</sub>O = 392.13

Description: pale green-blue crystals or crystalline powder.

39

**AMMONIUM IRON(II) SULPHATE, UNIVAR**

Assay ..... 99% min.

pH (5% solution) ..... 3 – 5

| <i>Maximum limit of impurities</i> | <i>(%)</i> |                    |
|------------------------------------|------------|--------------------|
| Ca .....                           | 0.002      | K ..... 0.01       |
| PO <sub>4</sub> .....              | 0.002      | Pb ..... 0.001     |
| Cu .....                           | 0.002      | Fe(III) ..... 0.02 |
| Na .....                           | 0.01       | Mg ..... 0.01      |
| Mn .....                           | 0.05       | Cl ..... 0.001     |
| Zn .....                           | 0.003      |                    |

**Pack Size:** 500g, 5kg

40

**AMMONIUM IRON(II) SULPHATE, UNILAB**

Assay ..... 98.0% min.

| <i>Maximum limit of impurities</i> | <i>(%)</i> |
|------------------------------------|------------|
| Cu .....                           | 0.005      |
| Fe(III) .....                      | 0.01       |
| Zn .....                           | 0.02       |
| Mg .....                           | 0.02       |
| Na .....                           | 0.01       |
| Ca .....                           | 0.02       |

**Pack Size:** 500g

37

**AMMONIUM IRON(III) SULPHATE, UNIVAR**

CAS 7783-83-7

**Synonyms:** Ammonium Ferric Sulphate $\text{NH}_4\text{Fe}(\text{SO}_4)_2 \cdot 12\text{H}_2\text{O} = 482.18$ 

Description: pale violet crystals; may turn brown due to hydrolysis during storage.

Assay ..... 99.0 - 102.0%

**Maximum limit of impurities****(%)**

Insol. .... 0.01  
 Cl ..... 0.001  
 NO<sub>3</sub> ..... 0.01  
 Fe(II) ..... 0.001  
 Zn ..... 0.003  
 Cu ..... 0.002  
 Subs. not ppt. by NH<sub>4</sub>OH ..... 0.05

Ca ..... 0.01  
 K ..... 0.01  
 Mg ..... 0.001  
 Mn ..... 0.005  
 Na ..... 0.01  
 Pb ..... 0.005

Conforms to ACS

Store below 25°C, in a dry place

**Pack Size:** 500g, 25kg

CAS 7803-55-6

 $\text{NH}_4\text{VO}_3 = 116.98$ 

Description: off-white to pale yellow powder.

U.N Number ..... 2859

ADG Class ..... 6.1

Packing Group ..... II

45

**AMMONIUM METAVANADATE, UNIVAR**

Assay ..... 99.0% min.

**Maximum limit of impurities****(%)**

Insoluble matter in NH<sub>4</sub>OH ..... 0.01  
 Cl ..... 0.005  
 SO<sub>4</sub> ..... 0.01  
 PO<sub>4</sub> ..... 0.005  
 CO<sub>3</sub> ..... 0.3  
 Cu ..... 0.002  
 Fe ..... 0.002  
 Ni ..... 0.002  
 Pb ..... 0.002

**Pack Size:** 100g, 500g

903

**AMMONIUM METAVANADATE, UNILAB**

Assay ..... 98.0% min.

**Pack Size:** 100g, 500g, 5kg

46

**AMMONIUM MOLYBDATE, powder, UNIVAR**

CAS 12054-85-2

**Synonyms:** Ammonium Heptamolybdate $(\text{NH}_4)_6\text{Mo}_7\text{O}_{24} \cdot 4\text{H}_2\text{O} = 1235.86$ 

Description: white crystals, at times with a pale green tint.

Assay (as  $\text{MoO}_3$ ) ..... 81.0-83.0%**Maximum limit of impurities (%)**

Insol. .... 0.005

 $\text{AsO}_4, \text{PO}_4$  &  $\text{SiO}_3$  (as  $\text{SiO}_2$ ) ..... 0.001

Cl ..... 0.002

 $\text{NO}_3$  ..... To pass test $\text{PO}_4$  ..... 0.0005 $\text{SO}_4$  ..... 0.02

H.M. (as Pb) ..... 0.001

Mg ..... 0.005

K ..... 0.002

Na ..... 0.01

Conforms to ACS

**Pack Size:** 100g, 500g, 5kg, 25kg

905

**AMMONIUM NICKEL SULPHATE, UNILAB**

CAS 7785-20-8

 $(\text{NH}_4)_2\text{SO}_4 \cdot \text{NiSO}_4 \cdot 6\text{H}_2\text{O} = 395.00$ 

Assay ..... 98.0% min.

pH (5% @ 20°C) ..... 4-6

**Maximum limit of impurities (%)**

Cl ..... 0.01

Co ..... 0.1

Zn ..... 0.005

Fe ..... 0.001

**Pack Size:** 500g**AMMONIUM NITRATE**

CAS 6484-52-2

 $\text{NH}_4\text{NO}_3 = 80.04$ 

Description: colourless, hygroscopic crystals.

U.N Number ..... 1942

ADG Class ..... 5.1

Packing Group ..... III



49

**AMMONIUM NITRATE, UNIVAR**

Assay ..... 99.0% min.

pH(5% soln. @25 °C) ..... 4.5-6.0

**Maximum limit of impurities (%)**

Insol. .... 0.005

R.A.I. .... 0.01

Cl ..... 0.0005

 $\text{PO}_4$  ..... 0.0005 $\text{NO}_2$  ..... 0.0005 $\text{SO}_4$  ..... 0.002

H.M.(as Pb) ..... 0.0005

As ..... 0.00005

Cu ..... 0.0005

Ni ..... 0.0005

Mg ..... 0.003

Pb ..... 0.0005

Ca ..... 0.003

Fe ..... 0.0002

Conforms to ACS

**Pack Size:** 500g, 5kg, 25kg

50

**AMMONIUM NITRATE, UNILAB**

Assay ..... 98.0% min.

**Maximum limit of impurities (%)**

Sulph. Ash ..... 0.03  
 Cl ..... 0.002  
 SO<sub>4</sub> ..... 0.01

Fe ..... 0.0005  
 H.M. (as Pb) ..... 0.001

**Pack Size:** 500g, 5kg, 25kg

904

**AMMONIUM NITRATE, LABCHEM**

Assay ..... 98.0% min.

**Maximum limit of impurities (%)**

Cl ..... 0.002  
 SO<sub>4</sub> ..... 0.002  
 Ca ..... 0.01

**Pack Size:** 500g**AMMONIUM OXALATE****CAS** 6009-70-7(COONH<sub>4</sub>)<sub>2</sub>.H<sub>2</sub>O = 142.11

Description: colourless crystals.

51

**AMMONIUM OXALATE, UNIVAR**

Assay ..... 99.0 - 101.0%

**Maximum limit of impurities (%)**

Insol. .... 0.005  
 R.A.I. .... 0.02  
 Cl ..... 0.002

SO<sub>4</sub> ..... 0.002  
 Fe ..... 0.0002  
 H.M. (as Pb) ..... 0.0005

Conforms to ACS

**Pack Size:** 500g, 5kg

52

**AMMONIUM OXALATE, UNILAB**

pH (5% soln.) ..... about 6.7

Assay ..... 99.0% min.

**Maximum limit of impurities (%)**

Sulph. Ash ..... 0.05  
 Cl ..... 0.005  
 SO<sub>4</sub> ..... 0.01  
 Fe ..... 0.002  
 H.M. (as Pb) ..... 0.001

**Pack Size:** 500g

854

### AMMONIUM PERCHLORATE, UNILAB



CAS 7790-98-9

$\text{NH}_4\text{ClO}_4 = 117.49$

Assay ..... 98.5% min.  
pH (5%) ..... 4.0-6.0

U.N Number ..... 1442

ADG Class..... 5.1

Packing Group ..... II

**Maximum limit of impurities (%)**

Cl &  $\text{ClO}_3$  ..... 0.003  
H.M. (as Pb) ..... 0.0005  
Fe ..... 0.0005  
 $\text{SO}_4$  ..... 0.001

Pack Size: 500g

### AMMONIUM PERSULPHATE



CAS 7727-54-0

**Synonyms:** Ammonium Peroxodisulphate

$(\text{NH}_4)_2\text{S}_2\text{O}_8 = 228.19$

Description: white powder, slowly decomposes on storage with a decrease in assay and an increase in acidity.

U.N Number ..... 1444

ADG Class..... 5.1

Packing Group ..... III

53

### AMMONIUM PERSULPHATE, UNIVAR

Assay ..... 98.0% min.

**Maximum limit of impurities (%)**

Insol. .... 0.005  
R.A.I. .... 0.05  
Titratable free acid ..... 0.04 meq/g  
Cl &  $\text{ClO}_3$  (as Cl) ..... 0.001  
Fe ..... 0.001  
H.M. (as Pb) ..... 0.005  
Mn ..... 0.00005

Conforms to ACS

Pack Size: 500g

54

### AMMONIUM PERSULPHATE, UNILAB

Assay ..... 98.0% min.

**Maximum limit of impurities (%)**

Sulph. Ash ..... 0.1  
Cl ..... 0.005  
Fe ..... 0.003  
Mn ..... 0.0002

Pack Size: 500g, 5kg, 20kg

**AMMONIUM PEROXODISULPHATE** (see Ammonium Persulphate page 72)

**AMMONIUM PHOSPHATE DIBASIC** (see di-Ammonium Hydrogen Orthophosphate page 67)

**AMMONIUM PHOSPHATE MONOBASIC** (see Ammonium diHydrogen Orthophosphate page 64)

**AMMONIUM PURPURATE** (see Murexide page 261)

844

**AMMONIUM PYRROLIDONE DITHIOCARBAMATE, LABCHEM**

CAS 5108-96-3

**Synonyms:** 1-Pyrrolidinedithiocarboxylic Acid $C_4H_8NCSSNH_4 = 164.29$ 

Reagent for Copper, Lead &amp; many other metals.

Store below 4°C

**Pack Size:** 10g

1671

**AMMONIUM SULPHAMATE, UNIVAR**

CAS 7773-06-0

 $H_6N_2O_3S = 114.13$ 

Description: colourless to white hygroscopic crystals

Assay ..... 99.0% min.

| <i>Maximum limit of impurities</i> | <i>(%)</i> |
|------------------------------------|------------|
| Mg .....                           | 0.0005     |
| Ca .....                           | 0.001      |
| Fe .....                           | 0.0005     |
| Cl .....                           | 0.001      |
| Mn .....                           | 0.0005     |
| Cd .....                           | 0.0005     |
| Cu .....                           | 0.0005     |
| SO <sub>4</sub> .....              | 0.2        |

**Pack size:** 500g**AMMONIUM SULPHATE**

CAS 7783-20-2

 $(NH_4)_2SO_4 = 132.13$ 

Description: white crystalline powder.

56

**AMMONIUM SULPHATE, UNIVAR**

Assay ..... 99.0% min.

pH (5% soln. @ 25°C) ..... 5.0-6.0

| <i>Maximum limit of impurities</i> | <i>(%)</i> |                   |
|------------------------------------|------------|-------------------|
| R.A.I. ....                        | 0.005      | Na ..... 0.005    |
| Cl .....                           | 0.0005     | Pb ..... 0.0005   |
| H.M.(as Pb) .....                  | 0.0005     | Mg ..... 0.002    |
| NO <sub>3</sub> .....              | 0.001      | Se ..... 0.003    |
| Ca .....                           | 0.002      | Fe ..... 0.0005   |
| PO <sub>4</sub> .....              | 0.0005     | Cu ..... 0.0005   |
| As .....                           | 0.00002    | Insol ..... 0.005 |
| K .....                            | 0.005      |                   |

Chemical and physical parameters conform to FCC

Conforms to ACS

**Pack Size:** 500g, 5kg, 25kg

57

**AMMONIUM SULPHATE, UNILAB**

Assay ..... 98.5% min.

**Maximum limit of impurities (%)**

Sulph. Ash ..... 0.1  
 Cl ..... 0.01  
 Fe ..... 0.001  
 H.M. (as Pb) ..... 0.001

**Pack Size:** 500g, 5kg, 25kg**AMMONIUM SULPHOCYANIDE** (see Ammonium Thiocyanate page 74)

855

**AMMONIUM (+) TARTRATE, UNIVAR****CAS** 3164-29-2**Synonyms:** L(+)-Tartaric Acid Ammonium Salt(CHOHCOONH<sub>4</sub>)<sub>2</sub> = 184.15

Description: colourless crystals or crystalline powder.

Assay ..... 99% min.

pH (5% soln.) ..... 6.0-7.0

**Maximum limit of impurities (%)**

Heavy metals(as Pb) ..... 0.002  
 Cl ..... 0.002  
 SO<sub>4</sub> ..... 0.01  
 Fe ..... 0.002

**Pack Size:** 500g**AMMONIUM THIOCYANATE****CAS** 1762-95-4**Synonyms:** Ammonium SulphocyanideNH<sub>4</sub>SCN = 76.12

Description: colourless or white deliquescent crystals.

58

**AMMONIUM THIOCYANATE, UNIVAR**

Assay ..... 98.0% min.

pH (5% soln. @ 25°C ) ..... 4.5-6.0

**Maximum limit of impurities (%)**

Insol. .... 0.005  
 R.A.I. .... 0.025  
 Iodine consuming subs. (as I) ..... 0.004 meq/g  
 Cl ..... 0.005  
 SO<sub>4</sub> ..... 0.005  
 Fe ..... 0.0003  
 H.M. (as Pb) ..... 0.0005

Conforms to ACS

**Pack Size:** 500g, 5kg

59

**AMMONIUM THIOCYANATE, UNILAB**

Assay ..... 96.0% min.

**Maximum limit of impurities (%)**

Sulph. Ash ..... 0.2  
 Cl ..... 0.01

**Pack Size:** 500g

1398

**AMMONIUM THIOCYANATE 0.1 MOL CONCENTRATE, AMPOULE, OP**

Titre ..... 0.998 – 1.002

**Pack size:** AmpouleDescription: plastic ampoule containing clear colourless liquid  
0.1 mole (7.612g NH<sub>4</sub>SCN) to prepare 1L of 0.1N solution

61

**iso-AMYL ACETATE, UNIVAR****CAS** 123-92-2**Synonyms:** 3-Methyl-1-Butyl Acetate, iso-Pentyl AcetateCH<sub>3</sub>COOC<sub>5</sub>H<sub>11</sub> = 130.19

Description: clear liquid with a strong, characteristic odour.

Assay ..... 98.0% min.

U.N Number ..... 1104

ADG Class ..... 3

Packing Group ..... III

**Maximum limit of impurities (%)**

Non-vol. .... 0.002

Acidity (as CH<sub>3</sub>COOH) ..... 0.01H<sub>2</sub>O ..... 0.2**Pack Size:** 500mL, 2.5L, 20L

64

**iso-AMYL ALCOHOL, UNIVAR****CAS** 123-51-3**Synonyms:** iso-Pentyl Alcohol, 3-Methyl-1-Butanol, DiethylcarbinolC<sub>5</sub>H<sub>11</sub>OH = 88.15

Description: clear liquid with a strong characteristic odour

Assay (GLC) ..... 98.5% min.

Density ..... about 0.812g/L

R.I. .... about 1.408

U.N Number ..... 1105

ADG Class..... 3

Packing Group ..... III

**Maximum limit of impurities (%)**

R.A.E. .... 0.003

Titratable acid ..... 0.2 mmol H

Acids &amp; esters (as amyl acetate) ..... 0.2

Carbonyl (as HCHO) ..... 0.1

Water ..... 0.05

Conforms to ACS

**Pack size:** 500mL, 2.5L, 20L**n-AMYL ALCOHOL** (see Pentan-1-ol page 278)**tert- AMYL ALCOHOL** (see 2-Methylbutan-2-ol page 251)**AMYL CARBINOL** (see Hexan-1-ol page 195)**AMYLENE HYDRATE** (see 2-Methylbutan-2-ol page 251)**ANAESTHETIC ETHER** (see Diethyl Ether page 153)



## ANILINE



CAS 62-53-3

Synonyms: Aminobenzene

 $C_6H_5NH_2 = 93.13$ 

Description: clear, oily liquid with a characteristic odour.

It darkens to a reddish- brown colour during storage.

Density ..... about 1.02g/mL

U.N Number ..... 1547

ADG Class ..... 6.1

Packing Group ..... II

69

## ANILINE, UNIVAR

Assay ..... 99.0% min.

Colour (APHA) ..... 250 max.

**Maximum limit of impurities (%)**

R.A.I. .... 0.005

 $C_6H_5Cl$  ..... 0.01 $C_6H_5NO_2$  ..... 0.001

Hydrocarbons ..... To pass test

Conforms to ACS

Pack Size: 500mL, 2.5L

70

## ANILINE, UNILAB

Assay ..... 98.0% min.

**Maximum limit of impurities (%)**

R.A.I. .... 0.02

 $C_6H_5NO_2$  ..... 0.02

Pack Size: 500mL, 20L

22966

## ANILINE BLUE WATER SOLUBLE(CI 42755), High Purity Biological Stain, OP

CAS 28631-66-5

Synonyms: Acid Blue 22, Cotton Blue

 $C_{32}H_{25}N_3Na_2O_9S_3 = 737.71$ 

Pack Size: 25g

4039

## ANISOLE, OP



CAS 100-66-3

 $C_7H_8O = 108.1$ 

Appearance: clear colourless liquid

Assay ..... 98.5% min.

Refractive index (@20°C) ..... 1.5160 – 1.5190

Specific gravity (@25°C) ..... 0.991 – 0.995

**Maximum limit of impurities (%)**

Water ..... 0.1

Pack size: 1L

U.N Number ..... 2222

ADG Class..... 3

Packing Group ..... III

72

## ANTHRACENE, UNILAB

CAS 120-12-7

 $C_{14}H_{10} = 178.2$ 

Description: White to light yellow crystalline powder

Assay ..... 99.0% min.

Melting Point ..... 214 - 216°C

Pack size: 100g

1778

**ANTHRAQUINONE, UNILAB****CAS** 84-65-1 $C_{14}H_8O_2 = 208.22$ 

Description: Yellow fine crystalline powder

Assay ..... 99.0% min.

Melting Point ..... 253 - 287°C

**Pack size:** 100g

1309

**ANTHRONE, OP****CAS** 90-44-8**Synonyms:** 9,10-Dihydro-9-Oxoanthracene $C_{14}H_{10}O = 194.23$ 

Reagent for carbohydrates.

M.P. 152 - 157°C

**Pack Size:** 25g

1677

**ANTI-BUMPING GRANULES****CAS** 1344-28-1**Synonyms:** Activated Alumina

Granules of fused alumina.

**Pack Size:** 250g, 5kg

1402

**DOW CORNING® ANITFOAM 1614 DCS****Synonyms:** Silicone Antifoaming agent

10% active emulsion of silicone in water. Dilutes easily with water. Recommended usage level: 100 parts of Cat.1402 per million parts of foamer.

**Pack Size:** 100mL, 500mL**ANTIMONY CHLORIDE** (see Antimony Trichloride page 78)

74

**ANTIMONY POTASSIUM (+) TARTRATE, UNILAB****CAS** 28300-74-5**Synonyms:** Potassium Antimony Tartrate, Tartar Emetic $C_8H_4K_2O_{12}Sb_2 \cdot 3H_2O = 667.87$ 

Assay ..... 98.5% min.

L.O.D. (@105°C) ..... 2.7% max.

**Pack Size:** 500g, 5kg

U.N Number ..... 1551

ADG Class ..... 6.1

Packing Group ..... III

76

## ANTIMONY TRICHLORIDE, UNIVAR



CAS 10025-91-9

Synonyms: Antimony Chloride, Caustic Antimony

SbCl<sub>3</sub> = 228.11

Description: colourless crystals, fuming on contact with moisture in the air.

Assay ..... 99.0% min.

U.N Number ..... 1733

ADG Class..... 8

Packing Group ..... II

**Maximum limit of impurities****(%)**Insol. (in CHCl<sub>3</sub>) ..... 0.05SO<sub>4</sub> ..... 0.005

As ..... 0.02

Cu ..... 0.001

Fe ..... 0.002

Pb ..... 0.005

Ca ..... 0.005

K ..... 0.01

Na ..... 0.02

Conforms to ACS

Pack Size: 100g, 500g

77

## ANTIMONY TRIOXIDE, LABCHEM



CAS 1309-64-4

Sb<sub>2</sub>O<sub>3</sub> = 291.50

Assay ..... 99.0% min.

U.N Number ..... 1549

ADG Class ..... 6.1

Packing Group ..... III

Pack Size: 500g, 5kg

1865

## AQUAMOUNT, LABCHEM

Water-based mountant

Pack Size: 100mL

3418

## D(-)-ARABINOSE, LABCHEM

CAS 10323-20-3

C<sub>5</sub>H<sub>10</sub>O<sub>5</sub> = 150.1

Description: white crystalline powder

Pack size: 25g

3011

## L(+)-ARABINOSE, UNIVAR

CAS 5328-37-0

C<sub>5</sub>H<sub>10</sub>O<sub>5</sub> = 150.1

Description: white crystalline powder

Assay ..... 99.0% min.

Melting Point ..... 156 - 160° C

Opt. Rotation (on dry basis) ..... +104.2%

**Maximum limit of impurities****(%)**H<sub>2</sub>O ..... 0.05

Sulphated ash ..... 0.1

Pack size: 25g

6340

**L-ARGININE, UNIVAR**

CAS 74-79-3

 $C_6H_{14}N_4O_2 = 174.2$ 

Description: white crystalline powder

Assay ..... 98.0% min.

Melting Point ..... 235°C

**Maximum limit of impurities****(%)**

Ca..... 0.001

Fe..... 0.0005

Heavy metals (as Pb)..... 0.0005

As ..... 0.0003

Cl ..... 0.005

SO<sub>4</sub> ..... 0.005**Pack size:** 100g

1311

**L-ARGININE MONOHYDROCHLORIDE, LABCHEM**

CAS 1119-34-2

 $C_6H_{15}N_4O_2Cl = 210.67$ 

Appearance: White crystal powder.

Assay ..... 98.5 - 101.0%

Specific Rotation ..... +21.4 to +23.6°

**Maximum limit of impurities****(%)**

L.O.D. .... 0.2

R.O.I. .... 0.1

H.M.(as Pb) ..... 0.001

**Pack Size:** 25g

2624

**ARSENIC 1000ppm SINGLE ELEMENT ICP STANDARD, UNIPURE**

A 1000 ppm Arsenic standard, ready for use.

As in 0.5% Hydrochloric acid.

U.N Number ..... 3287

ADG Class..... 6.1

Packing Group ..... II

**Traceable to NIST****Pack Size:** 100mL

2606

**ARSENIC TRICHLORIDE, AAS STANDARD, SPECTROSOL**

A 1000 ppm arsenic standard, ready for use.

Each mL contains 1.00 +/-0.005mg of As in

1.4% hydrochloric acid, 32%.

U.N Number ..... 3287

ADG Class..... 6.1

Packing Group..... I

**Traceable to NIST****Pack Size:** 100mL

1800

**ARSENIC(III) OXIDE, CERTIFIED REFERENCE STANDARD, UNIPURE**

Assay (Redox) (dried at 105°C) ..... 99.95 – 100.05%

**Maximum limit of impurities****(%)**

Insoluble matter in HCl ..... 0.01

Residue on Ignition ..... 0.02

Cl ..... 0.002

S ..... 0.001

H.M. (as Pb) ..... 0.001

Ca ..... 0.005

Cd ..... 0.001

Co ..... 0.001

Cr ..... 0.001

Cu ..... 0.001

Fe ..... 0.0005

K ..... 0.005

Mg ..... 0.005

Mn ..... 0.001

Na ..... 0.005

Ni ..... 0.001

Pb ..... 0.001

Sn ..... 0.05

Zn ..... 0.001

**Pack Size:** 100g

**ARSENIC TRIOXIDE****CAS** 1327-53-3**Synonyms:** Arsenous Oxide, Arsenous AnhydrideAs<sub>2</sub>O<sub>3</sub> = 197.84

Description: white powder.

U.N Number ..... 1561

ADG Class ..... 6.1

Packing Group ..... II

**78****ARSENIC TRIOXIDE, UNIVAR**

Assay ..... 99.5% min.

**Maximum limit of impurities (%)**

Insol. (in dil. HCl) ..... 0.01

R.A.I. .... 0.02

Cl ..... 0.005

S ..... 0.001

Fe ..... 0.0005

Pb ..... 0.002

Sb ..... 0.05

**Pack Size:** 100g, 500g**915****ARSENIC TRIOXIDE, UNILAB**

Assay ..... 99.0% min.

**Maximum limit of impurities (%)**

S ..... 0.01

**Pack Size:** 500G**ARSENOUS OXIDE** (Arsenic Trioxide see page 80)**ARSENOUS ANHYDRIDE** (Arsenic Trioxide see page 80)**79****L-ASCORBIC ACID, UNILAB****CAS** 50-81-7**Synonyms:** Vitamin CC<sub>6</sub>H<sub>8</sub>O<sub>6</sub> = 176.13

Description: colourless crystals or a white to very pale yellow, crystalline powder; odourless. It melts at about 190°C with decomposition.

Assay ..... 99.0 - 100.5%

PH (5% soln.) ..... 2.1-2.6

Spec. Rotn. (10% w/v soln.) ..... +20.5 to +21.5°

**Maximum limit of impurities (%)**

Clarity and colour of soln. .... To pass test

Sulph. Ash ..... 0.1

H.M. (as Pb) ..... 0.0002

Oxalic Acid ..... 0.2

Copper (Cu) ..... 0.0005

Iron (Fe) ..... 0.0002

Chemical and physical parameters conform to BP and FCC

**Pack Size:** 100g, 500g, 5kg, 25kg

1312

**L-ASPARAGINE, UNILAB****CAS** 5794-13-8 $\text{NH}_2\text{COCH}_2\text{CH}(\text{NH}_2)\text{COOH} \cdot \text{H}_2\text{O} = 150.13$ 

Assay ..... 98% min.

Spec. rotn. (c=10) ..... +33 to +36.5°

**Maximum limit of impurities (%)**

R.O.I ..... 0.1

Sulph. Ash ..... 0.1

Fe ..... 0.002

H.M.(as Pb) ..... 0.001

As ..... 0.0003

 $\text{SO}_4$  ..... 0.025

L.O.D ..... 12.5

**Pack Size:** 25g

1475

**DL-ASPARAGINE MONOHYDRATE, UNILAB****CAS** 3130-87-8 $\text{C}_4\text{H}_8\text{N}_2\text{O}_3 = 150.1$ 

Description: white crystalline powder

Assay ..... 98.0% min.

Melting Point ..... 220° C

**Maximum limit of impurities (%)**

R.O.I. .... 0.1

**Pack size:** 25g

1313

**DL-ASPARTIC ACID, UNILAB****CAS** 617-45-8 $\text{C}_4\text{H}_7\text{NO}_4 = 133.1$ 

Description: white crystalline powder

Assay ..... 98.0% min.

Melting Point ..... about 280° C

**Maximum limit of impurities (%)**

Ash ..... 0.05

**Pack size:** 100g**ASPIRIN** (see Acetylsalicylic Acid page 49)**ATOMIC SULPHUR** (see Sulphur page 385)**AURIC CHLORIDE, CRYST** (see Gold Chloride, brown page 187)**AURIC SODIUM CHLORIDE** (see Sodium Chloroaurate page 346)**AURIN TRICARBOXYLIC ACID AMMONIUM SALT** (see Aluminon page 57)**AZIMIDOBENZENE** (see 1H-Benzotriazole page 89)



85

**BARIUM NITRATE**

CAS 10022-31-8  
 $\text{Ba}(\text{NO}_3)_2 = 261.34$   
 Description: colourless crystals.

U.N Number ..... 1446  
 ADG Class ..... 5.1  
 Subsidiary Risk..... 6.1  
 Packing Group ..... II

**BARIUM NITRATE, UNIVAR**

Assay ..... 99.0% min.  
 pH (5% soln. @ 25°C) ..... 5.0-8.0

| <i>Maximum limit of impurities</i> | <i>(%)</i> |
|------------------------------------|------------|
| Insol. ....                        | 0.01       |
| Cl.....                            | 0.0005     |
| Ca.....                            | 0.05       |
| Fe.....                            | 0.0002     |
| H.M. (as Pb) .....                 | 0.0005     |
| Sr .....                           | 0.1        |
| Na .....                           | 0.005      |
| K .....                            | 0.005      |

**Pack Size:** 500g, 5kg

86

**BARIUM NITRATE, UNILAB**

Assay ..... 99.0% min.

| <i>Maximum limit of impurities</i> | <i>(%)</i> |
|------------------------------------|------------|
| Cl .....                           | 0.01       |
| Fe .....                           | 0.002      |
| H.M. (as Pb) .....                 | 0.002      |

**Pack Size:** 500g

264

**BARIUM SULPHATE, for soil analysis, LABCHEM**

CAS 7727-43-7  
 $\text{BaSO}_4 = 233.40$   
 High purity grade for soil analysis, and X-Ray examinations. A fine, heavy, white powder, free from grittiness; odourless.

| <i>Maximum limit of impurities</i> | <i>(%)</i>   |
|------------------------------------|--------------|
| L.O.I. (600°C) .....               | 2.0          |
| Soluble Ba salts .....             | To pass test |
| Acidity/Alkalinity .....           | To pass test |
| Oxidisable sulphur compounds ..... | To pass test |
| As .....                           | 0.0002       |
| H.M. (as Pb) .....                 | 0.001        |
| Phosphate .....                    | 0.005        |
| Acid-soluble substances .....      | 0.3          |
| Sedimentation .....                | To pass test |

Chemical and physical parameters conform to BP

**Pack Size:** 500g

**BASIC VIOLET 3** (see Crystal Violet page 142)

**6091**

### BEESWAX, white, bleached, TECHNICAL

CAS 8012-89-3

Chemical and physical parameters conform to BP

**Pack Size:** 500g

**735**

### BENEDICTS SOLUTION, LABCHEM

For detection of sugar in urine.

**Pack Size:** 500mL, 2.5L

### BENTONITE (see Fuller's Earth page 180)



### BENZALDEHYDE

CAS 100-52-7

**Synonyms:** Benzoic Aldehyde

$C_6H_5CHO = 106.12$

Description: Clear pale yellow to yellow liquid, with characteristic odour.

Density .....about 1.04g/mL

U.N Number ..... 1990

ADG Class..... 9

Packing Group ..... III

**781**

### BENZALDEHYDE, UNIVAR

Assay ..... 99% min.

R.I. @ 20°C ..... 1.544-1.546

**Maximum limit of impurities (%) :**

Chlorine cpds. .... 0.05

**Pack Size:** 500mL

**924**

### BENZALDEHYDE, UNILAB

Assay ..... 98.0% min.

**Pack Size:** 500mL

**2441**

### BENZAMIDE, LABCHEM

CAS 55-21-0

$C_7H_7NO = 121.1$

Description: White crystalline powder

Assay ..... 98.0% min.

Melting Point ..... 125 - 128°C

**Pack size:** 100g

**3172**

### BENZANALIDE, UNILAB

CAS 93-98-1

$C_{13}H_{11}NO = 197.24$

Description: White to cream-coloured fine powder

Assay ..... 99.0% min.

Melting Point ..... 162 - 165°C

**Pack size:** 100g



87

**BENZENE, UNIVAR****CAS** 71-43-2**Synonyms:** Benzol, Cyclohexatriene

Density .....about 0.88g/mL

 $C_6H_6$  = 78.11

Description: Clear liquid with a characteristic odour.

Assay ..... 99.0% min.

Colour (APHA) ..... 10 max.

U.N Number ..... 1114

ADG Class..... 3

Packing Group ..... II

**Maximum limit of impurities (%)**

Residue after Evaporation. .... 0.001

Substances darkened by  $H_2SO_4$  ..... To pass test

Sulfur compounds (as S) ..... 0.005

Thiophene (limit about 1ppm) ..... To pass test

Water ..... 0.05

Conforms to ACS

**Pack Size:** 2.5L**BENZENEACETIC ACID** (see Phenylacetic Acid page 286)**BENZENECARBONYL CHLORIDE** (see Benzoyl Chloride page 90)**BENZENECARBOXYLIC ACID** (see Benzoic Acid page 88)**BENZENEMETHANOL** (see Benzyl Alcohol page 90)

204

**BENZENESULPHONYL CHLORIDE, UNILAB****CAS** 98-09-9**Synonyms:** Benzosulphochloride $C_6H_5SO_2Cl$  = 176.62

Reagent for amines.

Assay ..... 98% min.

Boiling Range ..... 249-251°C

R.I. .... about 1.552 min.

U.N Number ..... 2225

ADG Class..... 8

Packing Group ..... III

**Pack Size:** 500mL

90

**BENZIL, UNILAB****CAS** 134-81-6 $C_{14}H_{10}O_2$  = 210.23

Description: Yellow crystalline powder

Assay ..... 99.0% min.

Melting Point ..... 93 - 95°C

**Pack size:** 250g

92

**BENZILIC ACID, UNILAB****CAS** 76-93-7 $C_{14}H_{12}O_3$  = 228.25

Description: White to cream white powder

Assay ..... 98.0% min.

Melting Point ..... 150 - 152°C

**Pack size:** 250g

**1,3-ISOBENZOFURANDIONE** (see Phthalic Anhydride page 289)**BENZOIC ACID**

CAS 65-85-0

**Synonyms:** Benzenecarboxylic Acid $C_6H_5COOH = 122.12$ 

Description: colourless, fine, needle-shaped crystals.

**1801****BENZOIC ACID, CERTIFIED REFERENCE STANDARD, UNIPURE**

|                                           |                 |
|-------------------------------------------|-----------------|
| Assay (Acidim.) (dried on $SiO_2$ ) ..... | 99.95 – 100.05% |
| Identity .....                            | To pass Test    |
| Melting range .....                       | 122 - 123°C     |

| <b>Maximum limit of impurities</b>     | <b>(%)</b>   |                            |        |
|----------------------------------------|--------------|----------------------------|--------|
| Insoluble matter in $CH_3OH$ .....     | 0.005        | Heavy metals (as Pb) ..... | 0.0005 |
| Residue on Ignition .....              | 0.005        | As .....                   | 0.0003 |
| Reducing substances to $KMnO_4$ .....  | To pass test | Cu .....                   | 0.0005 |
| Darkened substances by $H_2SO_4$ ..... | To pass test | Fe .....                   | 0.0002 |
| Chlorine compounds (as Cl) .....       | 0.01         | Ni .....                   | 0.0005 |
| Sulphur compounds (asS) .....          | 0.01         | Pb .....                   | 0.0005 |

**Pack Size:** 100g**926****BENZOIC ACID, UNIVAR**

|             |            |
|-------------|------------|
| Assay ..... | 99.9% min. |
| M.P. ....   | 122-123°C  |

| <b>Maximum limit of impurities</b> | <b>(%)</b>   |
|------------------------------------|--------------|
| Insol. (in $CH_3OH$ ) .....        | 0.005        |
| R.A.I. ....                        | 0.005        |
| Cl cpds (as Cl) .....              | 0.005        |
| S cpds (as S) .....                | 0.002        |
| H.M. (as Pb) .....                 | 0.0005       |
| Subs. reducing $KMnO_4$ .....      | To pass test |

**Pack Size:** 100g, 500g**823****BENZOIC ACID, UNILAB**

|             |               |
|-------------|---------------|
| Assay ..... | 99.0 - 100.5% |
| M.P. ....   | 121-123°C     |

| <b>Maximum limit of impurities</b> | <b>(%)</b>   |
|------------------------------------|--------------|
| Clarity & colour of soln. ....     | To pass test |
| Carbonisable substances .....      | To pass test |
| Halogenated cpds & halides .....   | 0.03         |
| Sulph. Ash .....                   | 0.05         |
| H.M. (as Pb) .....                 | 0.0010       |
| Oxidizable substances .....        | To pass test |
| As .....                           | 0.0003       |
| Water .....                        | 0.7          |

Chemical and physical parameters conform to BP &amp; FCC

**Pack Size:** 500g, 5kg, 25kg**BENZOIC ACID ETHYL ESTER** (see Ethyl Benzoate page 170)

**BENZOIC ACID METHYL ESTER** (see Methyl Benzoate page 251)**BENZOIC ACID SODIUM SALT** (see Sodium Benzoate page 341)**93****BENZOIN, LABCHEM****CAS** 119-53-9 $C_{14}H_{12}O_2 = 212.3$ 

Description: Buff to light brownish yellow powder

**Maximum limit of impurities (%)**

Sulphated ash ..... 0.2

**Pack size:** 100g**BENZOL** (see Benzene page 87)**928****BENZOPHENONE, UNILAB****CAS** 119-61-9**Synonyms:** Diphenyl Ketone $C_6H_5COC_6H_5 = 182.22$ 

M.P. .... 47-49°C

Assay (GC) ..... 99% min.

**Pack Size:** 100g**BENZOSULPHOCHLORIDE** (see Benzenesulphonyl Chloride page 87)**929****p-BENZOQUINONE, TECHNICAL****CAS** 106-51-4**Synonyms:** Quinone $O:C_6H_4:O = 108.10$ 

M.P. .... about 115°C

assay (GC) ..... 99% min.

**Pack Size:** 100g

U.N Number ..... 2587

ADG Class... ..... 6.1

Packing Group ..... II

**3016****IH-BENZOTRIAZOLE, LABCHEM****CAS** 95-14-7**Synonyms:** Azimidobenzene $C_6H_5N_3 = 119.13$ 

Assay (ex N) ..... about 99% min.

M.P. .... 93-95°C

**Pack Size:** 250g, 500g**2124****1-BENZOYL ACETONE, LABCHEM****CAS** 93-91-4 $C_{10}H_{10}O_2 = 162.19$ 

Description: Pale yellow shining crystalline powder

Assay ..... 98.0% min.

**Pack size:** 100g

930

**BENZOYL CHLORIDE, UNILAB**

CAS 98-88-4

**Synonyms:** Benzenecarbonyl Chloride $C_6H_5COCl = 140.57$ 

Density ..... about 1.21g/mL

Assay ..... 98% min.

U.N Number ..... 1736

ADG Class..... 8

Packing Group ..... II

**Pack Size:** 500mL

931



CAS 94-36-0

**Synonyms:** Dibenzoyl Peroxide $(C_6H_5COO)_2 = 242.23$ 

Moistened with 25% water.

Assay ..... 74 - 76%

U.N Number ..... 3104

ADG Class..... 5.2

Packing Group ..... II

**Maximum limit of impurities (%)**

Benzoyl chloride ..... 0.5

**Pack Size:** 100g, 500g

97

**BENZYL ALCOHOL, UNILAB**

CAS 100-51-6

**Synonyms:** Benzenemethanol, Phenylcarbinol $C_6H_5CH_2OH = 108.14$ 

Description: clear, colourless, refringent, oily liquid; odour, slightly aromatic.

Assay ..... 98.0 - 100.5%

Density (@ 20°C) ..... 1.043 – 1.049g/mL

R.I. .... 1.538 – 1.541

**Maximum limit of impurities (%)**

Acidity ..... To pass test

Benzaldehyde &amp; related subs. .... 0.2

Clarity of solution ..... To pass test

Peroxide value ..... 5

N.V.M. .... 0.05

Chemical and physical parameters conform to BP

**Pack Size:** 500mL, 2.5L

1972

**BENZYL BENZOATE, UNILAB**

CAS 120-51-4

 $C_{14}H_{12}O_2 = 213.3$ 

Description: colourless to oily liquid

Assay ..... 99.0% min.

**Maximum limit of impurities (%)**

Sulphated ash ..... 0.05

Free acid (as Benzoic acid) ..... 0.05

**Pack size:** 500mL

935

**BERYLLIUM SULPHATE, UNIVAR**

CAS 13510-49-1

 $\text{BeSO}_4 \cdot 4\text{H}_2\text{O} = 177.14$ 

Description: white crystals or crystalline powder.

Assay ..... 98% min.

U.N Number ..... 1566

ADG Class..... 6.1

Packing Group ..... II

**Maximum limit of impurities (%)**

Insol. .... 0.01

Cl ..... 0.01

K ..... 0.08

Na ..... 0.06

**Pack Size:** 100G

3417

**BICINE (N,N-bis (2-HYDROXYETHYL) GLYCINE), BIOLOGICAL BUFFER, UNIVAR**

CAS 150-25-4

 $\text{C}_6\text{H}_{13}\text{NO}_4 = 163.2$ 

Description: White powder

Solubility (0.1M in  $\text{H}_2\text{O}$ ): Clear and complete

Assay ..... 99.0% min.

pKa ..... 8.1 – 8.5

pH ..... 4.0 -6.0

**Maximum limit of impurities (%)**

Moisture ..... 1.0

**Pack size:** 100g, 1Kg

3180

**BIEBRICH SCARLET (C.I. 26905), LABCHEM**

CAS 4196-99-0

 $\text{C}_{22}\text{H}_{14}\text{N}_4\text{O}_7\text{S}_2\text{Na}_2 = 556.5$ 

Description: Brown coloured powder

Dye content ..... about 66.0%

**Pack size:** 25g

1040

**BIPHENYL, UNILAB**

CAS 92-52-4

 $\text{C}_{12}\text{H}_{10} = 154.2$ 

Description: Colourless to white leaflets

Assay ..... 98.0% min.

Melting Point ..... 68 - 70°C

**Pack size:** 250G

207

**2,2'-BIPYRIDYL, LABCHEM**

CAS 366-18-7

**Synonyms:** 2,2'-Dipyridyl, 2,2'-Bipyridine $(\text{C}_5\text{H}_4\text{N})_2 = 156.19$ 

Reagent for Fe and Mo.

Redox indicator.

Description: off-white crystalline powder.

M.P. .... 69 - 71°C

Sensitivity to Fe ..... 1 in 10,000,000 min.

Transisition to EMF (@ pH=0) ..... + 1.03V

Colour change: (Iron (II) complex)

Oxidized (pale blue) to reduced (red)

See also "indicators - redox"

U.N Number ..... 2811

ADG Class..... 6.1

Packing Group ..... III

**Pack Size:** 5g

3181

**BISMARK BROWN R, LABCHEM**

CAS 5421-66-9

 $C_{21}H_{24}N_8 \cdot 2HCl = 386$ 

Description: Dark brown solid

Dye content ..... 40.0% min.

Pack size: 25g

2655

**BISMUTH 1000ppm SINGLE ELEMENT ICP STANDARD, UNIPURE**A 1000 ppm Bismuth standard, ready for use.  
Bi in 0.5% Nitric acid.

U.N Number ..... 3264

ADG Class..... 8

Packing Group ..... III

Traceable to NIST

Pack Size: 100mL

2609

**BISMUTH NITRATE AAS STANDARD, SPECTROSOL**A 1000 ppm Bismuth standard, ready for use. Each mL contains  
1.00 +/-0.005mg of Ba in 0.5% Nitric acid.

U.N Number ..... 3264

ADG Class..... 8

Packing Group ..... III

Traceable to NIST

Pack Size: 500mL



3021

**BISMUTH CHLORIDE, UNILAB**

CAS 7787-60-2

 $BiCl_3 = 315.34$ 

Description: yellowish deliquescent crystals

Assay ..... 98.0% min.

Melting Point ..... 230 - 232°C

**Maximum limit of impurities (%)**

|                |       |
|----------------|-------|
| Fe .....       | 0.01  |
| Pb .....       | 0.005 |
| SO .....       | 0.05  |
| Zn .....       | 0.005 |
| Moisture ..... | 1.0   |

Pack size: 100g

939

**BISMUTH NITRATE, UNIVAR**

CAS 10035-06-0

 $Bi(NO_3)_3 \cdot 5H_2O = 485.07$ Description: colourless deliquescent crystals,  
with an odour of nitric acid.

Assay ..... 98.5% min.

U.N Number ..... 1477

ADG Class..... 5.1

Packing Group ..... II

**Maximum limit of impurities (%)**

|                       |       |
|-----------------------|-------|
| Zn.....               | 0.001 |
| Cl.....               | 0.001 |
| SO <sub>4</sub> ..... | 0.01  |
| Ag. ....              | 0.001 |
| Ca.....               | 0.002 |

|          |       |
|----------|-------|
| Cu. .... | 0.002 |
| Fe.....  | 0.001 |
| Pb.....  | 0.002 |
| K.....   | 0.002 |
| Na ..... | 0.002 |

Store below 25°C

Pack Size: 100g



99

**BISMUTH OXIDE, UNILAB**

CAS 1304-76-3

 $\text{Bi}_2\text{O}_3 = 465.96$ 

Assay ..... 98% min.

**Maximum limit of impurities (%)**

LOI (@1000°C) ..... 1.0

Fe ..... 0.05

Cu ..... 0.005

Ni ..... 0.01

Pb ..... 0.005

Insol. matter in HCl ..... 0.05

Pack Size: 100g

2392

**BISMUTH OXYCHLORIDE, LABCHEM**

CAS 7787-59-9

approx.  $\text{BiOCl}$ 

Pack Size: 100g

2154

**BIURET, UNILAB**

CAS 108-19-0

 $\text{C}_2\text{H}_5\text{N}_3\text{O}_2 = 103.08$ 

Description: Off-white crystalline powder

Assay ..... 99.0% min.

Melting Point ..... 187 - 194°C

**Maximum limit of impurities (%)**

L.O.D ..... 1

Pack size: 100g

**BLEACH** (see Sodium Hypochlorite page 359)**BORACIC ACID** (see Boric Acid page 94)

# QUANTOFIX

## - Test Strips

Available for Testing:

Ammonium  
Chromate  
Copper  
Cyanide  
Molybdenum  
Nitrate/nitrite

Nitrite  
Nitrite 3000  
Sulphite  
Peroxide  
Zinc

**RAPID    CONVENIENT    SPECIFIC    STABLE**

See page 37 for details

**BORIC ACID**

CAS 10043-35-3

**Synonyms:** Boracic Acid $H_3BO_3 = 61.83$ 

Description: white crystals or granules

**101****BORIC ACID, granular, UNIVAR**

Assay ..... 99.5% min.

| <b>Maximum limit of impurities</b> | <b>(%)</b> |              |        |
|------------------------------------|------------|--------------|--------|
| Insol. (in $CH_3OH$ )              | 0.005      | Mo           | 0.0001 |
| Non-vol. (with $CH_3OH$ )          | 0.05       | Ni           | 0.0001 |
| Cl                                 | 0.001      | Sr           | 0.0001 |
| $PO_4$                             | 0.001      | Al           | 0.0005 |
| Ca                                 | 0.001      | Mg           | 0.0005 |
| K                                  | 0.001      | Zn           | 0.0005 |
| Na                                 | 0.002      | Fe           | 0.0002 |
| $SO_4$                             | 0.01       | Cu           | 0.0002 |
| As                                 | 0.0001     | Cd           | 0.0002 |
| Ba                                 | 0.0001     | Pb           | 0.0002 |
| Cr                                 | 0.0001     | H.M. (as Pb) | 0.001  |
| Co                                 | 0.0001     | Mn           | 0.0001 |

Conforms to ACS

**Pack Size:** 500g, 1kg, 5kg, 25kg**942****BORIC ACID, granular, UNILAB**

Description: colourless brilliant plates or white crystals, unctuous to the touch; odourless.

Assay ..... 99.0 - 100.5%

pH (3% soln.) ..... 3.8-4.8

| <b>Maximum limit of impurities</b> | <b>(%)</b>   |              |              |
|------------------------------------|--------------|--------------|--------------|
| Clarity & colour of soln.          | To pass test | H.M. (as Pb) | 0.0015       |
| Sol. (in ethanol)                  | To pass test | Na           | To pass test |
| $SO_4$                             | 0.045        |              |              |
| Carbonisable subs.                 | To pass test |              |              |
| Organic matter                     |              |              |              |

Chemical and physical parameters conform to BP

**Pack Size:** 500g, 5kg, 25kg**102****BORIC ACID, powder, UNILAB**

Description: white crystalline powder, unctuous to the touch; odourless.

Assay ..... 99.0 - 100.5%

pH (3% soln.) ..... 3.8-4.8

| <b>Maximum limit of impurities</b> | <b>(%)</b>   |                   |              |
|------------------------------------|--------------|-------------------|--------------|
| Clarity & colour of soln.          | To pass test | H.M. (as Pb)      | 0.0015       |
| Sol. (in ethanol)                  | To pass test | Na Organic matter | To pass test |
| $SO_4$                             | 0.045        |                   |              |

Chemical and physical parameters conform to BP

**Pack Size:** 500g, 5kg, 25kg



907

**BORIC ACID, LABCHEM**

Assay ..... 98.0% min.

**Maximum limit of impurities (%)**SO<sub>4</sub> ..... 0.1

H.M (as Pb) ..... 0.001

**Pack Size:** 500g

1814

**BORON TRIFLUORIDE 14 % in Methanol , UNILAB****CAS** 16045-88-8

Description: clear, colourless liquid

Assay (Acidim.) ..... 14.0% min.

U.N Number ..... 3286

ADG Class..... 3

Subsidiary Risk..... 6.1/8

Packing Group ..... I

**Pack size:** 500mL

2610

**BRIJ 35, LABCHEM****CAS** 9002-92-0

Acid value ..... 2mg KOH/g

**Pack Size:** 500g**BRILLIANT BLUE R** (see Coomassie Brilliant Blue R 250 page 135)

3183

**BRILLIANT CRESYL BLUE (C.I. 51010), LABCHEM****CAS** 81029-05-2C<sub>17</sub>H<sub>20</sub>N<sub>3</sub>OCl.½ZnCl<sub>2</sub> = 386

Description: Dark green lustrous powder

Absorption maximum ..... about 625nm

**Pack size:** 25g**BRILLIANT FUCHSIN** (see Fuchsin Basic page 180)

3184

**BRILLIANT GREEN, LABCHEM****CAS** 633-03-4C<sub>27</sub>H<sub>34</sub>N<sub>2</sub>O<sub>4</sub>S = 482.6

Description: Golden coloured fine glistening powder

Absorption maximum ..... about 625nm

**Pack size:** 25g

**BROMINE**

CAS 7726-95-6  
Br<sub>2</sub> = 159.81

U.N Number ..... 1744  
ADG Class..... 8  
Subsidiary Risk ..... 6.1  
Packing Group ..... I

**3023****BROMINE, UNIVAR**

Density ..... about 3.11g/mL  
Assay ..... 99.5% min.

**Maximum limit of impurities (%)**  
Non-vol. .... 0.005  
Cl ..... 0.05  
I ..... 0.001  
SO<sub>4</sub> ..... 0.0005  
Organic Br cpds ..... To pass test

**Pack Size:** 100mL, 250mL

**769****BROMINE WATER, LABCHEM**

Contains about 3.6% bromine.  
Density ..... about 1.02g/mL

**Pack Size:** 500mL

**98****BROMOBENZENE, UNILAB**

CAS 108-86-1  
**Synonyms:** Monobromobenzene, Phenyl Bromide  
C<sub>6</sub>H<sub>5</sub>Br = 157.01  
Assay (GC) ..... 99.0% min.

U.N Number ..... 2514  
ADG ..... 3  
Packing Group ..... III

**Pack Size:** 100mL, 2.5L

**1342****BROMOCHLOROMETHANE, OP**

CAS 74-97-5  
BrCH<sub>2</sub>Cl = 129.39  
Assay ..... 99.0% min.  
Density ..... 1.991

U.N Number ..... 1887  
ADG Class..... 6.1  
Packing Group ..... III

**Pack size:** 1L, 4L

**2327****BROMOCRESOL GREEN, LABCHEM**

CAS 76-60-8  
C<sub>21</sub>H<sub>14</sub>Br<sub>4</sub>O<sub>5</sub>S = 698.04  
pH indicator.

**Pack Size:** 5g, 50g, 1kg

2513

**BROMOCRESOL GREEN SOLUTION, LABCHEM**

Description: Dark green solution.

Visual transition colour

pH (3.8) yellow ..... To pass test

pH (4.5) green ..... To pass test

pH (5.4) blue ..... To pass test

**Pack Size:** 100mL

2295

**BROMOCRESOL PURPLE, LABCHEM****CAS** 115-40-2 $C_{21}H_{16}Br_2O_5S = 540.24$ 

pH and adsorption indicator.

Visual transition colour

pH (5.2) yellow ..... To pass test

pH (6.8) purple ..... To pass test

**Pack Size:** 5g, 50g

813

**BROMOFORM, UNILAB****CAS** 75-25-2**Synonyms:** Tribromomethane $CHBr_3 = 252.73$ 

Density ..... 2.88 - 2.91g/mL

R.I. .... 1.596-1.598

U.N Number ..... 2515

ADG Class..... 6.1

Packing Group ..... III

**Maximum limit of impurities (%)**

Non-vol. .... 0.05

**Pack Size:** 100mL, 500mL, 2.5L

2383

**BROMOPHENOL BLUE, LABCHEM****CAS** 115-39-9 $C_{19}H_{10}Br_4O_5S = 669.99$ 

pH and adsorption indicator. In electrophoresis, can be used as a tracking dye for alkaline and neutral buffer systems.

Visual Transition Interval ..... pH 3.0 (yellow) to pH 4.6 (blue)

**Maximum limit of impurities (%)**

Clarity of solution ..... To pass test

Visual transition interval ..... To pass test

Conforms to ACS

**Pack Size:** 5g

605

**BROMOPYROGALLOL RED, LABCHEM****CAS** 16574-43-9 $C_{19}H_{10}Br_2O_8S = 558.16$ 

Adsorption and metal indicator.

**Pack Size:** 1g

606

**BROMOTHYMOL BLUE, LABCHEM**

CAS 76-59-5

 $C_{27}H_{28}Br_2O_3S = 624.41$ 

As pH indicator: pH 6.0 Yellow; pH 7.6 Blue

Pack Size: 5g, 10g, 500g

1723

**BROMOTHYMOL BLUE SOLUTION, LABCHEM**

pH indicator

Pack Size: 100mL

U.N Number ..... 1170

ADG Class..... 3

Packing Group ..... III

1492

**BRUCINE, UNILAB**

CAS 357-57-3

 $C_{23}H_{26}N_2O_4 = 394.46$ 

Description: Off-white crystalline powder

Assay ..... 99.0% min.

Melting point ..... 175 - 177°C

Specific rotation ..... 117 - 121°

U.N Number ..... 1570

ADG Class..... 6.1

Packing Group ..... I

**Maximum limit of impurities (%)**R.O.I (as  $SO_4$ ) ..... 0.1

Pack size: 25g

3025

**BRUCINE SULPHATE, UNILAB**

CAS 4845-99-2

 $(C_{23}H_{26}N_2O_4)_2 H_2SO_4 = 886.99$ 

Description: white small crystalline powder

Assay ..... 98.0% min.

Melting point ..... 176 - 179°C

U.N Number ..... 1570

ADG Class..... 6.1

Packing Group ..... I

**Maximum limit of impurities (%)**

Sulphated Ash ..... 0.1

 $H_2O$  ..... 0.5

Pack size: 25g

1450

**BUFFER CAPSULES, to prepare 100mL, pH 4.0, LABCHEM**

1 capsule to be dissolved in 100mL of water to make yellow to orange colour buffer solution.

pH (@20°C) .....  $4.0 \pm 0.05$ 

Pack size: 10 Tablets

1451

**BUFFER CAPSULES, to prepare 100mL, pH 7.0, LABCHEM**

1 capsule to be dissolved in 100mL of water to make green colour buffer solution.

pH (@20°C) .....  $7.0 \pm 0.05$ 

Pack size: 10 Tablets

**1452****BUFFER CAPSULES, to prepare 100mL, pH 9.2, LABCHEM**

1 capsule to be dissolved in 100mL of water to make blue colour buffer solution.

pH (@20°C) ..... 9.2 ± 0.05

Pack size: 10 Tablets

**2431****BUFFER pH 4, for use with residual Cl<sub>2</sub> analyser, LABCHEM**

Description: Buffer concentrate made to water authority formula for dilution 1:4000 in amphoteric treatment/chlorination of water.

pH @ 20°C (as is) ..... 4.0 ± 0.05

pH @ 20°C (1 to 4000) ..... 4.0 ± 0.25

**Pack Size:** 20L

**2501****BUFFER PACK FOR INSTRUMENTS pH 4, 7, 9.2,10, LABCHEM**

Buffer pack for instruments pH 4.0, 7.0, 9.2, 10.0

**Pack Size:** 4X100mL

**8180****BUFFER SOLUTION pH 4.0 CLEAR, LABCHEM**

Contains Potassium Hydrogen Phthalate.

Microbiocide added

Stabilised with 0.01% Sodium Azide.

pH (@ 20°C) ..... 4.0 ± 0.02

**Traceable to NIST**

**Temperature Correction:**

| °C | v's   | pH   |
|----|-------|------|
| 10 | ..... | 4.00 |
| 15 | ..... | 4.00 |
| 20 | ..... | 4.00 |
| 25 | ..... | 4.00 |
| 30 | ..... | 4.00 |
| 35 | ..... | 4.01 |
| 40 | ..... | 4.02 |

**Pack Size:** 500mL, 6x500mL, 1L, 6x1L

**2490****BUFFER SOLUTION pH 4.0 COLOUR CODED (RED), LABCHEM**

Contains potassium hydrogen phthalate. Stabilized with 0.01% sodium azide. The colour of this buffer solution matches that of Ajax Finechem Universal Indicator (Cat 613) at pH 4.0

pH @ 20°C ..... 4.0 ± 0.02

**Traceable to NIST**

**Temperature Correction:**

| °C | v's   | pH   |
|----|-------|------|
| 10 | ..... | 4.00 |
| 15 | ..... | 4.00 |
| 20 | ..... | 4.00 |
| 25 | ..... | 4.00 |
| 30 | ..... | 4.00 |
| 35 | ..... | 4.01 |
| 40 | ..... | 4.02 |

**Pack Size:** 100mL, 500mL, 6x500mL, 1L, 6x1L, 20L

### 8181 BUFFER SOLUTION pH 7.0 CLEAR, LABCHEM

Contains Potassium Dihydrogen Orthophosphate.  
Stabilised with 0.01% Sodium Azide.  
pH (@ 20°C) .....7.0 ± 0.02

**Traceable to NIST**

**Temperature Correction:**

| °C | v's   | pH   |
|----|-------|------|
| 10 | ..... | 7.08 |
| 15 | ..... | 7.03 |
| 20 | ..... | 7.00 |
| 25 | ..... | 6.98 |
| 30 | ..... | 6.95 |
| 35 | ..... | 6.95 |
| 40 | ..... | 6.95 |

**Pack Size:** 500mL, 6x500mL, 1L, 6x1L

### 2491 BUFFER SOLUTION pH 7.0 COLOUR CODED (GREEN), LABCHEM

Contains potassium sodium orthophosphate. The colour of this buffer solution matches that of Ajax Finechem Universal Indicator (Cat 613) at pH 7.0.  
pH @ 20°C (7.00) .....7.0 ± 0.05

**Traceable to NIST**

**Temperature Correction:**

| °C | v's   | pH   |
|----|-------|------|
| 10 | ..... | 7.08 |
| 15 | ..... | 7.03 |
| 20 | ..... | 7.00 |
| 25 | ..... | 6.98 |
| 30 | ..... | 6.95 |
| 35 | ..... | 6.95 |
| 40 | ..... | 6.95 |

**Pack Size:** 100mL, 500mL, 6x500mL, 1L, 6x1L, 20L

### 2492 BUFFER SOLUTION pH 9.18 COLOUR CODED (TURQUOISE), LABCHEM

Contains sodium tetraborate. The colour of this buffer solution matches that of Ajax Finechem Universal Indicator (Cat 613) at pH 9.2.  
pH (@ 20°C) .....9.18 ± 0.05

**Traceable to NIST**

**Temperature Correction**

| °C | v's   | pH   |
|----|-------|------|
| 5  | ..... | 9.36 |
| 10 | ..... | 9.29 |
| 15 | ..... | 9.24 |
| 20 | ..... | 9.18 |
| 25 | ..... | 9.14 |
| 30 | ..... | 9.10 |
| 35 | ..... | 9.06 |

**Pack Size:** 100mL, 500 mL, 6 x 500mL, 1L, 6 x 1L, 20L

**8182****BUFFER SOLUTION pH 9.18 CLEAR, LABCHEM**

Contains Sodium Tetraborate stabilised with Sodium Azide.  
 pH (@ 20°C) ..... 9.18 ± 0.05

**Traceable to NIST**

| <i>Temperature Correction</i> |       |      |
|-------------------------------|-------|------|
| °C                            | v's   | pH   |
| 5                             | ..... | 9.36 |
| 10                            | ..... | 9.29 |
| 15                            | ..... | 9.24 |
| 20                            | ..... | 9.18 |
| 25                            | ..... | 9.14 |
| 30                            | ..... | 9.10 |
| 35                            | ..... | 9.06 |

**Pack Size:** 500mL, 6x500mL, 1L, 6x1L

**2564****BUFFER SOLUTION pH 10.0 COLOUR CODED (BLUE), LABCHEM**

Contains sodium tetraborate stabilized with sodium azide. The colour of this buffer solution matches that of Ajax Finechem Universal Indicator (Cat 613) at pH 10.0.  
 pH (@ 20°C) ..... 10.0 ± 0.05

**Traceable to NIST**

| <i>Temperature Correction</i> |       |       |
|-------------------------------|-------|-------|
| °C                            | v's   | pH    |
| 10                            | ..... | 10.10 |
| 15                            | ..... | 10.05 |
| 20                            | ..... | 10.00 |
| 25                            | ..... | 9.95  |
| 30                            | ..... | 9.91  |
| 35                            | ..... | 9.87  |

**Pack Size:** 100mL, 500mL, 6x500mL, 1L, 6x1L, 20L

**8183****BUFFER SOLUTION pH 10.00 CLEAR, LABCHEM**

Contains Sodium Tetraborate stabilised with Sodium Azide.  
 pH (@ 20°C) ..... 10.0 ± 0.05

**Traceable to NIST**

| <i>Temperature Correction</i> |       |       |
|-------------------------------|-------|-------|
| °C                            | v's   | pH    |
| 10                            | ..... | 10.10 |
| 15                            | ..... | 10.05 |
| 20                            | ..... | 10.00 |
| 25                            | ..... | 9.95  |
| 30                            | ..... | 9.91  |
| 35                            | ..... | 9.87  |

**Pack Size:** 500mL, 6x500mL, 1L, 6x1L

**8010064 BUFFER TABLETS pH 6.4 100mL, LABCHEM**

These tablets are useful for making solutions of a nominal aqueous pH value. For calibration of pH meters, we recommend the ready-to-use Buffer solutions.

**Pack Size:** 50

**8100068 BUFFER TABLETS pH 6.8 1L, LABCHEM**

These tablets are useful for making solutions of a nominal aqueous value. For calibration of pH meters, we recommend the ready-to-use Buffer solutions.

**Pack Size:** 50

**8010070 BUFFER TABLETS pH 7.0 100mL, LABCHEM**

These tablets are useful for making solutions of a nominal aqueous pH value. For calibration of pH meters, we recommend the ready-to-use Buffer solutions.

**Pack Size:** 50

**8100070 BUFFER TABLETS pH 7.0 1L, LABCHEM**

These tablets are useful for making solutions of a nominal aqueous pH value. For calibration of pH meters, we recommend the ready-to-use Buffer solutions.

**Pack Size:** 50

**8100072 BUFFER TABLETS pH 7.2 1L, LABCHEM**

These tablets are useful for making solutions of a nominal aqueous pH value. For calibration of pH meters, we recommend the ready-to-use Buffer solutions.

**Pack Size:** 50

**8010090 BUFFER TABLETS pH 9.2 100mL, LABCHEM**

These tablets are useful for making solutions of a nominal aqueous pH value. For calibration of pH meters, we recommend the ready-to-use Buffer solutions.

**Pack Size:** 50

**1867 BUFFERED FORMALDEHYDE CONCENTRATE X5, LABCHEM**

**Pack Size:** 5L, 10L



1349

**1,4-BUTANEDIOL, UNILAB**

CAS 110-63-4

**Synonyms:** 1,4-Butyleneglycol, TetramethyleneglycolHO(CH<sub>2</sub>)<sub>4</sub>OH = 90.12

Assay ..... 99.0% min.

Colour (APHA) ..... 10

**Maximum limit of impurities (%)**

Water ..... 0.1

**Pack size:** 500mL**BUTAN-1-OL**

CAS 71-36-3

**Synonyms:** n-Butanol, n-Butyl AlcoholCH<sub>3</sub>(CH<sub>2</sub>)<sub>3</sub>OH = 74.12

Description: clear liquid with a characteristic odour.

Density ..... about 0.81g/mL

U.N Number ..... 1120

ADG Class ..... 3

Packing Group ..... III

107

**BUTAN-1-OL, UNIVAR**

Assay (GLC) ..... 99.4% min.

Colour (APHA) ..... 10 max.

**Maximum limit of impurities (%)**

R.A.E. .... 0.005

Titratable acid ..... 0.08 mmol H

Aldehydes ..... To pass test

Butyl ether ..... 0.2

H<sub>2</sub>O ..... 0.1

Conforms to ACS

**Pack Size:** 500mL, 2.5L, 20L, 200L

108

**BUTAN-1-OL, UNILAB**

B.R.(95% min.) ..... 116 - 118°C

**Maximum limit of impurities (%)**

Non-vol. .... 0.05

Aldehydes & ketones (as C<sub>3</sub>H<sub>7</sub>CHO) ..... 0.2**Pack Size:** 500mL, 2.5L, 20L, 200L

1324

**BUTAN-1-OL, TECHNICAL****Pack Size:** 2.5L

112

**BUTAN-2-OL, UNILAB**

CAS 78-92-2

**Synonyms:** sec-Butanol, sec-Butyl AlcoholC<sub>2</sub>H<sub>5</sub>CH(OH)CH<sub>3</sub> = 74.12

Assay ..... 99.0%

Colour (APHA) ..... 10 max.

Density ..... about 0.81g/mL

**Maximum limit of impurities (%)**H<sub>2</sub>O ..... 0.2**Pack Size:** 500mL, 2.5L

U.N Number ..... 1120

ADG Class ..... 3

Packing Group ..... III



**n-BUTANAL** (see Butyraldehyde page 106)

**BUTANOIC ACID** (see n-Butyric Acid page 106)

**iso-BUTANOL** (see 2-Methylpropan-1-ol page 255)

**n-BUTANOL** (see Butan-1-ol page 103)

**sec-BUTANOL** (see Butan-2-ol page 103)

**tert-BUTANOL** (see 2-Methylpropan-2-ol page 256)

**2-BUTANONE** (see Ethyl Methyl Ketone page 174)

**947**

**2-BUTOXYETHANOL, UNILAB**

**CAS** 111-76-2

**Synonyms:** Ethylene Glycol Monobutyl Ether, Butyl Cellosolve, Butyl Icinol, Butyl Oxitol

$C_4H_9OCH_2CH_2OH = 118.18$

Density ..... about 0.90g/mL

B.R.(95% min.) ..... 167 - 172°C

**Maximum limit of impurities** (%)

Non-vol. .... 0.01

H<sub>2</sub>O ..... 0.2

**Pack Size:** 2.5L



**n-BUTYL ACETATE**

**CAS** 123-86-4

**Synonyms:** Acetic Acid Butyl Ester

$CH_3COO(CH_2)_3CH_3 = 116.16$

Density ..... about 0.88g/mL

U.N Number ..... 1123

ADG Class..... 3

Packing Group ..... II

**3485**

**n-BUTYL ACETATE, BURDICK & JACKSON, CAT. 30**

High purity solvent for HPLC & gas chromatography.

Assay ..... 99.0% min.

R.I. (@20°C) ..... 1.3927 – 1.3947

**Maximum limit of impurities** (%)

Water ..... 0.05

**Max. UV. Absorbance:**

|                |       |       |       |       |       |
|----------------|-------|-------|-------|-------|-------|
| $\lambda$ (nm) | 254   | 275   | 300   | 350   | 400   |
| Absorbance     | 1.000 | 0.050 | 0.010 | 0.005 | 0.005 |

**Pack Size:** 4L

109

**n-BUTYL ACETATE, UNILAB**

Assay ..... 97.0% min.  
 B.R. (95% min.) ..... 124-127°C  
 R.I. .... 1.3940 – 1.3960

**Maximum limit of impurities (%)**  
 Non-vol. .... 0.01  
 Acidity (as CH<sub>3</sub>COOH) ..... 0.01  
 H<sub>2</sub>O ..... 0.1

**Pack Size:** 500mL, 2.5L, 20L

**n-BUTYL ALCOHOL** (see Butan-1-ol page 103)

**iso-BUTYL ALCOHOL** (see 2-Methylpropan-1-ol page 255)

**sec-BUTYL ALCOHOL** (see Butan-2-ol page 103)

**tert-BUTYL ALCOHOL** (see 2-Methylpropan-2-ol page 256)

**BUTYL CARBITOL** (see Butyl digol page 105)

**BUTYL CELLOSOLVE** (see 2-Butoxyethanol page 104)

**BUTYL DI-ICINOL** (see Butyl digol page 105)

**BUTYL ICINOL** (see 2-Butoxyethanol page 104)

**BUTYL OXITOL** (see 2-Butoxyethanol page 104)

**BUTYL DI-OXITOL** (see Butyl digol page 105)

1325

**n-BUTYLAMINE, UNILAB**

**CAS** 109-73-9  
**Synonyms:** 1-Aminobutane  
 $\text{CH}_3(\text{CH}_2)_3\text{NH}_2 = 73.14$   
 Density ..... about 0.74g/mL  
 Assay ..... 99.0% min.

U.N Number ..... 1125  
 ADG Class..... 3  
 Subsidiary Risk..... 8  
 Packing Group ..... II

**Pack size:** 100mL, 500mL

1326

**BUTYL DIGOL, UNILAB**

**CAS** 112-34-5  
**Synonyms:** Butyl Carbitol, Diethylene Glycol Monobutyl Ether, Butyl Diicinel, Butyl Di-oxitol  
 $\text{CH}_3(\text{CH}_2)_2\text{OCH}_2\text{CH}_2\text{OCH}_2\text{CH}_2\text{OH} = 162.23$   
 Assay ..... 99.0% min.

**Pack size:** 500mL

**n-BUTYL CHLORIDE** (see 1-Chlorobutane page 123)

**tert-BUTYL CHLORIDE** (see 2-Chloro-2-methylpropane page 126)

**iso-BUTYL Methyl Ketone** (see 4-Methylpentan-2-one page 254)

**1,4-BUTYLENE GLYCOL** (see 1,4-Butanediol page 103)

**1338**

**BUTYRALDEHYDE, OP**



**CAS** 123-72-8

**Synonyms:** Butyric Aldehyde, n-Butanal

$\text{CH}_3\text{CH}_2\text{CH}_2\text{CHO} = 72.11$

Assay ..... 99.0% min.

**Pack size:** 500mL

U.N Number ..... 1129

ADG Class..... 3

Packing Group ..... II

**2302**

**n-BUTYRIC ACID, UNILAB**



**CAS** 107-92-6

**Synonyms:** Butanoic Acid

$\text{C}_2\text{H}_5\text{CH}_2\text{COOH} = 88.11$

Density ..... about 0.96g/mL

R.I. .... about 1.399

Assay ..... 99.0% min.

U.N Number ..... 2820

ADG Class..... 8

Packing Group ..... III

**Maximum limit of impurities (%)**  
Water ..... 0.1

**Pack Size:** 500mL

**BUTYRIC ALDEHYDE** (see Butyraldehyde page 106)

**1330**

**g-BUTYROLACTONE, UNILAB**

**CAS** 96-48-0

$\text{C}_4\text{H}_6\text{O}_2 = 86.09$

Assay ..... 99.5% min.

Colour (APHA) ..... 30

**Maximum limit of impurities (%)**  
Free Acid ..... 0.1  
Water ..... 0.05

**Pack size:** 500mL

**2626**

**CADMIUM 1000ppm SINGLE ELEMENT ICP STANDARD, UNIPURE**



A 1000 ppm Cadmium standard, ready for use.

Cd in 0.5% Nitric acid.

U.N Number ..... 2922

ADG Class..... 8

Subidiary Risk ..... 6.1

Packing Group ..... III

**Traceable to NIST**



**Pack Size:** 100mL

2631

## CADMIUM NITRATE AAS STANDARD, SPECTROSOL



A 1000 ppm cadmium standard, ready for use. Each mL contains 1.00 +/- 0.005mg of Cd in 0.5% nitric acid.

U.N Number ..... 2922  
ADG Class ..... 8  
Subidiary Risk..... 6.1  
Packing Group ..... III



Traceable to NIST

Pack Size: 500mL

952

## CADMIUM ACETATE, UNILAB



CAS 543-90-8  
 $\text{Cd}(\text{CH}_3\text{COO})_2 \cdot 2\text{H}_2\text{O} = 266.52$   
Assay ..... 98.0% min.

U.N Number ..... 2570  
ADG Class..... 6.1  
Packing Group ..... III

**Maximum limit of impurities (%)**  
Cl ..... 0.01  
 $\text{SO}_4$  ..... 0.06  
Fe ..... 0.002

Pack Size: 500g

3365

## CADMIUM CARBONATE, UNILAB



CAS 513-78-0  
 $\text{CdCO}_3 = 172.4$   
Description: white-coloured amorphous powder  
Assay (Cd) ..... 62 - 66% min.

U.N Number ..... 2570  
ADG Class..... 6.1  
Packing Group ..... III

**Maximum limit of impurities (%)**  
Cl ..... 0.01  
 $\text{NO}_3$  ..... 0.1  
 $\text{SO}_4$  ..... 0.01  
K ..... 0.06

Pack size: 250g

837

## CADMIUM CHLORIDE, UNIVAR



CAS 10108-64-2  
 $\text{CdCl}_2 \cdot 2\frac{1}{2} \text{H}_2\text{O} = 228.35$   
Description: colourless, efflorescent crystals.  
Assay ..... 79.5 -81.0%

U.N Number ..... 2570  
ADG Class..... 6.1  
Packing Group ..... III

|                                                                |        |
|----------------------------------------------------------------|--------|
| <b>Maximum limit of impurities (%)</b>                         |        |
| Insoluble matter .....                                         | 0.005  |
| Nitrate & Nitrite(as $\text{NO}_3$ ) .....                     | 0.003  |
| $\text{SO}_4$ .....                                            | 0.005  |
| Subs.not ppt.by $\text{H}_2\text{S}$ (as $\text{SO}_4$ ) ..... | 0.2    |
| Cu .....                                                       | 0.0005 |
| Fe .....                                                       | 0.0005 |
| $\text{NH}_4$ .....                                            | 0.005  |
| Pb .....                                                       | 0.005  |
| Zn .....                                                       | 0.1    |

Conforms to ACS

Pack Size: 100g, 500g

7790

## CADMIUM IODIDE, UNIVAR



CAS 7790-80-9

CdI<sub>2</sub> = 366.22

Description: white, lustrous, flake-like crystals, becomes yellow on long exposure to air and light.

Assay ..... 99.0% min.

U.N Number ..... 2570

ADG Class..... 6.1

Packing Group ..... III

**Maximum limit of impurities (%)**

|                       |       |
|-----------------------|-------|
| Ca .....              | 0.01  |
| Fe .....              | 0.005 |
| SO <sub>4</sub> ..... | 0.005 |
| Cu .....              | 0.005 |

Pack size: 100g

## CADMIUM SULPHATE



CAS 7790-84-3

3CdSO<sub>4</sub>.8H<sub>2</sub>O = 769.52

U.N Number ..... 2570

ADG Class..... 6.1

Packing Group ..... III

825

## CADMIUM SULPHATE, UNIVAR

Description: white crystalline powder

Assay ..... 98.0% min.

**Maximum limit of impurities (%)**

|          |       |
|----------|-------|
| Ca ..... | 0.005 |
| Fe ..... | 0.001 |
| Pb ..... | 0.003 |
| Cl ..... | 0.001 |
| Zn ..... | 0.05  |

Pack size: 100g, 500g

956

## CADMIUM SULPHATE, UNILAB

Assay ..... 98.0% min.

**Maximum limit of impurities (%)**

|                       |       |
|-----------------------|-------|
| Cl .....              | 0.02  |
| NO <sub>3</sub> ..... | 0.005 |
| Fe .....              | 0.002 |

Pack Size: 500g



A n a l y t i c a l  
V o l u m e t r i c

UNIVOL® ready to use analytical volumetric solutions are standardised to specific concentrations normally used in laboratory analysis.

## CAESIUM CHLORIDE

CAS 7647-17-8

CsCl = 168.36

Description: white deliquescent crystals

957

## CAESIUM CHLORIDE, UNIVAR

Assay ..... 99.5% min.

**Maximum limit of impurities****(%)**

SO<sub>4</sub> ..... 0.005  
 Ba ..... 0.002  
 Ca ..... 0.002  
 Fe ..... 0.0005  
 K ..... 0.002  
 Mg ..... 0.0005

Na ..... 0.002  
 Pb ..... 0.0001  
 Rb ..... 0.005  
 Al ..... 0.0001  
 Li ..... 0.0002

Pack Size: 100g, 500g

958

## CAESIUM CHLORIDE, TECHNICAL

Pack Size: 1Kg

1584

## CAFFEINE, LABCHEM



CAS 58-08-2

C<sub>8</sub>H<sub>10</sub>O<sub>2</sub>N<sub>4</sub> = 194.19

Appearance: Fine white powder

M.P. .... 234-239°C

U.N Number ..... 1544

ADG Class ..... 6.1

Packing Group ..... III

Pack Size: 100g

3030

## CALCEIN, OP

CAS 1461-15-0

C<sub>30</sub>H<sub>26</sub>N<sub>2</sub>O<sub>13</sub> = 622.54

Description: Dark red coloured powder

Absorption maximum (in 1N NaOH) ..... 499nm

**Maximum limit of impurities****(%)**

L.O.D ..... 7

Pack size: 5g

## CALCIUM



CAS 7440-70-2

Ca = 40.08

U.N Number ..... 1401

ADG Class ..... 4.3

Packing Group ..... II

123

## CALCIUM, granules, dry, LABCHEM

Pack Size: 100g, 500g

2428

## CALCIUM, granular in liquid paraffin, LABCHEM

Pack Size: 100g

**2627**

### CALCIUM 1000ppm SINGLE ELEMENT ICP STANDARD, UNIPURE



A 1000 ppm Calcium standard, ready for use.  
Ca in 0.5% Nitric acid.

U.N Number ..... 3264  
ADG Class..... 8  
Packing Group ..... III

**Traceable to NIST**

**Pack Size:** 100mL

**2601**

### CALCIUM NITRATE AAS STANDARD, SPECTROSOL



A 1000 ppm calcium standard, ready for use, each mL contains 1.00mg +/- 0.005 mg of Ca in 0.5% nitric acid.

U.N Number ..... 3264  
ADG Class..... 8  
Packing Group ..... III

**Traceable to NIST**

**Pack Size:** 500mL

**733**

### CALCIUM ACETATE, dried, UNILAB

**CAS** 62-54-4

(CH<sub>3</sub>COO)<sub>2</sub>Ca = 158.17

Description: white powder; odourless or almost odourless. Hygroscopic. The product contains varying amounts of water.

Assay (anhydrous basis) ..... 99.0-100.5%

**Maximum limit of impurities (%)**

|                       |       |
|-----------------------|-------|
| Cl .....              | 0.05  |
| SO <sub>4</sub> ..... | 0.1   |
| F .....               | 0.005 |
| H.M (as Pb) .....     | 0.001 |
| Water .....           | 7.0   |

Chemical and physical parameters conform to FCC

**Pack Size:** 500g, 5kg

**2445**

### CALCIUM BROMIDE, UNILAB

**CAS** 7789-41-5

CaBr<sub>2</sub>. = 199.89

Assay (as CaBr<sub>2</sub>) ..... 80% min

**Maximum limit of impurities (%)**

|                                           |              |
|-------------------------------------------|--------------|
| Cl .....                                  | 0.5          |
| As .....                                  | 0.0003       |
| Fe .....                                  | 0.001        |
| H.M. (as Pb) .....                        | 0.001        |
| SO <sub>4</sub> .....                     | 0.01         |
| Ba .....                                  | To pass test |
| Bromate (BrO <sub>3</sub> ) .....         | To pass test |
| Matter not pptd by ammonium oxalate ..... | 0.5          |

Chemical and physical parameters conform to NF

**Pack Size:** 500g



**CALCIUM CARBONATE**

CAS 471-34-1

CaCO<sub>3</sub> = 100.09

Description: white powder.

**125****CALCIUM CARBONATE, UNIVAR**

Assay(dried basis) ..... 99% min.

| <i>Maximum limit of impurities</i> | <i>(%)</i> |
|------------------------------------|------------|
| Insol. (in dil. HCl) .....         | 0.01       |
| Cl.....                            | 0.001      |
| SO <sub>4</sub> .....              | 0.01       |
| K.....                             | 0.01       |
| Ba.....                            | 0.01       |
| Fe.....                            | 0.003      |
| Na .....                           | 0.1        |
| Sr .....                           | 0.1        |
| Mg.....                            | 0.02       |

**Pack Size:** 500g, 5kg, 20kg**126****CALCIUM CARBONATE, UNILAB**

Assay(after drying) ..... 98.5 - 100.5%

| <i>Maximum limit of impurities</i> | <i>(%)</i>   |
|------------------------------------|--------------|
| Insol (in acetic acid) .....       | 0.2          |
| Cl .....                           | 0.033        |
| SO <sub>4</sub> .....              | 0.25         |
| As .....                           | 0.0004       |
| Ba .....                           | To pass test |
| Fe .....                           | 0.020        |
| H.M. (as Pb) .....                 | 0.002        |
| Mg & alk. Metals .....             | 1.0          |
| L.O.D. @ 200°C .....               | 2.0%         |

Chemical and physical parameters conform to BP

**Pack Size:** 500g, 5kg**908****CALCIUM CARBONATE, LABCHEM**Assay ..... 98.0% min. |

| <i>Maximum limit of impurities</i> | <i>(%)</i> |
|------------------------------------|------------|
| Cl .....                           | 0.05       |
| H.M. (as Pb) .....                 | 0.01       |

**Pack Size:** 500g**CALCIUM CARBONATE** (see also marble chips page 239)

**CALCIUM CHLORIDE DIHYDRATE**

**CAS** 10035-04-8

CaCl<sub>2</sub>·2H<sub>2</sub>O = 147.02

Description: colourless deliquescent crystals or white crystalline powder.

**127**

**CALCIUM CHLORIDE DIHYDRATE, UNIVAR**

Assay ..... 99.0 - 103.0%

pH (5% soln. @25°C) ..... 4.5-8.5

**Maximum limit of impurities**

**(%)**

Insol. & NH<sub>4</sub>OH ppt. .... 0.01

Oxidising subs. (as NO<sub>3</sub>) ..... 0.003

SO<sub>4</sub> ..... 0.01

K ..... 0.01

Na ..... 0.01

Ba ..... 0.003

Fe ..... 0.0003

H.M.(as Pb) ..... 0.0005

Cu ..... 0.0005

Pb ..... 0.0005

Sr ..... 0.05

Mg ..... 0.005

NH<sub>4</sub> ..... 0.005

Conforms to ACS

**Pack Size:** 500g, 5kg, 25kg

**128**

**CALCIUM CHLORIDE DIHYDRATE, UNILAB**

Assay ..... 97.0 - 103.0%

**Maximum limit of impurities**

**(%)**

Clarity & colour of soln. .... To pass test

Acidity or alkalinity ..... 0.2

SO<sub>4</sub> ..... 0.03

Al ..... To pass test

Ba ..... To pass test

Fe ..... 0.001

H.M. (as Pb) ..... 0.002

Mg & alkali metals ..... 0.5

Chemical and physical parameters conform to BP

**Pack Size:** 500g, 5kg, 25kg

**960**

**CALCIUM CHLORIDE, dried, 1.5-2.5mm, UNILAB**

**CAS** 10043-52-4

CaCl<sub>2</sub> = 110.99

Assay ..... 94% min.

**Pack Size:** 500g, 5kg

**1672**

**CALCIUM CHLORIDE, fused lump, TECHNICAL**

**CAS** 10043-52-4

CaCl<sub>2</sub> = 110.99

Assay(as CaCl<sub>2</sub>) ..... about 93% min.

**Pack Size:** 1kg

909

**CALCIUM CHLORIDE 40% solution, UNIVAR**

CAS 10043-52-4

Description: clear liquid.

Assay ..... 40.0% w/w

Density (@25°C) ..... about 1.4g/mL

**Maximum limit of impurities****(%)**Insol. & NH<sub>4</sub>OH ppt. .... 0.01

Acidity or alkalinity ..... 0.02 mmol

Oxidising subs. (as NO<sub>3</sub>) ..... 0.002SO<sub>4</sub> ..... 0.006

Ba ..... 0.003

Fe ..... 0.0006

H.M. (as Pb) ..... 0.0003

H or OH, K ..... 0.01

Mg ..... 0.05

Na ..... 0.02

NH<sub>4</sub> ..... 0.003

Sr ..... 0.06

**Pack Size:** 2.5L, 20L

1555

**CALCIUM FLUORIDE, UNILAB**

CAS 7789-75-5

CaF<sub>2</sub> = 78.08

Assay ..... 99% min.

**Maximum limit of impurities****(%)**

Fe ..... 0.01

Pb ..... 0.01

As ..... 0.0005

Cl ..... 0.1

SO<sub>4</sub> ..... 0.005**Pack Size:** 500g

962

**CALCIUM GLUCONATE, TECHNICAL**

CAS 299-28-5

{CH<sub>2</sub>OH(CHOH)<sub>4</sub>COO}<sub>2</sub>Ca.H<sub>2</sub>O = 448.40**Pack Size:** 500g

3480

**CALCIUM GLUCONATE GEL, OP**

This is a temporary first aid treatment

**Pack Size:** 50g

963

**CALCIUM HYDROGEN ORTHOPHOSPHATE, UNILAB**

CAS 7789-77-7

CaHPO<sub>4</sub>.2H<sub>2</sub>O = 172.09

Assay ..... 99.0 - 103.0%

**Maximum limit of impurities****(%)**

Cl ..... 0.04

SO<sub>4</sub> ..... 0.06

Pb ..... 0.002

**Pack Size:** 500g, 5kg

**CALCIUM HYDROXIDE**

**CAS** 1305-62-0

**Synonyms:** Slaked Lime

Ca(OH)<sub>2</sub> = 74.10

Description: fine, white powder.

**124**

**CALCIUM HYDROXIDE, UNIVAR**

Assay ..... 96.0% min.

**Maximum limit of impurities (%)**

Insol. (in HCl)..... 0.03

Cl..... 0.005

Sulphate (SO<sub>4</sub>) ..... 0.05

Fe..... 0.05

Pb..... 0.0002

Mg ..... 0.6

Na ..... 0.05

CaCO<sub>3</sub> ..... 3

Sol matter in Amm Oxalate(as SO<sub>4</sub>) ..... 2.5

Zn ..... 0.0005

**Pack Size:** 500g, 5kg

**965**

**CALCIUM HYDROXIDE, UNILAB**

Assay ..... min 96%

**Maximum limit of impurities ..... (%)**

Cl ..... 0.033

SO<sub>4</sub>..... 0.4

As..... 0.0004

H.M. (as Pb) ..... 0.0020

Carbonates ..... 5.0

Matter insol in HCl ..... 0.5

Mg & alkali metals (as SO<sub>4</sub>) ..... 4.0

Chemical and physical parameters conform to BP

**Pack Size:** 1kg, 5kg, 25kg

**133**

**CALCIUM HYDROXIDE, TECHNICAL**

**Pack Size:** 3kg

**2376**

**CALCIUM LACTATE, UNILAB**

**CAS** 814-80-2

**Synonyms:** 2-Hydroxypropanoic Acid Calcium Salt

C<sub>6</sub>H<sub>10</sub>CaO<sub>6</sub>\* + aq (MW for anhydrous\*=218)

Description: white or almost white crystalline or granular powder; odourless or with a slight but not unpleasant odour. Slightly efflorescent.

L.O.D. (@ 120°C) ..... about 24%

Assay (after drying) ..... 98.0 - 101.0%

**Maximum limit of impurities (%)**

Cl ..... 0.005

SO<sub>4</sub> ..... 0.01

Fe ..... 0.002

H.M.(as Pb) ..... 0.002

Mg & alkali salts (as SO<sub>4</sub>) ..... 1.0

Acidity ..... To pass test

Vol Fatty Acids ..... To pass test

As ..... 0.0003

F ..... 0.0015

Pb ..... 0.001

Chemical and physical parameters conform to BP and USP

**Pack Size:** 500g

## CALCIUM NITRATE



**CAS** 13477-34-4  
 $\text{Ca}(\text{NO}_3)_2 \cdot 4\text{H}_2\text{O} = 236.15$   
 Description: colourless deliquescent crystals  
 or small white lumps.

U.N Number ..... 1454  
 ADG Class..... 5.1  
 Packing Group ..... III

135

## CALCIUM NITRATE, UNIVAR

Assay ..... 99.0 - 103.0%  
 pH (5% soln. @ 25°C) ..... 5.0-7.0

| <i>Maximum limit of impurities</i> |       | (%)                      |
|------------------------------------|-------|--------------------------|
| Insol. ....                        | 0.005 | K ..... 0.005            |
| Cl ..... 0.005                     |       | Mg ..... 0.05            |
| $\text{NO}_2$ ..... 0.001          |       | Na ..... 0.01            |
| Ba ..... 0.005                     |       | Sr ..... 0.05            |
| Fe ..... 0.0005                    |       | H.M.(as Pb) ..... 0.0005 |

Conforms to ACS

**Pack Size:** 500g, 5kg, 25kg

136

## CALCIUM NITRATE, UNILAB

Assay ..... 98.0% min.

| <i>Maximum limit of impurities</i> |  | (%) |
|------------------------------------|--|-----|
| Cl ..... 0.01                      |  |     |
| $\text{SO}_4$ ..... 0.02           |  |     |
| Fe ..... 0.001                     |  |     |
| H.M. (as Pb) ..... 0.001           |  |     |

**Pack Size:** 500g, 5kg

## CALCIUM OXIDE



**CAS** 1305-78-8  
**Synonyms:** Lime  
 $\text{CaO} = 56.08$

U.N Number ..... 1910  
 ADG Class..... 8  
 Packing Group ..... III

966

## CALCIUM OXIDE, lump, UNILAB

Assay ..... 95% min.

| <i>Maximum limit of impurities</i> |  | (%) |
|------------------------------------|--|-----|
| Insol. (in HCl) ..... 0.1          |  |     |

**Pack Size:** 1Kg

1350

**CALCIUM OXIDE, powder, UNILAB**

Assay ..... 96% min.

**Maximum limit of impurities (%)**

Insol. in HCl ..... 0.5  
L.O.I. .... 3.5  
Sol.matter in Am Oxalate (as SO<sub>4</sub>) ..... 2.5  
As..... 0.0003

Cu ..... 0.001  
Pb..... 0.001  
Zn..... 0.002

**Pack Size:** 500g, 5kg, 25kg

1277

**tri-CALCIUM PHOSPHATE, UNIVAR**

**CAS** 7758-87-4

Ca<sub>3</sub>O<sub>8</sub>P<sub>2</sub> = 310.2

Description: white, amorphous, odourless, tasteless powder

Assay (on dry basis) ..... 90.0% min.

**Maximum limit of impurities (%)**

Fe ..... 0.02  
H.M. (as Pb) ..... 0.005  
Cl ..... 0.05  
SO<sub>4</sub> ..... 0.1

**Pack size:** 1Kg

**CALCIUM PHOSPHATE, ACID OR MONOBASIC** (see Calcium tetrahydrogen, di-orthophosphate page 117)

**CALCIUM PHOSPHATE DIBASIC** (see Calcium hydrogen orthophosphate page 113)

**CALCIUM SULPHATE, for drying** (see Drierite page 163)

968

**CALCIUM SULPHATE, anhydrous, powder, LABCHEM**

**CAS** 7778-18-9

CaSO<sub>4</sub> = 136.14

Suitable for drying.

**Pack Size:** 500g

**COATASIL** Producing a water repellent  
surface  
at room temperature  
Enables complete delivery of liquids for volumetric or volume work  
Cat No. 2293 page 132

**CALCIUM SULPHATE, dihydrate****CAS** 10101-41-4**Synonyms:** GypsumCaSO<sub>4</sub>·2H<sub>2</sub>O = 172.17

Description: white crystalline powder.

**138****CALCIUM SULPHATE, dihydrate, UNIVAR**

Assay ..... 98.0 - 102.0%

**Maximum limit of impurities****(%)**

Insol. (in HCl) ..... 0.02

CO<sub>3</sub> ..... To pass test

Cl ..... 0.005

NO<sub>3</sub> ..... To pass test

Fe ..... 0.001

H.M. (as Pb) ..... 0.002

Mg ..... 0.02

K ..... 0.005

Na ..... 0.02

Sr ..... 0.05

Conforms to ACS

**Pack Size:** 500g, 5kg**139****CALCIUM SULPHATE, dihydrate, UNILAB**

Assay ..... 98.0% min.

**Maximum limit of impurities****(%)**CO<sub>3</sub> ..... 0.2

Cl ..... 0.03

Fe ..... 0.02

**Pack Size:** 500g**1522****CALCIUM TETRAHYDROGEN di-ORTHOPHOSPHATE, UNILAB****CAS** 7758-23-8**Synonyms:** Calcium Phosphate, acid or monobasicCa(H<sub>2</sub>PO<sub>4</sub>)<sub>2</sub> = 234.05

Assay ..... &gt;90% min.

**Maximum limit of impurities****(%)**

C ..... 0.002

SO<sub>4</sub> ..... 0.05

As ..... 0.0001

Fe ..... 0.015

H.M.(as Pb) ..... 0.001

LOD (140°C) ..... 1% max

**Pack Size:** 500g, 5kg**CALCON** (see Eriochrome blue-black R page 164)**3032****CALMAGITE, OP****CAS** 3147-14-6C<sub>17</sub>H<sub>14</sub>O<sub>5</sub>N<sub>2</sub>S = 358.38

Description: red-coloured crystalline powder

Dye content ..... about 60.0%

**Pack size:** 5g

140

**DL-CAMPBOR, Synthetic, UNILAB**

CAS 21368-68-3

 $C_{10}H_{16}O = 152.24$ 

Description: colourless, transparent crystals; crystalline masses, blocks of touch consistency or crumbly masses known as "flower of camphor" odour, penetrating and characteristic.

M.P. .... 174 181°C

Spec. rotn. .... -1.5 to +1.5°

**Maximum limit of impurities (%)**

Non-vol. .... 0.1

H<sub>2</sub>O .... To pass test

U.N Number ..... 2717

ADG Class..... 4.1

Packing Group ..... III

**Pack Size:** 500g

3185

**CANADA BALSAM, OP**

CAS 8007-47-4

Description: yellow-coloured transparent, sticky liquid of high viscosity

Density ..... 0.987 – 0.994

R.I (n<sub>20</sub>/D) ..... 1.52 – 1.54**Pack size:** 500g**CAPRIC ACID** (see Decanoic Acid page 145)**CAPRYL ALCOHOL** (see Octan-2-ol page 271)**CARBAMIDE** (see Urea page 410)

2696

**CARBAZOLE, LABCHEM**

CAS 86-74-8

 $C_{12}H_9N = 167.21$ 

Description: Beige-coloured crystalline powder

Assay ..... 95% min.

**Pack size:** 100g**CARBINOL** (see Methanol page 246)**CARBITOL** (see Ethyl digol page 171)

1822

**CARBOL FUCHSIN, DILUTE STAIN, LABCHEM**

Contains Basic Fuchsin 0.1%

**Pack Size:** 1L, 5L

3187

**CARBOL FUCHSIN, LABCHEM**

Stain for microscopy.

A mixture of basic fuchsin and phenol.

**Pack Size:** 5G

U.N Number ..... 2928

ADG Class... 6.1

Packing Group ..... II



**1821****CARBOL FUCHSIN STAIN, for Ziehl Neilson Stain, LABCHEM**

Basic Fuchsin 1%  
Phenol 5%  
Methanol 10%

U.N Number ..... 2821  
ADG Class..... 6.1  
Packing Group ..... II

**Pack Size:** 1L, 5L

**CARBOLIC ACID** (see Phenol page 284)

**CARBON, ACTIVATED** (see Charcoal, activated page 121)

**141****CARBON DISULPHIDE, UNIVAR**

**CAS** 75-15-0  
CS<sub>2</sub> = 76.13  
Assay ..... 99.9% min.  
Colour (APHA) ..... 10

U.N Number ..... 1131  
ADG Class ..... 3  
Secondary Risk ..... 6.1  
Packing Group ..... I



**Maximum limit of impurities (%)**  
H<sub>2</sub>S ..... To pass test  
SO<sub>2</sub> ..... To pass test  
R.A.E. .... 0.002  
H<sub>2</sub>O ..... 0.05

Conforms to ACS

**Pack size:** 2.5L

**CARBONYLDIAMIDE** (see Urea page 410)

**3188****CARMINE (CI 75470), UNILAB**

**CAS** 1390-65-4

Description: Dark reddish coarse powder

Solubility: Soluble in water and concentrated Sulphuric acid. Slightly soluble in ether, and practically insoluble in petroleum ether, benzene, and chloroform.

Colour change (1% aqueous solution): ..... Yellow in acid  
..... Red in alkali

**Maximum limit of impurities (%)**  
L.O.D ..... 3.0  
R.O.I ..... 5.0

**Pack size:** 25g

**1740****CATECHOL, UNILAB**

**CAS** 120-80-9  
**Synonyms:** 1,2-Dihydroxybenzene  
C<sub>6</sub>H<sub>4</sub>(OH)<sub>2</sub> = 110.11  
Description: Light Sensitive.

Assay (titration) ..... 99% min.  
M.P. .... 104 - 106°C

U.N Number ..... 2811  
ADG Class..... 6.1  
Packing Group ..... III

**Pack Size:** 100g

**CAUSTIC ANTIMONY** (see Antimony Trichloride page 78)

**CAUSTIC POTASH** (see Potassium Hydroxide page 306)

**CAUSTIC SODA** (see Sodium Hydroxide page 357)

**3190**

**CEDARWOOD OIL**, thick, for immersion lenses, LABCHEM

For immersion lenses.

**Pack Size:** 100mL

**3191**

**CELESTINE BLUE**, LABCHEM

**CAS** 1562-90-9

$C_{17}H_{18}ClN_3O_4 = 363.8$

Description: greenish-black powder

Dye content ..... 70.0% min.

**Pack size:** 25g

**CELLOSOLVE** (see 2-Ethoxyethanol page 168)

**CERIC AMMONIUM SALTS** (see Ammonium Cerium (IV) Salts page 62)

**974**

**CERIUM(III) NITRATE**, LABCHEM

**CAS** 10108-73-3

$Ce(NO_3)_3 \cdot 6H_2O = 434.23$

U.N Number ..... 1477

ADG Class ..... 5.1

Packing Group ..... II

**Pack Size:** 100g



**1288**

**CERIUM(III) SULPHATE**, LABCHEM

**CAS** 13454-94-9

$Ce_2(SO_4)_3 \cdot 8H_2O = 712.55$

**Pack Size:** 100g

**973**

**CERIUM(IV) SULPHATE**, UNIVAR

**CAS** 10294-42-5

$Ce(SO_4)_2 \cdot 4H_2O = 404.31$

Assay ..... 98% min.

**Maximum limit of impurities (%)**

Insol.in Dil. $H_2SO_4$  ..... 0.01

Cu ..... 0.001

Pb ..... 0.001

Fe ..... 0.001

Cl ..... 0.001

$PO_4$  ..... 0.01

**Pack Size:** 100g

2381

**CETRIMIDE, UNILAB**

CAS 8044-71-1

 $\text{CH}_3(\text{CH}_2)_n\text{N}(\text{CH}_3)_3\text{Br}$ : where  $n=13$ , mol.wt = 336.4Description: white to creamy-white, voluminous, free flowing powder; odour slight & characteristic. Consists chiefly of  $n=13$ , & small amounts  $n=11$  & 15Assay (as  $n=13$ ) ..... about 96.0%

| <i>Maximum limit of impurities</i> | <i>(%)</i>     |
|------------------------------------|----------------|
| Clarity and colour of soln. ....   | To pass test   |
| L.O.D. ....                        | 2.0            |
| Sulph. Ash ....                    | 0.5            |
| Acidity or alkalinity ....         | 1 mmol H or OH |
| Non-quaternary amines ....         | To pass test   |

Pack Size: 500g

145

**CETYLPYRIDINIUM CHLORIDE, UNILAB**

CAS 123-03-5

 $\text{CH}_3(\text{CH}_2)_{15}\text{C}_5\text{H}_5\text{NCl}\cdot\text{H}_2\text{O}$  = 358.01

Description: A white, unctuous powder.

Assay ..... 96.0 - 101.0%

Water ..... 4.5-5.5%

| <i>Maximum limit of impurities</i> | <i>(%)</i>   |
|------------------------------------|--------------|
| Sulph. Ash ....                    | 0.2          |
| Acidity ....                       | To pass test |
| Non-quaternary amines ....         | To pass test |
| Clarity & colour of sol. ....      | To pass test |

Pack Size: 100g

U.N Number ..... 2811

ADG Class..... 6.1

Packing Group ..... III

147

**CETYLTRIMETHYLAMMONIUM BROMIDE, UNILAB**

CAS 57-09-0

 $\text{CH}_3(\text{CH}_2)_{15}\text{N}(\text{CH}_3)_3\text{Br}$  = 364.46

Assay (ex.Br) ..... 98% min.

Pack Size: 100g, 500g, 5kg

976

**CHARCOAL, ACTIVATED, granular, TECHNICAL**

CAS 16291-96-6

**Synonyms:** Carbon activated

Used widely for removing chlorine from water (prior to ion exchange), decolourization of solvents etc. Particle size 87% greater than 1mm. Apparent density 260gm/L (varies)

| <i>Maximum limit of impurities</i> | <i>(%)</i> |
|------------------------------------|------------|
| Ash .....                          | 6          |

Pack Size: 500g, 3kg

U.N Number ..... 1362

ADG Class..... 4.2

Packing Group ..... III

977

**CHARCOAL, ACTIVATED**, Decolourising powder, TECHNICAL

CAS 16291-96-6

Description: High efficiency activated carbon.

U.N Number ..... 1362

ADG Class ..... 4.2

Packing Group ..... III

**Maximum limit of impurities (%)**

Iron ..... 0.1

Cl ..... 0.2

Ash ..... 4

H<sub>2</sub>O ..... 10**Pack Size:** 500g, 3kg, 20kg

3433

**CHES (2-[N-CYCLOHEXYLAMINO]ETHANESULPHONIC ACID)**, BIOLOGICAL BUFFER, UNIVAR

CAS 103-47-9

C<sub>8</sub>H<sub>17</sub>NO<sub>3</sub>S = 207.3

Description: White powder

Solubility (5% in H<sub>2</sub>O): Clear and complete

Assay ..... 99.0% min.

pKa ..... 9.3 – 9.7

**Maximum limit of impurities (%)**

Moisture ..... 1.0

**Pack size:** 100g, 1Kg**CHILE SALTPETRE** (see Sodium Nitrate page 363)**CHINA GREEN** (see Malachite Green page 233)

148

**CHLORAL HYDRATE**, UNILAB

CAS 302-17-0

**Synonyms:** 2,2,2-Trichloro-1,1-Ethandiol, Trichloroacetaldehyde HydrateCCl<sub>3</sub>CH(OH)<sub>2</sub> = 165.40

Description: colourless transparent crystals; odour, pungent.

Assay ..... 98.5 - 101.0%

Acidity (pH 10% soln) ..... 3.5 – 5.5

**Maximum limit of impurities (%)**

Clarity &amp; colour of soln. .... To pass test

Non-vol. .... 0.1

Chloral alcoholate ..... To pass test

Cl ..... 0.0100

H.M.(as Pb) ..... 0.002

Chemical and physical parameters conform to BP

**Pack Size:** 500g, 5kg

859

**CHLORAMINE T**, LABCHEM

CAS 127-65-1

**Synonyms:** Sodium toluene-p-sulphonchloroamideCH<sub>3</sub>C<sub>6</sub>H<sub>4</sub>SO<sub>2</sub>NCINa.3H<sub>2</sub>O = 281.69

Reagent for iodide.

Assay ..... 98 -103%

**Pack Size:** 500g, 5kg

650

## CHLOROACETIC ACID, UNIVAR



CAS 79-11-8

 $C_2H_3ClO_2 = 94.5$ 

Description: White crystalline powder

Assay ..... 99.0% min.

U.N Number ..... 1751

ADG Class ..... 6.1

Subsidiary Risk ..... 8

Packing Group ..... II

**Maximum limit of impurities****(%)**

Fe ..... 0.002

H.M (as Pb) ..... 0.001

Insoluble matter ..... 0.01

R.O.I ..... 0.02

Cl ..... 0.01

SO<sub>4</sub> ..... 0.02Substances darkened by H<sub>2</sub>SO<sub>4</sub> ..... To pass test**Pack size:** 100g

4625

## 4-CHLOROANILINE, UNILAB



CAS 106-47-8

 $C_6H_6ClN = 125.57$ 

Description: Black shining crystals

Assay ..... 98.0% min.

Melting Point ..... 68 - 72°C

U.N Number ..... 2018

ADG Class ..... 6.1

Packing Group ..... II

**Pack size:** 250g

## CHLORO-AURIC (III) ACID (see Gold Chloride, brown page 187)

1654

## p-CHLOROBENZALDEHYDE, UNILAB



CAS 104-88-1

 $C_7H_5ClO = 140.6$ 

Description: Off-white coloured, fine crystalline powder

Assay ..... 98.0% min.

U.N Number ..... 2810

ADG Class ..... 6.1

Packing Group ..... III

**Pack size:** 100g

151

## CHLOROBENZENE, UNILAB



CAS 108-90-7

**Synonyms:** Monochlorobenzene, Monochlorobenzol, Phenyl Chloride $C_6H_5Cl = 112.56$ 

Assay (GLC) ..... 99.5% min.

Colour (APHA) ..... 10 max.

U.N Number ..... 1134

ADG Class ..... 3

Packing Group ..... III

**Maximum limit of impurities****(%)**

Water ..... 0.01

**Pack Size:** 2.5L, 20L

116

## 1-CHLOROBUTANE, UNILAB



CAS 109-69-3

 $CH_3(CH_2)_3Cl = 92.57$ 

Density ..... about 0.88g/mL

R.I. .... about 1.401

Assay ..... 99% min.

U.N Number ..... 1127

ADG Class ..... 3

Packing Group ..... II

**Pack Size:** 500mL

3470

**1-CHLOROBUTANE (n-Butyl Chloride), HPLC & GC, BURDICK & JACKSON, CAT. 034**

CAS 109-69-3

Assay ..... 99.5%

U.N Number ..... 1127

ADG Class..... 3

Packing Group ..... II

**Maximum limit of impurities (%)**

Water ..... 0.02

Residue ..... 1mg/L

**Max. UV. Absorbance:**

| $\lambda$ (nm) | 220   | 225   | 250   | 300   | 400   |
|----------------|-------|-------|-------|-------|-------|
| Absorbance     | 1.000 | 0.070 | 0.040 | 0.005 | 0.005 |

Pack Size: 1L, 4L

2348

**4-CHLORO-m-CRESOL, LABCHEM**

CAS 59-50-7

**Synonyms:** 4-Chloro-3-methylphenol $C_6H_4Cl(CH_3)OH = 142.59$ 

M.P.(diamorphous) ..... 55.5° and 66°C

U.N Number ..... 2669

ADG Class..... 6.1

Packing Group ..... II

Pack Size: 250g, 5kg

978

**1-CHLORO-2,4-DINITROBENZENE, UNIVAR**

CAS 97-00-7

 $C_6H_3ClN_2O_4 = 202.55$ 

Description: Yellow crystals

Assay ..... 99.0% min.

U.N Number ..... 1577

ADG Class..... 6.1

Packing Group ..... II

**Maximum limit of impurities (%)**

Sulphated ash ..... 0.02

Pack size: 100g

**CHLOROFORM**

CAS 67-66-3

**Synonyms:** Trichloromethane $CHCl_3 = 119.38$ 

Description: clear liquid with a characteristic odour

Density @ 25°C ..... about 1.472g/mL

U.N Number ..... 1888

ADG Class..... 6.1

Packing Group ..... III

3454

**CHLOROFORM, PESTICIDE GRADE, BURDICK & JACKSON, CAT. 049**

High purity solvent for pesticide residue analysis &amp; gas chromatography.

Assay ..... 99.9% min.

**Maximum limit of impurities (%)**

E.C (GC) ..... 10ng/L

Water ..... 0.02

Residue ..... 1mg/L

**Max. UV. Absorbance:**

| $\lambda$ (nm) | 245   | 250   | 275   | 300   | 400   |
|----------------|-------|-------|-------|-------|-------|
| Absorbance     | 1.000 | 0.070 | 0.040 | 0.005 | 0.005 |

Pack Size: 4L

2318

**CHLOROFORM, UNICHROM**

CHCl<sub>3</sub> = 119.38  
 Stabilized with about 0.005% amylene. Specially purified for HPLC.  
 Filtered through 0.45 um filter  
 Assay (GLC) ..... 99.5% min.  
 R.I. .... 1.446

**Maximum limit of impurities (%)**  
 Non-vol. .... 0.001  
 Acidity(as HCl) ..... 0.001  
 H<sub>2</sub>O (by K.F.) ..... 0.05

**UV Absorbance:**

|           |     |      |      |
|-----------|-----|------|------|
| λ(nm)     | 245 | 254  | 280  |
| Max. abs. | 1.0 | 0.25 | 0.02 |

**Pack Size:** 2.5L

810

**CHLOROFORM, SPECTROSOL**

For U.V. spectroscopy.  
 Density @25°C ..... about 1.472g/mL  
 Assay ..... 99.8% min.  
 Colour (APHA) ..... 10 max.

| <b>Maximum limit of impurities (%)</b>   |                                                                     |
|------------------------------------------|---------------------------------------------------------------------|
| R.A.E. .... 0.001                        | Acetone & aldehydes ..... 0.005                                     |
| Acid & Cl ..... To pass test             | (as (CH <sub>3</sub> ) <sub>2</sub> CO)                             |
| Free chlorine (as Cl) ..... To pass test | Subs. darkened by H <sub>2</sub> SO <sub>4</sub> ..... To pass test |
| Pb ..... 0.000005                        | Suitability for dithizone test ..... To pass test                   |

**U.V. Absorbance:**

|           |      |      |      |      |         |
|-----------|------|------|------|------|---------|
| λ(nm)     | 245  | 255  | 260  | 270  | 290-400 |
| Max. abs. | 1.00 | 0.25 | 0.15 | 0.05 | 0.01    |

Conforms to ACS

**Pack Size:** 2.5L

3512

**CHLOROFORM AMYLENE PRESERVATIVE, HPLC GRADE, BURDICK & JACKSON, CAT. AH049**

Assay ..... 99.9% min.

**Maximum limit of impurities (%)**  
 Water ..... 0.02  
 Residue ..... 3mg/L

**Max. UV. Absorbance:**

|            |       |       |       |       |        |
|------------|-------|-------|-------|-------|--------|
| λ(nm)      | 245   | 250   | 275   | 300   | 400    |
| Absorbance | 1.000 | 0.330 | 0.020 | 0.005 | 0.005. |

**Pack Size:** 4L

152

**CHLOROFORM, UNIVAR**

Assay ..... 99.8% min.  
 Colour (APHA) ..... 10 max.

**Maximum limit of impurities****(%)**

|                                                                |              |          |          |
|----------------------------------------------------------------|--------------|----------|----------|
| R.A.E. ....                                                    | 0.001        | K .....  | 0.00001  |
| Acetone & aldehyde as (CH <sub>3</sub> ) <sub>2</sub> CO ..... | 0.005        | Cd ..... | 0.000005 |
| Acid & chloride .....                                          | To pass test | Pb ..... | 0.000005 |
| Free chloride (Cl) .....                                       | To pass test | Mn ..... | 0.000002 |
| Subs. darkened by H <sub>2</sub> SO <sub>4</sub> .....         | To pass test | Ni ..... | 0.000002 |
| Suitability for dithizone test .....                           | To pass test | Sr ..... | 0.000002 |
| Al .....                                                       | 0.00005      | Cr ..... | 0.000002 |
| Na .....                                                       | 0.00005      | Co ..... | 0.000002 |
| Ba .....                                                       | 0.00001      | Cu ..... | 0.000002 |
| Ca .....                                                       | 0.00001      | Mo ..... | 0.000001 |
| Fe .....                                                       | 0.00001      | As ..... | 0.000001 |
| Mg .....                                                       | 0.00001      | Zn ..... | 0.0001   |

Conforms to ACS

**Pack Size:** 500mL, 2.5L, 10L, 20L, 200L

153

**CHLOROFORM, UNILAB**

Description: colourless, volatile liquid; odour, characteristic.  
 B.R.(95%) ..... 60 – 62°C  
 Density (@20°C) ..... 1.474 – 1.479 g/mL

**Maximum limit of impurities****(%)**

|                                  |              |
|----------------------------------|--------------|
| Non-volatile matter .....        | 0.003%       |
| Acidity or alkalinity .....      | To pass test |
| Aldehydes .....                  | To pass test |
| Related substances (total) ..... | To pass test |
| Free chlorine .....              | To pass test |
| Foreign chlorine comps. ....     | To pass test |
| Chloride .....                   | To pass test |
| Ethanol .....                    | 1-2%         |

Chemical and physical parameters conform to BP

**Pack Size:** 500mL, 2.5L, 20L, 290kg

**4-CHLORO-3-METHYLPHENOL** (see 4-Chloro-m-Cresol page 124)

118

**2-CHLORO-2-METHYLPROPANE, UNILAB**

CAS 507-20-0  
**Synonyms:** Tert-Butyl Chloride  
 (CH<sub>3</sub>)<sub>3</sub>CCl = 92.57  
 Density ..... about 0.84 g/mL  
 R.I. .... about 1.385  
 Assay (GC) ..... 99% min.

U.N Number ..... 1127  
 ADG Class..... 3  
 Packing Group ..... II

**Pack Size:** 500mL

3158

**CHLOROPHENOL RED, LABCHEM**

CAS 4430-20-0  
 C<sub>19</sub>H<sub>12</sub>Cl<sub>2</sub>O<sub>5</sub>S = 423.3  
 pH range ..... 4.8 (yellow) – 6.4 (red)  
 L.O.D ..... 8.0%

**Pack size:** 25g



740

**CHLOROPLATINIC ACID, UNIVAR**

CAS 16941-12-1

Synonyms: Platinic Chloride

 $\text{H}_2\text{PtCl}_6 \cdot 6\text{H}_2\text{O} = 517.90$ 

Reagent for potassium.

Assay (as Pt) ..... 37.50% min.

U.N Number ..... 2507

ADG Class..... 8

Packing Group ..... III

**Maximum limit of impurities (%)**  
 Alkalis & other salts (as  $\text{SO}_4$ ) ..... 0.05  
 Solubility (in alcohol) ..... To pass test

Pack Size: 1g

**CHLOROTRIMETHYLSILANE** (see Trimethylchlorosilane page 405)

1729

**CHOLESTEROL, LABCHEM**

CAS 57-88-5

 $\text{C}_{27}\text{H}_{46}\text{O} = 386.67$ 

Assay ..... 95% min.

Pack Size: 100g, 1kg

3039

**CHOLINE CHLORIDE, UNIVAR**

CAS 67-48-1

 $\text{C}_5\text{H}_{14}\text{ClNO} = 139.6$ 

Appearance: white crystalline powder

Assay ..... 99.0%

**Maximum limit of impurities (%)**  
 Fe ..... 0.0005  
 H.M (as Pb) ..... 0.0005  
 $\text{SO}_4$  ..... 0.005  
 Cd ..... 0.0005

Pack size: 100g

**CHROMIC ACID** (see Chromium Trioxide page 129)**CHROME ALUM** (see Chromium Potassium Sulphate page 129)**CHROMIC ACID GLASSWARE CLEANING SOLUTION** (see Glassware Cleaning solution page 182)**CHROMIC ANHYDRIDE** (see Chromium Trioxide page 129)

2630

**CHROMIUM 1000ppm SINGLE ELEMENT ICP STANDARD, UNIPURE**



A 1000 ppm Chromium standard, ready for use.  
Cr in 0.5% Nitric acid.

U.N Number ..... 3264  
ADG Class ..... 8  
Packing Group ..... III

**Traceable to NIST**

**Pack Size:** 100mL

2632

**CHROMIUM(III) NITRATE AAS STANDARD, SPECTROSOL**



A 1000 ppm chromium standard, ready for use.  
Each mL contains 1.00 +/-0.005mg of Cr in 0.5% nitric acid.

U.N Number ..... 3264  
ADG Class..... 8  
Packing Group ..... III

**Traceable to NIST**

**Pack Size:** 500mL

**CHROMIUM(III) CHLORIDE**

**CAS** 10060-12-5  
 $\text{CrCl}_3 \cdot 6\text{H}_2\text{O} = 266.45$   
Description: dark green deliquescent crystals.

826

**CHROMIUM(III) CHLORIDE, UNIVAR**

Assay ..... 97.0% min.  
pH (5% soln) ..... 2.9 min.

**Maximum limit of impurities (%)**  
Insol. .... 0.003  
 $\text{SO}_4$  ..... 0.03  
Al ..... 0.025  
Ca ..... 0.005

Fe ..... 0.005  
K ..... 0.005  
 $\text{NH}_4$  ..... 0.01  
Na ..... 0.02

**Pack Size:** 100g, 500g, 5kg

981

**CHROMIUM(III) CHLORIDE, UNILAB**

Assay ..... 96% min.

**Maximum limit of impurities (%)**  
 $\text{SO}_4$  ..... 0.05  
Fe ..... 0.03

**Pack Size:** 500g

2478

**CHROMIUM(III) NITRATE, UNILAB**



**CAS** 7789-02-8  
 $\text{Cr}(\text{NO}_3)_3 \cdot 9\text{H}_2\text{O} = 400.15$   
Assay ..... 96% min.

U.N Number ..... 2720  
ADG Class..... 5.1  
Packing Group ..... III

**Maximum limit of impurities (%)**  
Cl ..... 0.003  
 $\text{SO}_4$  ..... 0.03  
Fe ..... 0.1  
 $\text{NH}_4$  ..... 0.005

Low melting substance. Store below 25°C

**Pack Size:** 250g

156

## CHROMIUM(III) POTASSIUM SULPHATE, UNILAB

CAS 7788-99-0

Synonyms: Chrome Alum

 $\text{CrK}(\text{SO}_4)_2 \cdot 12\text{H}_2\text{O} = 499.39$ 

Assay ..... 98.0% min.

| <i>Maximum limit of impurities</i> | <i>(%)</i> |
|------------------------------------|------------|
| Cl .....                           | 0.005      |
| Fe .....                           | 0.03       |
| $\text{NH}_4$ .....                | 0.1        |
| H.M.(as Pb) .....                  | 0.01       |

Pack Size: 500g, 25kg



## CHROMIUM TRIOXIDE

CAS 1333-82-0

Synonyms: Chromic Acid, Chromic Anhydride

 $\text{CrO}_3 = 99.99$ 

Description: dark red crystals or flakes; deliquescent.

U.N Number ..... 1463

ADG Class..... 5.1

Subsidiary Risk ..... 8

Packing Group ..... II

157

## CHROMIUM TRIOXIDE, UNIVAR

Assay ..... 98.0% min.

| <i>Maximum limit of impurities</i> | <i>(%)</i> |               |
|------------------------------------|------------|---------------|
| Insol. ....                        | 0.01       | Al ..... 0.03 |
| Cl .....                           | 0.005      | Ba ..... 0.03 |
| $\text{NO}_3$ .....                | 0.05       | Fe ..... 0.03 |
| $\text{SO}_4$ .....                | 0.005      | Na ..... 0.2  |

Pack Size: 500g, 5kg

158

## CHROMIUM TRIOXIDE, UNILAB

Assay ..... 98.0% min.

| <i>Maximum limit of impurities</i> | <i>(%)</i> |
|------------------------------------|------------|
| $\text{SO}_4$ .....                | 0.1        |
| Fe .....                           | 0.05       |
| Na .....                           | 0.3        |

Pack Size: 500g

1333

## CHROMIUM TRIOXIDE, TECHNICAL

Pack Size: 500g

**3193 CHROMOTROPE 2R (C.I. 16570), LABCHEM**

**CAS** 4197-07-3  
 $C_{16}H_{10}N_2Na_2O_8S_2 = 468.4$   
 Appearance: Dark brown, coarse powder  
 Dye content ..... 85.0% min.  
 Absorption maximum ..... 530 – 510nm

**Pack size:** 25g

**982 CHROMOTROPIC ACID SODIUM SALT, LABCHEM**

**CAS** 129-96-4  
**Synonyms:** 1,8-Dihydroxynaphthalene-3,6-disulphonic Acid, Na  
 $C_{10}H_7NaO_8S_2 = 342.27$   
 Reagent for formaldehyde.  
 Sensitivity to HCHO 1 in 50000 minimum  
 Appearance: Grey-brown crystals.  
 Assay (titration) ..... about 60%.

**Pack Size:** 25g

**983 CINEOLE, UNILAB**



**CAS** 470-82-6  
**Synonyms:** Eucalyptol  
 $C_{10}H_{18}O = 154.25$   
 Suitable for o-cresol determination.  
 Density ..... about 0.92g/mL  
 R.I. .... 1.457-1.459  
 Assay ..... 98% min.  
 Freezing Point ..... 0 – 1.5°C

U.N Number ..... 1993  
 ADG Class..... 3  
 Packing Group ..... III

**Maximum limit of impurities (%)**  
 Aldehydes ..... To pass test  
 Phellandrene ..... To pass test

**Pack Size:** 100mL

**984 CINNAMALDEHYDE, UNILAB**

**CAS** 104-55-2  
 $C_9H_8O = 132.16$   
 Appearance: Yellowish oily liquid having strong odour of cinnamon  
 Assay ..... 98.% min.

**Pack size:** 500mL

**985 CINNAMIC ACID, UNILAB**

**CAS** 621-82-9  
 $C_6H_5CH:CHCOOH = 148.16$   
 Assay ..... 98.5% min.  
 M.P. .... 132-136°C

**Maximum limit of impurities (%)**  
 Sulph. Ash ..... 0.05

**Pack Size:** 500g

## CITRIC ACID

CAS 5949-29-1

 $\text{HOC}(\text{COOH})(\text{CH}_2\text{COOH})_2 \cdot \text{H}_2\text{O} = 210.14$ 

Description: colourless crystals.

160

## CITRIC ACID, Monohydrate, UNIVAR

Assay ..... 99.0 - 102.0%

**Maximum limit of impurities****(%)**

Insol. .... 0.005

R.A.I. .... 0.02

 $\text{C}_2\text{O}_4$  .... 0.05

Cl ..... 0.001

 $\text{PO}_4$  ..... 0.001 $\text{SO}_4$  ..... 0.002

Fe ..... 0.0003

Pb ..... 0.0002

Subs. carb. by hot  $\text{H}_2\text{SO}_4$  ..... To pass test

Conforms to ACS

Pack Size: 500g, 1kg, 5kg, 25kg

162

## CITRIC ACID, Monohydrate, UNILAB

Assay ..... 99.5 - 100.5%

 $\text{H}_2\text{O}$  ..... 7.5 - 9.0%**Maximum limit of impurities****(%)**

Sulph. Ash ..... 0.1

H.M. (as Pb) ..... 0.0010

 $\text{SO}_4$  ..... 0.0150 $\text{C}_2\text{O}_4\text{H}_2$  ..... 0.0360

Readily carb. subs. .... To pass test

Appearance of Solution ..... To pass test

Chemical and physical parameters conform to BP

Pack Size: 500g, 5kg, 25kg

161

## CITRIC ACID, Monohydrate, low in Lead, UNIVAR

Assay ..... 99.0 - 102.0%

**Maximum limit of impurities****(%)**

Insol. .... 0.005

R.A.I. .... 0.02

 $\text{C}_2\text{O}_4$  .... 0.05

Cl ..... 0.001

 $\text{PO}_4$  ..... 0.001 $\text{SO}_4$  ..... 0.002

Fe ..... 0.0003

Pb ..... 0.00005

Subs. carb. by hot  $\text{H}_2\text{SO}_4$  ..... To pass test

Conforms to ACS

Pack Size: 500g

911

## CITRIC ACID, Monohydrate, LABCHEM

Assay ..... 98.0% min.

 $\text{H}_2\text{O}$  ..... 9.0% max.**Maximum limit of impurities****(%)**

H.M. (as Pb) ..... 0.01

Pack Size: 500g

5890

**L-CITRULLINE, UNILAB**

CAS 372-75-8

 $C_6H_{13}N_3O_3 = 175.19$ 

Appearance: White crystalline powder

Assay ..... 99.% min.

**Maximum limit of impurities** (%)

L.O.D ..... 0.3

**Pack size:** 25g

3194

**CLOVE OIL, OP**

CAS 8000-34-8

Appearance: Colourless to pale yellow liquid

Density ..... 1.04g/mL

**Pack size:** 100g

2293

**COATASIL, glass treatment solution, LABCHEM****Synonyms:** Silicone Glass Treatment Solution

2% W/W Dimethyldichlorosilane in 1,1-Dichloro-1-fluoroethane

U.N Number ..... 3082

ADG Class..... 9

Packing Group ..... III

**Pack Size:** 500mL

2666

**COBALT 1000ppm SINGLE ELEMENT ICP STANDARD, UNIPURE**

A 1000 ppm Cobalt standard, ready for use.

Co in 0.5% Nitric acid.

U.N Number ..... 3264

ADG Class..... 8

Packing Group ..... III

**Traceable to NIST****Pack Size:** 100mL

2633

**COBALT(II) NITRATE AAS STANDARD, SPECTROSOL**

A 1000 ppm cobalt standard, ready for use. Each mL contains 1.00 +/-0.005mg of Co in 0.5% nitric acid.

Cobalt content ..... 995 - 1005mg/L

U.N Number ..... 3264

ADG Class..... 8

Packing Group ..... III

**Traceable to NIST****Pack Size:** 500mL

1334

**COBALT(II) ACETATE, TECHNICAL**

CAS 6147-53-1

 $(CH_3COO)_2Co.4H_2O = 249.09$ 

Assay ..... 97% min.

**Pack Size:** 500g

**COBALT(II) CHLORIDE**

CAS 7791-13-1

 $\text{CoCl}_2 \cdot 6\text{H}_2\text{O} = 237.93$ 

Description: dark red crystals or crystalline powder.

U.N Number ..... 3288

ADG Class..... 6.1

Packing Group ..... III

**986****COBALT(II) CHLORIDE, UNIVAR**

Assay ..... 98.0 - 102.0%

**Maximum limit of impurities****(%)**

Insol. .... 0.01  
 $\text{NO}_3$  ..... 0.01  
 $\text{SO}_4$  ..... 0.005  
 $\text{NH}_4$  ..... 0.005  
Ca ..... 0.005  
Cu ..... 0.002

Fe ..... 0.001  
Mg ..... 0.005  
K ..... 0.01  
Ni ..... 0.1  
Na ..... 0.05  
Zn ..... 0.001

Conforms to ACS

**Pack Size:** 100g, 500g**163****COBALT(II) CHLORIDE, UNILAB**

Assay ..... 95% min.

**Maximum limit of impurities****(%)**

Fe ..... 0.025  
Ni ..... 0.12  
Pb ..... 0.005  
Mg ..... 0.008  
Mn ..... 0.055

**Pack Size:** 100g, 500g, 5kg**1335****COBALT(II) CHLORIDE, TECHNICAL****Pack Size:** 500g**COBALT(II) NITRATE**

CAS 10141-05-6

 $\text{Co}(\text{NO}_3)_2 \cdot 6\text{H}_2\text{O} = 291.03$ 

Description: red deliquescent crystals.

U.N Number ..... 1477

ADG Class..... 5.1

Packing Group ..... II

**164****COBALT(II) NITRATE, UNIVAR**

Assay ..... 98.0 - 102.0%

**Maximum limit of impurities****(%)**

Insol. .... 0.01  
Cl ..... 0.002  
 $\text{SO}_4$  ..... 0.005  
Cu ..... 0.002  
Pb ..... 0.002  
Fe ..... 0.001  
 $\text{NH}_4$  ..... 0.2

Ni ..... 0.15  
Ca ..... 0.005  
Mn ..... 0.005  
Na ..... 0.05  
K ..... 0.01  
Mg ..... 0.005  
Zn ..... 0.01

Conforms to ACS

**Pack Size:** 100g, 500g

165

**COBALT (II) NITRATE, UNILAB**

Assay ..... 96.0% min.

**Maximum limit of impurities (%)**

|                       |      |
|-----------------------|------|
| Cl .....              | 0.01 |
| SO <sub>4</sub> ..... | 0.03 |
| Fe .....              | 0.01 |
| Ni .....              | 0.3  |

**Pack Size:** 100g**COBALTOUS COMPOUNDS** (see Cobalt (II) compounds page 132)**COBALT (II) SULPHATE****CAS** 10124-43-3CoSO<sub>4</sub>·7H<sub>2</sub>O = 281.10

Description: red crystals or crystalline powder.

988

**COBALT (II) SULPHATE, UNIVAR**

Assay ..... 99.0% min.

pH (5% Soln.) ..... 3.0 min

**Maximum limit of impurities (%)**

|                     |        |          |       |
|---------------------|--------|----------|-------|
| Insol. ....         | 0.003  | K .....  | 0.005 |
| Cl .....            | 0.001  | Mg ..... | 0.01  |
| N cpds (as N) ..... | 0.002  | Na ..... | 0.01  |
| Ca .....            | 0.005  | Ni ..... | 0.005 |
| Cu .....            | 0.001  | Pb ..... | 0.001 |
| Fe .....            | 0.0005 | Zn ..... | 0.005 |

**Pack Size:** 100g, 1kg, 3kg

1336

**COBALT (II) SULPHATE, UNILAB**

Assay ..... 99% min.

**Maximum limit of impurities (%)**

|          |       |
|----------|-------|
| Cl ..... | 0.05  |
| Fe ..... | 0.005 |
| Ni ..... | 0.1   |
| Pb ..... | 0.005 |
| Zn ..... | 0.01  |

**Pack Size:** 500g

2353

**CONGO RED (CI 22120), LABCHEM****CAS** 573-58-0**Synonyms:** Direct Red 28C<sub>32</sub>H<sub>22</sub>N<sub>6</sub>Na<sub>2</sub>O<sub>6</sub>S<sub>2</sub> = 696.68

Adsorption &amp; pH indicator.

**Pack Size:** 25g



3195

**COOMASSIE BRILLIANT BLUE R250 (CI 42660), OP**

CAS 6104-59-2

**Synonyms:** Brilliant Blue R, Acid Blue 83

Stain for microscopy. Can be used as a protein stain in electrophoresis.

**Pack Size:** 25g**COPPER**

CAS 7440-50-8

Cu = 63.54

3041

**COPPER, foil, UNIVAR**

Description: bright reddish metal. 0.1 mm thick.

Assay ..... 99.8% min.

| <i>Maximum limit of impurities</i> | <i>(%)</i> |
|------------------------------------|------------|
| As .....                           | 0.0002     |
| Pb .....                           | 0.05       |
| Fe .....                           | 0.005      |
| Mn .....                           | 0.005      |
| Sb .....                           | 0.005      |
| Sn .....                           | 0.005      |

**Pack Size:** 250g

1588

**COPPER, foil, about 0.13mm thick, TECHNICAL****Pack Size:** 500g

1738

**COPPER, turnings, TECHNICAL****Pack Size:** 500g

2636

**COPPER 1000ppm SINGLE ELEMENT ICP STANDARD, UNIPURE**A 1000 ppm Copper standard, ready for use.  
Cu in 0.5% Nitric acid.**Traceable to NIST****Pack Size:** 100mLU.N Number ..... 3264  
ADG Class ..... 8  
Packing Group ..... III

2602

**COPPER(II) NITRATE AAS STANDARD, SPECTROSOL**A 1000 ppm copper standard, ready for use, each mL contains 1.00 mg +/-  
0.005mg of Cu in 0.5% nitric acid.**Traceable to NIST****Pack Size:** 500mLU.N Number ..... 3264  
ADG Class..... 8  
Packing Group ..... III

**COPPER(II) ACETATE**

CAS 142-71-2

**Synonyms:** Cupric Acetate(CH<sub>3</sub>COO)<sub>2</sub>Cu.H<sub>2</sub>O = 199.65

Description: dark green transparent crystals, or crystalline powder.

**860****COPPER(II) ACETATE, UNIVAR**

Assay ..... 98.0 - 102.0%

| <i>Maximum limit of impurities</i>                                   | <i>(%)</i> |
|----------------------------------------------------------------------|------------|
| Insol. ....                                                          | 0.01       |
| Cl .....                                                             | 0.003      |
| SO <sub>4</sub> .....                                                | 0.01       |
| Subs. not pptd. by H <sub>2</sub> S(as SO <sub>4</sub> ) .....       | 0.2        |
| Fe .....                                                             | 0.002      |
| (NH <sub>4</sub> ) <sub>2</sub> S metals other than Fe (as Ni) ..... | 0.001      |

**Pack Size:** 500g**999****COPPER(II) ACETATE, UNILAB**

Assay ..... 98.5% min.

| <i>Maximum limit of impurities</i> | <i>(%)</i> |
|------------------------------------|------------|
| Cl .....                           | 0.01       |
| SO <sub>4</sub> .....              | 0.04       |
| Fe .....                           | 0.01       |

**Pack Size:** 500g**1003****COPPER(II) CARBONATE BASIC, UNILAB**

CAS 12069-69-1

**Synonyms:** Cupric Carbonate basic, Copper(II) Hydroxide CarbonateApprox. CuCO<sub>3</sub>.Cu(OH)<sub>2</sub>.H<sub>2</sub>O

Assay(as Cu) ..... 54 - 57%

| <i>Maximum limit of impurities</i> | <i>(%)</i> |              |
|------------------------------------|------------|--------------|
| Cl .....                           | 0.01       | Na. .... 0.5 |
| SO <sub>4</sub> .....              | 0.05       | Zn.....0.05  |
| Fe .....                           | 0.02       | Ni ..... 0.1 |
| Pb .....                           | 0.005      |              |

**Pack Size:** 100g, 500g**173****COPPER(I) CHLORIDE, UNILAB**

CAS 7758-89-6

**Synonyms:** Cuprous Chloride

CuCl = 99.00

Assay ..... 97.0% min.

| <i>Maximum limit of impurities</i> | <i>(%)</i> |
|------------------------------------|------------|
| SO <sub>4</sub> .....              | 0.2        |
| Fe .....                           | 0.05       |

**Pack Size:** 500g

U.N Number ..... 2802

ADG Class..... 8

Packing Group ..... III



**COPPER (II) CHLORIDE**

CAS 10125-13-0

**Synonyms:** Cupric ChlorideCuCl<sub>2</sub>·2H<sub>2</sub>O = 170.48

Description: bluish-green moist crystals.

U.N Number ..... 2802

ADG Class..... 8

Packing Group ..... III

**168****COPPER(II) CHLORIDE, UNIVAR**

Assay ..... 99% min.

pH (5% Soln.) ..... 3.0 – 3.8

**Maximum limit of impurities (%)**SO<sub>4</sub> ..... 0.005

As ..... 0.0001

Ca ..... 0.002

Fe ..... 0.001

K ..... 0.002

Mg ..... 0.002

Na ..... 0.002

Ni ..... 0.005

Pb ..... 0.004

Total N ..... 0.004

**Pack Size:** 500g**169****COPPER(II) CHLORIDE, UNILAB**

Assay ..... 98% min.

**Maximum limit of impurities (%)**SO<sub>4</sub> ..... 0.03

Fe ..... 0.005

As ..... 0.0005

K ..... 0.01

Ca ..... 0.01

Mg ..... 0.01

Na ..... 0.01

NO<sub>3</sub> ..... 0.015**Pack Size:** 500g**1004****COPPER(II) CHLORIDE, TECHNICAL**

Total copper (approx) ..... 35 - 37%

pH (5% Soln.) ..... 3-4

**Pack Size:** 500g**1009****COPPER(I) CYANIDE, UNILAB**

CAS 544-92-3

**Synonyms:** Cuprous Cyanide

CuCN = 89.56

Assay ..... 95% min.

U.N Number ..... 1587

ADG Class..... 6.1

Packing Group ..... II

**Maximum limit of impurities (%)**SO<sub>4</sub> ..... 0.1**Pack Size:** 500g**COPPER(II) HYDROXIDE CARBONATE** (see Copper (II) Carbonate, basic page 136)

683

**COPPER(I) IODIDE, LABCHEM**

CAS 7681-65-4

**Synonyms:** Cuprous Iodide

CuI = 190.45

Assay ..... 98% min.

**Maximum limit of impurities (%)**SO<sub>4</sub> ..... 0.1**Pack Size:** 100g**COPPER(II) NITRATE**

CAS 19004-19-4

**Synonyms:** Cupric NitrateCu(NO<sub>3</sub>)<sub>2</sub> · 2½ H<sub>2</sub>O = 232.59

Description: hygroscopic, deep blue crystals with an irritating odour due to nitric acid.

U.N Number ..... 1477

ADG Class..... 5.1

Packing Group ..... II



770

**COPPER(II) NITRATE, UNIVAR**

Assay ..... 98 - 102.0%

**Maximum limit of impurities (%)**

Ca ..... 0.005

Cl ..... 0.002

SO<sub>4</sub> ..... 0.01

Na ..... 0.01

Fe ..... 0.005

Ni ..... 0.01

Zn ..... 0.001

Pb ..... 0.001

K ..... 0.005

Mg ..... 0.001

**Pack Size:** 500g

771

**COPPER(II) NITRATE, UNILAB**

Assay ..... 95.0% min.

**Maximum limit of impurities (%)**

Cl ..... 0.02

SO<sub>4</sub> ..... 0.02**Pack Size:** 500g, 5kg

1010

**COPPER(I) OXIDE, UNILAB**

CAS 1317-39-1

**Synonyms:** Cuprous OxideCu<sub>2</sub>O = 143.09

Assay ..... 90.0% min.

**Maximum limit of impurities (%)**

Cl ..... 1.5

K ..... 0.008

Na ..... 0.3

**Pack Size:** 500g

## COPPER(II) OXIDE

CAS 1317-38-0

Synonyms: Cupric Oxide

CuO = 79.55

1005

## COPPER(II) OXIDE, UNIVAR

Description: black powder.

Assay ..... 99.0% min.

**Maximum limit of impurities (%)**

Insol. (in dil. HCl) ..... 0.02

Cl ..... 0.02

C cpds (as C) ..... 0.05

Subs. not pptd. by H<sub>2</sub>S (as SO<sub>4</sub>) ..... 0.2

Pack Size: 500g

759

## COPPER(II) OXIDE, powder, UNILAB

Description; copper(I) oxide granulated

Assay ..... 97% min.

**Maximum limit of impurities (%)**

Cl ..... 0.04

SO<sub>4</sub> ..... 0.06

Fe ..... 0.1

Pack Size: 500g, 5kg

1006

## COPPER(II) OXIDE, powder, TECHNICAL

Pack Size: 500g

## COPPER(II) SULPHATE



CAS 7758-99-8

Synonyms: Cupric Sulphate

CuSO<sub>4</sub>·5H<sub>2</sub>O = 249.68

Description: blue crystals or crystalline powder.

U.N Number ..... 3077

ADG Class ..... 9

Packing Group ..... III

171

## COPPER(II) SULPHATE, UNIVAR

Assay ..... 98.0 - 102.0%

**Maximum limit of impurities (%)**

Insol. .... 0.005

Cl ..... 0.001

N cpds (as N) ..... 0.002

Pb ..... 0.005

Na ..... 0.005

As ..... 0.0001

K ..... 0.001

Fe ..... 0.003

Zn ..... 0.03

Ca ..... 0.005

Ni ..... 0.005

Mg ..... 0.002

Conforms to ACS

Pack Size: 500g, 5Kg, 20Kg

772

**COPPER(II) SULPHATE, UNILAB**

Assay ..... 98.0% min.

**Maximum limit of impurities (%)**

Fe ..... 0.05

(NH<sub>4</sub>)<sub>2</sub>S metals ..... 0.05

other than Fe (as Ni)

Pb ..... 0.01

Cl ..... 0.01

**Pack Size:** 500g, 5kg, 25kg

913

**COPPER(II) SULPHATE, LABCHEM**

Assay ..... 97.0% min.

**Maximum limit of impurities (%)**

Fe ..... 0.02

**Pack Size:** 500g

1008

**COPPER(II) SULPHATE, TECHNICAL****Pack Size:** 500g, 3kg

1007

**COPPER(II) SULPHATE, anhydrous, UNILAB****CAS** 7758-98-7CuSO<sub>4</sub> = 159.60

Assay ..... 99.0 - 101.0

L.O.D. (@ 250°C) ..... 1.0% max.

**Maximum limit of impurities (%)**

Cl ..... 0.015

Fe ..... 0.015

**Pack Size:** 500g, 5kg, 20kg**COTTON BLUE** (see Aniline Blue, water soluble page 76)**COTTON RED** (see Safranin O page 328)**CREAM OF TARTAR** (see Potassium Hydrogen Tartrate page 306)

992

**CREATINE MONOHYDRATE, LABCHEM****CAS** 6020-87-7C<sub>4</sub>H<sub>9</sub>N<sub>3</sub>O<sub>2</sub>·H<sub>2</sub>O = 149.1

Description: White crystalline powder

Solubility: Soluble in water and alcohol. Insoluble in ether, acetone, and chloroform.

Assay (on dry basis) ..... 98.0% min.

pH (5% @ 25°C) ..... 7 - 9

**Maximum limit of impurities (%)**

H.M. (as Pb) ..... 0.001

L.O.D. .... 11.8 – 12.4

Creatine (by fluorometry) ..... 0.2

Cl ..... 0.2

**Pack size:** 25g

3042

**CREATININE, UNIVAR**

CAS 57-00-1  
 $C_4H_9N_3O_2 = 131.1$

Description: White crystalline powder  
 Solubility: Soluble in water and alcohol. Insoluble in ether, acetone, and chloroform.  
 Assay (Non-aqueous titration) ..... 99.8% min.

| <b>Maximum limit of impurities</b> |        | <b>(%)</b> |                             |
|------------------------------------|--------|------------|-----------------------------|
| Fe .....                           | 0.0005 |            | SO <sub>4</sub> ..... 0.005 |
| Pb .....                           | 0.0005 |            | Cd ..... 0.0005             |
| Cl .....                           | 0.005  |            | Na ..... 0.005              |

Pack size: 25g

3044

**m-CRESOL, OP**

CAS 108-39-4  
**Synonyms:** 3-Methylphenol  
 $C_6H_4(OH)CH_3 = 108.14$   
 Assay (GC) ..... about 98%  
 Congealing point ..... about 11°C  
 Density ..... about 1.03g/mL  
 B.R. .... 200 – 203°C

U.N Number ..... 2076  
 ADG Class..... 6.1  
 Packing Group ..... II

| <b>Maximum limit of impurities</b> |      | <b>(%)</b> |
|------------------------------------|------|------------|
| Non-vol. ....                      | 0.05 |            |

Pack Size: 1L

2298

**m-CRESOL PURPLE, LABCHEM**

CAS 2303-01-7  
 pH indicator.

Pack Size: 5g

2297

**o-CRESOL RED, LABCHEM**

CAS 1733-12-6  
 pH indicator.

Pack Size: 5g

607

**o-CRESOLPHTHALEIN, LABCHEM**

CAS 596-27-0  
 $C_{22}H_{18}O_4 = 346.4$   
 Appearance: Light yellow crystalline powder  
 Assay ..... 98.0% min.  
 Melting point ..... 223 - 235°C

Pack size: 25g

**o-CRESOLSULPHONPHTHALEIN-3,3 BISMETHYLIMINODIACETIC** (see Xylenol Orange page 414)

3273

**CRYSTAL VIOLET (CI 42555), OP**

CAS 548-62-9

**Synonyms:** Basic Violet 3, Hexamethyl Violet $C_{25}H_{30}ClN_3 = 407.99$ 

Indicator for non-aqueous titrations. Stain for microscopy.

**Pack Size:** 25g, 1kg

1820

**CRYSTAL VIOLET STAIN SOLUTION, LABCHEM**

0.5% in aqueous solution

**Pack Size:** 1L, 5L**CUPRIC COMPOUNDS** (see Copper(II) compounds page 136)**CUPROUS COMPOUNDS** (see Copper(I) compounds page 136)**CUPRIC ACETATE** (see Copper(II) Acetate page 136)**CUPRIC CARBONATE** (see Copper(II) Carbonate, basic page 136)**CUPRIC CHLORIDE** (see Copper(II) Chloride page 137)**CUPRIC NITRATE** (see Copper(II) Nitrate page 138)**CUPRIC OXIDE** (see Copper(II) Oxide page 139)**CUPRIC SULPHATE** (see Copper(II) Sulphate page 139)**CUPROUS CHLORIDE** (see Copper(I) Chloride page 136)**CUPROUS CYANIDE** (see Copper(I) Cyanide page 137)**CUPROUS IODIDE** (see Copper(I) Iodide page 138)**CUPROUS OXIDE** (see Copper(I) Oxide page 138)

# DNA Reagents

|      |                     |             |           |
|------|---------------------|-------------|-----------|
| 3531 | ACTIVATOR 0.25M ETT | (CAT BR721) | 450mL, 2L |
| 3530 | A CAP REAGENT       | (CAT BR641) | 450mL, 2L |
| 3534 | B CAP REAGENT       | (CAT BR651) | 450mL, 2L |
| 3532 | DeBLOCK - T         | (CAT BR605) | 450mL, 2L |
| 3533 | OXIDATION - T       | (CAT BR663) | 450mL, 2L |



1011

## CYANOACETIC ACID, TECHNICAL



CAS 372-09-8

NCCH<sub>2</sub>COOH = 85.06

Assay ..... 99% min.

M.R. .... 66-70°C

U.N Number ..... 1759

ADG Class..... 8

Packing Group ..... III

**Maximum limit of impurities (%)**L.O.D (on H<sub>2</sub>SO<sub>4</sub>) ..... 1**Pack Size:** 250g

## CYANOL (see Xylene Cyanol page 414)

## CYCLOHEXANE



CAS 110-82-7

**Synonyms:** Hexahydrobenzene, HexamethyleneC<sub>6</sub>H<sub>12</sub> = 84.16

Density .....about 0.77g/mL

U.N Number ..... 1145

ADG Class..... 3

Packing Group ..... II

3479

## CYCLOHEXANE, HPLC &amp; PESTICIDE GRADE, BURDICK &amp; JACKSON, CAT. 053

Assay ..... 99.5% min.

**Maximum limit of impurities (%)**

Water ..... 0.01

Residue ..... 1mg/L

**Max. UV. Absorbance:**

|            |       |       |       |       |       |
|------------|-------|-------|-------|-------|-------|
| λ(nm)      | 200   | 225   | 250   | 300   | 400   |
| Absorbance | 1.000 | 0.170 | 0.020 | 0.005 | 0.005 |

**Pack Size:** 4L

719

## CYCLOHEXANE, UNIVAR

Description: clear liquid; odour characteristic.

Assay ..... 99.0% min.

Colour (APHA) ..... 10 max.

R.I. (@ 20°C) ..... 1.4250 – 1.4280

**Maximum limit of impurities (%)**

R.A.E. .... 0.002

H<sub>2</sub>O (K.F.) ..... 0.02Subs. darkened by H<sub>2</sub>SO<sub>4</sub> ..... To pass test

Conforms to ACS

**Pack Size:** 500mL, 2.5L, 20L

175

## CYCLOHEXANE, UNILAB

B.R.(95% min.) ..... 79 – 81°C

R.I. (@ 25°C) ..... 1.425 – 1.428

**Maximum limit of impurities (%)**

Non-vol. .... 0.005

**Pack Size:** 500mL, 2.5L, 20L

176

**CYCLOHEXANOL, UNILAB****CAS** 108-93-0**Synonyms:** Hexahydrophenol, Hexalin $C_6H_{12}O = 100.16$ 

Density ..... about 0.95 g/mL

F.P. .... 18°C min.

Assay ..... 99% min.

**Maximum limit of impurities (%)**

Non-vol. .... 0.05

Acidity (as  $CH_3COOH$ ) ..... 0.01

Water ..... 0.2

**Pack Size:** 500mL, 2.5L

177

**CYCLOHEXANONE, UNILAB****CAS** 108-94-1**Synonyms:** Sextone $C_6H_{10}O = 98.15$ 

Density ..... about 0.94 g/mL

R.I. .... 1.448-1.450

Assay ..... 99.5% min.

**Maximum limit of impurities (%)**

Non-vol. .... 0.04

Acidity (as  $CH_3COOH$ ) ..... 0.03 $H_2O$  (K.F.) ..... 0.1**Pack Size:** 2.5L, 20L

U.N Number ..... 1915

ADG Class..... 3

Packing Group ..... III

**CYCLOHEXATRIENE** (see Benzene page 87)

1219

**CYCLOHEXENE, UNILAB****CAS** 110-83-8**Synonyms:** Tetrahydrobenzene $C_6H_{10} = 82.15$ 

Density ..... about 0.81 g/mL

Assay ..... 99% min.

**Pack Size:** 500mL

U.N Number ..... 2256

ADG Class..... 3

Packing Group ..... II

**CYCLOHEXIMIDE** (see Acti-dione page 50)**CYCLOPENTADIENE DIMER** (see Dicyclopentadiene page 152)

684

**CYCLOPENTANE, UNILAB****CAS** 287-92-3 $C_5H_{10} = 70.14$ 

Assay (Cyclopentane) ..... 75.0% min.

Assay ( $C_5$  and  $C_6$  Hydrocarbons) ..... 99.8% min.

Density ..... 0.751g/mL

Boiling Point ..... 50°C

R.I. .... 1.4000

**Pack Size:** 500mL

U.N Number ..... 1146

ADG Class..... 3

Packing Group ..... II

2377

**L-CYSTEINE HYDROCHLORIDE** hydrate, LABCHEM

CAS 52-89-1

 $\text{HSCH}_2\text{CH}(\text{NH}_2)\text{COOH} \cdot \text{HCl} \cdot \text{H}_2\text{O} = 175.64$ 

Appearance: White crystals/powder.

Assay (dry basis) ..... 98.5 - 101.5%

Spec. rotn. .... +5.5° to +7.1° (@ 25°C)

**Maximum limit of impurities (%)**

R.O.I ..... 0.1

Fe ..... 0.003

H.M.(as Pb) ..... 0.001

SO<sub>4</sub> ..... 0.03

As ..... 0.0001

Pack Size: 25g

3047

**L-CYSTINE**, UNIVAR

CAS 56-89-3

 $\text{HOOCCH}(\text{NH}_2)\text{CH}_2\text{SSCH}_2\text{CH}(\text{NH}_2)\text{COOH} = 240.30$ 

Appearance: white crystalline powder

Assay ..... 99.0% min.

Specific rotation ..... +8.3 to +9.5°

**Maximum limit of impurities (%)**

Cl ..... 0.01

Pb ..... 0.0005

L.O.D ..... 0.05

SO<sub>4</sub> ..... 0.01R.O.I. (as SO<sub>4</sub>) ..... 0.05

Pack size: 100g

**DECAHYDRONAPHTHALENE** (see Dekalin page 145)

1332

**DECANOIC ACID**, UNILAB

CAS 334-48-5

Synonyms: Capric Acid

 $\text{CH}_3(\text{CH}_2)_8\text{CO}_2\text{H} = 172.27$ 

Assay ..... 99.0% min.

Pack size: 500mL

736



CAS 91-17-8

Synonyms: Decahydronaphthalen

 $\text{C}_{10}\text{H}_{18} = 138.25$ 

R.I. .... 1.475% min.

Assay (GC) ..... 98.0% min.

**Maximum limit of impurities (%)**

Water (KF) ..... 0.1

Pack Size: 2.5L

U.N Number ..... 1147

ADG Class..... 3

Packing Group ..... III

**DENATURED ALCOHOL** (see Methylated Spirit page 250)**DEPEX** (see D.P.X Mounting Medium page 162)

7875

**DETERGENT - LABWARE** (Phosphate-free, biodegradable, chlorine free non-flammable and totally rinsable)

This powerful detergent, which contains both anionic and cationic surfactants, has been specially developed to tackle the sometimes difficult but important job of thorough cleaning laboratory ware. It is specially formulated for manual cleaning, ultrasonic cleaning, and may be used in washing machines.

Contains 5% Potassium Hydroxide

Free of Phosphate, Chlorine, Enzymes, and EDTA.

Ajax Labware Detergent is completely biodegradable

**Pack size:** 5L

2470

**DEXTRIN YELLOW, LABCHEM**

**CAS** 9004-53-9

**Pack Size:** 500g

**DEXTROSE** (see D-Glucose page 182)

**DIACETYL DIOXIME** (see Dimethylglyoxime page 158)

**DIAMANT FUCHSIN** (see Fuchsin Basic page 180)

178

**DIACETONE ALCOHOL, UNILAB**

**CAS** 123-42-2

**Synonyms:** 4-Hydroxy-4-Methyl-2-Pentanone

$(\text{CH}_3)_2\text{COHCH}_2\text{COCH}_3 = 116.16$

Assay ..... 99.0% min.

Colour (APHA) ..... 25

**Maximum limit of impurities (%)**

Water ..... 0.15

**Pack size:** 500mL

U.N Number ..... 1148

ADG Class..... 3

Packing Group ..... III

866

**DIACETYL MONOXIME, UNIVAR**

**CAS** 57-71-6

$\text{C}_4\text{H}_7\text{NO}_2 = 101.11$

Appearance: white crystalline powder

Assay ..... 99.0% min

Melting point ..... 74 – 76°C

**Maximum limit of impurities (%)**

Sulphated Ash ..... 0.05

Store below 4°C

**Pack size:** 25g, 100g

3416

**N,N'-DIALLYLTARTARDIAMIDE, UNILAB**

**CAS** 58477-85-3

$\text{C}_{10}\text{H}_{16}\text{N}_2\text{O}_4 = 228.25$

Appearance: white flakes

Assay ..... 99.0% min

Melting point ..... 183 – 186°C

**Pack size:** 25g

2483

**1,2-DIAMINOCYCLOHEXANETETRAACETIC ACID, LABCHEM**

CAS 482-54-2

 $C_{14}H_{22}N_2O_8 \cdot H_2O = 364.36$ 

Pack Size: 25g

**3,7-DIAMINO-2,8-DIMETHYL-5-PHENYLPHENAZINIUM CHLORIDE** (see Safranin O page 328)**DIAMINOETHANETETRAACETIC ACID AND SALTS** (see Ethylenediaminetetra-acetic acid and salts page 171)

2303

**1,6-DIAMINOHEXANE LABCHEM**

CAS 124-09-4

Synonyms: Hexamethylenediamine

 $NH_2(CH_2)_6NH_2 = 116.21$ 

Assay (GC) ..... 99% min.

M.R. .... 41 - 43°C

U.N Number ..... 2280

ADG Class..... 8

Packing Group ..... III

Pack Size: 100g

**DIBENZOYL PEROXIDE** (see Benzoyl Peroxide page 90)

1017

**1,2-DIBROMOETHANE, OP**

CAS 106-93-4

Synonyms: Ethylene Dibromide

 $CH_2BrCH_2Br = 187.86$ 

Assay ..... 99.0% min.

U.N Number ..... 1605

ADG Class..... 6.1

Packing Group ..... I

Pack Size: 500mL, 1L

1344

**DIBUTYLAMINE, OP**

CAS 111-92-2

Synonyms: Di-n-Butylamine

 $(CH_3(CH_2)_3)_2NH = 129.25$ 

Assay ..... 99.0% min.

Colour (APHA) ..... 15

Water ..... 0.3% max.

U.N Number ..... 2248

ADG Class..... 8

Subsidiary Risk..... 3

Packing Group ..... II



Pack Size: 1L, 4L

1341

**DI-ISOBUTYL KETONE, UNILAB**

CAS 108-83-8

Synonyms: 2,6-Dimethylheptan-4-one

 $\{(CH_3)_2CHCH_2\}_2CO = 142.24$ 

Density ..... about 0.81g/mL

B.R.(95% min.) ..... 164 – 169°C

U.N Number ..... 1157

ADG Class ..... 3

Packing Group ..... III

**Maximum limit of impurities (%)**

Non-vol. .... 0.01

Pack Size: 2.5L, 20L

**DI-n-BUTYLAMINE** (see Dibutylamine page 147)

184

**DI-n-BUTYL PHTHALATE, UNILAB****CAS** 84-74-2**Synonyms:** Phthalic Acid Dibutyl Ester $C_6H_4(COOC_4H_9)_2 = 278.35$ 

|               |                  |
|---------------|------------------|
| Assay .....   | 99.0% min.       |
| Density ..... | 1.043-1.048 g/mL |
| R.I. ....     | 1.492 – 1.495    |

|                                    |            |
|------------------------------------|------------|
| <b>Maximum limit of impurities</b> | <b>(%)</b> |
| Sulph. Ash .....                   | 0.02       |
| Acidity .....                      | 0.3 mmol H |

**Pack Size:** 500mL

1033

**DI-n-BUTYL SULPHIDE, TECHNICAL****CAS** 544-40-1 $\{CH_3(CH_2)_3\}_2S = 146.30$ 

|               |                |
|---------------|----------------|
| Density ..... | about 0.84g/mL |
| R.I. ....     | 1.453          |
| Assay .....   | 97% min.       |
| B.R. ....     | 185 – 188°C    |

**Pack Size:** 100mL

804

**1,2-DICHLOROBENZENE, OP****CAS** 95-50-1**Synonyms:** o-Dichlorobenzene $C_6H_4Cl_2 = 147.00$ 

|                                              |            |
|----------------------------------------------|------------|
| Assay .....                                  | 98.0% min. |
| Boiling Point .....                          | 180°C      |
| Density (g/mL) @ 25°C .....                  | 1.306      |
| Dielectric constant @ 25°C .....             | 9.93       |
| R.I. (n <sub>20</sub> <sup>o</sup> /D) ..... | 1.5510     |
| Viscosity (cps) @ 20°C .....                 | 1.324      |

|                                    |            |
|------------------------------------|------------|
| <b>Maximum limit of impurities</b> | <b>(%)</b> |
| Acidity (as HCl) .....             | 0.005      |
| R.A.E .....                        | 0.005      |
| Water .....                        | 0.1        |

**Pack size:** 1L, 4L

|                     |      |
|---------------------|------|
| U.N Number .....    | 1591 |
| ADG Class.....      | 6.1  |
| Packing Group ..... | III  |

**o-DICHLOROBENZENE** (see 1,2-Dichlorobenzene page 148)

724

**2,6-DICHLORO-P-BENZOQUINONE-4-CHLORIMINE, LABCHEM****CAS** 101-38-2 $O:C_6H_2Cl_2:NCl = 210.45$ **Pack Size:** 5g

**1,2-DICHLOROETHANE**

CAS 107-06-2

**Synonyms:** Ethylene DichlorideCH<sub>2</sub>ClCH<sub>2</sub>Cl = 98.96

Description: clear liquid with a characteristic odour.

Density ..... about 1.25g/mL

U.N Number ..... 1184

ADG Class..... 3

Subsidiary Risk ..... 6.1

Packing Group ..... II

**741****1,2-DICHLOROETHANE, UNIVAR**

Assay ..... 99.0% min.

Colour (APHA) ..... 10 max.

R.I. (@ 20°C) ..... 1.4445 – 1.4455

**Maximum limit of impurities (%)**

R.A.E. .... 0.002

Titratable acid ..... 0.03 mmol H

H<sub>2</sub>O (K.F.) ..... 0.03

Conforms to ACS

**Pack Size:** 500mL, 2.5L, 20L, 200L**654****1,2-DICHLOROETHANE, UNILAB**

B.R.(95% min.) ..... 82 84°C

**Maximum limit of impurities (%)**

Non-vol. .... 0.02

Acidity (as HCl) ..... 0.01

H<sub>2</sub>O (K.F.) ..... 0.05**Pack Size:** 500mL, 2.5L**2442****2',7'-DICHLOROFLUORESCEIN SODIUM SALT, (CI 45365), LABCHEM**

CAS 76-54-0

Adsorption indicator.

**Pack Size:** 5g**655****2,6-DICHLOROPHENOLINDOPHENOL SODIUM SALT, UNIVAR**

CAS 620-45-1

**Synonyms:** 2,6-Dichloroindophenol sodium saltO:C<sub>6</sub>H<sub>2</sub>Cl<sub>2</sub>:NC<sub>6</sub>H<sub>4</sub>ONa = 290.08

Redox indicator.

Suitable for ascorbic acid determinations.

**Maximum limit of impurities (%)**

Interfering dyes ..... To pass test

L.O.D. (@120°C) ..... 12.0

Colour change: Oxidized (blue) to reduced (colourless)

Transition EMF (@pH=0) ..... +0.67 V

Transition EMF (@pH=7) ..... +0.23 V

Conforms to ACS

**Pack Size:** 1g, 10g

515

**2,4-DICHLOROPHENOXYACETIC ACID, LABCHEM**

CAS 94-75-7

 $C_8H_6Cl_2O_3 = 221.04$ 

Appearance: Light buff coloured crystalline powder

Assay ..... 98.0% min

Melting point ..... 134 – 138°C

U.N Number ..... 2765

ADG Class..... 6.1

Packing Group ..... II

Pack size: 100g, 500g

**2,6-DICHLOROINDOPHENOL SODIUM SALT** (see 2,6-Dichlorophenolindophenol sodium salt page 149)**DICHLOROMETHANE**

CAS 75-09-2

Synonyms: Methylene Chloride

 $CH_2Cl_2 = 84.9$ 

Density.....about 1.320g/mL

U.N Number ..... 1593

ADG Class..... 6.1

Packing Group ..... III

3449

**DICHLOROMETHANE, PESTICIDE GRADE, BURDICK & JACKSON, CAT. 300**

High purity solvent for pesticide residue analysis &amp; gas chromatography.

Assay ..... 99.9% min.

| <i>Maximum limit of impurities</i> | <i>(%)</i> |
|------------------------------------|------------|
| E.C. (GC) .....                    | 10ng/L     |
| Water .....                        | 0.01       |
| Residue .....                      | 1mg/L      |

**Max. UV. Absorbance:**

|                |       |       |       |       |       |
|----------------|-------|-------|-------|-------|-------|
| $\lambda$ (nm) | 233   | 240   | 250   | 300   | 400   |
| Absorbance     | 1.000 | 0.100 | 0.010 | 0.005 | 0.005 |

Pack Size: 1L, 4L

3516

**DICHLOROMETHANE, CYCLOHEXANE PRESERVATIVE, HPLC GRADE, BURDICK & JACKSON, CAT. AH300**

Assay ..... 99.9% min.

| <i>Maximum limit of impurities</i> | <i>(%)</i> |
|------------------------------------|------------|
| Water .....                        | 0.02       |
| Residue .....                      | 3mg/L      |

**Max. UV. Absorbance:**

|                |       |       |       |       |       |
|----------------|-------|-------|-------|-------|-------|
| $\lambda$ (nm) | 233   | 240   | 250   | 300   | 400   |
| Absorbance     | 1.000 | 0.200 | 0.030 | 0.010 | 0.005 |

Pack Size: 4L

3472

**DICHLOROMETHANE, GC2, BURDICK & JACKSON, CAT. GC299**

Assay ..... 99.9% min.

| <i>Maximum limit of impurities</i> | <i>(%)</i> |
|------------------------------------|------------|
| GC (EC, as lindane) .....          | 2ng/mL     |
| Water .....                        | 0.02       |
| Residue .....                      | 1mg/L      |

Pack Size: 4L



2319

**DICHLOROMETHANE, UNICHROM**

Description: clear volatile liquid. Specially purified for HPLC  
 Filtered through 0.45 micron filter  
 Assay (GLC) ..... 99.5% min.

| <i>Maximum limit of impurities</i> | <i>(%)</i> |
|------------------------------------|------------|
| Non-vol. ....                      | 0.001      |
| Acidity (as HCl) .....             | 0.001      |
| H <sub>2</sub> O (by K.F.) .....   | 0.02       |

**Pack Size:** 2.5L

**U.V. Absorbance:**

|                |     |      |      |
|----------------|-----|------|------|
| $\lambda$ (nm) | 235 | 254  | 280  |
| Max. abs.      | 1.0 | 0.04 | 0.01 |

**Pack Size:** 2.5L

560

**DICHLOROMETHANE, SPECTROSOL**

Description: clear, volatile liquid. For U.V. spectroscopy.  
 R.I @ 20°C ..... about 1.424.  
 Assay ..... 99.5 min.  
 Colour (APHA) ..... 10 min.

| <i>Maximum limit of impurities</i> | <i>(%)</i> |                                    |
|------------------------------------|------------|------------------------------------|
| R.A.E. ....                        | 0.002      | H <sub>2</sub> O (K.F.) ..... 0.02 |
| Titrate acid .....                 | 0.0003     | Free halogens ..... To pass test   |

**U.V. Absorbance:**

|                |      |      |      |      |         |
|----------------|------|------|------|------|---------|
| $\lambda$ (nm) | 235  | 240  | 250  | 260  | 340-400 |
| Max. abs.      | 1.00 | 0.35 | 0.10 | 0.04 | 0.01    |

Conforms to ACS

**Pack Size:** 2.5L

709

**DICHLOROMETHANE, UNIVAR**

Description: clear, volatile liquid.  
 R.I. .... about 1.424  
 Assay (by GLC) ..... 99.5% min.  
 Colour (APHA) ..... 10 max.

| <i>Maximum limit of impurities</i> | <i>(%)</i>   |                   |
|------------------------------------|--------------|-------------------|
| R.A.E. ....                        | 0.002        | Mg ..... 0.000005 |
| Titrate acid .....                 | 0.03 mmol H  | Cr ..... 0.000002 |
| H <sub>2</sub> O (K.F.) .....      | 0.02         | Co ..... 0.000002 |
| Free halogens .....                | To pass test | Cu ..... 0.000002 |
| Al ..... 0.00005                   |              | Mn ..... 0.000002 |
| Ca ..... 0.00005                   |              | Ni ..... 0.000002 |
| Na ..... 0.00005                   |              | Sr ..... 0.000002 |
| Ba ..... 0.00002                   |              | Fe ..... 0.00001  |
| K ..... 0.00002                    |              | Zn ..... 0.00001  |
| Cd ..... 0.000005                  |              | Pb ..... 0.000005 |

Conforms to ACS

**Pack Size:** 500mL, 2.5L, 10L, 20L, 200L

186

**DICHLOROMETHANE, UNILAB**

Assay ..... 99% min.

| <i>Maximum limit of impurities</i> | <i>(%)</i> |
|------------------------------------|------------|
| Non-vol. ....                      | 0.01       |

**Pack Size:** 500mL, 2.5L, 20L

**5113 DICHLOROMETHANE HP, LABCHEM**

Solvent for Histopathology

**Pack Size:** 10L, 20L**103 DICHLOROMETHANE, LABCHEM**

Assay ..... 98% min.  
 Density (@20°C) ..... 1.322-1.328

**Pack Size:** 200L**1355 DICHLOROMETHANE, TECHNICAL****Pack Size:** 2.5L**METHYLENE IODIDE** (see Di-Iodomethane page 156)**3049 DICYCLOPENTADIENE, UNILAB****CAS** 77-73-6**Synonyms:** Cyclopentadiene dimer $C_{10}H_{12}$  = 132.21

Assay ..... 99.0% min.

U.N Number ..... 2048

ADG Class..... 3

Packing Group ..... III

**Pack size:** 1L**1019 DIETHANOLAMINE, UNILAB****CAS** 111-42-2**Synonyms:** 2,2'-Iminodiethanol $(HOCH_2CH_2)_2NH$  = 105.14

Density ..... about 1.10g/mL

Assay ..... 98.5 - 101.5%

F.P. .... 26°C min.

**Maximum limit of impurities (%)**

Sulph. Ash ..... 0.05

**Pack Size:** 500mL, 2.5L**189 DIETHYLAMINE, UNILAB****CAS** 109-89-7**Synonyms:** N-Ethylethanamine $(C_2H_5)_2NH$  = 73.14

Density ..... about 0.71g/mL

R.I. .... about 1.385

Assay ..... 99.5% min.

U.N Number ..... 1154

ADG Class..... 3

Subsidiary Risk ..... 8

Packing Group ..... II

**Maximum limit of impurities (%)**

Water ..... 0.1

**Pack Size:** 500mL, 2.5L, 20L

**DIETHYLCARBINOL** (see iso-Amyl Alcohol page 75)**DIETHYLENE GLYCOL** (see Digol page 155)**DIETHYLENE GLYCOLMONOETHYL ETHER** (see Ethyl digol page 171)**N,N-DIETHYLETHANAMINE** (see Triethylamine page 404)**DIETHYL ETHER****CAS** 60-29-7**Synonyms:** Diethyl Oxide, Ethyl Ether, Solvent Ether(C<sub>2</sub>H<sub>5</sub>)<sub>2</sub>O = 74.12

Description: clear, volatile liquid with a characteristic odour.

The vapours are heavier than air.

Density .....about 0.710g/mL

U.N Number ..... 1155

ADG Class..... 3

Packing Group ..... I

**2542****ANAESTHETIC ETHER, UNILAB**

Description: A clear, colourless, volatile, very mobile liquid; odour characteristic.

B.R.(100%) ..... 34.0 - 35.0°C

Relative Density ..... 0.714-0.716 g/mL

**Maximum limit of impurities****(%)**

Non-vol. matter ..... 0.002

Acidity ..... 0.04 mmol H

Foreign odour ..... To pass test

Acetone and aldehydes ..... To pass test

Peroxides ..... To pass test

H<sub>2</sub>O ..... 0.2

Chemical and physical parameters conform to BP

Store below 15°C

**Pack Size:** 500mL, 2.5L, 20L**3460****DIETHYL ETHER, PESTICIDE GRADE, BURDICK & JACKSON, CAT. 106**

High purity solvent suitable for HPLC,GC, pesticide residue analysis and spectrophotometry.

Stabilized with 2% Ethanol.

Assay ..... 99.9% min. (excludes preservative)

**Maximum limit of impurities****(%)**

Water(KF) ..... 0.03

R.A.E. .... 0.0001

Peroxides(as H<sub>2</sub>O<sub>2</sub>) ..... 0.0001

Heptachlor epoxide(GC-EC) ..... 10 ng/L

**U.V. Absorbance:**

|           |       |       |       |       |       |
|-----------|-------|-------|-------|-------|-------|
| λ (nm)    | 215   | 250   | 275   | 300   | 400   |
| Max. abs. | 1.000 | 0.080 | 0.010 | 0.005 | 0.005 |

**Pack Size:** 4L

1725

**DIETHYL ETHER, UNIVAR**

Density (@25°C) ..... about 0.710g/mL.  
 Assay ..... 98.0% min.  
 Colour (APHA) ..... 10 max.

**Maximum limit of impurities****(%)**

|                                                    |             |          |          |
|----------------------------------------------------|-------------|----------|----------|
| R.A.E. ....                                        | 0.001       | Ba ..... | 0.000002 |
| Titrateable acid .....                             | 0.02 mmol H | Cr ..... | 0.000002 |
| Carbonyl (as HCHO) .....                           | 0.001       | Co ..... | 0.000002 |
| Peroxide (as H <sub>2</sub> O <sub>2</sub> ) ..... | 0.0001      | Cd ..... | 0.000002 |
| Al .....                                           | 0.00001     | Cu ..... | 0.000002 |
| Ca .....                                           | 0.00001     | Sr ..... | 0.000002 |
| Na .....                                           | 0.00001     | Ni ..... | 0.000002 |
| Zn .....                                           | 0.00001     | Pb ..... | 0.000005 |
| Fe .....                                           | 0.00001     | Mg ..... | 0.000005 |
| Mn .....                                           | 0.000002    | K .....  | 0.000005 |

Conforms to ACS

**Pack Size:** 50mL, 2.5L, 20L

1673

**DIETHYL ETHER , UNILAB**

Description: clear, colourless, volatile liquid; odour, characteristic. Highly flammable; mixtures of its vapour with oxygen, air or nitrous oxide in certain concentrations are explosive.

B.R.(100%) ..... 34 – 36°C  
 Density ..... 0.714 - 0.718g/mL

**Maximum limit of impurities****(%)**

Non-volatile matter ..... 0.002  
 Acidity ..... 0.04 mmolH  
 Methanol ..... To pass test  
 Peroxide (as H<sub>2</sub>O<sub>2</sub>) ..... To pass test

Chemical and physical parameters conform to BP

Store below 15°C

**Pack Size:** 500mL, 2.5L, 20L, 145kg

1724

**DIETHYL ETHER, anhydrous, UNIVAR**

Description: clear, volatile liquid with a characteristic odour. The vapours are heavier than air.

Assay ..... 99.0% min.  
 Colour (APHA) ..... 10 max.  
 Density (@25°C) ..... 0.7079g/mL max.

**Maximum limit of impurities****(%)**

R.A.E. .... 0.001  
 Titrateable acid ..... 0.0002 meq/g  
 Carbonyl (as HCHO) ..... 0.001  
 C<sub>2</sub>H<sub>5</sub>OH ..... 0.05  
 Foreign odour ..... To pass test  
 Peroxide (as H<sub>2</sub>O<sub>2</sub>) ..... 0.0001  
 Subs. darkened by H<sub>2</sub>SO<sub>4</sub> ..... To pass test  
 H<sub>2</sub>O (K.F.) ..... 0.03

Conforms to ACS

Store below 15°C

**Pack Size:** 500mL, 2.5L, 20L, 145kg

1743

**DIETHYL ETHER**, low peroxide, UNILAB

Description: clear, colourless, volatile liquid; odour, characteristic. Highly flammable, mixtures of its vapour with oxygen, air or nitrous oxide in certain concentrations are explosive.

Assay ..... 98% min  
Density ..... 0.714-0.718 g/mL

| <i>Maximum limit of impurities</i>                 | <i>(%)</i>   |
|----------------------------------------------------|--------------|
| Non-vol. ....                                      | 0.002        |
| Acidity .....                                      | 0.016 mmol H |
| Acetone & aldehyde .....                           | To pass test |
| Peroxide (as H <sub>2</sub> O <sub>2</sub> ) ..... | 0.0001       |

Store below 15°C

**Pack Size:** 500mL, 2.5L, 20L

**DIETHYL OXIDE** (see Diethyl Ether page 153)

**1,4-DIETHYLENE DIOXIDE** (see 1,4-Dioxane page 160)

**DIETHYLENE ETHER** (see 1,4-Dioxane page 160)

**DIETHYLENE OXIDE** (see 1,4-Dioxane page 160)

**DIETHYLENE GLYCOL** (see Digol page 155)

**DIETHYLENE GLYCOL MONOBUTYL ETHER** (see Butyl digol page 105)

1027

**DIGOL**, UNILAB

**CAS** 111-46-6  
(CH<sub>2</sub>OHCH<sub>2</sub>)<sub>2</sub>O = 106.12

**Synonyms:** Diethylene Glycol

Density ..... about 1.12g/mL  
R.I. .... about 1.447  
B.R.(95% min.) ..... 240 - 247°C

| <i>Maximum limit of impurities</i> | <i>(%)</i> |
|------------------------------------|------------|
| Sulph. Ash .....                   | 0.02       |

**Pack Size:** 2.5L, 200L

**9,10-DIHYDRO-9-OXOANTHRACENE** (see Anthrone page 77)

**1,2-DIHYDROXYBENZENE** (see Catechol page 119)

**1,8-DIHYDROXYNAPHTHALENE-3,6-DISULPHONIC ACID** sodium salt  
(see Chromotropic acid, sodium salt page 130)

782

**DI-IODOMETHANE, UNILAB**

**CAS** 75-11-6

**Synonyms:** Methylene Iodide

$\text{CH}_2\text{I}_2 = 267.84$

Yellow to reddish coloured heavy liquid. B.P. about 181°C. Decomposes upon exposure to light to form iodine in solution.

Density ..... 3.315 - 3.325g/mL

R.I. .... 1.735 – 1.748

**Maximum limit of impurities** (%)

Non-vol. .... 0.02

**Pack Size:** 100mL, 500mL, 25kg

1028

**DIMEDONE, LABCHEM**

**CAS** 126-81-8

$\text{C}_8\text{H}_{12}\text{O}_2 = 140.2$

Appearance: white crystalline powder

Assay ..... 99.5% min

Melting point ..... 146 - 148°C

**Maximum limit of impurities** (%)

L.O.D. .... 1

Sulphated Ash ..... 0.05

**Pack size:** 10g, 25g

3051

**N,N-DIMETHYLACETAMIDE, LABCHEM**

**CAS** 127-19-5

**Synonyms:** Acetdimethylamide

$\text{C}_4\text{H}_9\text{NO} = 87.12$

Assay(GLC) ..... 99% min.

**Pack Size:** 500mL

**4-DIMETHYLAMINO BENZALDEHYDE**

**CAS** 100-10-7

**Synonyms:** Ehrlich's Reagent

$(\text{CH}_3)_2\text{NC}_6\text{H}_4\text{CHO} = 149.19$

194

**4-DIMETHYLAMINO BENZALDEHYDE, UNIVAR**

Suitable for hydrazine determinations. Description: white or pale yellow crystalline powder.

Melting point ..... 73 – 75°C

**Maximum limit of impurities** (%)

R.A.I. .... 0.1

Solubility (in alc.) ..... To pass test

Solubility (in HCl) ..... To pass test

Colour of alc. soln. .... 60 APHA

Colour of HCl soln. .... To pass test

Conforms to ACS

**Pack Size:** 25g, 100g, 500g

1348

**4-DIMETHYLAMINO BENZALDEHYDE, UNILAB**

Assay ..... 98% min.  
 Melting point ..... 72-75°C

**Maximum limit of impurities (%)**  
 Sulph. Ash ..... 0.2

**Pack Size:** 100g

453

**DIMETHYLAMMONIUM CHLORIDE, UNILAB**

**CAS** 506-59-2  
 $C_2H_8ClN = 81.55$   
 Appearance: white crystals  
 Assay ..... 99.0% min  
 Melting point ..... 172 - 175°C

U.N Number ..... 2811  
 ADG Class..... 6.1  
 Packing Group ..... II

**Pack size:** 100g, 5Kg

**DIMETHYLBENZENE** (see Xylene page 413)**DIMETHYLCARBINOL** (see Propan-2-ol page 319)**N,N-DIMETHYLFORMAMIDE**

**CAS** 68-12-2  
**Synonyms:** Formdimethylamide, Formyl-Dimethylamine, DMF  
 $HCON(CH_3)_2 = 73.09$   
 Description: clear liquid.  
 Store at 4°C when not in use.  
 Density.....about 0.95g/mL

U.N Number ..... 2265  
 ADG Class..... 3  
 Packing Group ..... III

2540

**N,N-DIMETHYLFORMAMIDE, UNICHROM**

Each bottle contains 25 mg molecular sieve 4A stabilizer. Filter before use.  
 R.I. @25°C ..... 1.427  
 Viscosity @20°C ..... 0.90 cps  
 B.R.(100%) incl. .... 153.0 +/- 0.1°C 2.0°C max.  
 Colour (APHA) ..... 15 max.  
 Density (@ 25°C) ..... 0.942-0.946 g/mL

**Maximum limit of impurities (%)**  
 R.A.E. .... 0.005  
 Titratable acid ..... 0.05 mmol H  
 Titratable base ..... 0.3 mmol OH  
 H<sub>2</sub>O ..... 0.15  
 Foreign amines (with FDNB) ..... To pass test

**UV Absorbance:**

|                |      |      |      |      |
|----------------|------|------|------|------|
| $\lambda$ (nm) | 350  | 300  | 280  | 268  |
| Max. abs.      | 0.01 | 0.06 | 0.16 | 1.00 |

**Pack Size:** 2.5L

3468

**N,N-DIMETHYLFORMAMIDE, UV, BURDICK & JACKSON, CAT. 076**

High purity solvent for HPLC, GC & Spectrophotometry  
Packed under nitrogen.

Assay (GC) ..... 99.9% min.

**Maximum limit of impurities (%)**

Water (KF) ..... 0.03

R.A.E. .... 0.0002

GC imp.eluting before solvent ..... 0.0005

**U.V. Absorbance:**

|                |       |       |       |       |       |
|----------------|-------|-------|-------|-------|-------|
| $\lambda$ (nm) | 268   | 275   | 300   | 350   | 400   |
| Max. abs.      | 1.000 | 0.300 | 0.050 | 0.005 | 0.005 |

**Pack Size:** 4L

2217

**N,N-DIMETHYLFORMAMIDE, UNIVAR**

Assay(GLC) ..... 99.8% min.

Colour (APHA) ..... 15 max.

**Maximum limit of impurities (%)**

R.A.E. .... 0.005

Titrateable acid ..... 0.05 mmol H

Titrateable base ..... 0.3 mmol OH

H<sub>2</sub>O (K.F.) ..... 0.15

**Pack Size:** 500mL, 2.5L, 20L

231

**N,N-DIMETHYLFORMAMIDE, UNILAB**

Assay ..... 99% min.

R.I. .... 1.429 – 1.431

**Maximum limit of impurities (%)**

Non-vol. .... 0.02

H<sub>2</sub>O (K.F.) ..... 0.2

**Pack Size:** 2.5L, 20L

197

**DIMETHYLGLYOXIME, UNIVAR**

**CAS** 95-45-4

**Synonyms:** Diacetyl Glyoxime

CH<sub>3</sub>C(:NOH)C(:NOH)CH<sub>3</sub> = 116.12

Reagent for nickel.

Description: white crystalline powder.

M.P. .... about 240°C

**Maximum limit of impurities (%)**

R.A.I (Sulph. ash) ..... 0.05

Insol. (in alc.) ..... 0.05

Suitability for Ni detmn. .... To pass test

Conforms to ACS

**Pack Size:** 25g, 100g, 500g

**2,6-DIMETHYLHEPTAN-4-ONE** (see Di-iso-Butyl Ketone page 147)

**DIMETHYLKETONE** (see Acetone page 43)



2448

**N,N-DIMETHYL-p-PHENYLENEDIAMINE, LABCHEM**

CAS 99-98-9

**Synonyms:** p-Amino-N,N-Dimethylaniline $(\text{CH}_3)_2\text{NC}_6\text{H}_4\text{NH}_2 = 136.20$ 

Assay (GC) ..... 98% min.

M.P. .... 35 – 38°C

U.N Number ..... 2811

ADG Class..... 6.1

Packing Group ..... III

**Pack Size:** 25g

1032

**DIMETHYL SULPHIDE, LABCHEM**

CAS 75-18-3

**Synonyms:** Methanethiomethane, Methyl Sulphide $(\text{CH}_3)_2\text{S} = 62.13$ 

Density ..... about 0.85g/mL

U.N Number ..... 1164

ADG Class..... 3

Packing Group ..... II

**Pack Size:** 100mL**DIMETHYL SULPHOXIDE**

CAS 67-68-5

**Synonyms:** Methyl Sulphoxide, DMSO $(\text{CH}_3)_2\text{SO} = 78.13$ 

Description: clear, colourless liquid.

Density ..... about 1.10 g/mL.

2225

**DIMETHYL SULPHOXIDE, UNIVAR**

Appearance: APHA ..... 10 max.

Assay ..... 99.9% min.

Density (@ 25°C) ..... 1.092 g/mL min.

**Maximum limit of impurities (%)**

R.A.E. .... 0.01

 $\text{H}_2\text{O}$  ..... 0.1

Titratable acid ..... 0.001 meq/g

Conforms to ACS

**Pack Size:** 500mL, 2.5L, 25L

747

**DIMETHYL SULPHOXIDE, UNILAB**

Density ..... about 1.10g/mL

F.P. .... 18°C

**Maximum limit of impurities (%)**

Non-vol. .... 0.05

 $\text{H}_2\text{O}$  ..... 1.0**Pack Size:** 500mL, 2.5L, 20L

199

**2,4-DINITROPHENYLHYDRAZINE, UNIVAR**

CAS 119-26-6

**Synonyms:** DNP $(\text{NO}_2)_2\text{C}_6\text{H}_3\text{NHNH}_2 = 198.14$ 

Reagent for aldehydes and ketones.

Description: orange-red crystalline powder. Moistened with water. The specification applies to dry material.

Assay ..... 99.0% min.

U.N Number ..... 1325

ADG Class..... 4.1

Packing Group ..... II

**Pack Size:** 25g, 100g

**1,4-DIOXANE**

CAS 123-91-1

**Synonyms:** 1,4-Diethylene Dioxide, Diethylene Ether  
Diethylene Oxide, Dioxethylene Ether  
(CH<sub>2</sub>)<sub>4</sub>O<sub>2</sub> = 88.11

Density ..... 1.034 g/mL

U.N Number ..... 1165

ADG Class..... 3

Packing Group ..... II

**3482****1,4-DIOXANE, HPLC/GC/SPEC, BURDICK & JACKSON, CAT. 087**

Assay ..... 99.9% min.

**Maximum limit of impurities (%)**

Water (KF) ..... 0.05

Residue ..... 1mg/L

**U.V. Absorbance:**

|           |       |       |       |       |       |
|-----------|-------|-------|-------|-------|-------|
| λ (nm)    | 215   | 250   | 300   | 350   | 400   |
| Max. abs. | 1.000 | 0.300 | 0.020 | 0.005 | 0.005 |

**Pack Size:** 4L**1347****1,4-DIOXANE, UNIVAR**

Assay ..... 99.0% min.

Boiling Point ..... 100 - 102°C

Viscosity (@ 20°C) ..... 1.54cps

Colour (APHA) ..... 20

Freezing Point ..... 11°C min.

R.I. (n<sub>20</sub>/D) ..... 1.4220

Dielectric Constant (@ 20°C) ..... 2.25

**Maximum limit of impurities (%)**

Carbonyl (as HCHO) ..... 0.01

Peroxides (as H<sub>2</sub>O<sub>2</sub>) ..... 0.005

R.A.E. .... 0.005

Titrate acid ..... 0.0016 meq/g

H<sub>2</sub>O ..... 0.05**Pack Size:** 1L, 4L**DIOXITOL** (see Ethyl digol page 171)**DIOXYETHYLENE ETHER** (see 1,4-Dioxane page 160)**868****DIPHENYLAMINE, UNILAB**

CAS 122-39-4

C<sub>12</sub>H<sub>11</sub>N = 169.2

Appearance: white crystalline powder

Assay ..... 98.0% min

**Maximum limit of impurities (%)**

L.O.D. .... 0.3

Fe ..... 0.001

Sulphated Ash ..... 0.05

**Pack size:** 500g, 5Kg**DIPHENYLAMINE-4-SULPHONIC ACID, Barium Salt** (see Barium Diphenylamine-4-sulphonate page 84)

3054

**DIPHENYLCARBAZIDE, LABCHEM**

CAS 140-22-7

 $\text{CO}(\text{NHNHC}_6\text{H}_5)_2 = 242.28$ 

Adsorption indicator.

Assay (HPLC) ..... 98% min.

M.P. .... 173 – 176°C

**Maximum limit of impurities****(%)**

Insol. in ethanol ..... To pass test

Sulph. Ash ..... 0.05

Diphenylcarbazone ..... To pass test

Suitability for determination ..... To pass test of Hg

Pack Size: 10g

1353

**DIPHENYLCARBAZONE, LABCHEM**

CAS 538-62-5

 $\text{C}_6\text{H}_5\text{NHNHCONNC}_6\text{H}_5 = 240.26$ 

Reagent for mercury.

**Maximum limit of impurities****(%)**

Insol (in alc) ..... To pass test

Sulph Ash ..... 0.1

Suitability for det. of Hg ..... To pass test

Pack Size: 25g

**DIPHENYLTHIOCARBAZONE** (see Dithizone page 162)

1356

**DI-ISOPROPYL ETHER, UNILAB**

CAS 108-20-3

Synonyms: isoPropyl Ether

 $\{(\text{CH}_3)_2\text{CH}\}_2\text{O} = 102.18$ 

Assay ..... 96% min.

Density ..... about 0.723 – 0.726 g/mL

B.R. (95% min) ..... 66 – 69°C

R.I. .... 1.3660 – 1.3700

**Maximum limit of impurities****(%)**

Non Vol. .... 0.005

Water ..... 0.5

Peroxides (as  $\text{H}_2\text{O}_2$ ) ..... 0.003%

Pack Size: 2.5L

U.N Number ..... 1159

ADG Class..... 3

Packing Group ..... II

1331

**DIPROPYLENE GLYCOL, UNILAB**

CAS 25265-71-8

 $\text{HOC}_3\text{H}_6\text{OC}_3\text{H}_6\text{OH} = 134.18$ 

Assay ..... 99.0% min.

Pack size: 500mL, 1L

**2,2'-DIPYRIDYL, 2,2'-BIPYRIDINE** (See 2,2-Bipyridyl page 91)**DIRECT BLUE 53** (See Evans Blue page 174)**DISODIUM COMPOUNDS** (see sodium compounds 339)

2484

**DITHIO-OXAMIDE, UNILAB**

CAS 79-40-3

**Synonyms:** Rubeanic Acid $(\text{CSNH}_2)_2 = 120.20$ 

Reagent for Bi and Cu.

Assay ..... 98% min.

**Maximum limit of impurities (%)**

Suitability for Cu detn. .... To pass test

**Pack Size:** 25g

208

**DITHIZONE, UNIVAR**

CAS 60-10-6

**Synonyms:** Diphenylthiocarbazone $\text{C}_6\text{H}_5\text{N}:\text{NCSNHNHC}_6\text{H}_5 = 256.32$ 

Reagent for Hg, Pb, Zn. Metal indicator.

Assay ..... 98.0% min.

Ratio of Absorbances ..... 1.55 min

**Maximum limit of impurities (%)**

H.M. (As Pb) ..... 0.002

Sulphated ash ..... 0.3

**Pack Size:** 5g**DMF** (see N,N-Dimethylformamide page 157)

1354

**1-DODECANESULPHONIC ACID, SODIUM SALT, UNICHROM**

CAS 2386-53-0

 $\text{CH}_3(\text{CH}_2)_{11}\text{SO}_3\text{Na} = 272.38$ 

Assay ..... 99.0%

Optical Absorbance of 5% solution:

210nm ..... 0.05

220nm ..... 0.03

230nm ..... 0.02

**Pack size:** 10g**DIPHENYL KETONE** (see Benzophenone page 89)

3197

**D.P.X. NEUTRAL MOUNTING MEDIUM, OP**

CAS 1330-20-7

Refractive index (n 20/D) ..... 1.518 – 1.521

Viscosity (20°C) ..... 600 – 700 mPa.s

Suitability for microscopy ..... To pass test

**Pack Size:** 100mL, 500mL

U.N Number ..... 1993

ADG Class..... 3

Packing Group ..... III

**DIRECT RED 28** (see Congo Red page 134)**DMSO** (see Dimethyl Sulphoxide page 159)

**DNP** (see 2,4-Dinitrophenylhydrazine page 159)

**DODECANOIC ACID** (see Lauric Acid page 216)

**2496**

**DRIERITE**, indicating, 8 mesh, LABCHEM

**CAS** 7778-18-9

CaSO<sub>4</sub> = 136.146

Description: Calcium sulphate for drying - 8 mesh Colour change: blue(active) to rose-red(exhausted)

**Pack Size:** 500g, 5kg

**2497**

**DRIERITE**, indicating, 10-20 mesh, LABCHEM

**CAS** 7778-18-9

CaSO<sub>4</sub> = 136.14

Calcium sulphate for drying - 10-20 mesh

Colour change: Blue(active) to rose-red(exhausted)

Drying capacity ..... 10-14% w/w

**Pack Size:** 500g

**2509**

**ECOTERIC T20**, LABCHEM

**CAS** 9005-64-5

**Synonyms:** Tween 20, Polysorbate 20

Yellow- to amber- coloured liquid.

Hydroxyl value ..... 96 - 108mg KOH/g

Saponification value ..... 40-50mg KOH/g

**Maximum limit of impurities (%)**

Water ..... 3

Acid Value ..... 2.0

**Pack Size:** 500mL

**2510**

**ECOTERIC T80**, LABCHEM

**CAS** 9005-65-6

**Synonyms:** Tween 80, Polysorbate 80

Polyoxyethylene (20) sorbitan mono-oleate.

Yellow liquid.

Acid Value (max) ..... 2.0mg KOH/g

Density ..... 1.08 g/mL approx. HLB 15.

Saponification Value ..... 45 - 55mg KOH/g

Hydroxyl Value ..... 65 - 80mg KOH/g

pH (5%) ..... 6 - 8

H<sub>2</sub>O ..... 2.5 - 3.0%

**Maximum limit of impurities (%)**

R.O.I ..... 0.15

**Pack Size:** 500mL, 20L

**E.D.T.A.** (see Ethylene Diaminetetraacetic acid page 171)

**EHRLICH'S REAGENT** (see 4-Dimethylaminobenzaldehyde page 156)

**EOSIN, AZURE (GIEMSA)**(see Giemsa stain (3272) page 181)**EOSIN-METHYLENE BLUE** (see Jenner stain (3226) page 213, or May-Grunwald stain (3235) page 239)**3199****EOSIN**, yellowish, water and alcohol soluble (**CI 45380**), OP**CAS** 17372-87-1

Stain for microscopy.

Adsorption &amp; fluorescent indicator.

**Pack Size:** 25g, 1kg**1824****EOSIN, ALCOHOLIC STAIN, LABCHEM**

1% in Ethanol

U.N Number ..... 1170

ADG Class..... 3

Packing Group ..... II

**Pack Size:** 1L, 5L**1823****EOSIN, AQUEOUS STAIN, LABCHEM**

1% in aqueous solution

**Pack Size:** 1L, 5L**3055****EOSIN B, LABCHEM****CAS** 548-24-3 $C_{20}H_6Br_2N_2Na_2O_9 = 624.06$ 

Dye content ..... 85% max.

Absorption maximum ..... 511 – 520nm

Absorption Ratio P-15/P+15 ..... 0.96 – 1.22

**Pack size:** 25g**EPSOM SALT** (see Magnesium Sulphate, Hydrated page 233)**3200****ERICHROME BLACK T (CI 14645)**, OP**CAS** 1787-61-7**Synonyms:** Mordant Black 11, Solochrome Black

Stain for microscopy. Metal indicator.

**Pack Size:** 25g**2475****ERICHROME BLUE BLACK R (CI 15705)**, LABCHEM**CAS** 2538-85-4**Synonyms:** Mordant Black 17, Calcon

Metal indicator.

**Pack Size:** 100g

3201

**Erythrosin B (CI 45430), OP**

CAS 16423-68-0

Synonyms: Acid Red

 $C_{20}H_6I_4Na_2O_5 = 879.85$ 

Assay ..... 87% v/v min.

H.M. .... 0.05

Insol (in  $H_2O$ )..... 0.02%**Maximum limit of impurities (%)**

As..... 0.0003

Pb ..... 0.001

Hg ..... 0.0001

Cd ..... 0.0001

Pack Size: 25g

1043

**ESCHKA'S MIXTURE, UNIVAR**Description: fine white powder. For sulphur determination in coal. A mixture of 1 part by wt.  $Na_2CO_3$  (anhyd.) and 2 parts by wt. MgO.**Maximum limit of impurities (%)**

Insol. (in HCl) ..... 0.005

 $SO_4$  &  $SO_3$  (as  $SO_4$ ) ..... 0.005

Pack Size: 500g

210

**ETHANEDIOL, UNILAB**

CAS 107-21-1

Synonyms: Ethylene Glycol

 $CH_2OHCH_2OH = 62.07$ 

B.R. (95% min.) ..... 195 – 199°C

Density ..... 1.112 – 1.115g/mL

R.I. .... 1.431 – 1.432

U.N Number ..... 3082

ADG Class..... 9

Packing Group ..... III

**Maximum limit of impurities (%)**

Sulph. Ash ..... 0.01

Acidity ..... 0.1 mmol H

Total chlorine (as Cl) ..... 0.006

 $SO_4$  ..... 0.005

Pack Size: 500mL, 2.5L, 20L

**ETHANETHIOAMIDE** (see Thioacetamide page 393)**ETHANOIC ANHYDRIDE** (see Acetic Anhydride page 42)**pH Capsules - Colour Coded**

pH 4.0, 7.0 &amp; 9.2

**pH Tablets**

pH 6.4, 6.8, 7.0, 7.2, &amp; 9.2

See page 27 for details

## ETHANOL, ABSOLUTE



CAS 64-17-5

Synonyms: Ethyl Alcohol

 $C_2H_5OH = 46.07$ Description: clear liquid with a mild characteristic odour;  
hygroscopic.

Density .....about 0.79g/mL

U.N Number ..... 1170

ADG Class..... 3

Packing Group ..... II

214

## ETHANOL, ABSOLUTE, UNIVAR

Assay ..... 99.5% v/v min.

Colour (APHA) ..... 10 max.

Density (@ 25°C) ..... 0.7876g/mL max.

**Maximum limit of impurities****(%)**

R.A.E., Acetone ..... 0.001

Titratable acid ..... 0.0005 meq/g

bTitratable base ..... 0.0002 meq/g

Na ..... 0.0001

Sol.in  $H_2O$  ..... To pass test

Methanol ..... 0.1

Propan-2-ol ..... 0.003

 $H_2O$  ..... 0.2Reaction to  $KMnO_4, H_2SO_4$  (each) ..... To pass test

Ca ..... 0.00005

Ni ..... 0.000002

Sr ..... 0.000002

Al ..... 0.00001

K ..... 0.00001

Cu ..... 0.00001

Fe ..... 0.00001

Zn ..... 0.00001

Mg ..... 0.00001

Ba ..... 0.000002

Cr ..... 0.000002

Co ..... 0.000002

Mn ..... 0.000002

Cd ..... 0.000005

Pb ..... 0.000005

Conforms to ACS

Pack Size: 500mL, 2.5L, 10L, 20L, 200L

1045

## ETHANOL, ABSOLUTE, UNILAB

Assay ..... 99.5% v/v min.

B.R. (95% min.) ..... 77 – 79°C

Density ..... 0.7935 g/mL max.

R.I. .... 1.360 – 1.363

**Maximum limit of impurities****(%)**

Non-vol. .... 0.01

Acidity or alkalinity ..... 0.1 mmol H or OH

 $CH_3OH$  ..... 0.1 $H_2O$  ..... 0.6

Pack Size: 500mL, 2.5L, 20L, 200L

914

## ETHANOL, ABSOLUTE, LABCHEM

Assay ..... 99.0% v/v min.

Density (@25°C) ..... 0.79 g/mL max.

Pack Size: 500mL, 2.5L

5077

## ETHANOL ABSOLUTE, HP

Solvent for Histopathology

Pack Size: 10L, 20L



**ETHANOL 96 %**

CAS 64-17-5

 $C_2H_5OH = 46.07$ 

Description: clear liquid with a mild, characteristic odour.

Density .....about 0.80g/mL.

U.N Number ..... 1170

ADG Class..... 3

Packing Group ..... II

**1046****ETHANOL 96 %, UNIVAR**

Assay ..... 96.0% v/v min.  
 Colour (APHA) ..... 10 max  
 Density (@ 25°C) ..... 0.807g/mL max.

**Maximum limit of impurities****(%)**

R.A.E., Acetone ..... 0.001  
 Titratable acid ..... 0.05 mmol H  
 Titratable base ..... 0.02 mmol OH  
 Na ..... 0.0001  
 Ca ..... 0.00005  
 Methanol ..... 0.1  
 Propan-2-ol ..... 0.003  
 Sol.in H<sub>2</sub>O, Fusel oil (each) ..... To pass test  
 Subs. red. KMnO<sub>4</sub> ..... To pass test  
 Subs. darkened by H<sub>2</sub>SO<sub>4</sub> ..... To pass test  
 Al ..... 0.00001  
 K ..... 0.00001

Fe ..... 0.00001  
 Zn ..... 0.00001  
 Ba ..... 0.000002  
 Cr ..... 0.000002  
 Co ..... 0.000002  
 Cu ..... 0.000002  
 Mn ..... 0.000002  
 Ni ..... 0.000002  
 Sr ..... 0.000002  
 Cd ..... 0.000005  
 Pb ..... 0.000005  
 Mg ..... 0.000005

Chemical and physical parameters conform to FCC  
 Conforms to ACS

**Pack Size:** 500mL, 2.5L, 20L, 200L**1047****ETHANOL 96 %, UNILAB**

Assay ..... 96.0% v/v min.  
 Density (@ 25°C) ..... 0.8096 g/mL max.

**Maximum limit of impurities****(%)**

Non-vol. .... 0.005  
 Clarity of soln. .... clear  
 Acidity or alkalinity ..... 0.1 mmol H or OH  
 Aldehydes (as CH<sub>3</sub>COH) ..... 0.0010

Benzene (C<sub>6</sub>H<sub>6</sub>) ..... 0.0005  
 Subs.red.KMnO<sub>4</sub> ..... To pass test  
 Volatile impurities ..... To pass test

**Pack Size:** 500mL, 2.5L, 5L, 20L, 200L**5004****ETHANOL 95 %, HP**

Solvent for Histopathology

**Pack Size:** 10L, 20L**5078****ETHANOL 100 IMS, HP (no permit required)**

Solvent for Histopathology

**Pack Size:** 10L, 20L

26

## ETHANOLAMINE, UNILAB



CAS 141-43-5

**Synonyms:** 2-Aminoethanol, 2-Hydroxyethylamine, Monoethanolamine $\text{CH}_2\text{OH}.\text{CH}_2\text{NH}_2 = 61.08$ 

Density ..... about 1.02g/mL

F.P. .... about 10.5°C

Assay ..... 97.0% min.

R.I. .... 1.453 – 1.455

U.N Number ..... 2491

ADG Class..... 8

Packing Group ..... III

**Maximum limit of impurities (%)**

Sulph. Ash ..... 0.05

 $\text{H}_2\text{O}$  ..... 0.6

Store above 10°C

**Pack Size:** 500mL, 2.5L, 20L

211

## 2-ETHOXYETHANOL, UNILAB



CAS 110-80-5

**Synonyms:** Cellosolve, Ethylene Glycol Monoethyl Ether, Oxitol

Ethyl Icinol, Oxitol

 $\text{C}_2\text{H}_5\text{OCH}_2\text{CH}_2\text{OH} = 90.12$ 

Density ..... about 0.93g/mL

Assay (GC) ..... 99.0% min.

U.N Number ..... 1171

ADG Class..... 3

Packing Group ..... III

**Maximum limit of impurities (%)** $\text{H}_2\text{O}$  ..... 0.2**Pack Size:** 500mL, 2.5L, 20L

## ETHYL ACETATE



CAS 141-78-6

**Synonyms:** Ethyl Ethanoate $\text{CH}_3\text{COOC}_2\text{H}_5 = 88.11$ 

Density ..... about 0.90g/mL

U.N Number ..... 1173

ADG Class..... 3

Packing Group ..... II

3456

## ETHYL ACETATE PESTICIDE GRADE, BURDICK &amp; JACKSON CAT. 100

High purity solvent for pesticide residue analysis &amp; gas chromatography.

Assay ..... 99.5% min.

**Maximum limit of impurities (%)**

GC (ECD, as Heptachlor epoxide) ..... 10 ng/L

Water (KF) ..... 0.03

Residue ..... 1mg/L

**U.V. Absorbance:**

|                |       |       |       |       |       |
|----------------|-------|-------|-------|-------|-------|
| $\lambda$ (nm) | 256   | 275   | 300   | 325   | 350   |
| Max. abs.      | 1.000 | 0.050 | 0.030 | 0.005 | 0.005 |

**Pack Size:** 4L

3476

**ETHYL ACETATE PESTICIDE GRADE, BURDICK & JACKSON, CAT. 099**

Assay ..... 99.9%

**Maximum limit of impurities (%)**

GC (ECD, as Heptachlor epoxide) ..... 10 ng/L

Water (KF) ..... 0.05

Residue ..... 1mg/L

**U.V. Absorbance:**

|                |       |       |       |       |       |
|----------------|-------|-------|-------|-------|-------|
| $\lambda$ (nm) | 256   | 275   | 300   | 350   | 400   |
| Max. abs.      | 1.000 | 0.005 | 0.005 | 0.005 | 0.005 |

**Pack Size:** 4L

3513

**ETHYL ACETATE, HPLC GRADE, BURDICK & JACKSON, CAT. AH100**

Assay ..... 99.5% min.

**Maximum limit of impurities (%)**

Water (KF) ..... 0.03

Residue ..... 3mg/L

**U.V. Absorbance:**

|                |       |       |       |       |       |
|----------------|-------|-------|-------|-------|-------|
| $\lambda$ (nm) | 256   | 275   | 300   | 325   | 350   |
| Max. abs.      | 1.000 | 0.050 | 0.030 | 0.005 | 0.005 |

**Pack Size:** 4L

212

**ETHYL ACETATE, UNIVAR**

Assay ..... 99.5% min.

R.I. (@20°C) ..... 1.3710 – 1.3730

Colour (APHA) ..... 10 max.

**Maximum limit of impurities (%)**

R.A.E. .... 0.003

Titratable acid ..... 0.0009 meq/g

Water ..... 0.2

Subs. darkened by H<sub>2</sub>SO<sub>4</sub> ..... To pass test

Conforms to ACS

**Pack Size:** 500mL, 2.5L, 10L, 20L, 200L

213

**ETHYL ACETATE, UNILAB**

Assay ..... 99.0% min

B.R. (95% min.) ..... 76 – 78°C

R.I. .... 1.3710 – 1.3730

**Maximum limit of impurities (%)**

Non-vol. .... 0.01

Acidity (as CH<sub>3</sub>COOH) ..... 0.01H<sub>2</sub>O ..... 0.3**Pack Size:** 500mL, 2.5L, 20L

1049

## ETHYL ACETOACETATE, UNILAB

CAS 141-97-9

Synonyms: Acetoacetic acid, Ethyl Ester

 $\text{CH}_3\text{COCH}_2\text{CO}_2\text{C}_2\text{H}_5 = 130.14$ 

Assay ..... 99.0% min.

Density ..... 1.021

Boiling Point ..... 181°C

**Maximum limit of impurities (%)**Acidity (as  $\text{CH}_3\text{COOH}$ ) ..... 0.20

Water ..... 0.15

Pack Size: 500mL

## ETHYL ALCOHOL (see Ethanol page 166)

1358

## ETHYL BENZENE, OP

CAS 100-41-4

 $\text{C}_6\text{H}_5\text{C}_2\text{H}_5 = 106.17$ 

Assay ..... 99.0% min.

Colour (APHA) ..... 20

U.N Number ..... 1175

ADG Class..... 3

Packing Group ..... II

**Maximum limit of impurities (%)** $\text{H}_2\text{O}$  ..... 0.1

Pack size: 500mL, 1L, 4L



3057

## ETHYL BENZOATE, OP

CAS 93-89-0

Synonyms: Benzoic Acid Ethyl Ester

 $\text{C}_6\text{H}_5\text{COOC}_2\text{H}_5 = 150.18$ 

Density ..... about 1.047 g/mL.

R.I. .... 1.505

B.R. .... 211-213°C

Assay ..... 99% min.

Pack Size: 500g

1051

## ETHYL CARBAMATE, LABCHEM

CAS 51-79-6

Synonyms: Urethane

 $\text{C}_3\text{H}_7\text{NO}_2 = 89.09$ 

Assay ..... 99 - 101%

M.R. .... 48 – 50°C

**Maximum limit of impurities (%)**

Sulph Ash ..... 0.1

 $\text{H}_2\text{O}$  (K.F) ..... 1.0

H.M (as Pb) ..... 0.001

Cl ..... 0.001

Pack Size: 500g

1360

**ETHYL DIGOL, UNILAB****CAS** 111-90-0**Synonyms:** Diethylene Glycol Monoethyl Ether, Ethyl Di-Icinol, Dioxitol, Carbitol $\text{CH}_3\text{CH}_2\text{OCH}_2\text{CH}_2\text{OCH}_2\text{CH}_2\text{OH} = 134.18$ 

Density ..... about 0.99g/mL

R.I. .... about 1.427

**Maximum limit of impurities (%)** $\text{H}_2\text{O}$  ..... 0.2**Pack size:** 2.5L**ETHYL DI-ICINOL** (see Ethyl digol page 171)**ETHYL ETHANOATE** (see Ethyl Acetate page 168)**ETHYL ETHER** (see Diethyl Ether page 153)**ETHYLENEDIAMINETETRAACETIC ACID (EDTA)****CAS** 60-00-4 $\text{C}_{10}\text{H}_{16}\text{N}_2\text{O}_8 = 292.25$ 

Description: colourless crystals or a white crystalline powder.

663

**ETHYLENEDIAMINETETRAACETIC ACID (EDTA), UNIVAR**

Assay ..... 99.4 - 100.6%

**Maximum limit of impurities****(%)**Insol. (dil.  $\text{NH}_4\text{OH}$ ) ..... 0.005

R.A.I. .... 0.2

Nitrilotriacetic acid ..... 0.1

Ca ..... 0.001

Fe ..... 0.005

H.M. (as Pb) ..... 0.001

Mg ..... 0.0005

Conforms to ACS

**Pack Size:** 100g, 500g, 5kg, 10kg

179

**ETHYLENEDIAMINETETRAACETIC ACID (EDTA), UNILAB**

Assay ..... 98.0% min.

**Maximum limit of impurities (%)**

Sulph. Ash ..... 0.5

H.M. (as Pb) ..... 0.01

**Pack Size:** 500g, 5kg

2308

**ETHYLENEDIAMINETETRAACETIC ACID (EDTA), Ferric Monosodium salt, LABCHEM****CAS** 15708-41-5 $\text{C}_{10}\text{H}_{12}\text{FeN}_2\text{NaO}_8 = 367.05$ 

Appearance: Brown-coloured crystalline powder

Assay ..... 99.0% min

**Maximum limit of impurities****(%)**

Fe ..... 0.001

H.M (as Pb) ..... 0.001

L.O.D. .... 1.0

Sulphated Ash ..... 0.1

**Pack size:** 100g, 5Kg, 25Kg

2406

**ETHYLENEDIAMINETETRAACETIC ACID (EDTA), di-Potassium salt, LABCHEM**

CAS 2001-94-7

 $C_{10}H_{14}O_8N_2K_2 \cdot 2H_2O = 404.46$ 

Pack Size: 100g

**ETHYLENEDIAMINETETRAACETIC ACID (EDTA), di-sodium salt**

CAS 139-33-3

 $C_{10}H_{14}N_2Na_2O_8 \cdot 2H_2O = 372.24$ 

Description: white crystalline powder.

180

**ETHYLENEDIAMINETETRAACETIC ACID (EDTA), di-sodium salt, UNIVAR**

Assay ..... 99.0 - 101.0%  
 pH (5% soln. @ 25°C) ..... 4.0 – 6.0

**Maximum limit of impurities****(%)**

Insol..... 0.005  
 Nitrilotriacetic acid ..... 0.1  
 H.M. (as Pb) ..... 0.005  
 Ca ..... 0.002

Cu ..... 0.0001  
 Fe..... 0.0005  
 Pb ..... 0.0005  
 Ni..... 0.0005

Conforms to ACS

Pack Size: 100g, 500g, 5kg, 25kg

181

**ETHYLENEDIAMINETETRAACETIC ACID (EDTA), di-sodium salt, UNILAB**

Assay ..... 98% min.  
 pH (5% soln.) ..... 4.0 – 6.0

**Maximum limit of impurities****(%)**

H.M. (as Pb) ..... 0.05

Pack Size: 500g, 5kg, 25kg

1377

**ETHYLENEDIAMINETETRAACETIC ACID (EDTA), di-sodium salt, 0.1MOL CONCENTRATE, AMPOULE, OP**

Description: plastic ampoule containing clear colourless liquid  
 0.1 mole (37.224g  $C_{10}H_{14}N_2Na_2O_8 \cdot 2H_2O$ ) to prepare 1L of 0.1M solution

Titer ..... 0.998 – 1.002

Pack size: Ampoule

2222

**EDTA, di-sodium salt 0.05M solution, UNIVOL**

Stabilized with sodium azide 0.01%.

Molarity ..... 0.0500 +/- 0.0005M

Pack Size: 2.5L

727

**EDTA, di-sodium salt 0.01M solution, UNIVOL**

Stabilized with sodium azide 0.01%.

Molarity ..... 0.0995 - 0.1005mol/L

**Pack Size:** 6X1L, 2.5L

182

**EDTA, tetra-sodium salt, hydrate, UNILAB****CAS** 64-02-8{CH<sub>2</sub>N(CH<sub>2</sub>COONa)<sub>2</sub>}<sub>2</sub> + aq

pH (5% soln.) ..... about 11.5

Assay ..... about 98.5% min.

**Pack Size:** 500g, 5kg**ETHYLENE DIBROMIDE** (see 1,2-Dibromoethane page 147)**ETHYLENE DICHLORIDE** (see 1,2-Dichloroethane page 149)**ETHYLENE GLYCOL** (see Ethanediol page 165)**ETHYLENE GLYCOL MONOBUTYL ETHER** (see 2-Butoxyethanol page 104)**ETHYLENE GLYCOL MONOETHYL ETHER** (see 2-Ethoxyethanol page 168)**ETHYLENE GLYCOL MONOPHENYL ETHER** (see 2-Phenoxyethanol page 286)**ETHYLENE GLYCOL MONOMETHYL ETHER** (see 2-Methoxyethanol page 249)**ETHYLENE TRICHLORIDE** (see Trichloroethylene page 403)**N-ETHYLETHANAMINE** (see Diethylamine page 152)

1362

**ETHYL FORMATE, UNILAB****CAS** 109-94-4HCOOC<sub>2</sub>H<sub>5</sub> = 74.08

Assay (GC) ..... 97% min.

Density ..... 0.910-0.920 g/mL

U.N Number ..... 1190

ADG Class..... 3

Packing Group ..... II

**Maximum limit of impurities (%)**

Acidity (as HCOOH) ..... 0.06

**Pack Size:** 500mL**ETHYL ICINOL** (see 2-Ethoxyethanol page 168)**ETHYL IODIDE** (see Iodoethane page 207)

**ETHYL METHYL KETONE**

CAS 78-93-3

**Synonyms:** Methyl Ethyl Ketone, 2-Butanone $C_2H_5COCH_3 = 72.11$ 

Density ..... about 0.80g/mL

U.N Number ..... 1193

ADG Class..... 3

Packing Group ..... II

**218****ETHYL METHYL KETONE, UNILAB**

Assay ..... 99.5% min.

B.R.(95% min.) ..... 79 – 81°C

**Maximum limit of impurities (%)**

Non-vol. .... 0.01

Acidity (as  $CH_3COOH$ ) ..... 0.01**Pack Size:** 500mL, 2.5L, 20L**219****ETHYL METHYL KETONE, TECHNICAL****Pack Size:** 2.5L**ETHYNYL TRICHLORIDE** (see Trichloroethylene page 403)**326****N-ETHYLPIPERIDINE, UNILAB**

CAS 766-09-6

 $C_5H_{10}NC_2H_5 = 113.20$ 

Density ..... about 0.82g/mL

Assay ..... 98.5% min.

B.R. (95% min.) ..... 128 – 131°C

R.I. .... 1.444 – 1.445

U.N Number ..... 2386

ADG Class..... 3

Packing Group ..... II

**Pack Size:** 100 mL**EUCALYPTOL** (see Cineole page 130)**3203****EVANS BLUE (CI 23860), OP**

CAS 314-13-6

**Synonyms:** Direct Blue 53

Stain for microscopy.

U.N Number ..... 3143

ADG Class..... 6.1

Packing Group ..... III

**Pack Size:** 5g**3205****FAST BLUE BB SALT (C.I. 37175), LABCHEM**

CAS 15518-68-0

 $C_{17}H_{18}N_3O_3 \cdot \frac{1}{2}ZnCl_2 = 415.9$ 

Appearance: greenish yellow amorphous powder

Dye content ..... 88.0% min

U.N Number ..... 1602

ADG Class..... 6.1

Packing Group ..... III

**Pack size:** 25g



3206

## FAST GREEN FCF, LABCHEM



CAS 2353-45-9

 $C_{37}H_{34}N_2O_{16}S_3Na_2 = 808.85$ 

Appearance: Bordeaux to maroon powder

Dye content ..... about 85.0%

Absorption maximum ..... 622 – 626nm

Absorption ratio P-15/P+15 ..... 0.98 – 1.2

U.N Number ..... 1602

ADG Class..... 6.1

Packing Group ..... III

Pack size: 25g

799

## FEHLINGS SOLUTION No 1, LABCHEM

**Synonyms:** Potassium Cupri-Tartrate Solution

Used for determination of invert sugar in conjunction with Cat. 800.

Pack Size: 500mL, 2.5L

800

## FEHLINGS SOLUTION No 2 B P, LABCHEM



Description: Used for the determination of invert sugar in conjunction with Cat. 799.

U.N Number ..... 1760

ADG Class..... 8

Packing Group ..... II

Pack Size: 500mL, 2.5L

FERRIC SALTS (see Iron(III) Salts page 209)

FERRIC CHLORIDE (see Iron(III) Chloride page 209)

FERRIC CITRATE (see Iron(III) Citrate page 210)

FERRIC NITRATE (see Iron(III) Nitrate page 210)

FERRIC OXIDE, RED (see Iron(III) Oxide page 211)

717

## FERROIN, 0.025 M Solution, LABCHEM

CAS 7732-18-5

**Synonyms:** 1,10-Phenanthroline-ferrous complex solution

Redox indicator.

Transition EMF (@ pH=0) ..... +1.06V

Transition EMF (@ pH=7) ..... + 1.12V

Colour change: Oxidized (faint blue) to reduced (red)

Pack Size: 100mL

FERROUS SALTS (see Iron(II) Salts page 211)

FERROUS AMMONIUM SALTS (see Ammonium Iron(II) Salts page 68)

FERROUS CHLORIDE (see Iron(II) Chloride page 209)

FERROUS OXALATE (see Iron(II) Oxalate page 211)

FERROUS SULPHATE (see Iron(II) Sulphate page 211)

FERROUS SULPHIDE (see Iron(II) Sulphide page 212)

**1739 FILTER AID MEDIUM HYFLO, UNIVAR**

**CAS** 68855-54-9  
 Flux calcined diatomaceous earth  
 Retention (270 mesh) 20%  
 S.G. .... (approx) 2.15 g/mL  
 L.O.I. .... (approx) 0.5%

**Pack Size:** 500g

**2551 FLORISIL, 60/100 mesh, pest, residue grade, LABCHEM**

**CAS** 1343-88-0  
 Activated magnesium silicate for pesticide residue analysis. Activation temperature 650°C.

**Pack Size:** 1Kg

**FLOWERS OF SULPHUR** (see Sulphur sublimed page 386)

**2577 FLUOBORIC ACID 50 % W/W SOLUTION, UNILAB**



**CAS** 16872-11-0  
**Synonyms:** Fluoroboric Acid  
 HBF<sub>4</sub> = 87.81  
 Assay ..... 49.5 - 50.5%

U.N Number ..... 1775  
 ADG Class..... 8  
 Packing Group ..... II

| <i>Maximum limit of impurities</i> |        | ( % )                                                         |
|------------------------------------|--------|---------------------------------------------------------------|
| Cu .....                           | 0.0005 | Ni ..... 0.0005                                               |
| Pb .....                           | 0.05   | Chloride (Cl) ..... 0.005                                     |
| Fe .....                           | 0.005  | Free boric acid (H <sub>3</sub> BO <sub>3</sub> ) ..... 2     |
| Zn .....                           | 0.0005 | Fluosilicic acid(H <sub>2</sub> SiF <sub>6</sub> ) ..... 0.02 |
| SO <sub>4</sub> .....              | 0.002  |                                                               |

**Pack Size:** 500mL

**2205 FLUORESCCEIN (CI 45350), LABCHEM**

**CAS** 2321-07-5  
**Synonyms:** Solvent Yellow 94  
 C<sub>20</sub>H<sub>12</sub>O<sub>5</sub> = 332.32  
 Adsorption indicator.

**Pack Size:** 100g

**FLUORESCCEIN**, water soluble (see Fluorescein sodium salt page 176)

**229 FLUORESCCEIN SODIUM SALT (CI 45350), LABCHEM**

**CAS** 518-47-8  
**Synonyms:** Fluorescein water soluble, Uranin  
 C<sub>20</sub>H<sub>10</sub>O<sub>5</sub>Na<sub>2</sub> = 376.28  
 Water soluble. Used for tracing water courses etc. Effective visual indication at 2 mg/L.

**Pack Size:** 100g, 500g, 5Kg

**FLUORIC ACID** (see Hydrofluoric acid page 201)

**FLUOROBORIC ACID** (see Fluoboric acid page 176)

2207

**1-FLUORO-2,4-DINITROBENZENE, UNILAB**

CAS 70-34-8  
 $C_6H_3FN_2O_4 = 186.1$

Pack size: 25g

U.N Number ..... 2810  
 ADG Class..... 6.1  
 Packing Group ..... III

665

**FOLIN & CIOCALTEU'S REAGENT, LABCHEM**

Golden yellow clear liquid.  
 For phenol determination.  
 Reaction with phenol - positive

Pack Size: 500mL

U.N Number ..... 3264  
 ADG Class..... 8  
 Packing Group ..... III

**FORMALDEHYDE**

CAS 50-00-0  
**Synonyms:** Formalin, Formic Aldehyde, Methanal, Oxymethylene  
 $HCHO = 30.03$   
 Description: clear liquid when packed, with a strong, pungent,  
 characteristic odour. A white deposit of paraformaldehyde may  
 form on storage.  
 Density.....about 1.09g/mL

U.N Number ..... 2209  
 ADG Class..... 8  
 Packing Group ..... III

809

**FORMALDEHYDE SOLUTION, UNIVAR**

Assay ..... 36.5 - 38.0% w/w  
 Methanol ..... 9-10% w/w  
 Colour (APHA) ..... 10 max.

**Maximum limit of impurities****(%)**

R.A.I. .... 0.005  
 Titratable acid ..... 0.006 meq/g  
 $SO_4$  ..... 0.002  
 Fe ..... 0.0005

H.M. (as Pb) ..... 0.0005  
 Chlorides ..... 0.0035  
 Methanol ..... 9-10

Store between 25 and 35°C

Pack Size: 500mL, 2.5L, 10L, 20L, 200L

230

**FORMALDEHYDE SOLUTION, UNILAB**

Assay ..... 34.5 - 38.0% w/w  
 Methanol (GC) ..... 9.0-10.0% v/v

**Maximum limit of impurities****(%)**

Acidity ..... 5 mmol H  
 Sulphated Ash ..... 0.1%

Store between 25 and 35°C

Chemical and physical parameters conform to BP

Pack Size: 500mL, 2.5L, 5L, 20L, 200L

84

**FORMALDEHYDE 37 SOLUTION, TECHNICAL**

Assay ..... about 36% w/w  
 Density ..... about 1.09g/mL

Pack Size: 2.5L, 20L

**FORMALDEHYDE BUFFERED** (see Neutral Buffered Formalin page 263)**FORMALIN** (see Formaldehyde page 177)**702****FORMAMIDE, UNILAB**

CAS 75-12-7

**Synonyms:** Formic Acid AmideHCONH<sub>2</sub> = 45.04

Density ..... about 1.13g/mL

M.P ..... about 2°C

Assay ..... 99.5% min.

F.P. .... 2°C min.

B.R. .... 111 – 112°C

**Maximum limit of impurities (%)**

Non-vol. .... 0.05

Acidity (as HCOOH) ..... 0.1

Amm Formate ..... 0.1

Methanol ..... 0.1

H<sub>2</sub>O ..... 0.05**Pack Size:** 500mL, 2.5L, 20L**FORMDIMETHYLAMIDE** (See N,N-Dimethylformamide page 157)**FORMIC ACID**

CAS 64-18-6

**Synonyms:** Hydrogen Carboxylic Acid

HCOOH = 46.03

Density ..... about 1.20 g/mL

U.N Number ..... 1779

ADG Class ..... 8

Packing Group ..... II

**2471****FORMIC ACID 99%, UNIVAR**

Description: clear liquid with a pungent odour.

Density ..... about 1.22g/mL

Assay ..... 98.0% w/w min.

F.P. .... 5.5°C min.

**Maximum limit of impurities (%)**H<sub>2</sub>O-insol. .... To pass test

Non-vol. .... 0.002

Cl ..... 0.0005

N cpds (as N) ..... 0.002

SO<sub>3</sub> ..... 0.001SO<sub>4</sub> ..... 0.001

Cu ..... 0.0005

Fe ..... 0.0003

Pb ..... 0.0005

CH<sub>3</sub>COOH ..... 0.3**Pack Size:** 500mL, 2.5L**1063****FORMIC ACID 90%, UNIVAR**

Description: clear, colourless or almost colourless, corrosive liquid with a pungent odour.

Assay ..... 89.0 - 91.0% w/w

**Maximum limit of impurities (%)**

Non-vol. .... 0.005

Dil. Test ..... To pass test

Cl ..... 0.001

SO<sub>4</sub> ..... 0.002SO<sub>3</sub> ..... To pass test

Fe ..... 0.0005

H.M. (as Pb) ..... 0.0005

NH<sub>4</sub> ..... 0.01CH<sub>3</sub>COOH ..... 0.4**Pack Size:** 500mL, 2.5L

233

**FORMIC ACID 90 %, UNILAB**

Assay ..... 88.0 - 92.0% w/w

**Maximum limit of impurities (%)**

|                       |       |
|-----------------------|-------|
| Non-vol. ....         | 0.01  |
| Cl .....              | 0.005 |
| SO <sub>4</sub> ..... | 0.005 |
| Fe .....              | 0.001 |

**Pack Size:** 500mL, 2.5L, 20L

1064

**FORMIC ACID 85-88 %, TECHNICAL****Pack Size:** 2.5L**FORMIC ACID AMIDE** (See Formamide page 178)**FORMIC ACID SODIUM SALT** (See Sodium Formate page 352)**FORMYL-DIMETHYLAMINE** (See N,N-Dimethylformamide page 157)**D(-) FRUCTOSE****CAS** 57-48-7**Synonyms:** LaevuloseC<sub>6</sub>H<sub>12</sub>O<sub>6</sub> = 180.16

775

**D(-) FRUCTOSE, UNIVAR**

Description: white crystalline powder.

Spec. rotn. (10% in H<sub>2</sub>O) ..... -91.0 to -93.5°**Maximum limit of impurities (%)**

|                   |         |
|-------------------|---------|
| Sulph. Ash .....  | 0.1     |
| Water (K.F) ..... | 0.5     |
| Pb .....          | 0.00005 |

**Pack Size:** 100g, 500g

236

**D(-) FRUCTOSE, UNILAB**Spec. rotn. (c=10, H<sub>2</sub>O) ..... -91.0 to -93.5°

Acidity or alkalinity ..... To pass test

Clarity and colour of soln. .... To pass test

**Maximum limit of impurities (%)**

|                                     |              |
|-------------------------------------|--------------|
| Barium .....                        | To pass test |
| Lead .....                          | 0.00005      |
| Foreign sugars .....                | To pass test |
| 5-Hydroxymethylfurfural & cps. .... | To pass test |
| Sulphated ash .....                 | 0.1%         |
| Water (K.F) .....                   | 0.5%         |

Chemical and physical parameters conform to BP

**Pack Size:** 500g, 5kg

3212

**FUCHSIN ACID (CI 42685), OP**

CAS 3244-88-0

**Synonyms:** Rubin S, Rubine Acid  
Stain for microscopy.

Pack Size: 25g

3213

**FUCHSIN BASIC pure for schiffs/feulgen (CI 42510), OP**

CAS 632-99-5

**Synonyms:** Brilliant Fuchsin, Diamant Fuchsin, Magenta, Rosaniline Hydrochloride  
For microscopy. Specially prepared and purified for use in Schiff's and Feulgen reagents.

Pack Size: 25g, 1kg

238

**FULLERS EARTH, TECHNICAL**

CAS 8031-18-3

**Synonyms:** Bentonite

A sodium- type bentonite comprising mainly montmorillonite. Typical analysis below:

|                                      |       |
|--------------------------------------|-------|
| SiO <sub>2</sub> .....               | 59.5% |
| Al <sub>2</sub> O <sub>3</sub> ..... | 21.0% |
| Fe <sub>2</sub> O <sub>3</sub> ..... | 6.5%  |
| L.O.I. ....                          | 8.3%  |

Pack Size: 500g

1557

**FUMARIC ACID, UNILAB**

CAS 110-17-8

C<sub>4</sub>H<sub>4</sub>O<sub>4</sub> = 116.07

Appearance: white to colourless granules or crystalline powder

Assay ..... 99.0% min.

Pack size: 500g, 5Kg

**FURFURAL (see Furfuraldehyde page 180)**

1066

**FURFURALDEHYDE, TECHNICAL**

CAS 98-01-1

C<sub>5</sub>H<sub>4</sub>O<sub>2</sub> = 96.09

B.R. .... 160 163°C

R.I. .... 1.5240 – 1.5260

Density ..... 1.540 – 1.560 g/mL

U.N Number ..... 1199

ADG Class..... 6.1

Packing Group ..... II

**Maximum limit of impurities (%)**

Sulph Ash ..... 0.01

H<sub>2</sub>O (KF) ..... 0.05

Pack Size: 500mL, 2.5L

**D(+)GALACTOSE**

CAS 59-23-4  
 $C_6H_{12}O_6 = 180.16$

**239****D(+)GALACTOSE, UNIVAR**

Description: white crystalline powder.  
 Specific Rotation ..... +79.0 to +81°  
 Appearance (10% solution) ..... Clear & colourless

| <i>Maximum limit of impurities</i> | <i>(%)</i> |
|------------------------------------|------------|
| Water (KF) .....                   | 0.3        |
| Sulphated Ash .....                | 0.1        |

**Pack Size:** 100g, 500g

**240****D(+)GALACTOSE, UNILAB**

Suitable for liver function tests.  
 M.P. .... 165 168°C  
 Spec. rotn. .... +79.0 to +81.2°

**Pack Size:** 100g

**1080****GELATINE, powder, LABCHEM**

CAS 9000-70-8

**Pack Size:** 500g

**3214****GENTIAN VIOLET (CI 42555), OP**

CAS 548-62-9  
 Stain for microscopy.

**Pack Size:** 25g

**3060****GIBBERELIC ACID, LABCHEM**

CAS 77-06-5  
 $C_{19}H_{22}O_6 = 346.38$   
 Appearance: white amorphous powder  
 Assay ..... 90.0% min.

| <i>Maximum limit of impurities</i> | <i>(%)</i> |
|------------------------------------|------------|
| H.M. (as Pb) .....                 | 0.001      |
| L.O.D .....                        | 1          |
| Sulphated ash .....                | 0.2        |

**Pack size:** 25g

**3272****GIEMSA'S STAIN, powder, OP**

CAS 51811-82-6  
 Stain for microscopy.

**Pack Size:** 25g, 100G, 500g

1825

**GIEMSA STAIN SOLUTION, LABCHEM**



Giemsa stain 0.75% in 50/50 Methanol/Glycerol

U.N Number ..... 1992  
ADG Class..... 3  
Packing Group ..... II

**Pack Size:** 1L, 5L

1700

**GLASS BALLS, undrilled, 3mm , TECHNICAL**

**Pack Size:** 500g

1676

**GLASSWARE CLEANING SOLN. – CHROMIC ACID**



Formula is Na<sub>2</sub>Cr<sub>2</sub>O<sub>7</sub> 2.9 kg in 200L H<sub>2</sub>SO<sub>4</sub>. Chromic acid - about 2% w/v

U.N Number ..... 2240  
ADG Class..... 8  
Packing Group ..... I

**Pack Size:** 2.5L

**GLASSWARE TREATMENT SOLUTION** (see Coatsil page 132)

1755

**GLASS WOOL, Low in Lead, TECHNICAL**

**Pack Size:** 500g

**D-GLUCITOL** (see D-Sorbitol page 378)

**D-GLUCOSE**

**CAS** 50-99-7

**Synonyms:** Dextrose

C<sub>6</sub>H<sub>12</sub>O<sub>6</sub> = 180.16

Description: white crystalline powder.

783

**D-GLUCOSE anhydrous, UNIVAR**

Spec. rotn ..... +52.5 to +53.0°

**Maximum limit of impurities**

|                                                              | (%)        |                           |
|--------------------------------------------------------------|------------|---------------------------|
| Insol. ....                                                  | 0.005      | As ..... 0.00002          |
| R.A.I. ....                                                  | 0.02       | Fe..... 0.0001            |
| Titrate acid .....                                           | 0.2 mmol H | Cu ..... 0.0001           |
| L.O.D. ....                                                  | 0.2        | Pb ..... 0.0001           |
| Cl.....                                                      | 0.01       | H.M. (as Pb)..... 0.0005  |
| SO <sub>4</sub> & SO <sub>3</sub> (as SO <sub>4</sub> )..... | 0.005      | Starch ..... To pass test |

Conforms to ACS

**Pack Size:** 500g, 1kg, 5kg, 25kg



1364

**D-GLUCOSE anhydrous, UNILAB**

Spec. rotn. (10% ammoniacal soln.) ..... +52.5 to 53.0°

**Maximum limit of impurities****(%)**

Clarity, odour &amp; colour soln. .... To pass test

Sulph. Ash ..... 0.1

Acidity or alkalinity ..... To pass test

Cl ..... 0.0125

SO<sub>4</sub> ..... 0.020SO<sub>3</sub> ..... To pass test

Pb ..... 0.00005

As ..... 0.0001

Ba ..... To pass test

Ca ..... 0.020

H<sub>2</sub>O ..... 1.0

Foreign sugars, sol.starch &amp;

Dextrins ..... To pass test

Chemical and physical parameters conform to BP

**Pack Size:** 500g, 5kg, 25kg

917

**D-GLUCOSE anhydrous, LABCHEM**

Spec. rotn.(10% ammoniacal sol) ..... +52.0 to +54.0°

**Maximum limit of impurities****(%)**SO<sub>4</sub> ..... 0.05H<sub>2</sub>O ..... 1.5**Pack Size:** 500g

713

**D-GLUCOSE monohydrate, UNILAB****Synonyms:** Dextrose

Description: colourless crystals; or a white or cream coloured, crystalline or granular powder; odourless.

H<sub>2</sub>O (@105°C) ..... 7.0 - 9.5%Spec. rotn. (10% w/v NH<sub>4</sub>OH soln of dried material) +52.5 to +53.3°**Maximum limit of impurities****(%)**

Clarity, odour &amp; colour soln. .... To pass test

Sulph. Ash ..... 0.1

Acidity or alkalinity ..... 0.25mmol H or OH

Cl ..... 0.0125

SO<sub>4</sub> ..... 0.020SO<sub>3</sub> ..... To pass test

As ..... 0.0001

Ba ..... To pass test

Ca ..... 0.020

Pb ..... 0.00005

Foreign sugars, soluble starch,

dextrins. .... To pass test

**Pack Size:** 500g, 25kg

2404

**L-GLUTAMIC ACID, UNIVAR****CAS** 56-86-0C<sub>5</sub>H<sub>9</sub>NO<sub>4</sub> = 147.13

Description: White crystalline powder

Solubility: Soluble in water and alcohol. Insoluble in ether, acetone, and chloroform.

Assay (Non-aqueous titration) ..... 99.8% min.

**Maximum limit of impurities****(%)**

Fe ..... 0.0005

Pb ..... 0.0005

Cl ..... 0.005

SO<sub>4</sub> ..... 0.005

Cd ..... 0.0005

Na ..... 0.005

**Pack size:** 250g

698

**GLUTARALDEHYDE 25% solution, UNILAB****CAS** 111-30-8OHCC<sub>3</sub>H<sub>6</sub>CHO = 100.12

Density ..... about 1.06g/mL

Assay ..... 24.5% w/w min.

pH ..... (5% soln) 3.0 min

U.N Number ..... 2927

ADG Class ..... 6.1

Subsidiary Risk..... 8

Packing Group ..... II

**Maximum limit of impurities****(%)**

Dilution with water ..... clear/slightly opalescent

Store below 4°C (do not freeze)

**Pack Size:** 500mL, 2.5L, 20L, 200kg

234

**GLUTATHIONE, Reduced, UNILAB****CAS** 70-18-8C<sub>10</sub>H<sub>17</sub>N<sub>3</sub>O<sub>6</sub>S = 307.3

Description: White crystalline powder

Assay ..... 98.0% min.

**Maximum limit of impurities****(%)**

H.M. (as Pb) ..... 0.0005

Fe ..... 0.0005

Ca ..... 0.001

**Pack size:** 25g**GLYCERIN** (see Glycerol page 184)**GLYCEROL****CAS** 56-81-5**Synonyms:** Glycerin, GlycerineCH<sub>2</sub>OHCHOHCH<sub>2</sub>OH = 92.09

242

**GLYCEROL, UNIVAR**

Description: clear, odourless, viscous liquid.

Assay ..... 99.5% min.

Colour (APHA) ..... 10 max

Density (@ 25°C) ..... 1.2570g/mL min.

**Maximum limit of impurities****(%)**

R.A.I. .... 0.005

Neutrality ..... To pass test

Cl cpds (as Cl) ..... 0.003

SO<sub>4</sub> ..... 0.001

H.M. (as Pb) ..... 0.0002

Acrolein &amp; glucose ..... To pass test

Fatty acid esters ..... 0.05

Subs. darkened by H<sub>2</sub>SO<sub>4</sub> ..... To pass test

Water ..... 0.5

Conforms to ACS

**Pack Size:** 500mL, 2.5L, 20L, 250kg

243

## GLYCEROL, UNILAB

Description: clear, colourless or almost colourless, syrupy liquid; slippery to the touch; hygroscopic

Assay ..... 98.0 - 101.0%

R.I. .... 1.470-1.475

Water..... 2.0% max.

**Maximum limit of impurities****(%)**

Clarity and colour of soln. .... To pass test

Sulph. Ash ..... 0.01

Acidity ..... To pass test

Cl ..... 0.001

Halogenated cpds (Cl) ..... 0.0035

H.M. (as Pb) ..... 0.0005

Ester ..... To pass test

Aldehydes &amp; reducing subst. .... To pass test

Sugars ..... To pass test

Chemical and physical parameters conform to BP

**Pack Size:** 500mL, 2.5L, 10L, 20L, 250kg

918

## GLYCEROL, LABCHEM

Assay ..... 97.0% min.

R.I. .... 1.46-1.48

**Maximum limit of impurities****(%)**

Sulph. Ash ..... 0.01

Water ..... 3.0% max.

**Pack Size:** 500mL

## GLYCINE

**CAS** 56-40-6**Synonyms:** Aminoacetic Acid, GlycocollNH<sub>2</sub>CH<sub>2</sub>COOH = 75.07

Description: white crystalline powder.

1083

## GLYCINE, UNIVAR

Assay ..... 98.5% min.

M.P. .... 235-245°C

**Maximum limit of impurities****(%)**

Insol. .... 0.005

Sulph. Ash..... 0.1

Cl..... 0.005

Fe..... 0.003

H.M. (as Pb)..... 0.002

NH<sub>4</sub>..... 0.01H<sub>2</sub>O..... 0.2**Pack Size:** 500g, 5kg

1084

**GLYCINE, UNILAB**

Assay (dried basis) ..... 98.5 - 101.0%  
Acidity (pH 5% w/v) ..... 5.9 – 6.4

**Maximum limit of impurities (%)**  
Clarity & colour of soln. .... To pass test  
H.M.(as Pb) ..... 0.001  
Cl ..... 0.0075  
L.O.D. .... 0.5  
Sulphated ash ..... 0.1

Chemical and physical parameters conform to BP

**Pack Size:** 500g, 5kg, 25kg

**GLYCOCOLL** (see Glycine page 185)

1085

**GLYCOLIC ACID 70 %, TECHNICAL**



CAS 79-14-1  
**Synonyms:** Hydroxyacetic Acid  
 $\text{CH}_2\text{OHCOOH} = 76.05$   
Total acid (as Hydroxy-acetic) ..... 70-72%  
Colour (Gardner scale) ..... 3 max  
Turbidity, NTU ..... 6 max.

U.N Number ..... 3265  
ADG Class..... 8  
Packing Group ..... II

**Maximum limit of impurities (%)**  
Formic acid ..... 1.0  
 $\text{SO}_4$  ..... 0.08%

**Pack Size:** 500mL, 1L, 20L

2637

**GOLD 1000ppm SINGLE ELEMENT ICP STANDARD, UNIPURE**



A 1000 ppm Gold standard, ready for use.  
Au in 0.5% hydrochloric acid.

U.N Number ..... 3264  
ADG Class..... 8  
Packing Group ..... III

**Traceable to NIST**

**Pack Size:** 100mL

2611

**GOLD CHLORIDE AAS STANDARD, SPECTROSOL**



A 1000 ppm gold standard, ready for use.  
Each mL contains 1.00 +/-0.005mg of Au in 1.4% hydrochloric acid, 32%/ 0.5% nitric acid

U.N Number ..... 3264  
ADG Class..... 8  
Packing Group ..... III

**Traceable to NIST**

**Pack Size:** 500mL

1086

**GOLD CHLORIDE, brown, UNIVAR**

CAS 13453-07-1

AuCl<sub>3</sub> = 303.33

Description: brown, hygroscopic lumps or crystals.

Assay (as Au) ..... 99.99% min

| <i>Maximum limit of impurities</i> | <i>(%)</i> |
|------------------------------------|------------|
| Fe .....                           | 0.002      |
| Cu .....                           | 0.001      |
| Pb .....                           | 0.0005     |
| Ag .....                           | 0.005      |

Conforms to ACS

Store below 4°C (refrigerate)

Pack Size: 1g

**GOLD CHLORIDE, yellow (see Sodium Chloroaurate page 346)**

1826

**GOLD CHLORIDE SOLUTION, LABCHEM**

1% in aqueous solution

Pack Size: 100mL

1832

**GRAM'S IODINE SOLUTION, LABCHEM**

Iodine 1% max.

Potassium Iodide 1% max.

Pack Size: 1L, 5L

2459

**GRAPHITE, fine powder, LABCHEM**

CAS 7782-42-5

| <i>Maximum limit of impurities</i> | <i>(%)</i> |
|------------------------------------|------------|
| Soluble in Ethanol .....           | 0.2        |
| LOD .....                          | 1.0        |
| ROI .....                          | 1.0        |

Pack Size: 500g

3245

**GUANIDINE HYDROCHLORIDE, UNIVAR**

CAS 50-01-1

CH<sub>5</sub>ClN<sub>3</sub> = 95.53

Description: White crystalline powder

Assay ..... 99.0% min.

| <i>Maximum limit of impurities</i> | <i>(%)</i>    |
|------------------------------------|---------------|
| Pb .....                           | 0.0005        |
| DNase .....                        | None detected |
| RNase .....                        | None detected |
| Bacterial contamination .....      | 10 CFU/g      |

Pack size: 100g

1322

**GUANIDINE THIOCYANATE, UNIVAR****CAS** 593-84-0 $C_2H_6N_4S = 118.16$ 

Description: Off-white crystalline powder

Assay ..... 99.0% min.

**Maximum limit of impurities****(%)**

Pb ..... 0.0005

DNase ..... None detected

RNase ..... None detected

Bacterial contamination ..... 10 CFU/g

**Pack size:** 100g**GUM ARABIC** (see Acacia page 40)**GYPSUM** (see Calcium Sulphate dihydrate page 117)

1798

**HAEMATOXYLIN (CI 75290), LABCHEM****CAS** 517-28-2 $C_{16}H_{14}O_6 + \text{water}$ 

Reagent for Aluminium

pH indicator.

**Pack Size:** 25g, 1kg

1828

**HAEMATOXYLIN, Gill's I, Progressive type, LABCHEM**

Haematoxylin 1.2g/L

**Pack Size:** 1L, 5L

1829

**HAEMATOXYLIN, Gill's II, Regressive type, LABCHEM**

Haematoxylin 4g/L

**Pack Size:** 1L, 5L

1830

**HAEMATOXYLIN, Gill's III, Regressive type, LABCHEM**

Haematoxylin 6g/L

**Pack Size:** 1L, 5L

1827

**HARRIS HAEMATOXYLIN STAIN SOLUTION, LABCHEM**

Haematoxylin 1%

**Pack Size:** 1L, 5L

2579

**HAZARDS OF SOLVENTS WALLCHART, FC**

An educational poster, 900mm x 625 mm, depicting the routes of exposures to solvents, listing some of the carcinogens and details of exposure standards

**Pack Size:** EACH

2524

**HAZORB UNIVERSAL SORBENT PILLOWS, LABCHEM**

Universal sorbent (consisting of amorphous inorganic foam particles) packed in an inert porous fabric pillow. Appropriate for containing spills of all liquids except hydrofluoric acid.

Available in 2 size pillows: laboratory & industrial.

**Pack Size:** EACH

2402

**HEPES (N-[2-HYDROXYETHYL] PIPERAZINE-N'-[2-ETHYLSULPHONIC ACID]) , BIOLOGICAL BUFFER, UNIVAR**

CAS 7365-45-9

$C_8H_{18}N_2O_4S = 238.3$

Description: White powder

Solubility (0.1M in  $H_2O$ ): Clear and complete

Assay ..... 99.0% min.

pKa ..... 7.35 – 7.75

pH (5% in  $H_2O$ ) ..... 5.0 – 6.5

**Maximum limit of impurities (%)**

Moisture ..... 1.0

**Pack size:** 100g, 1Kg

**HEPTANE**

CAS 142-82-5

$CH_3(CH_2)_5CH_3 = 100.21$

Density ..... about 0.70 g/mL

U.N Number ..... 1206

ADG Class ..... 3

Packing Group ..... II

105

**HEPTANE, LABCHEM**

Description: clear liquid.

Boiling Range ..... 90 - 105°C

**Pack Size:** 200L

248

**HEPTANE FRACTION, UNILAB**

B.R. (95% min.) ..... 94 - 100 °C

**Maximum limit of impurities (%)**

Non-vol. .... 0.01

Acidity ..... 0.1 mmol H

**Pack Size:** 20L

2322

**N-HEPTANE, UNICHROM**

Description: clear liquid, characteristic odour.

R.I. .... 1.388

Viscosity @ 20°C ..... 0.41cP

Specially purified for HPLC

Filtered through 0.45 micron filter.

Assay (GLC) ..... 95.0% min.

| <b>Maximum limit of impurities</b> |  | <b>(%)</b>  |
|------------------------------------|--|-------------|
| Non-vol. ....                      |  | 0.001       |
| Acidity .....                      |  | 0.02 mmol H |
| H <sub>2</sub> O (by K.F.) .....   |  | 0.01        |

**U.V. Absorbance:**

|           |      |      |     |     |
|-----------|------|------|-----|-----|
| λ (nm)    | 280  | 254  | 214 | 210 |
| Max. abs. | 0.01 | 0.02 | 0.5 | 1.0 |

**Pack Size:** 2.5L

3474

**N-HEPTANE, Pest, HPLC 99%, BURDICK & JACKSON, CAT. 207**CH<sub>3</sub>(CH<sub>2</sub>)<sub>5</sub>CH<sub>3</sub> = 100.21

For HPLC, gas chromatography, pesticide residue analysis and spectrophotometry.

Assay (GC) ..... 99.0% min.

R.I. (@20°C) ..... 1.3872 – 1.3884

Water ..... 0.01% min.

**U.V. Absorbance:**

|           |      |       |       |       |       |
|-----------|------|-------|-------|-------|-------|
| λ (nm)    | 200  | 225   | 250   | 300   | 400   |
| Max. abs. | 1.00 | 0.100 | 0.010 | 0.005 | 0.005 |

**Pack Size:** 4L

247

**N-HEPTANE, UNIVAR**

Description: clear liquid with a characteristic odour.

Assay (GLC) ..... 99.5% min.

B.R. (95% min.) ..... 98-100°C

Density ..... 0.680 – 0.684 g/mL

R.I. (@20 °C) ..... 1.3870 – 1.3880 °C

| <b>Maximum limit of impurities</b>                             |  | <b>(%)</b>  |
|----------------------------------------------------------------|--|-------------|
| Non-vol. ....                                                  |  | 0.001       |
| Acidity .....                                                  |  | 0.02 mmol H |
| Aromatic hydrocarbons (as C <sub>6</sub> H <sub>6</sub> )..... |  | 0.2         |
| S cpds (as S) .....                                            |  | 0.005       |

**Pack Size:** 500mL, 2.5L, 20L

2340

**1-HEPTANE SULPHONIC ACID, 0.25mole/L in Acetic Acid, UNICHROM**

Specially purified for HPLC.

An ion-pairing reagent for the separation of basic compounds.

Non vol ..... 50.5±0.8 mg/mL

Dilution ..... Clear, no turbidity

U.N Number ..... 2920

ADG Class ..... 8

Subsidiary Risk..... 3

Packing Group ..... II

**Pack Size:** 5x20mL



2416

**1-HEPTANE SULPHONIC ACID SODIUM SALT, UNICHROM**

CAS 22767-50-6

 $C_7H_{15}SO_3Na = 202.24$ 

Specially purified for HPLC.

An ion-pairing reagent for the separation of basic compounds.

Pack Size: 10g

3063

**n-HEXADECANE, UNIVAR**

CAS 544-76-3

 $C_{16}H_{34} = 226.45$ 

Description: Colourless clear liquid

Assay ..... 99.0% min.

Colour (APHA) ..... 10 MAX.

Pack size: 100mL

**HEXA-2, 4-DIENOIC ACID** (see Sorbic Acid page 378)**HEXADECANOIC ACID** (see Palmitic Acid page 275)**HEXAHYDROBENZENE** (see Cyclohexane page 143)**HEXAHYDROPHENOL** (see Cyclohexanol page 144)**HEXAHYDROPYRIDINE** (see Piperidine page 290)**HEXALIN** (see Cyclohexanol page 144)**HEXAHYDROXYCYCLOHEXANE** (see Inositol page 206)**HEXAMETHYLENE** (see Cyclohexane page 143)**HEXAMETHYLENEDIAMINE** (see 1,6-Diaminohexane page 147)**HEXAMETHYLENETETRAMINE** (see Hexamine page 191)**HEXAMETHYL VIOLET** (see Crystal Violet page 142)

1089

**HEXAMINE, UNILAB**

CAS 100-97-0

Synonyms: Hexamethylenetetramine

 $(CH_2)_6N_4 = 140.19$ 

Assay ..... 98.5%

**Maximum limit of impurities (%)**

Sulph. Ash ..... 0.05

H.M. (as Pb) ..... 0.001

Pack Size: 500g, 5Kg

U.N Number ..... 1328

ADG Class..... 4.1

Packing Group ..... III





### n-HEXANE

CAS 110-54-3

$\text{CH}_3(\text{CH}_2)_4\text{CH}_3 = 86.18$

Description: clear liquid; characteristic odour.

Density .....about 0.69g/mL

U.N Number .....1208

ADG Class..... 3

Packing Group ..... II

590

### n-HEXANE, SPECTROSOL

For U.V. spectroscopy.

Colour (APHA) ..... 10 max.

Density @25 °C ..... 0.687 g/mL.

Assay (GLC) ..... 99.5% min.

| <i>Maximum limit of impurities</i> | <i>(%)</i>   |
|------------------------------------|--------------|
| Non-vol. ....                      | 0.001        |
| Acidity .....                      | 0.03         |
| Thiophene .....                    | To pass test |
| S cpds (as S) .....                | 0.005        |
| Conforms to ACS                    |              |

U.V. Absorbance:

|                |      |      |      |      |      |         |
|----------------|------|------|------|------|------|---------|
| $\lambda$ (nm) | 200  | 220  | 230  | 240  | 250  | 280-400 |
| Max. abs.      | 1.00 | 0.20 | 0.10 | 0.04 | 0.02 | 0.01    |

Pack Size: 500mL, 2.5L

2320

### n-HEXANE 99 %, UNICHROM

Purified for HPLC

Filtered through 0.45 micron filter.

Assay (GLC) ..... 99.5% min.

| <i>Maximum limit of impurities</i> | <i>(%)</i>  |
|------------------------------------|-------------|
| Non-vol. ....                      | 0.001       |
| Acidity .....                      | 0.03 mmol H |
| H <sub>2</sub> O (by K.F.) .....   | 0.05        |

U.V. Absorbance:

|                |      |      |     |     |
|----------------|------|------|-----|-----|
| $\lambda$ (nm) | 280  | 254  | 214 | 200 |
| Max.abs.       | 0.01 | 0.02 | 0.3 | 1.0 |

Pack Size: 2.5L

2543

### n-HEXANE 95 %, UNICHROM

Density ..... about 0.68 g/mL

R.I @ 20 °C ..... 1.375

Viscosity @ 20 °C ..... 0.31 cP.

Suitable for HPLC.

Filtered through 0.45 micron.

Assay (as n-Hexane) ..... 95% min.

| <i>Maximum limit of impurities</i> | <i>(%)</i>  |
|------------------------------------|-------------|
| R.A.E. ....                        | 0.001       |
| Acidity .....                      | 0.03 mmol H |
| H <sub>2</sub> O (by K.F.) .....   | 0.05        |

U.V Absorbance:

|                |      |      |     |     |
|----------------|------|------|-----|-----|
| $\lambda$ (nm) | 280  | 254  | 214 | 200 |
| Max. Abs.      | 0.01 | 0.02 | 0.3 | 1.0 |

Pack Size: 2.5L

2508

**n-HEXANE 95%, UNIVAR**

|                       |                |
|-----------------------|----------------|
| Density (@25°C) ..... | about 0.68g/mL |
| Assay (GLC) .....     | 95% min.       |
| B.R. (95% min.) ..... | 68-70°C        |
| Colour (APHA) .....   | 10 max.        |

| <b>Maximum limit of impurities</b>                             | <b>(%)</b>   |          |          |
|----------------------------------------------------------------|--------------|----------|----------|
| Non-vol. ....                                                  | 0.001        | Ba ..... | 0.000002 |
| Acidity .....                                                  | 0.03 mmol H  | Cr ..... | 0.000002 |
| Aromatic hydrocarbons(as C <sub>6</sub> H <sub>6</sub> ) ..... | 0.2          | Co ..... | 0.000002 |
| Thiophene .....                                                | To pass test | Cu ..... | 0.000002 |
| Al .....                                                       | 0.00001      | Pb ..... | 0.000002 |
| Fe .....                                                       | 0.00001      | Mn ..... | 0.000002 |
| K .....                                                        | 0.00001      | Ni ..... | 0.000002 |
| Na .....                                                       | 0.00001      | Cd ..... | 0.000005 |
| Zn .....                                                       | 0.00001      | Mg ..... | 0.000005 |
| Sr .....                                                       | 0.000002     | Ca ..... | 0.00002  |

**Pack Size:** 500mL, 2.5L, 20L

3473

**n-HEXANE 85% GC2, BURDICK & JACKSON, CAT. GC217**Greater than 85% n-hexane and 99.9% n-hexane and saturated C<sub>6</sub> hydrocarbons by GC analysis.

| <b>Maximum limit of impurities</b> | <b>(%)</b> |
|------------------------------------|------------|
| GC (ECD,as lindane) .....          | 2 ng/L     |
| Water (KF) .....                   | 0.01       |
| Residue.....                       | 1mg/L      |

**Pack Size:** 4L

3469

**n-HEXANE 85%, HPLC/GC/PESTICIDE, BURDICK & JACKSON, CAT. 216**

High purity solvent for HPLC, GC, Pesticide residue analysis &amp; Spectrophotometry.

R.I. @ 20 °C ..... 1.375 to 1.379

Greater than 85% n-hexane and 99.9% n-hexane and saturated C<sub>6</sub> hydrocarbons by GC analysis.

| <b>Maximum limit of impurities</b> | <b>(%)</b> |
|------------------------------------|------------|
| Water (KF) .....                   | 0.01       |
| R.A.E. ....                        | 0.0001     |
| Benzene .....                      | 0.0001     |

**U.V. Absorbance:**

|           |       |       |       |       |       |
|-----------|-------|-------|-------|-------|-------|
| λ (nm)    | 195   | 225   | 250   | 275   | 300   |
| Max. abs. | 1.000 | 0.050 | 0.010 | 0.005 | 0.005 |

**Pack Size:** 4L

**3450**

**n-HEXANE 85 %, PESTICIDE GRADE, BURDICK & JACKSON, CAT. 217**

High purity solvent for pesticide residue analysis & gas chromatography.

Assay (as n-Hexane) ..... 85.0% min.

Greater than 85% n-hexane and 99.9% n-hexane and saturated C<sub>6</sub> hydrocarbons by GC.

| <i>Maximum limit of impurities</i>    | <i>(%)</i> |
|---------------------------------------|------------|
| GC (ECD, as Heptachlor epoxide) ..... | 10 ng/L    |
| Water (KF) .....                      | 0.01       |
| Residue.....                          | 1mg/L      |

**Pack Size:** 4L

**3514**

**n-HEXANE 85 %, HPLC GRADE, BURDICK & JACKSON, AH216**

Greater than 85% n-hexane and 99.9% n-hexane and saturated C<sub>6</sub> hydrocarbons by GC.

| <i>Maximum limit of impurities</i> | <i>(%)</i> |
|------------------------------------|------------|
| Water .....                        | 0.01       |
| Residue .....                      | 3mg/L      |

**U.V. Absorbance:**

|           |       |       |       |       |       |       |
|-----------|-------|-------|-------|-------|-------|-------|
| λ (nm)    | 195   | 225   | 250   | 275   | 300   | 400   |
| Max. abs. | 1.000 | 0.050 | 0.010 | 0.005 | 0.005 | 0.005 |

**Pack Size:** 4L

**250**

**n-HEXANE, Low in aromatic hydrocarbons, UNIVAR**

Assay (GLC) ..... 99.5% min.

BR (95% min.) ..... 2°C max. incl. 68.7°C

Colour (APHA) ..... 10 MAX.

Density (@ 25°C) ..... 0.687g/mL max.

| <i>Maximum limit of impurities</i>                             | <i>(%)</i>   |
|----------------------------------------------------------------|--------------|
| Non-vol. ....                                                  | 0.001        |
| Acidity .....                                                  | 0.03 mmol H  |
| Aromatic hydrocarbons(as C <sub>6</sub> H <sub>6</sub> ) ..... | 0.2          |
| S cpds (S) .....                                               | 0.005        |
| Thiophene .....                                                | To pass test |

**Pack Size:** 500mL, 2.5L, 20L

**251**

**HEXANE FRACTION, UNILAB**

Density ..... about 0.68g/mL

B.R.(95% min) ..... 60 - 80 °C

| <i>Maximum limit of impurities</i> | <i>(%)</i> |
|------------------------------------|------------|
| Non-vol .....                      | 0.01       |
| Acidity .....                      | 0.1 mmol H |

**Pack Size:** 500mL, 2.5L, 20L, 200L

185

## HEXAN-1-OL, UNILAB



CAS 111-27-3

Synonyms: Amylcarbinol, n-Hexanol, n-Hexyl Alcohol

 $\text{CH}_3(\text{CH}_2)_5\text{OH} = 102.18$ 

Density ..... about 0.82g/mL

R.I. .... about 1.418

B.R.(95% min.) ..... 156 - 158 °C

Assay (GC) ..... 98% min.

U.N Number .....2282

ADG Class..... 3

Packing Group ..... III

Pack Size: 500mL, 2.5L

n-HEXANOL (see Hexan-1-ol page 195)

HEXONE (see 4-Methylpentane-2-one page 254)

n-HEXYL ALCOHOL (see Hexan-1-ol page 195)

HEXANITROCOBALTATE(III) SODIUM (see Sodium Cobaltinitrite page 348)

1400

## HIGH VACUUM GREASE, DCS

Synonyms: Silicone Grease, Stopcock Grease

For lubrication of glass stopcocks and valves for high vacuum and general purposes. Displays low bleed and evaporation.

Pack Size: 50g, 100g, 500g

1090

## HIPPURIC ACID, UNILAB

CAS 495-69-2

 $\text{C}_9\text{H}_9\text{NO}_3 = 179.2$ 

Description: White to colourless crystals

Assay ..... 99.0% min.

Melting point ..... 187 - 188°C

**Maximum limit of impurities (%)**NH<sub>4</sub> ..... 0.01

H.M. (as Pb) ..... 0.001

Pack size: 100g

1091

## L-HISTIDINE MONOHYDROCHLORIDE, LABCHEM

CAS 645-35-2

 $\text{C}_6\text{H}_9\text{O}_2\text{N}_3 \cdot \text{HCl} \cdot \text{H}_2\text{O} = 209.63$ 

Assay ..... 98.5 - 101.0%

Spec. rotn. .... +8.5 to +10.5°

Cl ..... 16.6 - 17.1%

**Maximum limit of impurities (%)**

LOD ..... 0.2

ROI ..... 0.1

Fe ..... 0.0010

NH<sub>4</sub> ..... 0.02SO<sub>4</sub> ..... 0.03

As ..... 0.0001

H.M ..... 0.001

Pack Size: 25g

**HORN'S DRY LEAD** (see Lead Acetate, basic page 218)**2612****HYAMINE 1622, LABCHEM****CAS** 121-54-0

Cationic surfactant.

Appearance: White powder

Assay ..... 99.0 – 101%

**Pack Size:** 250g**HYDRAZINE HYDRATE** (see Hydrazinium Hydrate page 196)**HYDRAZINE SULPHATE** (see Hydrazinium Sulphate page 196)**1093****HYDRAZINIUM HYDRATE, UNILAB****CAS** 7803-57-8**Synonyms:** Hydrazine Hydrate $\text{NH}_2\text{NH}_2 \cdot \text{H}_2\text{O} = 50.06$ 

Density ..... about 1.03g/mL

Assay ..... 99% min.

U.N Number ..... 2030

ADG Class ..... 8

Subsidiary Risk ..... 6.1

Packing Group ..... II

**Maximum limit of impurities (%)**

Non-vol. .... 0.02

Cl ..... 0.04

 $\text{SO}_4$  ..... 0.06

H.M. &amp; Fe (as Fe) ..... 0.001

**Pack Size:** 500mL**HYDRAZINIUM SULPHATE****CAS** 10034-93-2**Synonyms:** Hydrazine Sulphate $\text{NH}_2\text{NH}_2 \cdot \text{H}_2\text{SO}_4 = 130.12$ 

U.N Number ..... 2811

ADG Class ..... 6.1

Packing Group ..... III

**252****HYDRAZINIUM SULPHATE, UNIVAR**

Description: colourless crystals.

Assay ..... 99.0% min.

**Maximum limit of impurities (%)**

Insols. .... 0.005

R.A.I. .... 0.05

Cl ..... 0.005

Fe ..... 0.001

H.M. (as Pb) ..... 0.002

**Pack Size:** 100g, 500g**253****HYDRAZINIUM SULPHATE, UNILAB**

Assay ..... 98.0% min.

**Maximum limit of impurities (%)**

Sulph. Ash ..... 0.2

H.M. &amp; Fe (as Fe) ..... 0.01

**Pack Size:** 500g

**HYDRATED ALUMINA** (see Aluminium Hydroxide page 53)**HYDRIODIC ACID 55 %**

CAS 10034-85-2

Synonyms: Hydrogen Iodide

HI = 127.91

Density ..... about 1.7g/mL

U.N Number ..... 1787

ADG Class..... 8

Packing Group ..... II

**869****HYDRIODIC ACID 55 %, UNIVAR**

Description: colourless liquid when freshly distilled; rapidly becomes yellow to reddish-brown due to liberation of iodine.

Assay ..... 55.0% min.

**Maximum limit of impurities****(%)**

Non-vol. .... 0.02

Cl ..... 0.03

PO<sub>4</sub> ..... 0.002S cpds (as SO<sub>4</sub>) ..... 0.005

As ..... 0.0005

Fe ..... 0.001

H.M. (as Pb) ..... 0.001

**Pack Size:** 500mL**1095****HYDRIODIC ACID 55 %, UNILAB**

Assay ..... 54% w/w

**Maximum limit of impurities****(%)**

Non-vol. .... 0.10

Cl ..... 0.12

SO<sub>4</sub> ..... 0.04**Pack Size:** 500mL**HYDROBROMIC ACID 48 % SOLUTION**

CAS 10035-10-6

Synonyms: Hydrogen Bromide

HBr = 80.91

Density ..... about 1.49g/mL

U.N Number ..... 1788

ADG Class..... 8

Packing Group ..... II

**254****HYDROBROMIC ACID 48 % SOLUTION, UNIVAR**

Description: clear colourless to pale yellow liquid when freshly distilled; becomes yellow to brown due to liberation of bromine.

Assay ..... 47.0 - 49.0% w/w

**Maximum limit of impurities****(%)**

Sulph. Ash ..... 0.002

Cl ..... 0.05

I ..... 0.003

PO<sub>4</sub> ..... 0.001SO<sub>4</sub> ..... 0.003SO<sub>3</sub> ..... 0.003

Fe ..... 0.0001

H.M. (as Pb) ..... 0.0005

Se ..... 0.000001

**Pack Size:** 500mL, 2.5L, 22.5L

255

**HYDROBROMIC ACID 48% SOLUTION, UNILAB**

Assay ..... 46.0% min.

**Maximum limit of impurities (%)**

Sulph. Ash ..... 0.05  
 Cl ..... 0.1  
 SO<sub>4</sub> ..... 0.02  
 As ..... 0.0005  
 H.M. & Fe (as Fe) ..... 0.001

**Pack Size:** 500mL, 2.5L**HYDROCHLORIC ACID****CAS** 7647-01-0**Synonyms:** Muriatic Acid

HCl = 36.46

Density ..... about 1.18 g/mL

U.N Number ..... 1789

ADG Class ..... 8

Packing Group ..... II

1399

**HYDROCHLORIC ACID, EXTRA PURE, UNIPURE**

Assay ..... 34 -37%

**Maximum limit of impurities (ppb)**

Al ..... 3  
 Sb ..... 1  
 As ..... 1  
 Ba ..... 1  
 Be ..... 1  
 Bi ..... 1  
 B ..... 3  
 Cd ..... 1  
 Ca ..... 3  
 Cr ..... 1  
 Co ..... 1  
 Cu ..... 1  
 Fe ..... 3  
 Pb ..... 1  
 Li ..... 1  
 Mg ..... 1

Mn ..... 1  
 Hg ..... 1  
 Mo ..... 1  
 Ni ..... 1  
 K ..... 1  
 Se ..... 1  
 Ag ..... 1  
 Na ..... 1  
 Sr ..... 1  
 Th ..... 1  
 Sn ..... 1  
 Ti ..... 1  
 U ..... 1  
 V ..... 1  
 Zn ..... 1  
 Zr ..... 1

**Pack size:** 500mL, 2.5L

**SELF INDICATING ORANGE  
 SILICA GEL**

**SAFE FOR THE USER!  
 SAFE FOR THE ENVIRONMENT!**

Orange Silica Gel is :

- NON – Hazardous
- Harmless

**Cat No.** 8745



1367

**HYDROCHLORIC ACID 36 %, UNIVAR**

Description: clear colourless or near-colourless fuming liquid.  
 Assay ..... 36.0 - 39.0% w/w

**Maximum limit of impurities****(%)**

Residue on ..... 0.0005  
 Mn ..... 0.000002  
 Free chlorine (as Cl) ..... 0.0001  
 Mo ..... 0.000002  
 SO<sub>4</sub> ..... 0.0001  
 Sr ..... 0.000002  
 SO<sub>3</sub> ..... 0.0001  
 Ni ..... 0.000005  
 Al ..... 0.00005  
 Pb ..... 0.000005  
 Fe ..... 0.00005  
 Cd ..... 0.000005

Mg ..... 0.00005  
 Na ..... 0.0001  
 K ..... 0.00005  
 Ca ..... 0.0001  
 Zn ..... 0.00002  
 NH<sub>4</sub> ..... 0.0001  
 Ba ..... 0.00002  
 Co ..... 0.000001  
 As ..... 0.000002  
 Cu ..... 0.000002  
 H.M (as Pb) ..... 0.00005

Appearance of solution ..... To pass test

Chemical and physical parameters conform to BP and EP

**Pack Size:** 500mL, 2.5L, 20L, 200L

256

**HYDROCHLORIC ACID 32 %, UNIVAR**

Description: clear colourless fuming liquid.  
 Density ..... about 1.16g/mL  
 Assay ..... 31.5% w/w min.

**Maximum limit of impurities****(%)**

R.A.I. .... 0.0005  
 Free chlorine (as Cl) ..... 0.0001  
 SO<sub>4</sub> ..... 0.0001  
 SO<sub>3</sub> ..... 0.0001  
 Al ..... 0.00005  
 Fe ..... 0.00005  
 Mg ..... 0.00005  
 K ..... 0.00005  
 Ba ..... 0.00002  
 Co ..... 0.000001  
 Cu ..... 0.000002  
 As ..... 0.000002

Mn ..... 0.000002  
 Mo ..... 0.000002  
 Sr ..... 0.000002  
 Zn ..... 0.00001  
 Ni ..... 0.000005  
 Pb ..... 0.000005  
 Cd ..... 0.000005  
 Na ..... 0.0001  
 Ca ..... 0.0001  
 NH<sub>4</sub> ..... 0.0001  
 Colour ..... To pass test

**Pack Size:** 500mL, 2.5L, 20L, 200L

2578

**HYDROCHLORIC ACID 32 %, MAR**

Clear fuming liquid.  
 Density ..... about 1.16g/mL  
 Assay ..... 31% w/w min.

**Maximum limit of impurities****(%)**

Residue after ignition ..... 0.005  
 SO<sub>4</sub> ..... 0.002  
 Fe ..... 0.001  
 NH<sub>4</sub> ..... 0.001  
 Pb ..... 0.000005

**Pack Size:** 4x2.5L, 200L

5410

**HYDROCHLORIC ACID 32 %, LABCHEM**

Description: clear, pale yellow liquid.

Assay ..... 32 – 34% w/w

**Maximum limit of impurities (%)**

Fe ..... 0.005

H.M (as Pb) ..... 0.002

**Pack Size:** 20L, 200L

174

**HYDROCHLORIC ACID 0.100M SOLUTION, UNIVOL**

Stabilized with sodium azide 0.01%

Molarity ..... 0.0995 - 0.1005 mol/L

**Pack Size:** 1L, 6x1L, 2.5L, 5L

1366

**HYDROCHLORIC ACID 0.1MOL CONCENTRATE, AMPOULE, OP**

Description: plastic ampoule containing clear colourless liquid

0.1 mole (3.646g HCl) to prepare 1L of 0.1N solution

Titer ..... 0.998 – 1.002

**Pack size:** Ampoule

1363

**HYDROCHLORIC ACID 0.5MOL CONCENTRATE, AMPOULE, OP**

Description: plastic ampoule containing clear colourless liquid

0.5 mole (18.230g HCl) to prepare 1L of 0.5N solution

Titer ..... 0.998 – 1.002

**Pack size:** Ampoule

643

**HYDROCHLORIC ACID 1.000M, UNIVOL**

Stabilized with sodium azide 0.01%.

Molarity ..... 0.995 - 1.005 mol/L

**Pack Size:** 1L, 6x1L, 2.5L, 5L, 20L

1368

**HYDROCHLORIC ACID 1.0 MOL CONCENTRATE, AMPOULE, OP**

Description: plastic ampoule containing clear colourless liquid

1 mole (36.460g HCl) to prepare 1L of 1N solution

Titer ..... 0.998 – 1.002

**Pack size:** Ampoule

## HYDROFLUORIC ACID



CAS 7664-39-3

Synonyms: Fluoric Acid

HF = 20.01

Density ..... about 1.2g/mL

U.N Number ..... 1790

ADG Class ..... 8

Subsidiary Risk ..... 6.1

Packing Group ..... II



1097

## HYDROFLUORIC ACID 40 % w/w, UNIVAR

Description: clear, colourless liquid with a highly corrosive, irritating vapour.

Assay ..... 39 – 41%

**Maximum limit of impurities (%)**

|                                         |          |                       |          |
|-----------------------------------------|----------|-----------------------|----------|
| H <sub>2</sub> SiF <sub>6</sub> .....   | 0.01     | Al .....              | 0.000005 |
| Cl .....                                | 0.0005   | Mn .....              | 0.00002  |
| PO <sub>4</sub> .....                   | 0.0005   | Pb .....              | 0.00001  |
| SO <sub>4</sub> & SO <sub>3</sub> ..... | 0.0005   | Zn .....              | 0.00003  |
| As .....                                | 0.000003 | K .....               | 0.00003  |
| Cu .....                                | 0.000005 | Ti .....              | 0.00003  |
| Fe .....                                | 0.00002  | Ca .....              | 0.00003  |
| Mg .....                                | 0.00002  | NO <sub>3</sub> ..... | 0.0001   |
| Na .....                                | 0.00003  | B .....               | 0.000001 |
| Cr .....                                | 0.000001 | Au .....              | 0.00003  |
| Ni .....                                | 0.00001  | Sn .....              | 0.00003  |

Pack Size: 425mL, 500mL

258

## HYDROFLUORIC ACID 50 % w/w, UNIVAR

Description: clear, colourless liquid with a highly corrosive, irritating vapour.

Assay ..... 48.0 - 51.0% w/w

**Maximum limit of impurities (%)**

|                                         |          |          |          |
|-----------------------------------------|----------|----------|----------|
| R.A.I. ....                             | 0.0005   | Sr ..... | 0.000002 |
| H <sub>2</sub> SiF <sub>6</sub> .....   | 0.005    | Al ..... | 0.000005 |
| Cl .....                                | 0.0001   | Ge ..... | 0.000005 |
| PO <sub>4</sub> .....                   | 0.00005  | Mn ..... | 0.000005 |
| HM(as Pb) .....                         | 0.00005  | Mo ..... | 0.000005 |
| SO <sub>4</sub> & SO <sub>3</sub> ..... | 0.0002   | Pb ..... | 0.000005 |
| As .....                                | 0.000005 | Tl ..... | 0.000005 |
| Cu .....                                | 0.000002 | V .....  | 0.000005 |
| Fe .....                                | 0.00002  | Zn ..... | 0.000005 |
| Mg .....                                | 0.00002  | Ba ..... | 0.00001  |
| Na .....                                | 0.00002  | Bi ..... | 0.00001  |
| Ag .....                                | 0.000002 | K .....  | 0.00001  |
| Be .....                                | 0.000002 | Ti ..... | 0.00001  |
| Co .....                                | 0.000002 | Zr ..... | 0.00001  |
| Cr .....                                | 0.000002 | Ca ..... | 0.00005  |
| Li .....                                | 0.000002 | Cd ..... | 0.000001 |
| Ni .....                                | 0.000002 |          |          |

Pack Size: 425mL, 500mL, 1L, 2.5L, 60kg

**HYDROGEN BROMIDE** (see Hydrobromic Acid page 197)**HYDROGEN CARBOXYLIC ACID** (see Formic Acid page 178)**HYDROGEN DIOXIDE** (see Hydrogen Peroxide page 202)**HYDROGEN IODIDE** (see Hydriodic Acid page 197)**HYDROGEN PEROXIDE****CAS** 7722-84-1**Synonyms:** Hydrogen Dioxide $H_2O_2 = 34.01$ 

Density .....about 1.16g/mL

U.N Number ..... 2014

ADG Class..... 5.1

Subsidiary Risk..... 8

Packing Group ..... II

**260****HYDROGEN PEROXIDE 30 % (100 vol.), UNIVAR**

Description: clear liquid.

Density ..... about 1.10g/mL

Assay ..... 29.0 - 32.0% w/w

Colour (APHA) ..... 10 max.

**Maximum limit of impurities****(%)**

|                        |             |
|------------------------|-------------|
| R.A.E. ....            | 0.002       |
| Titrateable acid ..... | 0.06 mmol H |
| Cl .....               | 0.00005     |
| Ca .....               | 0.00005     |
| NO <sub>3</sub> .....  | 0.0002      |
| PO <sub>4</sub> .....  | 0.0002      |
| SO <sub>4</sub> .....  | 0.0002      |
| Al .....               | 0.00003     |
| As .....               | 0.0003      |
| NH <sub>4</sub> .....  | 0.0005      |
| B .....                | 0.000005    |
| Mg .....               | 0.000005    |
| Ni .....               | 0.000005    |

|                    |          |
|--------------------|----------|
| Na .....           | 0.001    |
| Sn .....           | 0.001    |
| Ti .....           | 0.000002 |
| Au .....           | 0.000002 |
| Cu .....           | 0.000002 |
| Pb .....           | 0.000002 |
| Zn .....           | 0.000002 |
| Cr .....           | 0.000001 |
| Mn .....           | 0.000001 |
| Fe .....           | 0.00001  |
| K .....            | 0.00002  |
| H.M. (as Pb) ..... | 0.0001   |

Chemical and physical parameters conform to FCC

Conforms to ACS

Store below 25°C. Decomposition is accelerated by heat.

**Pack Size:** 500mL, 2.5L, 20L**2430****HYDROGEN PEROXIDE 35 % (120 vol.), UNILAB**

Density ..... about 1.14 g/mL

Assay ..... 34.0% w/w min.

Stabilised with 0.2% orthophosphoric acid

Store below 25°C

Decomposition is accelerated by heat.

**Pack Size:** 500mL, 2.5L, 20L

2288

**HYDROGEN PEROXIDE 20VOL, LABCHEM**

Density ..... about 1.02g/mL  
 Assay ..... 6% w/w min.  
 Acidity ..... To pass test

**Pack Size:** 500mL, 2.5L

**HYDROQUINONE** (see Quinol page 326)**HYDROXYACETIC ACID** (see Glycollic Acid page 186)**HYDROXYAMMONIUM CHLORIDE** (see Hydroxylammonium Chloride page 203)**2-HYDROXYBENZOIC ACID** (see Salicylic acid page 329)**DL-HYDROXYBUTANEDIOIC ACID** (see DL-Maleic acid page 234)**2-HYDROXYETHYLAMINE** (see Ethanolamine page 168)**HYDROXYLAMINE HYDROCHLORIDE** (see Hydroxylammonium Chloride page 203)**HYDROXYLAMMONIUM CHLORIDE**

**CAS** 5470-11-1

**Synonyms:** Hydroxylammonium Chloride  
 $\text{NH}_2\text{OH} \cdot \text{HCl}$  = 69.49

U.N Number ..... 1759

ADG Class..... 8

Packing Group ..... III

263

**HYDROXYLAMMONIUM CHLORIDE, UNIVAR**

Description: colourless crystals.

Assay ..... 96.0% min

| <b>Maximum limit of impurities</b> | <b>(%)</b>   |
|------------------------------------|--------------|
| Insol. (in alcohol) .....          | To pass test |
| R.A.I. ....                        | 0.05         |
| Titratable free acid .....         | 25mmol H     |
| S cpds (as $\text{SO}_4$ ) .....   | 0.005        |
| Fe .....                           | 0.0005       |
| H.M. (as Pb) .....                 | 0.0005       |
| $\text{NH}_4$ .....                | 0.1          |

Conforms to ACS

**Pack Size:** 100g, 500g, 5kg, 25kg

1102

**HYDROXYLAMMONIUM CHLORIDE, UNILAB**

Assay ..... 96% min

| <b>Maximum limit of impurities</b> | <b>(%)</b> |
|------------------------------------|------------|
| Sulph. Ash .....                   | 0.1        |
| Acidity .....                      | 30 mmol H  |
| $\text{SO}_4$ .....                | 0.02       |
| H.M. & Fe (as Fe) .....            | 0.005      |
| $\text{NH}_4$ .....                | 0.2        |

**Pack Size:** 500g

1103

## HYDROXYLAMMONIUM SULPHATE, UNIVAR



CAS 10039-54-0

 $(\text{NH}_2\text{OH})_2\text{H}_2\text{SO}_4 = 164.10$ 

Description: White crystalline powder

Assay ..... 99.0% min.

U.N Number ..... 2865

ADG Class..... 8

Packing Group ..... III

**Maximum limit of impurities****(%)**

Fe ..... 0.0005

Pb ..... 0.0005

Cl ..... 0.001

Zn ..... 0.0005

SO<sub>4</sub> ..... 0.05

Pack size: 100g, 500g, 5Kg

4-HYDROXY-3-METHOXYBENZALDEHYDE (see Vanillin page 411)

4-HYDROXYMETHYLBENZOATE (see Methyl 4-Hydroxybenzoate page 253)

4-HYDROXY-4-METHYL-2-PENTANONE (see Diacetone Alcohol page 146)

1-HYDROXYNAPHTHALENE (see 1-Naphthol page 262)

2-HYDROXYNAPHTHALENE (see 2-Naphthol page 262)

2613

## HYDROXY NAPHTHOL BLUE, disodium salt, UNIVAR

CAS 63451-35-4

MW = 598.50

 $\lambda$  (max) ..... 650 nm

Suitable for Calcium determinations.

**Maximum limit of impurities****(%)**

Suitable for Ca determination ..... To pass test

Conforms to ACS

Pack Size: 100g

2-HYDROXYPROPIONIC ACID (see Lactic Acid page 214)

2-HYDROXYPROPANOIC ACID CALCIUM SALT (see Calcium Lactate page 114)

265

## 8-HYDROXYQUINOLINE, UNIVAR

CAS 148-24-3

Synonyms: Oxine, 8-Quinolinol

C<sub>9</sub>H<sub>7</sub>ON = 145.16

Reagent for Al, Mg, Zn and other metals.

Description: White or cream-coloured crystals, crystalline powder or flakes.

M.P. .... 72.5-74.0°C

**Maximum limit of impurities****(%)**

Insol. (in alcohol) ..... 0.05

R.A.I. .... 0.05

SO<sub>4</sub> ..... 0.02

Suitability for Mg detmn. .... To pass test

Conforms to ACS

Pack Size: 100g

1104

**HYPOPHOSPHOROUS ACID 50 % w/w, LABCHEM****CAS** 6303-21-5 $\text{H}_3\text{PO}_2 = 66.00$ 

Density ..... about 1.22g/mL.

Assay ..... 49-51%

U.N Number ..... 3264

ADG Class..... 8

Packing Group ..... III

**Maximum limit of impurities (%)**

Na ..... 0.1

Fe ..... 0.001

Cl ..... 0.015

**Pack Size:** 500mL, 2.5L

3970

**IMIDAZOLE, UNILAB****CAS** 288-32-4 $\text{C}_3\text{H}_4\text{N}_2 = 68.08$ 

Description: White to off-white flakes

Assay ..... 98.5% min.

**Maximum limit of impurities (%)**

Water ..... 0.2

**Pack size:** 500g**2,2'-IMINODIETHANOL** (see Diethanolamine page152)

3282

**IMMERSION OIL, LABCHEM**

For microscope specimen preparation. PCB content nil;

Fluorescence free to 235nm.

R.I. .... approx. 1.515

**Pack Size:** 100mL, 500mL**IMMERSION OIL** (see also Cedarwood Oil, thickened page 120)**IMS** (see Methylated Spirit page 250)**INDANETRIONE HYDRATE** (see Ninhydrin page 267)**INDICATOR - UNIVERSAL** (see Universal Indicator and colour charts page 409)

3224

**INDIGO CARMINE (CI 73015), OP****CAS** 860-22-0**Synonyms:** Acid Blue 74

Stain for microscopy.

Redox indicator.

Transition EMF (@ pH=0) ..... +0.29V

Transition EMF (@ pH=7) ..... - 0.11 V

Colour change:

Oxidized (blue) to reduced (yellowish)

**Pack Size:** 25g

3066

**INDOLE, UNILAB**

CAS 120-72-9

 $C_8H_7N = 117.1$ 

Description: White crystalline powder

Assay ..... 99.0% min.

Melting point ..... 50 - 52°C

Pack size: 25g

690

**INDOL-3-YL-BUTYRIC ACID, LABCHEM**

CAS 133-32-4

 $C_{12}H_{13}O_2N = 203.24$ 

M.P. .... 124 - 127°C

Pack Size: 1g

2464

**INOSITOL, LABCHEM**

CAS 6917-35-7

Synonyms: Hexahydroxycyclohexane

 $C_6H_6(OH)_6 = 180.16$ 

M.R. .... 224 - 226 °C

**Maximum limit of impurities (%)**H<sub>2</sub>O (K.F) ..... 0.5

H.M (as Pb) ..... 0.001

Pack Size: 25g

**IODINE**

CAS 7553-56-2

 $I_2 = 253.81$ 

Description: brittle plates or small crystals, greyish-violet in colour with a metallic sheen; odour, irritating.

Volatilises slowly at room temperature.

U.N Number ..... 1759

ADG Class..... 8

Packing Group ..... II



267

**IODINE, UNIVAR**

Assay ..... 99.8% min.

**Maximum limit of impurities (%)**

Non-vol. .... 0.01

Cl &amp; Br (as Cl) ..... 0.005

Conforms to ACS

Pack Size: 100g, 500g, 5Kg

268

**IODINE, resublimed, UNIVAR**

Assay ..... 99.5 - 100.5%

**Maximum limit of impurities (%)**

Non-vol. .... 0.1

Cl &amp; Br (as Cl) ..... 0.025

Chemical and physical parameters conform to BP

Pack Size: 100g, 500g, 5kg



**925****IODINE, resublimed, LABCHEM**

Assay ..... 99.0% min.

**Pack Size:** 100g**1396****IODINE 0.05MOL CONCENTRATE, AMPOULE, OP**

Description: plastic ampoule containing clear brown liquid  
 0.05 mole (12.690g I<sub>2</sub>) to prepare 1L of 0.1N solution  
 Titer ..... 0.998 - 1.002

U.N Number ..... 3082  
 ADG Class ..... 9  
 Packing Group ..... III

**Pack size:** Ampoule**2614****IODINE SOLUTION (WIJS), LABCHEM**

For the determination of Iodine Value for fats & oils.  
 Molarity ..... 0.099 - 0.101mole/litre

U.N Number ..... 2920  
 ADG Class ..... 8  
 Subsidiary Risk ..... 3  
 Packing Group ..... II

**Pack Size:** 500mL, 2.5L**1107****IODINE TRICHLORIDE, UNIVAR**

CAS 865-44-1  
 ICl<sub>3</sub> = 233.26  
 Description: orange-red crystalline masses with pungent irritating fumes.  
 Assay ..... 97.0% min.

U.N Number ..... 2923  
 ADG Class ..... 8  
 Subsidiary Risk ..... 6.1  
 Packing Group ..... III

Store below 4°C (refrigerate)

**Pack Size:** 100g**1108****IDOETHANE, UNILAB**

CAS 75-03-6  
**Synonyms:** Ethyl Iodide  
 C<sub>2</sub>H<sub>5</sub>I = 155.97  
 Density ..... about 1.94g/mL.  
 R.I. .... about 1.513  
 B.R.(95% min.) ..... 69 – 73°C  
 Assay (GC) ..... 99% min.

U.N Number ..... 1993  
 ADG Class ..... 3  
 Packing Group ..... III

**Maximum limit of impurities (%)**  
 Non-vol. .... 0.01

**Pack Size:** 100mL

821

**iodoform, UNILAB**

CAS 75-47-8

**Synonyms:** TriiodomethaneCHI<sub>3</sub> = 393.73

M.P. .... about 115°C (dec)

Assay ..... 99.0% min.

**Maximum limit of impurities (%)**

R.A.I. .... 0.2

L.O.D. .... 1.0

**Pack Size:** 500g, 5kg

269

**iodomethane, UNILAB**

CAS 74-88-4

**Synonyms:** Methyl IodideH<sub>3</sub>I = 141.94

Reagent for tertiary amines.

Stabilized with silver foil.

Density @ 20°C ..... 2.27 - 2.28 g/mL.

R.I. .... about 1.531

Assay (GC) ..... 99% min.

**Maximum limit of impurities (%)**

Water(K.F.) ..... 0.1

**Pack Size:** 100mL

U.N Number ..... 2644

ADG Class ..... 6.1

Packing Group ..... I

**iodometric indicator** (see Vitex Indicator page 412)**ion exchange resins** (see Amberlite resins page 57)**IRON**

CAS 7439-89-6

Fe = 55.85

778

**IRON PELLETS 0.125" 3N5**

Pack size: 1g

2462

**IRON, high purity, LABCHEM**

High purity metallic iron in common form of chips wire or powder.

Assay ..... 99% min.

**Maximum limit of impurities (%)**

Insoluble in HCl ..... 0.5

As ..... 0.0005

Cu ..... 0.01

Mn ..... 0.1

Ni ..... 0.05

Pb ..... 0.002

Zn ..... 0.005

S ..... 0.01

**Pack Size:** 100g

596

**IRON filings, 5-12 mesh, TECHNICAL****Pack Size:** 500g, 25kg

777

**IRON, powder, TECHNICAL**

Assay (total Fe) ..... typical 98% min.  
 Assay (Fe metal) ..... typical 96.5% min.

**Maximum limit of impurities (%)**  
 C (typical) ..... 0.2  
 S ..... 0.015  
 P ..... 0.015

**Pack Size:** 500g

2638

**IRON 1000ppm SINGLE ELEMENT ICP STANDARD, UNIPURE**

A 1000 ppm Iron standard, ready for use.  
 Fe in 0.5% Nitric acid.

U.N Number ..... 3264  
 ADG Class..... 8  
 Packing Group ..... III

**Traceable to NIST**

**Pack Size:** 100mL

2629

**IRON(III) NITRATE AAS, SPECTROSOL**

A 1000 ppm iron standard, ready for use.  
 Each mL contains 1.00 +/-0.005mg of Fe in 0.5% nitric acid

U.N Number ..... 3264  
 ADG Class..... 8  
 Packing Group ..... III

**Traceable to NIST**

**Pack Size:** 500mL

**IRON ALUM** (see Ammonium Iron (III) Sulphate page 69)

2363

**IRON(II) CHLORIDE, UNILAB**

**CAS** 13478-10-9  
**Synonyms:** Ferrous Chloride  
 $\text{FeCl}_2 \cdot 4\text{H}_2\text{O}$  = 198.81  
 Assay ..... 76% min.

**Maximum limit of impurities (%)**  
 As ..... 0.001  
 Mn ..... 0.07  
 Cu ..... 0.01  
 Fe(III) ..... 0.3  
 Pb ..... 0.005

**Pack Size:** 500g, 10kg

220

**IRON(III) CHLORIDE, anhydrous, UNILAB**

**CAS** 7705-08-0  
**Synonyms:** Ferric Chloride  
 $\text{FeCl}_3$  = 162.21  
 Assay ..... 98% min.

U.N Number ..... 1773  
 ADG Class..... 8  
 Packing Group ..... III

**Maximum limit of impurities (%)**  
 Fe(II) ..... 0.6

**Pack Size:** 250g, 5kg, 25kg

743

**IRON(III) CHLORIDE, hexahydrate, UNILAB**

CAS 10025-77-1

Synonyms: Ferric Chloride

FeCl<sub>3</sub>.6H<sub>2</sub>O = 270.30

Assay ..... 96.0% min.

**Maximum limit of impurities (%)**

Free Cl ..... 0.005

Fe(II) ..... 0.03 max

Pack Size: 500g, 5kg, 25kg

1523

**IRON(III) CITRATE, granular, LABCHEM**

CAS 17217-76-4

Synonyms: Ferric Citrate

Approx. C<sub>6</sub>H<sub>5</sub>O<sub>7</sub>Fe.3H<sub>2</sub>O

Contains ..... about 18% Fe.

**Maximum limit of impurities (%)**

Ca ..... 0.1

Na ..... 0.05

K ..... 0.001

H.M. (as Pb) ..... 0.005

Cl ..... 0.05

SO<sub>4</sub> ..... 0.3

Pack Size: 500g

**IRON(III) NITRATE**

CAS 7782-61-8

Synonyms: Ferric Nitrate

Fe(NO<sub>3</sub>)<sub>3</sub>.9H<sub>2</sub>O = 404.00

U.N Number ..... 1466

ADG Class..... 5.1

Packing Group ..... III



827

**IRON(III) NITRATE, UNIVAR**

Description: pale mauve coloured, moist crystals. Hydrolyses, becoming brown during storage.

Assay ..... 98.0 - 101.0%

**Maximum limit of impurities (%)**

Insol. .... 0.005

Cl ..... 0.0005

SO<sub>4</sub> ..... 0.01Subs. not ppt. by NH<sub>4</sub>OH ..... 0.1  
(as SO<sub>4</sub>)

Conforms to ACS

Store below 25°C in air-tight container

Pack Size: 500g, 5kg

1675

**IRON(III) NITRATE, UNILAB**

Assay ..... 98.0% min.

**Maximum limit of impurities (%)**Subs. not pptd. by NH<sub>4</sub>OH ..... 0.5

Store below 25°C in air-tight container.

Pack Size: 500g

927

**IRON(III) NITRATE, LABCHEM**

Assay ..... 97.0% min.

**Maximum limit of impurities (%)**

Cl ..... 0.01

Store below 25°C in air-tight container.

**Pack Size:** 500g

1061

**IRON(II) OXALATE, LABCHEM****CAS** 516-03-0**Synonyms:** Ferrous Oxalate $(\text{COO})_2\text{Fe} \cdot 2\text{H}_2\text{O} = 179.90$ 

Assay ..... 99% min.

**Pack Size:** 500g

1060

**IRON(III) OXIDE, red, LABCHEM****CAS** 1309-37-1**Synonyms:** Ferric Oxide, redAssay (as  $\text{Fe}_2\text{O}_3$ ) ..... about 81%**Pack Size:** 500g**IRON(II) SULPHATE****CAS** 7782-63-0**Synonyms:** Ferrous Sulphate $\text{FeSO}_4 \cdot 7\text{H}_2\text{O} = 278.01$ 

226

**IRON(II) SULPHATE, UNIVAR**

Description: green or bluish-green crystals or crystalline powder.

Assay ..... 99.0% min.

pH (5%, 20°C) ..... 3-4

**Maximum limit of impurities (%)**

Insol. .... 0.01

Cl ..... 0.001

 $\text{PO}_4$  ..... 0.001

Total N ..... 0.001

Cu ..... 0.001

Fe(III) ..... 0.025

Mn ..... 0.05

Zn ..... 0.005

Ca ..... 0.005

Subs. not ppt. by  $\text{NH}_4\text{OH}$  ..... 0.05

As ..... 0.0002

Na ..... 0.002

K ..... 0.002

Pb ..... 0.0007

Conforms to ACS

**Pack Size:** 500g, 5kg

227

**IRON(II) SULPHATE, UNILAB**

Description: bluish-green crystals or light green, crystalline powder; odourless. Efflorescent in air. Oxidises in moist air, becoming brown.

Assay ..... 98.0 - 105.0%  
pH (5% soln. @ 20°C) ..... 3.0 – 4.0

| <b>Maximum limit of impurities</b> | <b>(%)</b>   |
|------------------------------------|--------------|
| Clarity of soln. ....              | To pass test |
| Fe(III) .....                      | 0.5          |
| H.M. (as Pb) .....                 | 0.005        |
| Mn .....                           | 0.1          |
| Zn .....                           | 0.05         |
| Cl .....                           | 0.03         |

Chemical and physical parameters conform to BP

**Pack Size:** 500g, 5kg, 25kg

1268

**IRON(III) SULPHATE, powder, UNILAB**

**CAS** 10028-22-5

Approx.  $\text{Fe}_2(\text{SO}_4)_3 \cdot x\text{H}_2\text{O}$

( $\text{Fe}_2(\text{SO}_4)_3 = 399.88$ )

Assay(as Fe) ..... 21 - 23%

| <b>Maximum limit of impurities</b>             | <b>(%)</b> |
|------------------------------------------------|------------|
| Cl .....                                       | 0.005      |
| $\text{NO}_3$ .....                            | 0.02       |
| Fe(II) .....                                   | 0.02       |
| As .....                                       | 0.0005     |
| Cu .....                                       | 0.002      |
| Zn .....                                       | 0.005      |
| Subs. not pptd. by $\text{NH}_4\text{OH}$ , as |            |
| Sulphates .....                                | 0.05       |
| Insol in HCl.....                              | 0.01       |
| $\text{PO}_4$ .....                            | 0.003      |

**Pack Size:** 500g, 25kg

228

**IRON(II) SULPHIDE, sticks, TECHNICAL**

**CAS** 1317-37-9

**Synonyms:** Ferrous Sulphide

$\text{FeS} = 87.92$

Suitable for  $\text{H}_2\text{S}$  generation.

**Pack Size:** 1kg, 3kg

**ISO COMPOUNDS** (see compound, disregard 'iso')

**ISOPROPYL ALCOHOL** (see Propan-2-ol page 319)

**3225****JANUS GREEN B, LABCHEM****CAS** 2869-83-2 $C_{30}H_{31}ClN_6 = 511.07$ 

Description: Dark brown, dark green, or black powder

Dye content ..... 50% min.

**Pack size:** 25g**3226****JENNER'S STAIN, OP**

Stain for microscopy.

**Pack Size:** 25g**1111****KAOLIN, acid washed, UNILAB****CAS** 1332-58-7**Synonyms:** Aluminium Silicate

Heavy powder.

| <i>Maximum limit of impurities</i> | <i>(%)</i>   |
|------------------------------------|--------------|
| Sol in acid (as $SO_4$ ) .....     | 0.5          |
| Ca .....                           | 0.02         |
| H.M (as Pb) .....                  | 0.0025       |
| Cl .....                           | 0.02         |
| $SO_4$ .....                       | 0.05         |
| Adsorption power .....             | To pass test |
| Swelling power .....               | To pass test |

**Pack Size:** 500g**1112****KIESELGUHR, acid washed, LABCHEM****CAS** 61790-53-2

| <i>Maximum limit of impurities</i> | <i>(%)</i> |
|------------------------------------|------------|
| Soluble in HCl (25%) .....         | 1          |
| L.O.I. ....                        | 0.1        |
| Fe .....                           | 0.05       |
| H.M.(as Pb) .....                  | 0.005      |
| Cl .....                           | 0.02       |
| $SO_4$ .....                       | 0.05       |

**Pack Size:** 500g, 10kg**1509****KJELDAHL CATALYST TABLETS, low selenium, LABCHEM**

Each tablet contains 1.0g sodium sulphate anhydrous and the equivalent of 0.01g selenium.

**Pack Size:** 1000 tablets**2206****KJELDAHL CATALYST TABLETS, high selenium, LABCHEM**

Each tablet contains 1.0g sodium sulphate anhydrous and the equivalent of 0.05g selenium.

**Pack Size:** 1000 tablets

**LACTIC ACID 85 %**

CAS 50-21-5

**Synonyms:** 2-Hydroxypropionic AcidCH<sub>3</sub>CHOHCOOH = 90.08

Density ..... about 1.20g/mL

**270****LACTIC ACID 85%, UNIVAR**

Description: clear, viscous liquid; 10-15% is present as anhydride.

Assay .....85.0 - 90.0%

**Maximum limit of impurities****(%)**

R.A.I. .... 0.02

Cl ..... 0.001

SO<sub>4</sub> ..... 0.002

Conforms to ACS

Fe ..... 0.0005

H.M. (as Pb) ..... 0.0005

Subs. darkened by H<sub>2</sub>SO<sub>4</sub> ..... To pass test**Pack Size:** 500mL, 2.5L**271****LACTIC ACID 85%, UNILAB**

Assay .....85.0% w/w min.

**Maximum limit of impurities****(%)**

Sulph. Ash ..... 0.05

Cl ..... 0.01

SO<sub>4</sub> ..... 0.01

Fe ..... 0.001

H.M. (as Pb) ..... 0.001

**Pack Size:** 500mL**3227****LACTOPHENOL, LABCHEM**

U.N Number ..... 2821

ADG Class..... 6.1

Packing Group ..... III

**Pack Size:** 250mL**1835****LACTOPHENOL COTTON BLUE STAIN, LABCHEM**

0.05% Aniline blue in 20% Lactic acid, 40% Glycerol, and 20% Phenol

U.N Number ..... 2927

ADG Class ..... 6.1

Subsidiary Risk ..... 8

Packing Group ..... II

**Pack Size:** 100mL, 500mL



**LACTOSE**

CAS 63-42-3

Synonyms: Milk Sugar

 $C_{12}H_{22}O_{11} \cdot H_2O = 360.32$ **871****LACTOSE, UNIVAR**

Description: white crystalline powder.

H<sub>2</sub>O ..... 4.8 - 5.4%

Spec. rotn. .... +52.0 to +52.6°

pH (5% soln.) ..... 5.0 min.

**Maximum limit of impurities****(%)**

Insol. .... 0.005

Alcohol sol. .... 0.2

Sulph. Ash ..... 0.05

H.M. (as Pb) ..... 0.0002

N cpds (as N) ..... 0.03

As ..... 0.0001

Fe ..... 0.0002

**Pack Size:** 500g, 5kg**1678****LACTOSE, UNILAB**

A white or almost white, crystalline powder; odourless.

Spec. rotn. (dry basis) ..... +54.4 to +55.9°

Water (K.F.) ..... 4.5 – 5.5%

**Maximum limit of impurities****(%)**

Clarity odour &amp; colour soln ..... To pass test

Acidity or alkalinity ..... To pass test

Sulphated ash ..... 0.1

H.M. (as Pb) ..... 0.0005

Proteins &amp; light absorbing impurities.

**Absorbance:** 300-270 nm ..... 0.07

220-210 nm ..... 0.25

Chemical and physical parameters conform to BP

**Pack Size:** 500g, 5kg**LEVULOSE** (see D(-) Fructose page 179)**2657****LANTHANUM 1000ppm SINGLE ELEMENT ICP STANDARD, UNIPURE**

A 1000 ppm Lanthanum standard, ready for use.

La in 0.5% hydrochloric acid.

**Traceable to NIST****Pack Size:** 100mL

U.N Number ..... 3264

ADG Class ..... 8

Packing Group ..... III

**2634****LANTHANUM CHLORIDE AAS, SPECTROSOL**

A 1000 ppm Lanthanum standard, ready for use. Each mL contains

1.00 +/- 0.005mg of La in 0.5% hydrochloric acid.

**Traceable to NIST****Pack Size:** 500mL

U.N Number ..... 3264

ADG Class ..... 8

Packing Group ..... III



2333

**LANTHANUM CHLORIDE, UNIVAR**

CAS 10025-84-0

LaCl<sub>3</sub>·7H<sub>2</sub>O = 371.38

Description: colourless crystals.

Assay (as LaCl<sub>3</sub>) ..... 64.5 - 70.0%**Maximum limit of impurities (%)**

Insol. .... 0.01

Ca ..... 0.001

Mg ..... 0.0001

Conforms to ACS

**Pack Size:** 100g, 5kg**LANTHANUM OXIDE**

CAS 1312-81-8

La<sub>2</sub>O<sub>3</sub> = 325.82

1539

**LANTHANUM OXIDE, UNILAB**

Assay ..... 98% min

**Maximum limit of impurities (%)**

Cu ..... 0.005

Ni ..... 0.005

Fe ..... 0.005

Pb ..... 0.005

**Pack Size:** 100g, 500g, 5kg

2493

**LANTHANUM OXIDE, LABCHEM****Pack Size:** 500g

1735

**LAURIC ACID, LABCHEM**

CAS 143-07-7

**Synonyms:** Dodecanoic AcidCH<sub>3</sub>(CH<sub>2</sub>)<sub>10</sub>COOH = 200.33Assay (C<sub>12</sub>) ..... about 98%

M.R. .... 43-44°C

Acid Value ..... 278 – 282mg KOH/g

**Maximum limit of impurities (%)**

Iodine Value ..... 0.2

Unsapon Matter ..... 0.5

**Pack Size:** 500g

## LEAD

CAS 7439-92-1  
Pb = 207.2

1114

## LEAD, foil, UNIVAR

Description: soft, bluish grey metal.

| <i>Maximum limit of impurities</i> |        | (%)            |
|------------------------------------|--------|----------------|
| Ag.....                            | 0.0002 | Fe..... 0.001  |
| As.....                            | 0.001  | Ni ..... 0.001 |
| Bi .....                           | 0.02   | Sb ..... 0.005 |
| Cu.....                            | 0.001  |                |

Pack Size: 500g

2480

## LEAD, granulated, low in Ag and Sb, UNIVAR

Description: soft, bluish-grey granules.

| <i>Maximum limit of impurities</i> |         | (%) |
|------------------------------------|---------|-----|
| Ag .....                           | 0.00001 |     |
| Sb .....                           | 0.0001  |     |

Pack Size: 500g, 25kg

597

## LEAD, shot, TECHNICAL

About 3-4mm diameter

Pack Size: 500g

2639

## LEAD 1000ppm SINGLE ELEMENT ICP STANDARD, UNIPURE



A 1000 ppm Lead standard, ready for use.  
Pb in 0.5% Nitric acid.

U.N Number ..... 3264  
ADG Class ..... 8  
Packing Group ..... III

Traceable to NIST

Pack Size: 100mL

2615

## LEAD NITRATE AAS STANDARD, SPECTROSOL



A 1000 ppm lead standard, ready for use. Each mL contains 1.00 +/-0.005mg of Pb in 0.5% nitric acid.

U.N Number ..... 3264  
ADG Class ..... 8  
Packing Group ..... III

Traceable to NIST

Pack Size: 500mL

**LEAD(II) ACETATE**

CAS 6080-56-4

**Synonyms:** Sugar of Lead  
 $(\text{CH}_3\text{COO})_2\text{Pb} \cdot 3\text{H}_2\text{O} = 379.3$ 

U.N Number ..... 1616

ADG Class ..... 6.1

Packing Group ..... III

**273****LEAD(II) ACETATE, UNIVAR**

Description: colourless or white crystals, or crystalline powder.

Assay ..... 99.0 – 103.0%

**Maximum limit of impurities (%)**

Insol. in acetic acid ..... 0.01  
 Cl ..... 0.0005  
 NO<sub>3</sub> ..... 0.005  
 Cu ..... 0.002  
 Fe ..... 0.001  
 Ca ..... 0.005

Cd ..... 0.0005  
 K ..... 0.005  
 Mg ..... 0.005  
 Na ..... 0.01  
 Zn ..... 0.0005

Conforms to ACS

**Pack Size:** 500g**274****LEAD(II) ACETATE, UNILAB**

Assay ..... 99.5 - 104.5%

**Maximum limit of impurities (%)**

Insol. .... 0.05  
 Cl ..... 0.035  
 Cu ..... 0.01  
 Fe ..... 0.01

**Pack Size:** 500g, 5kg**275****LEAD(II) ACETATE, TECHNICAL**

Assay ..... 98.5% min

**Pack Size:** 500g**289****LEAD(II) ACETATE, basic, powder, UNIVAR**

CAS 51404-69-4

**Synonyms:** Horn's Dry Lead, Lead sub-acetate  
 Approx.  $(\text{CH}_3\text{COO})_2\text{Pb} \cdot \text{Pb}(\text{OH})_2$ 

For sugar analysis according to Horne.

Description: heavy white powder.

Basic lead (as PbO) ..... 33.0% min

Total lead (as PbO) ..... 75% min

U.N Number ..... 2291

ADG Class ..... 6.1

Packing Group ..... III

**Maximum limit of impurities (%)**

Insol. (in  $\text{CH}_3\text{COOH}$ ) ..... 0.02  
 Insol. (in  $\text{H}_2\text{O}$ ) ..... 1.0  
 L.O.D. .... 1.0  
 Cl ..... 0.003  
 NO<sub>3</sub> & NO<sub>2</sub> (as NO<sub>3</sub>) ..... 0.003  
 Cu ..... 0.002  
 Fe ..... 0.002

Subs. not ppt. by  $\text{H}_2\text{S}$  (as  $\text{SO}_4$ ) ..... 0.3  
 Ca ..... 0.005  
 Cd ..... 0.001  
 Co ..... 0.001  
 K ..... 0.01  
 Mg ..... 0.005

**Pack Size:** 500g, 5kg

1116

## LEAD CARBONATE, basic, UNILAB



CAS 1319-46-6

**Synonyms:** White Lead, Lead Hydroxide CarbonateApprox  $2\text{PbCO}_3 \cdot \text{Pb}(\text{OH})_2 = 775.63$ 

Assay (as Pb) .....77-80% min

U.N Number ..... 3288

ADG Class..... 6.1

Packing Group ..... III

**Maximum limit of impurities (%)**

Fe ..... 0.005

Zn ..... 0.005

Cl ..... 0.03

Cu ..... 0.005

Insol in  $\text{CH}_3\text{COOH}$  .....0.02

Nitrate + Nitrite.....0.005

**Pack Size:** 500g

1117

## LEAD(II) CHLORIDE, UNILAB



CAS 7758-95-4

 $\text{PbCl}_2 = 278.1$ 

Assay ..... 98.0% min

U.N Number ..... 2291

ADG Class ..... 6.1

Packing Group ..... III

**Maximum limit of impurities (%)** $\text{NO}_3$  ..... 0.01

Fe ..... 0.005

**Pack Size:** 500G

## LEAD DIOXIDE



CAS 1309-60-0

**Synonyms:** Lead Peroxide, Lead Oxide brown, Lead(IV) Oxide $\text{PbO}_2 = 239.2$ 

U.N Number ..... 1872

ADG Class ..... 5.1

Packing Group ..... III

285

## LEAD DIOXIDE, UNIVAR

Description: dark brown amorphous powder.

Assay ..... 99% min

**Maximum limit of impurities (%)**

Insol. (in acid) .....0.05

Cl.....0.02

Total N .....0.005

 $\text{SO}_4$  .....0.003Subs. not ppt. by  $\text{H}_2\text{S}$  (as  $\text{SO}_4$ ) .....0.5Other  $\text{H}_2\text{S}$  metals (as Cu) ..... 0.05

Mn .....0.0002

Cu .....0.001

Fe .....0.03

**Pack Size:** 100g, 500g

1118

## LEAD DIOXIDE, UNILAB

Particle size ..... approx 0.15 mm max.

Assay ..... 97%

**Maximum limit of impurities (%)**

Halides (as Cl) ..... 0.01

Insol in HCl ..... 0.2

L.O.D. .... 0.5

 $\text{SO}_4$  ..... 0.05**Pack Size:** 500g

**LEAD HYDROXIDE CARBONATE** (see Lead Carbonate, basic page 219)**278****LEAD IODIDE, LABCHEM**

CAS 10101-63-0

PbI<sub>2</sub> = 461.0

Pack Size: 100g

**LEAD MONOXIDE**

CAS 1317-36-8

Synonyms: Litharge, Lead Oxide yellow, Lead (II) Oxide

PbO = 223.2

U.N Number ..... 3077

ADG Class ..... 9

Packing Group ..... III

**2575****LEAD MONOXIDE, low in silver, UNIVAR****Maximum limit of impurities (%)**

|               |         |          |        |
|---------------|---------|----------|--------|
| Free Pb ..... | 2.5     | Cu. .... | 0.0001 |
| Ag .....      | 0.00002 | Fe ..... | 0.0002 |
| As .....      | 0.0001  | Sb.....  | 0.0001 |
| Bi.....       | 0.01    | Sn.....  | 0.005  |
| Cd. ....      | 0.0001  | Zn.....  | 0.0001 |

Pack Size: 25Kg

**284****LEAD MONOXIDE, litharge, UNILAB**

Assay ..... 98% min

**Maximum limit of impurities (%)**

|             |      |
|-------------|------|
| L.O.I. .... | 0.5  |
| Fe .....    | 0.02 |

Pack Size: 500g, 5kg, 20kg

# TLC plates

See Page 32

HPTLC Plates, Silica Gel 60 F254

TLC Aluminium Plates, Silica Gel 60 F254  
 TLC Aluminium Plates, Silica Gel 60

TLC Glass Plates, Silica Gel 60  
 TLC Glass Plates, Silica Gel 60 F254

TLC Polyester Plates, Silica Gel 60  
 TLC Polyester Plates, Silica Gel 60 F254

## LEAD(II) NITRATE



CAS 10099-74-8  
 $\text{Pb}(\text{NO}_3)_2 = 331.2$

U.N Number ..... 1469  
 ADG Class ..... 5.1  
 Subsidiary Risk ..... 6.1  
 Packing Group ..... II

280

## LEAD(II) NITRATE, UNIVAR

Description: white crystals or crystalline powder.

Assay ..... 99.0% min

**Maximum limit of impurities (%)**

Insol. .... 0.005  
 Cl ..... 0.001  
 Cu ..... 0.002  
 Fe ..... 0.001

Ca ..... 0.005  
 K ..... 0.005  
 Na ..... 0.02

Conforms to ACS

**Pack Size:** 500g, 5kg

281

## LEAD(II) NITRATE, UNILAB

Assay ..... 99.0% min

**Maximum limit of impurities (%)**

Cl ..... 0.01  
 Fe ..... 0.002

**Pack Size:** 500g, 5kg

932

## LEAD (II) NITRATE, LABCHEM

Assay ..... 98.0% min

**Maximum limit of impurities (%)**

Cl ..... 0.01  
 Fe ..... 0.01

**Pack Size:** 500g

**LEAD OXIDE, (red)**

CAS 1314-41-6

**Synonyms:** Red Lead, Lead Tetroxide, Lead(II/IV) Oxide  
 $\text{Pb}_3\text{O}_4 = 685.6$

U.N Number ..... 3087  
 ADG Class ..... 5.1  
 Subsidiary Risk ..... 6.1  
 Packing Group ..... III

**748****LEAD OXIDE, (red lead), UNIVAR**

Description: heavy, red powder.

Assay ..... 96% min

**Maximum limit of impurities (%)**Insol. (in  $\text{HNO}_3\text{-H}_2\text{O}_2$ ) ..... 0.1

Cl ..... 0.01

Matter not pptd by  $\text{H}_2\text{S}$ (as  $\text{SO}_4$ ) ..... 0.5**Pack Size:** 500g, 5kg**1119****LEAD OXIDE, (red lead), UNILAB**

PbO ..... approx. 15%

Assay ..... 85.0% min

**Maximum limit of impurities (%)**

Insol. (in acid) ..... 0.5

Cl ..... 0.02

**Pack Size:** 500g**LEAD OXIDE BROWN** (see Lead Dioxide page 219)**LEAD OXIDE YELLOW** (see Lead Monoxide page 220)**LEAD(II/IV) OXIDE** (see Lead Oxide,red page 222)**LEAD(II) OXIDE** (see Lead Monoxide page 220)**LEAD(IV) OXIDE** (see Lead Dioxide page 219)**LEAD PEROXIDE** (see Lead Dioxide page 219)**LEAD SUB-ACETATE** (see Lead(II) Acetate, basic page 218)**LEAD TETROXIDE** (see Lead Oxide,red page 222)



221

**LEAD SULPHATE, UNILAB**

CAS 7446-14-2

PbSO<sub>4</sub> = 303.25

Assay ..... 99% min

**Maximum limit of impurities (%)**

Insol in Amm Acet ..... 0.1

Cl ..... 0.005

LOI ..... 0.5

Fe ..... 0.005

Pack Size: 500g

3228

**LEISHMAN'S STAIN, OP**

CAS 12627-53-1

Stain for microscopy. A neutral dye suitable to differentiate &amp; identify leucocytes, malarial parasites &amp; trypanosomes. Lambda max 642 (522) nm in Methanol.

Pack Size: 25g

1836

**LEISHMAN STAIN SOLUTION, LABCHEM**

0.25% in Methanol

U.N Number ..... 1230

ADG Class ..... 3

Subsidiary Risk ..... 6.1

Packing Group ..... II



Pack Size: 1L, 5L

**LENZOL IMMERSION OIL** (see Cedar Oil, thickened for immersion lenses page 120)

2019

**L-LEUCINE, UNIVAR**

CAS 61-90-5

C<sub>6</sub>H<sub>13</sub>NO<sub>2</sub> = 131.2

Description: White crystalline powder

Assay ..... 99.0% min.

Specific rotation ..... +14.9 to +16.5°

**Maximum limit of impurities (%)**

Fe ..... 0.005

H.M. (as Pb) ..... 0.003

As ..... 0.0003

L.O.D. ..... 0.1

Pack size: 50g

**3230****LIGHT GREEN (CI 42095), OP**

CAS 5141-20-8

**Synonyms:** Acid Green, Lissamine Green SF

Stain for microscopy.

Redox indicator.

Transition EMF (@ pH=0) ..... + 1.00 V.

Colour change: Oxidized (orange) to reduced (green)

**Pack Size:** 10g**LIME** (see Calcium Oxide page 115)**LIPID CRIMSON** (see Scarlet R page 330)**LISSAMINE GREEN SF** (see Light green page 224)**LITHARGE** (see Lead Monoxide page 220)**2658****LITHIUM 1000ppm SINGLE ELEMENT ICP STANDARD, UNIPURE**

A 1000 ppm Lithium standard, ready for use.

Li in 0.5% nitric acid.

**Traceable to NIST****Pack Size:** 100mL

U.N Number ..... 3264

ADG Class ..... 8

Packing Group ..... III

**2616****LITHIUM NITRATE AAS, SPECTROSOL**

A 1000 ppm Lithium standard, ready for use. Each mL contains

1.00 +/-0.005mg of Li in 0.5% nitric acid.

**Traceable to NIST****Pack Size:** 500mL

U.N Number ..... 3264

ADG Class ..... 8

Packing Group ..... III

**2367****LITHIUM BROMIDE, UNILAB**

CAS 7550-35-8

LiBr = 86.84

Assay (after drying) ..... 99.0% min

**Maximum limit of impurities (%)**

L.O.D. (@ 400°C) ..... 0.5

Cl ..... 0.15

SO<sub>4</sub> ..... 0.01

Ca ..... 0.005

Fe ..... 0.001

K ..... 0.05

Mg ..... 0.002

**Pack Size:** 100g

1289

**LITHIUM CARBONATE, UNILAB****CAS** 554-13-2Li<sub>2</sub>CO<sub>3</sub> = 73.89

Description: white powder.

Assay ..... 98.5 - 100.5%

**Maximum limit of impurities****(%)**

Clarity and colour of soln. .... To pass test

As ..... 0.0002

Ca ..... 0.0200

Cl ..... 0.0200

Fe ..... 0.0020

H.M. (as Pb) ..... 0.0020

K ..... 0.0300

Mg ..... 0.0150

Na ..... 0.0300

SO<sub>4</sub> ..... 0.0200

Chemical and physical parameters conform to BP

**Pack Size:** 500g

292

**LITHIUM CHLORIDE, dried, UNILAB****CAS** 7447-41-8

LiCl = 42.40

Assay ..... 98.0% min

**Maximum limit of impurities****(%)**SO<sub>4</sub> ..... 0.01

Ca ..... 0.01

Fe ..... 0.001

K ..... 0.01

Na ..... 0.02

H.M. (as Pb) ..... 0.001

**Pack Size:** 100g, 500g, 5kg

293

**LITHIUM FLUORIDE, UNIVAR****CAS** 7789-24-4

LiF = 25.94

Description: White fluffy powder

Assay ..... 99.5% min.

U.N Number ..... 2811

ADG Class ..... 6.1

Packing Group ..... III

**Maximum limit of impurities****(%)**

Mg ..... 0.001

Ca ..... 0.05

Fe ..... 0.01

H.M. (as Pb) ..... 0.0005

Cl ..... 0.01

SO<sub>4</sub> ..... 0.01

Mn ..... 0.0005

Cu ..... 0.0005

Cd ..... 0.0005

**Pack size:** 100g, 500g

294

## LITHIUM HYDROXIDE, UNILAB



CAS 1310-66-3

LiOH.H<sub>2</sub>O = 41.96

Assay ..... 98.0% min

U.N Number ..... 2680

ADG Class..... 8

Packing Group ..... II

**Maximum limit of impurities (%)**

K ..... 0.05

Li<sub>2</sub>CO<sub>3</sub> ..... 1

Cl ..... 0.02

SO<sub>4</sub> ..... 0.03

Ca ..... 0.02

Fe ..... 0.001

Na ..... 0.05

**Pack Size:** 500g, 5Kg

3071

## LITHIUM IODIDE, LABCHEM

CAS 10377-51-2

LiI = 133.85

Description: White deliquescent granules

Assay ..... 98.0% min.

**Pack size:** 250g

1069

## LITHIUM NITRATE, UNILAB



CAS 7790-69-4

LiNO<sub>3</sub> = 68.95

Assay ..... 99.0% min.

U.N Number ..... 2722

ADG Class ..... 5.1

Packing Group ..... III

**Maximum limit of impurities (%)**

Cl ..... 0.01

SO<sub>4</sub> ..... 0.2

Fe ..... 0.005

Water ..... 1.0

Alkalinity ..... 0.05

**Pack Size:** 500g

624

## LITHIUM SULPHATE, UNIVAR

CAS 10377-48-7

Li<sub>2</sub>SO<sub>4</sub>.H<sub>2</sub>O = 127.95

Description: white crystals or crystalline powder.

Assay ..... 99.0% min.

L.O.D. (150°C) ..... 13.0 – 15.0%

**Maximum limit of impurities (%)**

Insol. .... 0.01

Cl ..... 0.002

NO<sub>3</sub> ..... 0.001

Fe ..... 0.001

H.M. (as Pb) ..... 0.001

K ..... 0.05

Na ..... 0.05

Conforms to ACS

**Pack Size:** 500g

773

**LITHIUM TETRABORATE, UNIVAR**

CAS 12007-60-2

 $\text{Li}_2\text{B}_4\text{O}_7 = 169.16$ 

Description: light, white powder.

Assay ..... 98.0% min.

**Maximum limit of impurities (%)**

|                 |       |
|-----------------|-------|
| Cl .....        | 0.01  |
| Ca .....        | 0.009 |
| Fe .....        | 0.01  |
| H.M. (Pb) ..... | 0.005 |
| K .....         | 0.01  |
| Mg .....        | 0.05  |
| Na .....        | 0.05  |
| Sr .....        | 0.05  |

Pack Size: 500g, 5kg

1203

**LITMUS, LABCHEM**

CAS 1393-92-6

Description: Blue powder

Visual transition interval: pH 4.5 (red) to pH 8.3 (blue)

Pack size: 100g, 500g

1833

**LUGOL'S IODINE SOLUTION, LABCHEM**

This is used generally to prepare Gram's stain (1 part Lugol's in 5 parts water)

Iodine 1% max.

Potassium Iodide 1% max.

Pack Size: 1L, 5L

1737

**LYCOPodium**

CAS 53938-16-2

U.N Number ..... 1325

ADG Class ..... 4.1

Packing Group ..... II

Pack Size: 25g

2469

**L-LYSINE MONOHYDROCHLORIDE, UNILAB**

CAS 657-27-2

 $\text{NH}_2(\text{CH}_2)_4\text{CH}(\text{NH}_2)\text{COOH.HCl} = 182.65$ 

Assay (L-form) ..... 98.5% min

Rotn. (C=8, 6NHCl) ..... + 19.0 to 21.5°

**Maximum limit of impurities (%)**

|                     |        |
|---------------------|--------|
| $\text{SO}_4$ ..... | 0.03   |
| Fe .....            | 0.003  |
| H.M. (as Pb) .....  | 0.0010 |
| LOD .....           | 0.5    |
| ROI .....           | 0.1    |
| As .....            | 0.0001 |

Pack Size: 25g

**MAGENTA** (see Fuchsin Basic page 180)**1121****CAS** 7439-95-4

Mg = 24.31

Assay ..... 99.5% min.

U.N Number ..... 1869

ADG Class ..... 4.1

Packing Group ..... III

**Maximum limit of impurities (%)**

Insol in HCl ..... 0.01

Fe ..... 0.05

**Pack Size:** 500g, 5kg**MAGNESIUM, powder, LABCHEM****677****CAS** 7439-95-4

Mg = 24.31

Assay ..... 99.8% min.

U.N Number ..... 1418

ADG Class ..... 4.3

Subsidiary Risk ..... 4.2

Packing Group ..... II

**Maximum limit of impurities (%)**

Fe ..... 0.05

Si ..... 0.05

Cu ..... 0.02

Mn ..... 0.1

Al ..... 0.05

Ni ..... 0.002

**Pack Size:** 100g, 5kg**2289****CAS** 7439-95-4

U.N Number ..... 1869

ADG Class ..... 4.1

Packing Group ..... III

**Pack Size:** 25g, 100g**2640****MAGNESIUM 1000ppm SINGLE ELEMENT ICP STANDARD, UNIPURE**

A 1000 ppm Magnesium standard, ready for use.

Mg in 0.5% Nitric acid.

U.N Number ..... 3264

ADG Class ..... 8

Packing Group ..... III

**Traceable to NIST****Pack Size:** 100mL**2604****MAGNESIUM NITRATE AAS STANDARD, SPECTROSOL**

1000 ppm magnesium standard, ready for use. Each mL contains 1.00mg +/- 0.005 mg of Mg in 0.5% nitric acid.

U.N Number ..... 3264

ADG Class ..... 8

Packing Group ..... III

**Traceable to NIST****Pack Size:** 500mL

**MAGNESIUM ACETATE**

CAS 16674-78-5  
 $(\text{CH}_3\text{COO})_2\text{Mg} \cdot 4\text{H}_2\text{O} = 214.46$

**295****MAGNESIUM ACETATE, UNIVAR**

Description: colourless crystals.

Assay ..... 99.5% min.  
 pH (5%, 20°C) ..... 8-9

**Maximum limit of impurities**

|                       | (%)    |                    |        |
|-----------------------|--------|--------------------|--------|
| Insol. ....           | 0.005  | H.M. (as Pb) ..... | 0.0005 |
| Cl .....              | 0.001  | K .....            | 0.001  |
| N cpds (as N) .....   | 0.001  | Mn .....           | 0.001  |
| SO <sub>4</sub> ..... | 0.005  | Na .....           | 0.001  |
| Ba .....              | 0.001  | Sr .....           | 0.001  |
| Ca .....              | 0.01   | Cd .....           | 0.0005 |
| Fe .....              | 0.0005 |                    |        |

Conforms to ACS

**Pack Size:** 500g

**1371****MAGNESIUM ACETATE, UNILAB**

Assay ..... 98.0% min.

**Maximum limit of impurities**

|                       | (%)   |
|-----------------------|-------|
| Cl .....              | 0.02  |
| SO <sub>4</sub> ..... | 0.03  |
| Fe .....              | 0.001 |
| H.M. (as Pb) .....    | 0.002 |

**Pack Size:** 500g

**MAGNESIUM CARBONATE BASIC** (see Magnesium Hydroxide Carbonate page 229)**1122****MAGNESIUM HYDROXIDE CARBONATE, UNILAB**

CAS 39409-82-0

**Synonyms:** Magnesium carbonate basic

Approx.  $3\text{MgCO}_3 \cdot \text{Mg}(\text{OH})_2 \cdot 3\text{H}_2\text{O}$

Description: white powder; odourless.

Bulk density ..... about 83g/L  
 Assay (as MgO) ..... 40.0 - 45.0%

**Maximum limit of impurities**

|                                             | (%)          |                    |        |
|---------------------------------------------|--------------|--------------------|--------|
| Insol. (in $\text{CH}_3\text{COOH}$ ) ..... | 0.05         | As .....           | 0.0002 |
| Sol. (in $\text{H}_2\text{O}$ ) .....       | 1.0          | Ca .....           | 0.75   |
| Colour of soln. ....                        | To pass test | Fe .....           | 0.040  |
| Cl .....                                    | 0.07         | H.M. (as Pb) ..... | 0.002  |
| SO <sub>4</sub> .....                       | 0.3          |                    |        |

Chemical and physical parameters conform to BP

**Pack Size:** 500g, 5kg, 25kg

## MAGNESIUM CHLORIDE

CAS 7791-18-6  
 $\text{MgCl}_2 \cdot 6\text{H}_2\text{O} = 203.30$

296

## MAGNESIUM CHLORIDE, UNIVAR

Description: colourless hygroscopic crystals.

Assay ..... 99.0 - 102.0%

**Maximum limit of impurities (%)**

|                     |        |                     |        |
|---------------------|--------|---------------------|--------|
| Insol. ....         | 0.005  | $\text{SO}_4$ ..... | 0.002  |
| $\text{NO}_3$ ..... | 0.001  | Cu .....            | 0.0002 |
| $\text{PO}_4$ ..... | 0.0005 | Fe .....            | 0.0002 |
| Zn .....            | 0.0005 | Pb .....            | 0.0002 |
| Mn .....            | 0.0005 | K .....             | 0.001  |
| H.M (as Pb) .....   | 0.0005 | Na .....            | 0.001  |
| As .....            | 0.0003 | Sr .....            | 0.001  |
| Ba .....            | 0.002  | Ca .....            | 0.01   |
| $\text{NH}_4$ ..... | 0.002  |                     |        |

Chemical and physical parameters conform to FCC

Conforms to ACS

**Pack Size:** 500g, 5kg, 25kg

297

## MAGNESIUM CHLORIDE, UNILAB

Description: colourless crystals;hygroscopic.

Assay ..... 98.0 - 101.0%

**Maximum limit of impurities (%)**

|                              |                  |                    |        |
|------------------------------|------------------|--------------------|--------|
| Acidity or alkalinity .....  | 0.6 mmol H or OH | Ca.....            | 0.1    |
| Appearance of solution ..... | To pass test     | Fe .....           | 0.0010 |
| $\text{SO}_4$ .....          | 0.0100           | H.M. (as Pb) ..... | 0.0010 |
| As .....                     | 0.0002           | Br .....           | 0.05   |

Chemical and physical parameters conform to BP

**Pack Size:** 500g, 5kg, 25kg

1372

## MAGNESIUM HYDROXIDE, UNILAB

CAS 1309-42-8

$\text{Mg}(\text{OH})_2 = 58.33$

Description: white, fine, amorphous powder; odourless.

Assay ..... 95.0 - 100.5%

L.O.I ..... 30.0- 32.5%

**Maximum limit of impurities (%)**

|                                             |              |                    |        |
|---------------------------------------------|--------------|--------------------|--------|
| Insol. (in $\text{CH}_3\text{COOH}$ ) ..... | 0.10         | As .....           | 0.0004 |
| Sol. (in $\text{H}_2\text{O}$ ) .....       | 2.0          | Ca.....            | 1.5    |
| Colour of soln. ....                        | To pass test | Fe .....           | 0.07   |
| Cl.....                                     | 0.1          | H.M. (as Pb) ..... | 0.0030 |
| $\text{SO}_4$ .....                         | 0.5          |                    |        |

Chemical and physical parameters conform to BP

**Pack Size:** 500g, 25kg



## MAGNESIUM NITRATE



299

CAS 13446-18-9  
 $\text{Mg}(\text{NO}_3)_2 \cdot 6\text{H}_2\text{O} = 256.41$

U.N Number ..... 1474  
 ADG Class ..... 5.1  
 Packing Group ..... III

## MAGNESIUM NITRATE, UNIVAR

Description: colourless or white deliquescent crystals or crystalline masses.

Assay ..... 98.0 - 102.0%  
 pH (5% soln. @ 25°C) ..... 5.0 - 8.2

| <i>Maximum limit of impurities</i> | <i>(%)</i> |                       |        |
|------------------------------------|------------|-----------------------|--------|
| Insol. ....                        | 0.005      | H.M. (as Pb) .....    | 0.0005 |
| Cl .....                           | 0.001      | K .....               | 0.005  |
| PO <sub>4</sub> .....              | 0.0005     | Mn .....              | 0.0005 |
| SO <sub>4</sub> .....              | 0.005      | Na .....              | 0.005  |
| Ba .....                           | 0.005      | NH <sub>4</sub> ..... | 0.003  |
| Ca .....                           | 0.01       | Sr .....              | 0.005  |
| Fe .....                           | 0.0005     |                       |        |

Conforms to ACS

Pack Size: 500g

300

## MAGNESIUM NITRATE, UNILAB

Assay ..... 99.0% min  
 pH (5% soln. @ 25°C) ..... about 6.0

| <i>Maximum limit of impurities</i> | <i>(%)</i> |
|------------------------------------|------------|
| Cl .....                           | 0.005      |
| SO <sub>4</sub> .....              | 0.01       |
| Ca .....                           | 0.1        |
| Fe .....                           | 0.002      |
| H.M. (as Pb) .....                 | 0.001      |

Pack Size: 500g, 5kg

## MAGNESIUM OXIDE

CAS 1309-48-4  
 $\text{MgO} = 40.30$

828

## MAGNESIUM OXIDE, light, UNIVAR

Description: white, fine, amorphous powder; odourless

Assay ..... 98.0 - 100.5%

| <i>Maximum limit of impurities</i> | <i>(%)</i> |                                   |           |
|------------------------------------|------------|-----------------------------------|-----------|
| L.O.I .....                        | 5          | Pb .....                          | 0.0005    |
| Soluble matter in water .....      | 1.0        | Zn .....                          | 0.001     |
| Insolubles in Acetic Acid .....    | 0.1        | H.M. (as Pb) .....                | 0.002     |
| Insolubles in HCl .....            | 0.1        | Cl .....                          | 0.05      |
| As .....                           | 0.0002     | SO <sub>4</sub> .....             | 0.5       |
| Ca .....                           | 1          | Free alkali + soluble salts ..... | to comply |
| Cu .....                           | 0.001      | Appearance of the solution .....  | to comply |
| Fe .....                           | 0.02       | Residual solvents .....           | to comply |

Pack Size: 100g, 500g

1124

**MAGNESIUM OXIDE, light, UNILAB**

Description: white, fine, amorphous powder; odourless.  
 Assay (after ign.) ..... 96.0 - 100.5%  
 Bulk density ..... 130g/L min.

| <b>Maximum limit of impurities</b>     |        | <b>(%)</b>        |       |
|----------------------------------------|--------|-------------------|-------|
| Insol. (in CH <sub>3</sub> COOH) ..... | 0.1    | Ca .....          | 1.1   |
| L.O.I. (@800 Deg.C) .....              | 10.0   | Fe .....          | 0.05  |
| Free alkali & soluble salts .....      | 2.0    | H.M.(as Pb) ..... | 0.004 |
| As .....                               | 0.0003 |                   |       |

Chemical and physical parameters conform to USP

**Pack Size:** 500g, 5kg

835

**MAGNESIUM OXIDE, heavy, UNILAB**

Description: white to off-white granules.  
 Bulk density ..... about 350g/L  
 Assay (after ign.) ..... 96%

| <b>Maximum limit of impurities</b> |       | <b>(%)</b> |  |
|------------------------------------|-------|------------|--|
| Insol. (in HCl) .....              | 0.1   |            |  |
| L.O.I. ....                        | 10.0  |            |  |
| Sol. (in H <sub>2</sub> O) .....   | 2.0   |            |  |
| Ca .....                           | 1.5   |            |  |
| Fe .....                           | 0.05  |            |  |
| H.M. (as Pb) .....                 | 0.004 |            |  |

**Pack Size:** 500g, 5kg

1679

**MAGNESIUM PERCHLORATE, UNIVAR**

CAS 10034-81-8  
 Mg(ClO<sub>4</sub>)<sub>2</sub> = 223.22  
 Description: white, porous granules.

U.N Number ..... 1475  
 ADG Class ..... 5.1  
 Packing Group ..... II

| <b>Maximum limit of impurities</b>        |              | <b>(%)</b> |  |
|-------------------------------------------|--------------|------------|--|
| Titrateable free acid .....               | 0.005 meq/g  |            |  |
| Titrateable base .....                    | 0.025 meq/g  |            |  |
| H <sub>2</sub> O .....                    | 8.0          |            |  |
| Suitability for moisture absorption ..... | To pass test |            |  |

Conforms to ACS

**Pack Size:** 500g

1548

**MAGNESIUM SULPHATE, dried, UNILAB**

CAS 10034-99-8  
 Approx MgSO<sub>4</sub>.3H<sub>2</sub>O  
 Description: white solid ; odourless or almost odourless.  
 Assay (as MgSO<sub>4</sub>) ..... 62.0 - 70.0%

| <b>Maximum limit of impurities</b> |                       | <b>(%)</b> |  |
|------------------------------------|-----------------------|------------|--|
| Insol. ....                        | To pass test          |            |  |
| Acidity or alkalinity .....        | neutral to phenol red |            |  |
| Cl .....                           | 0.05                  |            |  |
| As .....                           | 0.0003                |            |  |
| Fe .....                           | 0.003                 |            |  |
| H.M. (as Pb) .....                 | 0.0015                |            |  |

Chemical and physical parameters conform to BP

**Pack Size:** 500g, 5kg, 25kg

**MAGNESIUM SULPHATE, hydrated****CAS** 10034-99-8**Synonyms:** Epsom SaltMgSO<sub>4</sub>·7H<sub>2</sub>O = 246.47**302****MAGNESIUM SULPHATE, hydrated, UNIVAR**

Description: colourless, efflorescent crystals.

Assay ..... 98.0 - 102.0%

pH (5% soln. @ 25°C) ..... 5.0-8.2

**Maximum limit of impurities (%)**

Insol ..... 0.005

Cl ..... 0.0005

Mn ..... 0.0005

Zn ..... 0.0005

H.M. (as Pb) ..... 0.0005

NO<sub>3</sub> ..... 0.002NH<sub>4</sub> ..... 0.002

As ..... 0.0002

Ca ..... 0.002

Sr ..... 0.002

Fe ..... 0.0001

Cu ..... 0.0001

Pb ..... 0.0001

K ..... 0.001

Na ..... 0.001

Conforms to ACS

**Pack Size:** 500g, 5kg, 25kg**303****MAGNESIUM SULPHATE, hydrated, UNILAB**

Description: brilliant, colourless crystals or a white, crystalline powder; odourless.

Assay ..... 99.5 - 100.5% min.

L.O.D. .... 48.0 – 52.0%

**Maximum limit of impurities (%)**

Clarity and colour of soln. .... To pass test

Acidity or alkalinity ..... 0.2 mmol H or OH

Cl ..... 0.03

As ..... 0.0002

Fe ..... 0.002

H.M. (as Pb) ..... 0.001

Se ..... 0.003

Chemical and physical parameters conform to BP &amp; FCC

**Pack Size:** 500g, 5kg, 25kg**3233****MALACHITE GREEN (CI 42000), OP****CAS** 569-64-2**Synonyms:** China Green, Solid Green

Stain for microscopy. pH indicator.

Assay ..... 90% min.

**Maximum limit of impurities (%)**

Zn ..... 0.0025

Pb ..... 0.005

**Pack Size:** 25g, 50g

1125

**MALEIC ACID, UNILAB****CAS** 110-16-7**Synonyms:** Toxilic Acid

HOOCCH:CHCOOH = 116.07

Description: white, crystalline powder; odourless.

Assay (after drying) ..... 99.0 101.0%

**Maximum limit of impurities (%)**

Sulph. Ash ..... 0.1

L.O.D. .... 2.0

Fumaric acid ..... to pass test

Clarity &amp; colour of solution ..... to pass test

H.M. (as Pb) ..... 0.0010

Iron ..... 0.0005

Chemical and physical parameters conform to BP

**Pack Size:** 100g, 5kg

2361

**DL-MALIC ACID, UNILAB****CAS** 617-48-1**Synonyms:** DL-Hydroxybutanedioic AcidHOOCCH<sub>2</sub>CHOHCOOH = 134.09

Assay ..... 99.0% min.

**Maximum limit of impurities (%)**

Residue on ignition ..... 0.25

Fe ..... 0.005

H.M. (as Pb) ..... 0.005

**Pack Size:** 500g

305

**MALONIC ACID, UNILAB****CAS** 141-82-2CH<sub>2</sub>(COOH)<sub>2</sub> = 104.06

Assay ..... 99% min.

MR ..... 131 – 135°C

**Maximum limit of impurities (%)**

Sulph. Ash ..... 0.5

Cl ..... 0.01

SO<sub>4</sub> ..... 0.01**Pack Size:** 100g

1126

**MALTOSE, bacteriological, LABCHEM****CAS** 69-79-4C<sub>12</sub>H<sub>22</sub>O<sub>11</sub>.H<sub>2</sub>O = 360.32

Spec. rotn. .... +135 to +139°.

**Pack Size:** 100g, 1kg

2345

**MANGANESE, Powder, LABCHEM****CAS** 7439-96-5

Mn = 54.93

Description: Grey-brown-black powder

Assay ..... 99.0%

**Pack size:** 100g

**2641****MANGANESE 1000ppm SINGLE ELEMENT ICP STANDARD, UNIPURE**

A 1000 ppm Manganese standard, ready for use.  
Mn in 0.5% Nitric acid.

U.N Number ..... 3264  
ADG Class ..... 8  
Packing Group ..... III

**Traceable to NIST****Pack Size:** 100mL**2617****MANGANESE (II) NITRATE AAS STANDARD, SPECTROSOL**

A 1000 ppm manganese standard, ready for use.  
Each mL contains 1.00 +/-0.005mg of Mn in 0.5% nitric acid

U.N Number ..... 3264  
ADG Class ..... 8  
Packing Group ..... III

**Traceable to NIST****Pack Size:** 500mL**1533****MANGANESE(II) ACETATE, UNILAB****CAS** 6156-78-1**Synonyms:** Manganous Acetate $(\text{CH}_3\text{COO})_2\text{Mn} \cdot 4\text{H}_2\text{O} = 245.09$ 

Assay ..... 99.5% min.

| <i>Maximum limit of impurities</i> | <i>(%)</i> |
|------------------------------------|------------|
| Fe .....                           | 0.0005     |
| Cu .....                           | 0.0005     |
| Ni .....                           | 0.002      |
| Cl .....                           | 0.001      |
| SO <sub>4</sub> .....              | 0.005      |
| Insol .....                        | 0.01       |

**Pack Size:** 500g**306****MANGANESE(II) CARBONATE, UNILAB****CAS** 598-62-9**Synonyms:** Manganous Carbonate $\text{MnCO}_3 \cdot x\text{H}_2\text{O}$ 

Assay (as Mn) ..... 43% min.

| <i>Maximum limit of impurities</i> | <i>(%)</i> |
|------------------------------------|------------|
| Cl .....                           | 0.02       |
| SO <sub>4</sub> .....              | 0.02       |
| Fe .....                           | 0.005      |
| Na .....                           | 0.2        |
| H.M.(as Pb) .....                  | 0.005      |

**Pack Size:** 500g

**MANGANESE(II) CHLORIDE**

CAS 13446-34-9

Synonyms: Manganous Chloride

MnCl<sub>2</sub>·4H<sub>2</sub>O = 197.90**307****MANGANESE(II) CHLORIDE, UNIVAR**

Description: pink deliquescent crystals.

Assay ..... 98.0 - 101.0%

pH (5% soln. @ 25°C) ..... 3.5 – 6.0

| <i>Maximum limit of impurities</i> | <i>(%)</i> |
|------------------------------------|------------|
| Insol. ....                        | 0.005      |
| SO <sub>4</sub> .....              | 0.005      |
| Fe .....                           | 0.0005     |
| H.M. (as Pb) .....                 | 0.0005     |
| Zn .....                           | 0.005      |
| Ca .....                           | 0.005      |
| Mg .....                           | 0.005      |
| K .....                            | 0.01       |
| Na .....                           | 0.05       |

Conforms to ACS

Pack Size: 500g

**1127****MANGANESE(II) CHLORIDE, UNILAB**

Assay ..... 96% min.

| <i>Maximum limit of impurities</i> | <i>(%)</i> |
|------------------------------------|------------|
| SO <sub>4</sub> .....              | 0.06       |
| Fe .....                           | 0.01       |
| H.M. (as Pb) .....                 | 0.001      |

Pack Size: 500g

**MANGANESE DIOXIDE**

CAS 1313-13-9

Synonyms: Manganese(IV) Oxide

MnO<sub>2</sub> = 86.94**793****MANGANESE DIOXIDE, precipitated, UNILAB**

Assay ..... 90% min.

| <i>Maximum limit of impurities</i> | <i>(%)</i> |
|------------------------------------|------------|
| Insol. (in acid) .....             | 3.5        |
| L.O.D (@105°C) .....               | 0.3        |
| Fe .....                           | 0.5        |
| SiO <sub>2</sub> .....             | 3          |

Pack Size: 500g

**598****MANGANESE DIOXIDE, TECHNICAL**

Pack Size: 500g

**MANGANESE(II) SULPHATE, monohydrate**

CAS 7785-87-7

Synonyms: Manganous Sulphate

MnSO<sub>4</sub>·H<sub>2</sub>O = 169.01**309****MANGANESE(II) SULPHATE, monohydrate, UNIVAR**

Description: pale pink crystalline powder.

Assay ..... 98.0 - 101.0%

L.O.I. @ 400-500°C) ..... 10.0 - 12.0%

**Maximum limit of impurities****(%)**

Insoluble matter ..... 0.01

Cl ..... 0.005

Ca ..... 0.005

H.M. (as Pb) ..... 0.002

Ni ..... 0.02

Zn ..... 0.005

Subs. reducing KMnO<sub>4</sub> ..... To pass test

Fe ..... 0.002

Mg ..... 0.005

K ..... 0.01

Na ..... 0.05

Conforms to ACS

**Pack Size:** 500g, 5kg**298****MANGANESE(II) SULPHATE, monohydrate, UNILAB**

Assay (after ign. @ 450 - 500°C) ..... 98% min.

L.O.I. (@ 450-500°C) ..... 10.0 - 12.0%

**Maximum limit of impurities****(%)**

Cl ..... 0.035

Ca ..... 0.005

Fe ..... 0.004

H.M. (as Pb) ..... 0.004

Zn ..... 0.05

**Pack Size:** 500g, 5kg, 25kg**MANGANOUS COMPOUNDS** (see Manganese(II) compounds page 235)**MANGANOUS ACETATE** (see Manganese(II) Acetate page 235)**MANGANOUS CARBONATE** (see Manganese(II) Carbonate page 235)**MANGANOUS CHLORIDE** (see Manganese(II) Chloride page 236)**MANGANOUS SULPHATE** (see Manganese(II) Sulphate page 237)

## MANNITOL

CAS 69-65-8  
 $\text{CH}_2\text{OH}(\text{CHOH})_4\text{CH}_2\text{OH} = 182.17$

310

## MANNITOL, UNIVAR

Description: white, crystalline powder.

|                            |                    |
|----------------------------|--------------------|
| Assay .....                | 99.0 - 101.5% min. |
| M.P. ....                  | 164 – 168°C        |
| Spec. rotn. (@ 25°C) ..... | + 23.3 to +24.3°   |

**Maximum limit of impurities**

|                        | (%)          |                       |              |
|------------------------|--------------|-----------------------|--------------|
| Insol. ....            | 0.01         | Red. Sugars .....     | To pass test |
| R.A.I. ....            | 0.01         | As .....              | To pass test |
| L.O.D. ....            | 0.05         | Cl .....              | 0.007        |
| Titrateable acid ..... | 0.0008 meq/g | SO <sub>4</sub> ..... | 0.01         |
| H.M. (as Pb) .....     | 0.0005       |                       |              |

Chemical and physical parameters conform to FCC

Conforms to ACS

**Pack Size:** 500g, 5kg

1101

## MANNITOL, UNILAB

Description: white, crystalline powder; odourless or almost odourless.

|                          |               |
|--------------------------|---------------|
| Assay (W.R.T.D.S.) ..... | 98.0 - 101.5% |
| M.P. ....                | 165-170°C     |
| Spec rotn. ....          | +23 to +25°C  |

**Maximum limit of impurities**

|                       | (%)   |                                  |              |
|-----------------------|-------|----------------------------------|--------------|
| Sulph. Ash .....      | 0.1   | Pb .....                         | 0.00005      |
| L.O.D. ....           | 0.5   | Absence of reducing sugars ..... | To pass test |
| Acidity .....         | 0.12  | Clarity & colour of soln. ....   | To pass test |
| Cl .....              | 0.005 | Ni .....                         | 0.0001       |
| SO <sub>4</sub> ..... | 0.01  | Sorbitol .....                   | To pass test |

Chemical and physical parameters conform to BP

**Pack Size:** 500g, 5kg, 25kg

3073

## D(+)-MANNOSE, UNILAB

CAS 3458-28-4

$\text{C}_6\text{H}_{12}\text{O}_6 = 180.2$

Description: White crystalline hygroscopic powder

|             |            |
|-------------|------------|
| Assay ..... | 98.0% min. |
|-------------|------------|

**Maximum limit of impurities**

|                        | (%)    |
|------------------------|--------|
| Mg .....               | 0.0005 |
| Ca .....               | 0.001  |
| Fe .....               | 0.0005 |
| H.M. (as Pb) .....     | 0.005  |
| Insoluble matter ..... | 0.1    |
| Cl .....               | 0.005  |
| SO <sub>4</sub> .....  | 0.005  |

**Pack size:** 100g



**1515****MARBLE CHIPS, TECHNICAL**

About 3-5mm

**Pack Size:** 1kg, 3kg, 25Kg**3234****MAY-GRUNWALD'S STAIN, OP****CAS** 548-62-9

Stain for microscopy.

**Pack Size:** 25g**3235****MAY-GRUNWALD'S STAIN (SOLN), LABCHEM**Stain for microscopy.  
0.25% w/v in Methanol

U.N Number ..... 1992  
 ADG Class ..... 3  
 Subsidiary Risk ..... 6.1  
 Packing Group ..... II

**Pack Size:** 500mL**1831****MAYER'S HAEMATOXYLIN SOLUTION, LABCHEM**

Haematoxylin 1g/L

**Pack Size:** 1L, 5L**4578****MEK/CYCLOHEXANONE 40/60, LABCHEM**

M.E.K ..... 39 - 41% v/v  
 Density (@ 20°C) ..... 0.885 – 0.895  
 Cyclohexanone ..... 59 – 61% v/v

U.N Number ..... 1224  
 ADG Class ..... 3  
 Packing Group ..... II

**Pack Size:** 20L**1283****MENTHOL, UNILAB****CAS** 89-78-1 $C_{10}H_{20}O = 156.26$ 

Description: Colourless to white crystals or granules

Assay ..... 99.0%

Melting point ..... 41 - 44°C

**Pack size:** 100g**MERCAPTOACETIC ACID** (see Thioglycolic acid page 394)**MERCURIC ACETATE** (see Mercury(II) Acetate page 241)**MERCURIC CHLORIDE** (see Mercury(II) Chloride page 242)**MERCURIC IODIDE** (see Mercury(II) Iodide page 243)

**MERCURIC NITRATE** (see Mercury(II) Nitrate page 244)**MERCURIC OXIDE** (see Mercury(II) Oxide page 244)**MERCURIC SULPHATE** (see Mercury(II) Sulphate page 245)**MERCURIC THIOCYANATE** (see Mercury(II) Thiocyanate page 246)**3283****MERCURISORB MERCURY CLEAN UP KIT**

The kit comprises of all the necessary equipment to clean up a spill of up to 100 grams of mercury, i.e. disposable pipettes for collection of globules before clean up using brush, scoop, disposable gloves and Mercurisorb absorbent.

**Pack Size:** EACH**3284****MERCURISORB REFILL**

Refill for Mercurisorb kit. Absorbent capacity for treatment of mercury spills is approx. 250g mercury per 250g Mercurisorb.

**Pack Size:** 250g**3285****MERCURISORB REFILL**

Refill for Mercurisorb kit. Absorbent capacity for treatment of mercury spills is approx. 1kg mercury per 1kg Mercurisorb.

**Pack Size:** 1kg**MERCUROUS COMPOUNDS** (see Mercury (I) compounds page 243)**MERCUROUS NITRATE** (see Mercury (I) Nitrate page 243)**MERCURY****CAS** 7439-97-6

Hg = 200.59

Density ..... about 13.5g/mL

U.N Number ..... 2809

ADG Class ..... 8

Packing Group ..... III

**317****MERCURY, UNIVAR**

Description: Silvery liquid metal with a bright surface. Triple distilled fine virgin mercury.

**Maximum limit of impurities****(%)**

Appearance ..... To pass test

Cd ..... 0.0001

Ca ..... 0.001

Cu ..... 0.0002

Fe ..... 0.0003

Pb ..... 0.0001

Mg ..... 0.0005

K ..... 0.005

Zn ..... 0.003

Ni ..... 0.0001

Ag ..... 0.0001

Conforms to ACS

**Pack Size:** 500g

1761

**MERCURY, LABCHEM**

Assay ..... 99.9% min.  
 Appearance ..... To pass Test

**Maximum limit of impurities (%)**  
 Cd ..... 0.001  
 Pb ..... 0.001  
 Fe ..... 0.001

**Pack Size:** 500g

5583

**MERCURY, TECHNICAL**

May contain rust & dust impurities.  
 Assay ..... 99% min.

**Pack Size:** 500g

2642

**MERCURY 1000ppm SINGLE ELEMENT ICP STANDARD, UNIPURE**

A 1000 ppm Mercury standard, ready for use.  
 Hg in 6.5% Nitric acid.

U.N Number ..... 3264  
 ADG Class ..... 8  
 Packing Group ..... II

**Traceable to NIST**

**Pack Size:** 100mL

2618

**MERCURY(II) NITRATE AAS STANDARD, SPECTROSOL**

A 1000 ppm mercury standard, ready for use.  
 Each mL contains 1.00mg +/-0.005mg of Hg in 6.5% nitric acid

U.N Number ..... 3264  
 ADG Class ..... 8  
 Packing Group ..... II

**Traceable to NIST**

**Pack Size:** 500mL

1129

**MERCURY(II) ACETATE, UNILAB**

**CAS** 1600-27-7  
**Synonyms:** Mercuric Acetate  
 $(\text{CH}_3\text{COO})_2\text{Hg}$  = 318.68  
 Assay ..... 98.0% min.

U.N Number ..... 1629  
 ADG Class ..... 6.1  
 Packing Group ..... II

**Maximum limit of impurities (%)**  
 Fe ..... 0.001  
 Cl ..... 0.005

**Pack Size:** 100g

3052

**MERCURY(II) BROMIDE, UNILAB**

**CAS** 7789-47-1  
 $\text{HgBr}_2$  = 360.4  
 Description: white crystalline powder  
 Assay ..... 99.0%  
 Melting point ..... 236 - 238°C

U.N Number ..... 1634  
 ADG Class ..... 6.1  
 Packing Group ..... II

**Maximum limit of impurities (%)**  
 Cl ..... 0.2

**Pack size:** 100g

3160

**MERCURY(I) CHLORIDE, UNILAB**

CAS 10112-91-1

Hg<sub>2</sub>Cl<sub>2</sub> = 472.1

Description: white to colourless fine powder

Assay ..... 98.0%

U.N Number ..... 2025

ADG Class ..... 6.1

Packing Group ..... III

**Maximum limit of impurities (%)**

Ca ..... 0.005

Fe ..... 0.005

Cd ..... 0.005

Cu ..... 0.005

**Pack size:** 100g**MERCURY(II) CHLORIDE**

CAS 7487-94-7

**Synonyms:** Mercuric ChlorideHgCl<sub>2</sub> = 271.50

U.N Number ..... 1624

ADG Class ..... 6.1

Packing Group ..... II

311

**MERCURY(II) CHLORIDE, powder, UNIVAR**

Description: heavy, white crystalline powder.

Assay ..... 99.5% min.

**Maximum limit of impurities (%)**

Sol. (in ether) ..... To pass test

Res. after reduction ..... 0.02

Fe ..... 0.002

Conforms to ACS

**Pack Size:** 100g, 500g

312

**MERCURY(II) CHLORIDE, powder, UNILAB**

Assay ..... 99% min.

**Maximum limit of impurities (%)**

Sol. (in ether) ..... To pass test

Sulph. Ash ..... 0.05

Fe ..... 0.005

**Pack Size:** 100g, 500g



313

**MERCURY(II) IODIDE, red**

CAS 7774-29-0  
**Synonyms:** Mercuric Iodide  
 $\text{HgI}_2 = 454.40$

U.N Number ..... 1638  
 ADG Class ..... 6.1  
 Packing Group ..... II

**MERCURY(II) IODIDE, UNIVAR**

Description: heavy, red powder.  
 Assay ..... 99.0% min.

**Maximum limit of impurities (%)**  
 Sol. (in KI soln.) ..... To pass test  
 $\text{HgI}$  (as Hg) ..... 0.1  
 Sol. Hg salts (as Hg) ..... 0.05

Conforms to ACS

**Pack Size:** 100g, 500g

314

**MERCURY(II) IODIDE, UNILAB**

Description: heavy, red powder.  
 Assay ..... 99% min.

**Maximum limit of impurities (%)**  
 Sulph. Ash ..... 0.05  
 Sol. Hg salts (as Hg) ..... 0.1

**Pack Size:** 100g, 500g

**MERCURY(I) NITRATE**

1133

CAS 14836-60-3  
**Synonyms:** Mercurous Nitrate  
 $\text{Hg}_2(\text{NO}_3)_2 \cdot 2\text{H}_2\text{O} = 561.22$

U.N Number ..... 1627  
 ADG Class ..... 6.1  
 Packing Group ..... II

**MERCURY(I) NITRATE, UNIVAR**

Description: colourless or white crystals becoming yellow during storage.  
 Assay ..... 97.0% min.

|                                        |       |
|----------------------------------------|-------|
| <b>Maximum limit of impurities (%)</b> |       |
| Insol. ....                            | 0.01  |
| Non-vol. ....                          | 0.05  |
| $\text{SO}_4$ ....                     | 0.01  |
| Fe .....                               | 0.005 |
| $\text{Hg}^{2+}$ .....                 | 2.00  |
| Chlorides (Cl) .....                   | 0.02  |

**Pack Size:** 100g

1134

**MERCURY(I) NITRATE, UNILAB**

Assay ..... 95% min.

**Maximum limit of impurities (%)**  
 Non-vol. .... 0.1  
 $\text{SO}_4$  ..... 0.05

**Pack Size:** 100g

**MERCURY(II) NITRATE**

CAS 7783-34-8  
**Synonyms:** Mercuric Nitrate  
 $\text{Hg}(\text{NO}_3)_2 \cdot \text{H}_2\text{O} = 342.62$

U.N Number ..... 1625  
 ADG Class ..... 6.1  
 Packing Group ..... II

**836****MERCURY(II) NITRATE, UNIVAR**

Description: colourless or white, moist crystals, turning yellow during storage.  
 Assay ..... 98.0% min.

| <b>Maximum limit of impurities</b> | <b>(%)</b> |
|------------------------------------|------------|
| Res. after reduction .....         | 0.01       |
| Cl .....                           | 0.002      |
| SO <sub>4</sub> .....              | 0.002      |
| Fe .....                           | 0.001      |
| HgI (as Hg) .....                  | 0.2        |

Conforms to ACS

**Pack Size:** 100g, 500g

**1130****MERCURY(II) NITRATE, UNILAB**

Assay ..... 97% min.

| <b>Maximum limit of impurities</b> | <b>(%)</b> |
|------------------------------------|------------|
| Sulph. Ash .....                   | 0.05       |
| Cl .....                           | 0.05       |
| SO <sub>4</sub> .....              | 0.04       |

**Pack Size:** 500g

**MERCURY(II) OXIDE**

CAS 21908-53-2  
**Synonyms:** Mercuric Oxide  
 $\text{HgO} = 216.59$

U.N Number ..... 1641  
 ADG Class ..... 6.1  
 Packing Group ..... II

**1286****MERCURY(II) OXIDE, red, UNILAB**

Assay (after drying) ..... 98.5 % min.

|                                    |       |
|------------------------------------|-------|
| Insoluble matter in HCl .....      | 0.05  |
| R O I. (as SO <sub>4</sub> ) ..... | 0.05  |
| Nitrogen compounds (as N) .....    | 0.005 |
| Residue after reduction .....      | 0.05  |
| SO <sub>4</sub> .....              | 0.01  |
| Cl .....                           | 0.03  |
| Fe .....                           | 0.003 |
| Pb .....                           | 0.001 |
| Cu .....                           | 0.001 |
| Ni .....                           | 0.001 |

**Pack Size:** 100g, 500g

315

**MERCURY(II) OXIDE, yellow, UNILAB**

Assay (after drying) ..... 99.0 min.

**Maximum limit of impurities (%)**

|                                   |       |
|-----------------------------------|-------|
| Insoluble matter in HCl .....     | 0.05  |
| R O I.(as SO <sub>4</sub> ) ..... | 0.05  |
| Nitrogen compounds(as N) .....    | 0.005 |
| Residue after reduction .....     | 0.05  |
| SO <sub>4</sub> .....             | 0.01  |
| Cl .....                          | 0.03  |
| Fe .....                          | 0.003 |
| Pb .....                          | 0.001 |
| Cu .....                          | 0.001 |
| Ni .....                          | 0.001 |
| Zn .....                          | 0.001 |
| Cd .....                          | 0.001 |

**Pack Size:** 500g**MERCURY(II) SULPHATE**

CAS 7783-35-9

**Synonyms:** Mercuric SulphateHgSO<sub>4</sub> = 296.65

U.N Number ..... 1645

ADG Class ..... 6.1

Packing Group ..... II

1131

**MERCURY(II) SULPHATE, UNIVAR**

Description: heavy, white powder.

Assay ..... 99.0% min.

**Maximum limit of impurities (%)**

|                                |       |
|--------------------------------|-------|
| Residue after reduction .....  | 0.02  |
| Cl .....                       | 0.003 |
| NO <sub>3</sub> .....          | 0.005 |
| Mercurous mercury(as Hg) ..... | 0.15  |
| Fe .....                       | 0.003 |
| Cd .....                       | 0.001 |
| Ni .....                       | 0.001 |
| Zn .....                       | 0.001 |
| Cu .....                       | 0.001 |
| Pb .....                       | 0.001 |

**Pack Size:** 25g, 100g

1669

**MERCURY(II) SULPHATE, UNILAB**

Assay ..... 98% min.

**Maximum limit of impurities (%)**

|                       |      |
|-----------------------|------|
| NO <sub>3</sub> ..... | 0.01 |
|-----------------------|------|

**Pack Size:** 100g

2458

**MERCURY(II) THIOCYANATE, LABCHEM**

CAS 592-85-8

**Synonyms:** Mercuric ThiocyanateHg(SCN)<sub>2</sub> = 316.73

Description: yellowish white powder.

Assay ..... 99% min.

U.N Number ..... 1646

ADG Class ..... 6.1

Packing Group ..... II

**Pack Size:** 100g

3428

**MES (2-(N-MORPHOLINO) ETHANESULPHONIC ACID), BIOLOGICAL BUFFER, UNIVAR**

CAS 4432-31-9

C<sub>6</sub>H<sub>13</sub>NO<sub>4</sub>S = 195.20

Description: White powder

Solubility (0.5M in H<sub>2</sub>O): Clear and complete

Assay ..... 99.0% min.

pKa ..... 9.3 – 9.7

pH (0.5M in H<sub>2</sub>O) ..... 2.5 – 4.0**Maximum limit of impurities (%)**

Moisture ..... 1.0

**Pack size:** 100g, 1Kg

2351

**METANIL YELLOW (C.I. 13065) , LABCHEM**

CAS 587-98-4

C<sub>18</sub>H<sub>14</sub>N<sub>3</sub>NaO<sub>3</sub>S = 375.4

Description: Orange-coloured fine crystalline powder

Dye content ..... 70.0% min.

Assay ..... 95.0%

Indicator range ..... pH 1.2 – 2.8

**Pack size:** 100g, 500g**METHANETHIOMETHANE** (see Dimethyl Sulphide page 159)**METHANAL** (see Formaldehyde page 177)**METHANOL**

CAS 67-56-1

**Synonyms:** Methyl Alcohol, CarbinolCH<sub>3</sub>OH = 32.0

Density ..... about 0.79g/mL

U.N Number ..... 1230

ADG Class ..... 3

Subsidiary Risk ..... 6.1

Packing Group ..... II



3492

**METHANOL, GC GRADE, BURDICK & JACSON, CAT. GC230**

High purity solvent for HPLC, pesticide residue analysis &amp; gas chromatography.

Assay ..... 99.9% min.

**Maximum limit of impurities (%)**

Water ..... 0.05

Residue ..... 1

GC (ECD, as Heptachlor epoxide) ..... 10 ng/L

**Pack Size:** 4L



**3451****METHANOL, PESTICIDE GRADE, BURDICK & JACKSON, CAT. 230**

High purity solvent for pesticide residue analysis &amp; gas chromatography.

Assay ..... 99.9% min.

**Maximum limit of impurities (%)**

GC (ECD, as Heptachlor epoxide) ..... 10 ng/L

Water ..... 0.05

Residue ..... 1mg/L

**U.V. Absorbance:**

|                |       |       |       |       |       |
|----------------|-------|-------|-------|-------|-------|
| $\lambda$ (nm) | 205   | 225   | 250   | 300   | 400   |
| Max. abs.      | 1.000 | 0.160 | 0.020 | 0.005 | 0.005 |

**Pack Size:** 4L**3461****METHANOL, PURGE & TRAP GRADE, BURDICK & JACKSON, CAT. 232**

High purity solvent for purge and trap analysis.

Assay ..... 99.9% min.

R.I. .... 1.3280 – 1.3288

**Maximum limit of impurities (%)**H<sub>2</sub>O ..... 0.20

Residue ..... 1mg/L

Volatile Organic cpds ..... To pass test

**Pack Size:** 1L**2314****METHANOL, UNICHROM**

Description: clear liquid, characteristic odour.

R.I. .... about 1.329.

Viscosity @ 20°C ..... about 0.59cP

Specially purified for HPLC.

Filtered through 0.45 micron filter.

Assay (GLC) ..... 99.7% min.

**Maximum limit of impurities (%)**

Non-vol. .... 0.001

Acidity ..... 0.03 mmol H

H<sub>2</sub>O (by K.F.) ..... 0.1**U.V. Absorbance:**

|                |      |      |     |     |
|----------------|------|------|-----|-----|
| $\lambda$ (nm) | 280  | 254  | 214 | 205 |
| Max. abs.      | 0.01 | 0.05 | 0.5 | 1.0 |

**Pack Size:** 2.5L, 4L

591

**METHANOL, SPECTROSOL**

Description: clear liquid; characteristic odour.

Colour (APHA) ..... 10 max.  
 Assay ..... 99.8% min.

**Maximum limit of impurities****(%)**

|                                                 |              |                                                           |              |
|-------------------------------------------------|--------------|-----------------------------------------------------------|--------------|
| R.A.E. ....                                     | 0.001        | Acetone, aldehydes (as $(\text{CH}_3)_2\text{CO}$ ) ..... | 0.001        |
| Subs. darkened by $\text{H}_2\text{SO}_4$ ..... | To pass test | Sol. in water .....                                       | To pass test |
| Subs. red. $\text{KMnO}_4$ (as O) .....         | To pass test | Titrateable acid .....                                    | 0.03 mmol H  |
| Water .....                                     | 0.1          | Titrateable base .....                                    | 0.02 mmol OH |

**U.V. Absorbance:**

|                |      |      |      |      |      |      |         |
|----------------|------|------|------|------|------|------|---------|
| $\lambda$ (nm) | 205  | 210  | 220  | 230  | 240  | 260  | 280-400 |
| Max. abs.      | 1.00 | 0.80 | 0.40 | 0.20 | 0.10 | 0.04 | 0.01    |

Conforms to ACS

**Pack Size:** 500mL, 2.5L

318

**METHANOL, UNIVAR**

Description: clear liquid with a characteristic odour.

Assay ..... 99.8% min.  
 R.I. @ 20°C ..... 1.3280 – 1.3300  
 Colour (APHA) ..... 10 max.

**Maximum limit of impurities****(%)**

|                                                                    |              |          |          |
|--------------------------------------------------------------------|--------------|----------|----------|
| R.A.E. ....                                                        | 0.001        | Ba ..... | 0.000005 |
| Sol. (in $\text{H}_2\text{O}$ ) .....                              | To pass test | Mg ..... | 0.000005 |
| Titrateable acid .....                                             | 0.03 mmol H  | Cd ..... | 0.000005 |
| Titrateable base .....                                             | 0.02 mmol OH | Pb ..... | 0.000005 |
| Carbonyl compounds .....                                           | 0.003        | Ca ..... | 0.000005 |
| Na .....                                                           | 0.0001       | Cr ..... | 0.000002 |
| Reaction to $\text{KMnO}_4$ , $\text{H}_2\text{SO}_4$ (each) ..... | To pass test | Co ..... | 0.000002 |
| Fe .....                                                           | 0.00002      | Cu ..... | 0.000002 |
| K .....                                                            | 0.00002      | Mn ..... | 0.000002 |
| Zn .....                                                           | 0.00002      | Ni ..... | 0.000002 |
| $\text{H}_2\text{O}$ .....                                         | 0.1          | Sr ..... | 0.000002 |
| Al .....                                                           | 0.00001      |          |          |

Conforms to ACS

**Pack Size:** 500mL, 2.5L, 10L, 20L, 200L

723

**METHANOL, anhydrous, UNIVAR**

Description: a clear, hygroscopic liquid with a characteristic odour.

Assay ..... 99.8% min.  
 B.R. (100%) ..... 2.0°C max. incl. 64.6 +/- 0.1°C  
 Colour (APHA) ..... 10 max.

**Maximum limit of impurities****(%)**

|                                       |              |                                                           |              |
|---------------------------------------|--------------|-----------------------------------------------------------|--------------|
| R.A.E. ....                           | 0.001        | Acetone, aldehydes (as $(\text{CH}_3)_2\text{CO}$ ) ..... | 0.005        |
| Sol. (in $\text{H}_2\text{O}$ ) ..... | To pass test | Subs. darkened by $\text{H}_2\text{SO}_4$ .....           | To pass test |
| Titrateable acid .....                | 0.03 mmol H  | Subs. red. $\text{KMnO}_4$ (as O) .....                   | To pass test |
| Titrateable base .....                | 0.02 mmol OH | $\text{H}_2\text{O}$ .....                                | 0.01         |

**Pack Size:** 500mL, 2.5L, 20L

319

**METHANOL, UNILAB**

Description: a clear, hygroscopic liquid with a characteristic odour.

Assay ..... 99.8% min.  
 R.I. .... 1.328 – 1.329  
 B.R.(95% min.) ..... 63 – 65°C

|                                    |            |                                                                        |
|------------------------------------|------------|------------------------------------------------------------------------|
| <b>Maximum limit of impurities</b> | <b>(%)</b> |                                                                        |
| Non-vol. ....                      | 0.005      | Aldehydes & ketones (as (CH <sub>3</sub> ) <sub>2</sub> CO) ..... 0.02 |
| Acidity .....                      | 0.2 mmol H |                                                                        |

**Pack Size:** 500mL, 2.5L, 20L, 200L

5005

**METHANOL, HP**

Solvent for Histopathology

**Pack Size:** 2.5L, 10L, 20L

2346

**DL- METHIONINE, LABCHEM**

CAS 59-51-8

**Synonyms:** DL-2-Amino-4-(Methylmercapto) Butyric AcidCH<sub>3</sub>S(CH<sub>2</sub>)<sub>2</sub>CH(NH<sub>2</sub>)COOH = 149.21

Assay ..... 99% min.

|                                    |            |
|------------------------------------|------------|
| <b>Maximum limit of impurities</b> | <b>(%)</b> |
| L.O.D. ....                        | 0.5        |
| Cl .....                           | 0.05       |
| SO <sub>4</sub> .....              | 0.05       |

**Pack Size:** 100g, 50kg

737

**2-METHOXYETHANOL, UNIVAR**

CAS 109-86-4

**Synonyms:** Ethylene Glycol Monomethyl Ether, Methyl Icinol,

Methyl Oxitol, Methyl Cellosolve

CH<sub>3</sub>OCH<sub>2</sub>CH<sub>2</sub>OH = 76.09

Description: clear liquid. Density about 0.96g/mL

Assay ..... 99% min.

|                                                    |            |
|----------------------------------------------------|------------|
| <b>Maximum limit of impurities</b>                 | <b>(%)</b> |
| Non-volatile matter .....                          | 0.003      |
| Water (K.F) .....                                  | 0.2        |
| Peroxides(as H <sub>2</sub> O <sub>2</sub> ) ..... | 0.003      |

**Pack Size:** 500mL, 2.5L, 20L

U.N Number ..... 1188

ADG Class ..... 3

Packing Group ..... III

1136

**METHYL ACETATE, UNILAB**

CAS 79-20-9

**Synonyms:** Acetic Acid Methyl EsterCH<sub>3</sub>COOCH<sub>3</sub> = 74.08

Assay ..... 99% min.

|                                    |            |
|------------------------------------|------------|
| <b>Maximum limit of impurities</b> | <b>(%)</b> |
| R.A.E. ....                        | 0.003      |
| Water .....                        | 0.1        |

**Pack Size:** 500mL, 2.5L

U.N Number ..... 1231

ADG Class ..... 3

Packing Group ..... II

**METHYL ACETIC ACID** (see Propionic Acid page 322)**METHYL ALCOHOL** (see Methanol page 246)**130****METHYLAMINE, UNILAB**

CAS 74-89-5

**Synonyms:** Aminomethane, MonomethylamineCH<sub>3</sub>NH<sub>2</sub> = 31.06

Density ..... about 0.90g/mL

Assay ..... 39 - 42%w/v

U.N Number ..... 1235

ADG Class ..... 3

Subsidiary Risk ..... 8

Packing Group ..... II

**Pack Size:** 500mL**4-METHYLAMINOPHENOL SULPHATE** (see Metol page 257)**3-METHYL-1-BUTANOL** (see iso-Amyl Alcohol page 75)**3-METHYL-1-BUTYL ACETATE** (see iso-Amyl Acetate page 75)**METHYLATED SPIRIT 95 %**

CAS 64-17-5

**Synonyms:** Denatured Alcohol, IMS

Density ..... about 0.806g/mL

U.N Number ..... 1170

ADG Class ..... 3

Packing Group ..... II

**2512****METHYLATED SPIRIT 95 %, LABCHEM**

Ethanol ..... approx. 95%

**Pack Size:** 12x500mL, 2.5L, 20L**5591****METHYLATED SPIRIT 95 % F3, LABCHEM**

Ethanol ..... approx. 95%

**Pack Size:** 5L, 2.5L, 20L, 200L**5111****METHYLATED SPIRIT 95 % IMS HP, LABCHEM** (No permit required)

Solvent for Histopathology

**Pack Size:** 10L, 20L**2514****METHYLATED SPIRIT 70 %v/v special, green, LABCHEM****Pack Size:** 12x500mL**4546****METHYLATED SPIRIT 100SGF3 (DAA), TECHNICAL** (No permit required)**Pack Size:** 2.5L, 20L, 200L

2305

## METHYL BENZOATE, UNILAB

CAS 93-58-3

**Synonyms:** Benzoic Acid Methyl Ester $C_6H_5COOCH_3 = 136.15$ 

Density ..... about 1.08g/mL

R.I ..... approx 1.517.

Assay (GC) ..... 99% min.

B.R. .... 197 – 199°C

**Maximum limit of impurities (%)**

Water, (KF) ..... 0.1

Sulphated ash ..... 0.05

Free acid (as  $C_6H_5COOH$ ) ..... 0.2**Pack Size:** 500mL

3236

## METHYL BLUE (CI 42780), OP

CAS 28983-56-4

**Synonyms:** Soluble Blue

Stain for microscopy.

**Pack Size:** 25g

1306

## 2-METHYLBUTAN-2-OL, UNILAB

CAS 75-85-4

**Synonyms:** tert-Amyl Alcohol, Amylene Hydrate $C_2H_5C(CH_3)_2OH = 88.15$ 

Assay (GC) ..... 99.0% min.

**Maximum limit of impurities (%)**

R.A.E. .... 0.004

Water(K.F.) ..... 0.5

**Pack Size:** 500mL, 2.5L

U.N Number ..... 1105

ADG Class ..... 3

Packing Group ..... II



## METHYL ISO-BUTYL KETONE (see 4-Methylpentan-2-one page 254)

3525

## METHYL t-BUTYL ETHER, BURDICK &amp; JACKSON, CAT. 242

CAS 1634-04-4

 $C_5H_{12}O = 88.15$ 

High purity solvent for HPLC, GC, pesticide residue analysis, and spectrophotometry.

Assay ..... 99.0% min.

R.I. (@20°C) ..... 1.3680 – 1.3700

**Maximum limit of impurities (%)** $H_2O$  ..... 0.020

Residue ..... 1mg/L

Peroxide (as  $H_2O_2$ ) ..... 1mg/L

Electron capture GC ..... To pass test

**U.V. Absorbance:**

|                |       |       |       |       |       |
|----------------|-------|-------|-------|-------|-------|
| $\lambda$ (nm) | 210   | 225   | 250   | 300   | 400   |
| Max. abs.      | 1.000 | 0.500 | 0.100 | 0.005 | 0.005 |

**Pack Size:** 4L

U.N Number ..... 2398

ADG Class ..... 3

Packing Group ..... II



**METHYL BENZENE** (see Toluene page 400)

**METHYL BENZOL** (see Toluene page 400)

**METHYL CELLOSOLVE** (see 2-Methoxyethanol page 249)

**METHYL CYANIDE** (see Acetonitrile page 45)

**METHYL ETHYL KETONE** (see Ethyl Methyl Ketone page 174)

**3351**
**METHYL GREEN (C.I. 42590), LABCHEM**
**CAS** 7114-03-6

 $C_{27}H_{35}BrClN_3 \cdot ZnCl_2 = 608.8$ 

Description: green-coloured fine powder

Dye content ..... 85.0% min.

Absorption maximum ..... 630 – 635nm

**Pack size:** 25g

**5-METHYL-2-HEXANONE** (see Methyl Isoamyl Ketone page 253)

**METHYL ICINOL** (see 2-Methoxyethanol page 249)

**METHYL OXITOL** (see 2-Methoxyethanol page 249 )

**METHYL P-HYDROXYBENZOATE** (see Methyl 4-Hydroxybenzoate page 253)

**METHYL SULPHIDE** (see Dimethyl Sulphide page 159)

**METHYL SULPHOXIDE** (see Dimethyl Sulphoxide page 159)

**1137**
**METHYLENE BLUE (CI 52015), UNILAB**
**CAS** 61-73-4

 $C_{16}H_{18}N_3ClS \cdot 2H_2O = 355.89$ 

Reagent for Mo. Redox indicator.

Pure dye content ..... 82% min.

Transition EMF (@ pH=0) ..... +0.53V

Transition EMF (@ pH=7) ..... +0.01V

Colour change: Oxidized (blue) to reduced (colourless)

**Pack Size:** 25g, 100g, 500g

**1838**
**METHYLENE BLUE SOLUTION, UNILAB**

1% Aqueous stain solution

**Pack Size:** 1L, 5L

**METHYLENE CHLORIDE** (see Dichloromethane page 150)

**METHYLENE IODIDE** (see Di-Iodomethane page 156)

**METHYL ETHYL KETONE** (see Ethyl Methyl Ketone page 174)

327

**METHYL 4-HYDROXYBENZOATE, UNILAB****CAS** 99-76-3**Synonyms:** Methyl p-Hydroxybenzoate, 4-Hydroxymethylbenzoate $\text{HOC}_6\text{H}_4\text{COOCH}_3 = 152.15$ 

Colourless crystals or a white, crystalline powder.

Assay ..... 99.0 – 101.0%

M.P. .... 125 – 128°C

L.O.D. .... 0.5% max

**Maximum limit of impurities****(%)**

Clarity and colour of soln. .... To pass test

Sulph. Ash ..... 0.1

Acidity ..... 5 mmol H

Related substances ..... To pass test

Chemical and physical parameters conform to BP

**Pack Size:** 500g, 5kg**METHYL IODIDE** (see Iodomethane page 208)

1337

**METHYL ISOAMYL KETONE, UNILAB****CAS** 110-12-3**Synonyms:** 5-Methyl-2-hexanone $(\text{CH}_3)_2\text{CHCH}_2\text{CH}_2\text{COCH}_3 = 114.19$ 

Assay ..... 99.0% min.

Colour (APHA) ..... 10

**Maximum limit of impurities****(%)**

Water ..... 0.05

**Pack size:** 500mL

U.N Number ..... 2302

ADG Class ..... 3

Packing Group ..... III

3240

**METHYL METHACRYLATE, OP****CAS** 80-62-6 $\text{C}_5\text{H}_8\text{O}_2 = 100.12$ 

Density ..... about 0.94 g/mL

Assay (GLC) ..... 99% min.

Boiling point ..... 99-102°C

**Pack Size:** 1L

U.N Number ..... 1247

ADG Class ..... 3

Packing Group ..... II

470

**METHYL ORANGE** screened, LABCHEM**CAS** 547-58-0

Mixed pH indicator

**Pack Size:** 25g

U.N Number ..... 3143

ADG Class ..... 6.1

Packing Group ..... III

725

**METHYL ORANGE SODIUM SALT (CI 13025), LABCHEM**

CAS 547-58-0

 $C_{14}H_{14}N_3SO_3Na = 327.34$ 

pH indicator

Clarity of solution ..... To pass test

Visual Transition Interval ..... pH 3.2 (red) to pH 4.4 (yellow)

U.N Number ..... 3143

ADG Class ..... 6.1

Packing Group ..... III

**Maximum limit of impurities (%)**Insol. (in H<sub>2</sub>O) ..... To pass test

Conforms to ACS

**Pack Size:** 25g, 100g, 1kg

753

**METHYL ORANGE SOLUTION, LABCHEM**

pH indicator: 0.05% aqueous solution.

pH 3.0 ..... Red

pH 3.2 ..... Reddish – orange

pH 4.4 ..... Yellow

U.N Number ..... 1602

ADG Class ..... 6.1

Packing Group ..... II

**Pack Size:** 100mL**4-METHYLPENTAN-2-ONE**

CAS 108-10-1

**Synonyms:** isoButyl Methyl Ketone, Methyl isoButyl Ketone

Hexone, MIBK

 $(CH_3)_2CHCH_2COCH_3 = 100.16$ 

Density ..... about 0.80g/mL

U.N Number ..... 1245

ADG Class ..... 3

Packing Group ..... II

2219

**4-METHYLPENTAN-2-ONE, UNIVAR**

Description: clear liquid with a characteristic odour.

Assay (by GLC) ..... 99.0% min.

Colour (APHA) ..... 15 max.

**Maximum limit of impurities (%)**

R.A.E. .... 0.001

Titratable acid ..... 0.2 mmol H

H<sub>2</sub>O ..... 0.1**Pack Size:** 500mL, 2.5L, 20L

120

**4-METHYLPENTAN-2-ONE, UNILAB**

Assay ..... 99% min.

B.R. (95% min.) ..... 114 – 117°C

**Maximum limit of impurities (%)**

Non-vol. .... 0.005

Acidity ..... 2 mmol H

**Pack Size:** 2.5L, 20L**3-METHYLPHENOL** (see m-Cresol page 141)**METHYL PHENYL KETONE** (see Acetophenone page 48)



**2-METHYLPROPAN-1-OL**

CAS 78-83-1

**Synonyms:** isoButanol, isoButyl Alcohol $(\text{CH}_3)_2\text{CHCH}_2\text{OH} = 74.12$ 

Density ..... about 0.80g/mL

U.N Number ..... 1212

ADG Class ..... 3

Packing Group ..... III

**110****2-METHYLPROPAN-1-OL, UNIVAR**

Description: clear liquid with a characteristic odour.

Assay (GLC) ..... 99.0% min.

B.R. (100% ) ..... 15°C Incl. 107.9 +/- 0.1°C

Colour (APHA) ..... 10 max.

R.I. .... 1.395 – 1.396

**Maximum limit of impurities (%)**

R.A.E. .... 0.001

Sol. (in H<sub>2</sub>O) ..... To pass test

Titratable acid ..... 0.0005 meq/g

H<sub>2</sub>O ..... 0.1**Pack Size:** 2.5L**111****2-METHYLPROPAN-1-OL, UNILAB**

B.R.(95% min.) ..... 106 - 108°C

**Maximum limit of impurities (%)**

Non-vol. .... 0.005

H<sub>2</sub>O ..... 0.25**Pack Size:** 500mL**2-METHYLPROPAN-2-OL**

CAS 75-65-0

**Synonyms:** tert-Butanol, tert-Butyl Alcohol $(\text{CH}_3)_3\text{COH} = 74.12$ 

Density ..... about 0.78g/mL

U.N Number ..... 1120

ADG Class ..... 3

Packing Group ..... II

**16****2-METHYLPROPAN-2-OL, UNIVAR**

Description: clear liquid. Solid or semi-solid at room temperature.

B.R. (95% min.) ..... 82 - 83°C

M.P. .... 25.0 – 25.5°C

**Maximum limit of impurities (%)**

Non-vol. .... 0.001

H<sub>2</sub>O ..... 0.05**Pack Size:** 500mL, 2.5L

**113**

**2-METHYLPROPAN-2-OL, UNILAB**

B.R.(95% min.) ..... 81 83 °C  
M.P. .... 24.0 – 26.0 °C

**Maximum limit of impurities (%)**  
Non-vol. .... 0.01  
H<sub>2</sub>O ..... 0.2

**Pack Size:** 500mL, 2.5L, 20L, 200L

**3493**

**N-METHYLPYRROLIDONE, BIOSYN, BURDICK & JACKSON, CAT. BB305**

**CAS** 872-50-4  
C<sub>5</sub>H<sub>9</sub>NO = 99.13  
High purity solvent for biosynthetic and other applications requiring extremely low water content.  
Assay ..... 99.5% min.  
R.I. (@20°C) ..... 1.4680 – 1.4720

**Maximum limit of impurities (%)**  
H<sub>2</sub>O ..... 0.0002  
Residue ..... 5mg/L  
Amines ..... 0.000003

**U.V. Absorbance:**  

|           |       |       |       |       |       |
|-----------|-------|-------|-------|-------|-------|
| λ (nm)    | 285   | 300   | 325   | 350   | 400   |
| Max. abs. | 1.000 | 0.500 | 0.100 | 0.030 | 0.010 |

**Pack Size:** 4L

**610**

**METHYL RED SOLN, LABCHEM**



pH indicator.  
0.1% aqueous solution.

**Pack Size:** 100mL

U.N Number ..... 1993  
ADG Class ..... 3  
Packing Group ..... III

**609**

**METHYL RED Sodium Salt (CI 13020), LABCHEM**

**CAS** 845-10-3  
pH and redox indicator.

**Maximum limit of impurities (%)**  
Insol. (in alc.) ..... To pass test  
Insol. (in H<sub>2</sub>O) ..... To pass test

**Pack Size:** 10g, 100g

**1138****METHYL SALICYLATE, UNILAB****CAS** 119-36-8 $\text{HOC}_6\text{H}_4\text{COOCH}_3 = 152.15$ 

Colourless or pale yellow liquid; odour strong, persistent, characteristic and aromatic.

Assay ..... 99.0 - 100.5%

Relative density ..... 1.180 – 1.186 g/mL

R.I. .... 1.535 – 1.538

**Maximum limit of impurities (%)**

Acidity ..... To pass test

Clarity and colour of soln. .... To pass test

Chemical and physical parameters conform to BP

**Pack Size:** 500mL, 2.5L**2474****METHYL THYMOL BLUE, LABCHEM****CAS** 1945-77-3 $\text{C}_{37}\text{H}_{41}\text{N}_2\text{O}_{13}\text{SNa}_3 = 822.78$ 

Metal indicator.

**Pack Size:** 1g**3241****METHYL VIOLET 6B (CI 42535), OP****CAS** 8004-87-3

Stain for microscopy.

**Pack Size:** 25g**1139****METOL, LABCHEM****CAS** 55-55-0**Synonyms:** 4-Methylaminophenol Sulphate $\text{C}_{14}\text{H}_{12}\text{N}_2\text{O}_6\text{S} = 344.39$ 

Assay ..... 99% min.

**Pack Size:** 100g, 500g**MIBK** (see 4-Methylpentan-2-one page 254)**MILK SUGAR** (see Lactose page 215)**MINIUM** (see Lead Oxide, red page 222)**MIRBANE OIL** (see Nitrobenzene page 269)**1467****MOLECULAR SIEVE TYPE 3A, 1.5-2.5mm**

Absorbent, for moisture removal.

**Pack Size:** 500g

**1461****MOLECULAR SIEVE TYPE 4A, 2.5-5.0mm**

Absorbent for moisture, ethanol, ammonia etc. removal.

**Pack Size:** 500g, 25Kg**1462****MOLECULAR SIEVE TYPE 5A, 1.6-2.5mm**

Absorbent, for removal of moisture, R12; larger molecules.

**Pack Size:** 500g**2643****MOLYBDENUM 1000ppm SINGLE ELEMENT ICP STANDARD, UNIPURE**A 1000 ppm Molybdenum standard, ready for use.  
Mo in 8% Hydrochloric acid.**Traceable to NIST****Pack Size:** 100mL
U.N Number ..... 3264  
ADG Class ..... 8  
Packing Group ..... III
**2619****MOLYBDENUM AAS STANDARD, SPECTROSOL**A 1000 ppm molybdenum standard, ready for use.  
Mo in 8% Hydrochloric acid.**Traceable to NIST****Pack Size:** 500mL
U.N Number ..... 3264  
ADG Class ..... 8  
Packing Group ..... III
**MOLYBDENUM TRIOXIDE****CAS** 1313-27-5**Synonyms:** Molybdic Acid anhydrideMoO<sub>3</sub> = 143.94**332****MOLYBDENUM TRIOXIDE, UNIVAR**

Description: pale yellow-green or grey crystalline powder.

Assay ..... 99.5% min.

**Maximum limit of impurities (%)**
Insol. (in NH<sub>4</sub>OH) ..... 0.01  
Cl ..... 0.002  
NO<sub>3</sub> ..... 0.003  
PO<sub>4</sub> ..... 0.0005  
AsO<sub>4</sub> ..... 0.001

PO<sub>4</sub> ..... 0.001  
SiO<sub>3</sub>(as SiO<sub>2</sub>) ..... 0.001  
SO<sub>4</sub> ..... 0.02  
H.M. (as Pb) ..... 0.005  
NH<sub>4</sub> ..... 0.002

Conforms to ACS

**Pack Size:** 100g, 500g, 5kg

1379

**MOLYBDENUM TRIOXIDE, UNILAB**

Description: pale yellow-green or grey crystalline powder.

Assay ..... 99.0% min.

| <i>Maximum limit of impurities</i> | <i>(%)</i> |
|------------------------------------|------------|
| Cl .....                           | 0.005      |
| PO <sub>4</sub> .....              | 0.005      |
| H.M. (as Pb) .....                 | 0.005      |

**Pack Size:** 500g**MOLYBDIC ACID**

CAS 7782-91-4

330

**MOLYBDIC ACID, UNIVAR**

Description: white to off-white crystalline powder, containing ammonium molybdate.

Assay (as MoO<sub>3</sub>) ..... 85.0% min.

| <i>Maximum limit of impurities</i>            | <i>(%)</i> |
|-----------------------------------------------|------------|
| Insol. (in NH <sub>4</sub> OH) .....          | 0.01       |
| Cl .....                                      | 0.002      |
| PO <sub>4</sub> .....                         | 0.0005     |
| AsO <sub>4</sub> .....                        | 0.001      |
| PO <sub>4</sub> .....                         | 0.001      |
| SiO <sub>3</sub> (as SiO <sub>2</sub> ) ..... | 0.001      |
| SO <sub>4</sub> .....                         | 0.2        |
| H.M. (as Pb) .....                            | 0.003      |
| Conforms to ACS                               |            |

**Pack Size:** 500g

331

**MOLYBDIC ACID, UNILAB**

Contains ammonium molybdate.

Assay (as MoO<sub>3</sub>) ..... 85% min.

| <i>Maximum limit of impurities</i> | <i>(%)</i> |
|------------------------------------|------------|
| PO <sub>4</sub> .....              | 0.005      |

**Pack Size:** 500g**MOLYBDIC ACID ANHYDRIDE** (see Molybdenum Trioxide page 258)

**SAFETY CARRIER**  
**FOR 4L GLASS BOTTLE**  
**Absorbs Shocks and Minimizes Spills**  
**Cat No 3466**

**dodeca-MOLYBDOPHOSPHORIC ACID**

CAS 12026-57-2

Synonyms: Phosphomolybdic Acid

Approx.  $12\text{MoO}_3 \cdot \text{H}_3\text{PO}_4 \cdot 24\text{H}_2\text{O} = 2257.6$ **333****dodeca-MOLYBDOPHOSPHORIC ACID, UNIVAR**

Description: yellow crystals or crystalline powder.

| <i>Maximum limit of impurities</i> | <i>(%)</i> |
|------------------------------------|------------|
| Insol. ....                        | 0.01       |
| Cl ....                            | 0.02       |
| SO <sub>4</sub> ....               | 0.025      |
| Ca ....                            | 0.02       |
| Fe ....                            | 0.002      |
| NH <sub>4</sub> ....               | 0.01       |
| HM (as Pb) ....                    | 0.005      |

Conforms to ACS

Pack Size: 100g

**1140****dodeca-MOLYBDOPHOSPHORIC ACID, UNILAB**

| <i>Maximum limit of impurities</i> | <i>(%)</i> |
|------------------------------------|------------|
| SO <sub>4</sub> ....               | 0.04       |
| NH <sub>4</sub> ....               | 0.02       |
| Ca ....                            | 0.04       |

Pack Size: 100g

**MONOBROMOBENZENE** (see Bromobenzene page 96)**MONOCHLOROBENZENE** (see Chlorobenzene page 123)**MONOCHLOROBENZOL** (see Chlorobenzene page 123)**MONOETHANOLAMINE** (see Ethanolamine page 168)**MONOMETHYLAMINE** (see Methylamine page 250)**MORDANT BLACK 11** (see Eriochrome black T page 164)**MORDANT BLACK 17** (see Eriochrome blue black R page 164)**3431****MOPS (MORPHOLINOPROPANESULPHONIC ACID), BIOLOGICAL BUFFER, UNIVAR**

CAS 1132-61-2

C<sub>7</sub>H<sub>15</sub>NO<sub>4</sub>S= 209.3

Description: White powder

Assay ..... 99.0% min.

pH (0.5M in H<sub>2</sub>O) ..... 3.0 – 5.0

| <i>Maximum limit of impurities</i> | <i>(%)</i> |
|------------------------------------|------------|
| Moisture .....                     | 1.0        |

Pack size: 100g, 1Kg

1141

**MORPHOLINE, UNILAB**

CAS 110-91-8

**Synonyms:** Tetrahydro-1,4-oxazine $C_4H_{10}ON$  = 87.12

Density ..... about 1.0g/mL

Assay ..... 99% min.

B.R. (95% min.) ..... 125 - 130°C

U.N Number ..... 2054

ADG Class ..... 3

Packing Group ..... III

**Maximum limit of impurities (%)**:

Non-vol. .... 0.005

**Pack Size:** 500mL**MURIATIC ACID** (see Hydrochloric Acid page 198)

1840

**MOUNTANT, FAST DRYING , LABCHEM****Pack Size:** 100mL, 500mL

U.N Number ..... 1866

ADG Class ..... 3

Packing Group ..... III

1839

**MOUNTANT, FOR AUTOMATED COVERSLIPPING , LABCHEM****Pack Size:** 100mL, 500mL

U.N Number ..... 1866

ADG Class ..... 3

Packing Group ..... III

55

**MUREXIDE (CI 56085), LABCHEM**

CAS 3051-09-0

**Synonyms:** Ammonium Purpurate $C_8H_8N_6O_6$  = 284.19

Metal indicator.

**Pack Size:** 10g

334

**NAPHTHALENE, pure chip, TECHNICAL**

CAS 91-20-3

 $C_{10}H_8$  = 128.17**Pack Size:** 500g

U.N Number ..... 1334

ADG Class ..... 4.1

Packing Group ..... III

**1-NAPHTHALENOL** (see 1-Naphthol page 262)**2-NAPHTHALENOL** (see 2-Naphthol page 262)

**1142**

### 1-NAPHTHOL, UNIVAR



**CAS** 90-15-3

**Synonyms:** 1-Naphthalenol, 1-Hydroxynaphthalene

$C_{10}H_7OH = 144.17$

Description: white to light pink crystals or crystalline powder.

Assay ..... 99% min.

M.P. .... 94-97°C

U.N Number ..... 1759

ADG Class ..... 8

Packing Group ..... III

**Maximum limit of impurities (%)**

Water (Karl Fischer) ..... 0.2

Sulph. Ash ..... 0.05

Fe ..... 0.001

Cl ..... 0.005

H.M. (as Pb) ..... 0.001

Naphthalene(GC) ..... 0.2

2-Naphthol (GC) ..... 0.5

**Pack Size:** 100g

**1143**

### 2-NAPHTHOL, UNIVAR



**CAS** 135-19-3

**Synonyms:** 2-Naphthalenol, 2-Hydroxynaphthalene

$C_{10}H_7OH = 144.17$

Description: white to light pink crystals or crystalline powder.

Assay ..... 99.0% min.

M.P. .... 120 - 124°C

U.N Number ..... 2811

ADG Class ..... 6.1

Packing Group ..... II

**Pack Size:** 100g

**2747**

### NAPHTHOL GREEN B (C.I. 10020), LABCHEM

**CAS** 19381-50-1

**Synonyms:** Acid Green 1

$C_{30}H_{15}FeN_3Na_3O_{15}S_3 = 878.5$

Description: Yellowish green coloured powder

pH (1% Aqueous soln. @ 25°C) ..... 8.9 – 9.3

**Pack size:** 50g

**766**

### 1-NAPHTHYLACETIC ACID, LABCHEM

**CAS** 86-87-3

$C_{10}H_7CH_2COOH = 186.21$

Assay ..... 96% min.

M.P. .... 129-132°C

**Maximum limit of impurities (%)**

2-Naphthylactic Acid ..... 3.0

**Pack Size:** 25g

**3077**

### N-(1-NAPHTHYL)-ETHYLENEDIAMMONIUM DICHLORIDE, OP

**CAS** 1465-25-4

$(C_{10}H_7NH_2CH_2CH_2NH_3)Cl_2 = 259.18$

Assay (ex N) ..... 99% min.

**Maximum limit of impurities (%)**

Sulph.ash ..... 0.2

Suitability for detection of

Sulphonamides ..... To pass test

**Pack Size:** 5g



**NATURAL RED 28** (see Orcein page 272)**668****NESSLER'S REAGENT, LABCHEM****Synonyms:** Potassium Tetraiodomercurate(II)

For the detection of ammonium salts.

Mercury(II) chloride solution.

U.N Number ..... 3287

ADG Class ..... 6.1

Packing Group ..... III

**Pack Size:** 500mL**2518****NEUTRAL BUFFERED FORMALIN, LABCHEM**

A micro anatomical fixative for preservation of specimens.

Appearance ..... Clear (APHA) 10 max.

Formaldehyde ..... 3.9 - 4.2% w/v

pH (@ 25°C) ..... 6.8 – 7.2

**Pack Size:** 500mL, 5L, 20L**2653****NEUTRAL BUFFERED FORMALIN, self indicating, LABCHEM**

A micro anatomical fixative for preservation of specimens, tinted pale purple. Change the solution if colour is yellow, which indicates an acidic, inactive fixative.

Formaldehyde Content ..... 3.9 - 4.2% w/v

pH @ 25°C ..... 6.8 – 7.2

**Pack Size:** 6X2.5L, 20L**2355****NEUTRAL RED (CI 50040), LABCHEM****CAS** 553-24-2**Synonyms:** Basic Red 5 $C_{15}H_{17}ClN_4 = 288.78$ 

Adsorption, pH and redox indicator.

Visual Transition Interval ..... pH 6.8 (red) to pH 8.0 (yellow)

Transition EMF (@ pH=0) ..... +0.24V

Transition EMF (@ pH=7) ..... -0.29V

Colour change ..... Oxidised (purple) to reduced (colourless)

**Pack Size:** 25g**1841****NEUTRAL RED SOLUTION, LABCHEM**

1% aqueous solution

**Pack Size:** 1L, 5L**2644****NICKEL 1000ppm SINGLE ELEMENT ICP STANDARD, UNIPURE**

A 1000 ppm Nickel standard, ready for use.

Ni in 0.5% Nitric acid.

U.N Number ..... 3264

ADG Class ..... 8

Packing Group ..... III

**Traceable to NIST****Pack Size:** 100mL

2635

**NICKEL NITRATE AAS STANDARD, SPECTROSOL**

A 1000 ppm nickel standard, ready for use.  
Each mL contains 1.00 +/-0.005mg of Ni in 0.5% nitric acid.

U.N Number ..... 3264  
ADG Class ..... 8  
Packing Group ..... III

**Traceable to NIST****Pack Size:** 500mL

1504

**NICKEL ACETATE, UNILAB**

CAS 373-02-4  
(CH<sub>3</sub>COO)<sub>2</sub>Ni.4H<sub>2</sub>O = 248.86  
Assay ..... 98% min.

| <b>Maximum limit of impurities</b> | <b>(%)</b> |
|------------------------------------|------------|
| Cl .....                           | 0.01       |
| SO <sub>4</sub> .....              | 0.05       |
| Fe .....                           | 0.01       |
| Co .....                           | 0.1        |

**Pack Size:** 500g**NICKEL AMMONIUM SALTS** (see Ammonium nickel salts page 70)

338

**NICKEL CARBONATE, UNILAB**

CAS 39430-27-8 ..... 3333-67-2  
Approx. NiCO<sub>3</sub>.2Ni(OH)<sub>2</sub>.4H<sub>2</sub>O  
Assay (Ni) ..... 44.0 - 50.0%

| <b>Maximum limit of impurities</b> | <b>(%)</b> |
|------------------------------------|------------|
| Cl .....                           | 0.02       |
| Co .....                           | 0.1        |
| Fe .....                           | 0.01       |

**Pack Size:** 500g, 10kg**NICKEL CHLORIDE**

CAS 7718-54-9  
NiCl<sub>2</sub>.6H<sub>2</sub>O = 237.71

U.N Number ..... 3288  
ADG Class ..... 6.1  
Packing Group ..... III

829

**NICKEL CHLORIDE, UNIVAR**

Description: green crystals or crystalline powder.  
Assay ..... 99% min.  
pH (5% soln.) ..... 3.5 min.

| <b>Maximum limit of impurities</b> | <b>(%)</b> |                |
|------------------------------------|------------|----------------|
| Insolubles .....                   | 0.005      | Cu ..... 0.005 |
| SO <sub>4</sub> .....              | 0.02       | Fe ..... 0.002 |
| Zn .....                           | 0.005      | Na ..... 0.005 |
| Ca.....                            | 0.005      | Pb ..... 0.003 |
| Cd .....                           | 0.002      | K ..... 0.01   |
| Co . ....                          | 0.005      |                |

**Pack Size:** 500g

830

## NICKEL CHLORIDE, UNILAB

Assay ..... 97.0% min.

**Maximum limit of impurities (%)**

|                       |      |
|-----------------------|------|
| SO <sub>4</sub> ..... | 0.02 |
| Fe .....              | 0.02 |

Product solidifies on storage.

Pack Size: 500g

## NICKEL NITRATE



CAS 13138-45-9  
 $\text{Ni}(\text{NO}_3)_2 \cdot 6\text{H}_2\text{O} = 290.81$

U.N Number ..... 2725  
 ADG Class ..... 5.1  
 Packing Group ..... III

1144

## NICKEL NITRATE, UNIVAR

Description: green crystals or crystalline powder.

Assay ..... 98.0% min.

pH (5% soln.) ..... 3.5 min.

**Maximum limit of impurities (%)**

|                       |        |
|-----------------------|--------|
| Insol. ....           | 0.003  |
| Cl .....              | 0.001  |
| SO <sub>4</sub> ..... | 0.005  |
| Ca .....              | 0.02   |
| Cd .....              | 0.002  |
| Pb .....              | 0.002  |
| Cu .....              | 0.002  |
| Fe .....              | 0.0005 |
| K .....               | 0.005  |
| Na .....              | 0.01   |

Pack Size: 500g

339

## NICKEL NITRATE, UNILAB

Assay ..... 97.0% min.

**Maximum limit of impurities (%)**

|                       |      |
|-----------------------|------|
| Cl .....              | 0.04 |
| SO <sub>4</sub> ..... | 0.1  |
| Fe .....              | 0.05 |
| Pb .....              | 0.05 |

Pack Size: 500g

## NICKEL SULPHATE

CAS 7786-81-4  
 $\text{NiSO}_4 \cdot 6\text{H}_2\text{O}$  = 262.86

831

## NICKEL SULPHATE, UNIVAR

Description: Green crystals or crystalline powder.

Assay ..... min 99 %  
 pH (5%) ..... 4-6

| <i>Maximum limit of impurities</i> | <i>(%)</i> |          |       |
|------------------------------------|------------|----------|-------|
| Insol. ....                        | 0.005      | Pb ..... | 0.003 |
| Cl .....                           | 0.001      | Ca ..... | 0.005 |
| N cpds. (as N) .....               | 0.002      | Cu ..... | 0.002 |
| Co .....                           | 0.002      | K .....  | 0.005 |
| Mn .....                           | 0.0005     | Mg ..... | 0.005 |
| Fe .....                           | 0.001      | Na ..... | 0.01  |

Conforms to ACS

Pack Size: 500g

832

## NICKEL SULPHATE, UNILAB

Assay ..... 96.0% min.

| <i>Maximum limit of impurities</i> | <i>(%)</i> |
|------------------------------------|------------|
| Cl .....                           | 0.04       |
| Fe .....                           | 0.005      |

Pack Size: 500g

2369

## NICOTINIC ACID, UNILAB

CAS 59-67-6

Synonyms: Vitamin B

$\text{C}_5\text{H}_4\text{NCOOH}$  = 123.11

Assay (after drying) ..... 99.0% min.

M.P. .... 234-237°C

| <i>Maximum limit of impurities</i> | <i>(%)</i> |
|------------------------------------|------------|
| Sulph. Ash .....                   | 0.1        |
| Pb .....                           | 0.001      |
| $\text{H}_2\text{O}$ .....         | 0.5        |

Pack Size: 100g

3243

## NIGROSINE (C.I. 50420), LABCHEM

CAS 8005-03-6

Description: Blackish blue crystalline powder

Pack size: 25g, 100g

801

**NINHYDRIN, UNIVAR****CAS** 485-47-2**Synonyms:** Indanetrione Hydrate, 1,2,3-Triketohydrindene Monohydrate $C_9H_4O_3 \cdot H_2O = 178.14$ 

Reagent for amino acids.

Description: White to brownish-white crystals or crystalline powder.

Identification and M.P. .... To pass test

**Maximum limit of impurities (%)**Sol. (in  $H_2O$ ) ..... To pass test

Sensitivity to amino acids ..... To pass test

Conforms to ACS

**Pack Size:** 5g, 25g, 500g**NITRIC ACID****CAS** 7697-37-2 $HNO_3 = 63.01$ 

U.N Number ..... 2031

ADG Class ..... 8

Packing Group ..... II



1404

**NITRIC ACID, EXTRA PURE, UNIPURE**

Assay ..... 67 - 70%

**Maximum limit of impurities (ppb):**

|          |   |
|----------|---|
| Al ..... | 1 |
| Sb ..... | 1 |
| As ..... | 1 |
| Ba ..... | 1 |
| Be ..... | 1 |
| Bi ..... | 1 |
| B .....  | 1 |
| Cd ..... | 1 |
| Ca ..... | 1 |
| Cr ..... | 1 |
| Co ..... | 1 |
| Cu ..... | 1 |
| Fe ..... | 1 |
| Pb ..... | 1 |
| Li ..... | 1 |
| Mg ..... | 1 |

|          |   |
|----------|---|
| Mn ..... | 1 |
| Hg ..... | 1 |
| Mo ..... | 1 |
| Ni ..... | 1 |
| K .....  | 1 |
| Se ..... | 1 |
| Ag ..... | 1 |
| Na ..... | 1 |
| Sr ..... | 1 |
| Th ..... | 1 |
| Sn ..... | 1 |
| Ti ..... | 1 |
| U .....  | 1 |
| V .....  | 1 |
| Zn ..... | 1 |
| Zr ..... | 1 |

**Pack size:** 500mL, 2.5L

**HIGH  
PURITY  
SOLVENTS**

**UNICHROM****BURDICK & JACKSON**

- GC
- HPLC
- PESTICIDE
- SPECTROPHOTOMETRIC
- BIOSYNTHETIC

See page 30 or Contact our customer service for details

341

**NITRIC ACID 70 %, UNIVAR**

Description: colourless liquid, free from suspended matter or sediment. May darken during storage due to a photochemical reaction.

Density ..... about 1.42g/mL  
 Assay ..... 68.0 - 70.0% w/w  
 Colour ..... (APHA) 10 max.

**Maximum limit of impurities**

|                        | (%)      |                            |          |
|------------------------|----------|----------------------------|----------|
| R.A.I. ....            | 0.0005   | Mn .....                   | 0.000001 |
| Cl .....               | 0.00005  | Sr .....                   | 0.000002 |
| SO <sub>4</sub> .....  | 0.0001   | Mo .....                   | 0.000002 |
| PO <sub>4</sub> .....  | 0.00005  | Cu .....                   | 0.000002 |
| SiO <sub>2</sub> ..... | 0.00005  | Cd .....                   | 0.000002 |
| Al .....               | 0.00001  | Ba .....                   | 0.000005 |
| Zn .....               | 0.00001  | Cr .....                   | 0.000005 |
| K .....                | 0.00002  | Pb .....                   | 0.000005 |
| Mg .....               | 0.00002  | Ni .....                   | 0.000005 |
| Fe .....               | 0.00002  | Ca .....                   | 0.0001   |
| As .....               | 0.000001 | Na .....                   | 0.0003   |
| Co .....               | 0.000001 | Heavy metals (as Pb) ..... | 0.00002  |

Conforms to ACS

**Pack Size:** 500mL, 2.5L, 15L, 200L

937

**NITRIC ACID 70 %, LABCHEM**

Assay ..... 67.0% w/w min.

**Maximum limit of impurities**

|                            | (%)   |
|----------------------------|-------|
| Cl .....                   | 0.001 |
| SO <sub>4</sub> .....      | 0.001 |
| Heavy metals (as Pb) ..... | 0.001 |

**Pack Size:** 500mL, 2.5L GL, 2.5L PL

1380

**NITRIC ACID 70 % W/W, TECHNICAL**

Density ..... about 1.42g/mL

Appearance: Colourless to straw.

Assay ..... 69 - 71% w/w

**Pack Size:** 2.5L, 15L, 200L 1000L

1605

**NITRIC ACID 9.5 % (ACE-3170), TECHNICAL**

Colourless liquid, free from suspended matter or sediment.

Density (@ 20 °C) ..... 1.0508 - 1.0529g/mL

U.N Number ..... 3264

ADG Class ..... 8

Packing Group ..... II

**Maximum limit of impurities**

|                | (%)     |          |           |
|----------------|---------|----------|-----------|
| Chloride. .... | 0.00001 | Fe ..... | 0.002     |
| Nitrite .....  | 0.0004  | Pb ..... | 0.002     |
| R.O.I. ....    | 0.00005 | Mn ..... | 0.001     |
| Cd .....       | 0.001   | Ni ..... | 0.002     |
| Cr .....       | 0.002   | Zn ..... | 0.002     |
| Cu .....       | 0.001   | Hg ..... | 0.0000001 |

**Pack Size:** 200L

342

**NITRILOTRIACETIC ACID, UNILAB**

CAS 139-13-9

 $\text{N}(\text{CH}_2\text{COOH})_3 = 191.14$ 

Assay ..... 99% min.

**Maximum limit of impurities (%)**SO<sub>4</sub> ..... 0.07

L.O.D ..... 0.5

Pack Size: 100g

**NITROBENZENE**

CAS 98-95-3

Synonyms: Nitrobenzol, Mirbane Oil

 $\text{C}_6\text{H}_5\text{NO}_2 = 123.11$ 

Density .....about 1.2g/mL

U.N Number ..... 1662

ADG Class ..... 6.1

Packing Group ..... II

345

**NITROBENZENE, UNIVAR**

Description: pale yellow liquid with a characteristic odour.

R.I. .... about 1.553

Assay ..... 99.0% min.

**Maximum limit of impurities (%)**

R.A.E. .... 0.005

Water-sol. titratable acid ..... 0.0005 meq/g

Cl ..... 0.0005

Conforms to ACS

Pack Size: 500mL, 2.5L

346

**NITROBENZENE, UNILAB**

Assay ..... 99.0% min.

**Maximum limit of impurities (%)**Free Acid (HNO<sub>3</sub>) ..... 0.005

Pack Size: 2.5L

1147

**4-NITROBENZOIC ACID, UNILAB**

CAS 62-23-7

 $\text{NO}_2\text{C}_6\text{H}_4\text{COOH} = 167.12$ 

Assay ..... 99.0% min.

M.P. .... 238-242°C

**Maximum limit of impurities (%)**

Sulph. Ash ..... 0.1

Pack Size: 500g

**NITROBENZENOL** (see Nitrobenzene page 269)**NITROCARBOL** (see Nitromethane page 270)

712

**NITROMETHANE, UNILAB****CAS** 75-52-5**Synonyms:** Nitrocarbol $\text{CH}_3\text{NO}_2 = 61.04$ 

R.I ..... about 1.382

B.R.(95% min.) ..... 98 - 100 °C

Density ..... 1.13 – 1.14 g/mL

Assay (GC) ..... 99% min.

U.N Number ..... 1261

ADG Class ..... 3

Packing Group ..... II

**Pack Size:** 500mL

3086

**4-NITROPHENOL, OP****CAS** 100-02-7 $\text{C}_6\text{H}_4\text{OHNO}_2 = 139.11$ 

pH indicator.

U.N Number ..... 1663

ADG Class ..... 6.1

Packing Group ..... III

**Pack Size:** 25g**OCTADECANOIC ACID** (see Stearic Acid page 380)**iso-OCTANE** (see 2,2,4-Trimethylpentane page 405)

2341

**1-OCTANE SULPHONIC ACID, 0.25M in acetic acid, UNICHROM**

Specially purified for HPLC. An ion-pairing reagent for the separation of basic compounds.

U.N Number ..... 2920

ADG Class ..... 8

Subsidiary Risk ..... 3

Packing Group ..... II

**Pack Size:** 5X20mL

2417

**1-OCTANE SULPHONIC ACID SODIUM SALT, UNICHROM****CAS** 5324-84-5 $\text{C}_8\text{H}_{17}\text{SO}_3\text{Na} = 216.26$ 

Specially purified for HPLC. An ion-pairing reagent for the separation of basic compounds.

Assay ..... 99% min.

**Pack Size:** 10g

2465

**n-OCTANOIC ACID, UNILAB****CAS** 124-07-2 $\text{C}_8\text{H}_{16}\text{O}_2 = 144.21$ 

Description: Pale yellow oily liquid

Assay ..... 99.0% min.

**Pack size:** 250mL**n-OCTANOL** (see Octan-1-ol page 271)



**sec-OCTANOL** (see Octan-2-ol page 271)**2370****OCTAN-1-OL, UNILAB****CAS** 111-87-5**Synonyms:** n-Octanol $\text{CH}_3(\text{CH}_2)_7\text{OH} = 130.23$ 

Assay ..... 99.0% min.

Density ..... about 0.827 asg/mL

R.I ..... about 1.429

Boiling Point (760mm) ..... 196°C

Colour (APHA) ..... 10

**Maximum limit of impurities (%)**

R.A.E ..... 0.01

Titrable acid ..... 0.0002 meq/g

Conforms to ACS

**Pack Size:** 500mL, 2.5L**2379****OCTAN-2-OL, LABCHEM****CAS** 123-96-6**Synonyms:** Capryl Alcohol, sec-Octanol $\text{CH}_3(\text{CH}_2)_5\text{CHOHCH}_3 = 130.23$ 

Assay (GC) ..... 97% min.

Density ..... about 0.810 g/mL

**Maximum limit of impurities (%)**

N.V.M. .... 0.01

**Pack Size:** 500mL**iso-OCTANE**(see 2,2,4-Trimethylpentane page 405)**n-OCTYL ALCOHOL** (see Octan-1-ol page 271)**sec-OCTANOL** (see Octan-2-ol page 271)**3762****OCTYL SULPHATE, SODIUM SALT, for HPLC, OP****CAS** 142-31-4 $\text{CH}_3(\text{CH}_2)_7\text{OSO}_3\text{Na} = 232.28$ 

Assay ..... 99.0% min.

U.V. max. absorption ..... 250nm

**Maximum limit of impurities (%)**

L.O.D ..... 2.0

Cl ..... 0.05

**Pack size:** 5g**OIL RED** (see Scarlet R page 330)

**3248 OIL RED O (C.I. 26125), LABCHEM**

**CAS** 1320-06-5  
 $C_{26}H_{24}N_4O = 408.51$   
 Appearance: Reddish brown powder

**Pack size:** 25g

**1151 OLEIC ACID, UNILAB**

**CAS** 112-80-1  
 $C_{17}H_{33}COOH = 282.47$   
 Congealing point ..... about 8°C  
 Acid-value ..... 195 – 204  
 Iodine value ..... 86-97  
 Cloud point ..... 10°C  
 Colour ..... 5¼' 11.0Y/1.3R

**Pack Size:** 500mL, 2.5L

**ORANGE IV** (see Tropaeolin OO page 408)

**3246 ORANGE G (CI 16230), OP**

**CAS** 1936-15-8  
**Synonyms:** Acid Orange 10  
 Stain for microscopy.

**Pack Size:** 50g, 1Kg

**3247 ORCEIN, OP**

**CAS** 1400-62-0  
**Synonyms:** Natural Red 28

**Pack Size:** 25g

# PATHOLOGY

## *Solvents, Stain and Dyes*

Ajax pathology solvents are available in **plastic** and **metal** containers.  
 See our extensive range of **ready to use** stains and dyes.

See Pages 34 & 35 for Cat No's

## ORTHOPHOSPHORIC ACID



CAS 7664-38-2

Synonyms: Phosphoric Acid

 $H_3PO_4 = 98.00$ 

Density .....about 1.70g/mL

U.N Number ..... 1805

ADG Class ..... 8

Packing Group ..... III

371

## ORTHOPHOSPHORIC ACID 85%, UNIVAR

Description: clear, viscous liquid; odourless.

Assay ..... 85.0% w/w min.

Colour (APHA) ..... 10 max.

**Maximum limit of impurities****(%)**

Cl ..... 0.0003

NO<sub>3</sub> ..... 0.0005SO<sub>4</sub> ..... 0.003Silicate (SiO<sub>2</sub>) ..... 0.005Volatile acids (asCH<sub>3</sub>COOH) ..... 0.001

K ..... 0.001

Na ..... 0.001

Reducing substances ..... To pass test

Fe ..... 0.0015

Cu ..... 0.0001

Co ..... 0.0001

Cd ..... 0.0001

As ..... 0.0001

Zn ..... 0.0002

Pb ..... 0.0002

Ni ..... 0.0005

Sb ..... 0.0005

Ca ..... 0.002

Mn ..... 0.00005

Insol. Matter ..... 0.001

H.M. (as Pb) ..... 0.001

Mg ..... 0.002

Conforms to ACS

Pack Size: 500mL, 2.5L, 20L

372

## ORTHOPHOSPHORIC ACID 85%, UNILAB

Assay ..... 84.0% w/w min.

**Maximum limit of impurities****(%)**

Cl ..... 0.001

NO<sub>3</sub> ..... 0.002SO<sub>4</sub> ..... 0.01

Ca &amp; Mg ppt. .... 0.01

Fe ..... 0.01

Pack Size: 500mL, 2.5L, 20L

369

## OSMIC ACID, LABCHEM

CAS 20816-12-0

Synonyms: Osmium Tetroxide

OsO<sub>4</sub> = 254.20

Suitable for EM work.

Appearance: Yellow monoclinic crystals.

M.P. .... 39.5°C

B.P. .... 130°C (sublimes)

Assay ..... 99.95% min.

U.N Number ..... 2471

ADG Class ..... 6.1

Packing Group ..... I

**Maximum limit of impurities****(%)**

Ru (DCP-AES) ..... 0.002

H<sub>2</sub>O ..... 0.004

NVM ..... 0.002

Store below 4°C (refrigerate do NOT freeze)

Pack Size: 0.1g, 1g

**OSMIUM TETROXIDE** (see Osmic Acid page 273)**OXALIC ACID**

CAS 144-62-7

**Synonyms:** Ethanedioic acid dihydrate; Oxalic acid dihydrate  
 $(\text{COOH})_2 \cdot 2\text{H}_2\text{O} = 126.07$ 

U.N Number ..... 1759

ADG Class ..... 8

Packing Group ..... II

**350****OXALIC ACID, UNIVAR**

Description: colourless crystals or crystalline powder.

Assay ..... 99.5 - 102.5%

| <i>Maximum limit of impurities</i>                         | <i>(%)</i>   |
|------------------------------------------------------------|--------------|
| Insol. ....                                                | 0.005        |
| R.A.I. ....                                                | 0.01         |
| Cl .....                                                   | 0.002        |
| N cpds (as N) .....                                        | 0.001        |
| SO <sub>4</sub> .....                                      | 0.005        |
| Ca ..... ..                                                | 0.001        |
| Fe ..... ..                                                | 0.0002       |
| H.M. (as Pb) .....                                         | 0.0005       |
| Subs. darkened by hot H <sub>2</sub> SO <sub>4</sub> ..... | To pass test |
| Conforms to ACS                                            |              |

**Pack Size:** 500g, 5kg, 25kg**351****OXALIC ACID, UNILAB**

Assay ..... 99.0% min.

| <i>Maximum limit of impurities</i> | <i>(%)</i> |
|------------------------------------|------------|
| Sulph. Ash .....                   | 0.05       |
| Cl ..... ..                        | 0.002      |
| SO <sub>4</sub> .....              | 0.05       |
| Fe ..... ..                        | 0.001      |
| H.M. (as Pb) .....                 | 0.002      |

**Pack Size:** 500g**1152****OXALIC ACID, TECHNICAL****Pack Size:** 500g, 3kg**1395****OXALIC ACID 0.05MOL CONCENTRATE, AMPOULE, OP**Description: plastic ampoule containing clear colourless liquid  
0.05 mole (6.303g C<sub>2</sub>H<sub>2</sub>O<sub>4</sub>) to prepare 1L of 0.1N solution

Titer ..... 0.998 – 1.002

**Pack size:** Ampoule**OXINE** (see 8-Hydroxyquinoline page 204)**OXITOL** (see 2-Ethoxyethanol page 168)**OXYMETHYLENE** (see Formaldehyde page 177)

1505

**PALMITIC ACID, UNILAB**

CAS 57-10-3

**Synonyms:** Hexadecanoic Acid $\text{CH}_3(\text{CH}_2)_{14}\text{COOH}$  = 256.43

Assay (GC) ..... 98% min.

**Maximum limit of impurities (%)**

Stearic acid (GC) ..... 1

Iodine number ..... 0.5

Acid number ..... 240

Saponification number ..... 240

**Pack Size:** 500g

1842

**PAPANICOLAOU STAIN EA50, LABCHEM**

Eosin (0.2%) in a solution of Light Green (0.06%) and Phosphotungstic acid (0.2%) in alcohol solution.

U.N Number ..... 1992

ADG Class ..... 3

Subsidiary Risk ..... 6.1

Packing Group ..... II

**Pack Size:** 1L, 5L

1843

**PAPANICOLAOU STAIN EA 65, LABCHEM**

Eosin (0.2%) in a solution of Light Green (0.06%) and Phosphotungstic acid (0.2%) in alcohol solution.

U.N Number ..... 1992

ADG Class ..... 3

Subsidiary Risk ..... 6.1

Packing Group ..... II

**Pack Size:** 1L, 5L

1844

**PAPANICOLAOU STAIN OG 6, LABCHEM**

Orange G (0.5%) in a solution of Phosphotungstic acid (0.02%) in alcohol solution.

U.N Number ..... 1170

ADG Class ..... 3

Packing Group ..... II

**Pack Size:** 1L, 5L

356

**PARAFFIN LIQUID, LABCHEM**

CAS 8012-95-1

**Synonyms:** Paraffin Oil

Density ..... 0.87 0.89g/mL

**Pack Size:** 500mL, 2.5L, 20L**PARAFFIN OIL** (see Paraffin Liquid page 275)

**PARAFFIN WAX**

CAS 8002-74-2

**3250****PARAFFIN WAX, pastillated, OP**

M.P. ....52°C.

**Pack Size:** 1kg**3251****PARAFFIN WAX, pastillated, OP**

Specially purified for histological embedding.

M.P. ....56-58°C

**Pack Size:** 1Kg**PENTAMETHYLENE AMINE** (See Piperidine page 290)**2,4-PENTANDIONE** (See Acetylacetone page 48)**n-PENTANE**

CAS 109-66-0

 $\text{CH}_3(\text{CH}_2)_3\text{CH}_3 = 72.15$ 

Density ..... about 0.62 g/mL

U.N Number ..... 1265

ADG Class ... 3

Packing Group ..... I

**3483****n-PENTANE, HPLC, GC, PEST, BURDICK & JACKSON, CAT. 312**Greater than 98.0% n-pentane and 99.9% n-pentane and saturated  $\text{C}_5$  hydrocarbons by GC analysis.

| <i>Maximum limit of impurities</i>   | <i>(%)</i> |
|--------------------------------------|------------|
| $\text{H}_2\text{O}$ .....           | 0.01       |
| Residue .....                        | 1mg/L      |
| GC (EC, as heptachlor epoxide) ..... | 10ng/L     |

**U.V. Absorbance:**

|                |       |       |       |       |       |
|----------------|-------|-------|-------|-------|-------|
| $\lambda$ (nm) | 190   | 200   | 250   | 300   | 400   |
| Max. abs.      | 1.000 | 0.600 | 0.010 | 0.005 | 0.005 |

**Pack Size:** 4L**632****n-PENTANE, UNIVAR**

Description: clear volatile liquid.

Assay(GC) ..... 99.0 % w/w min.

R.I. .... 1.356 – 1.359

| <i>Maximum limit of impurities</i>           | <i>(%)</i> |
|----------------------------------------------|------------|
| Non-vol. ....                                | 0.002      |
| Acidity (as $\text{CH}_3\text{COOH}$ ) ..... | 0.002      |

**Pack Size:** 500mL, 2.5L, 20L, 200L

1153

**n-PENTANE, UNILAB**

Assay ..... 99% min.  
 B.R.(95% min.) ..... 34 – 37°C

**Maximum limit of impurities (%)**  
 Non-vol. .... 0.005

**Pack Size:** 500mL, 2.5L, 20L, 200L

1521

**iso-PENTANE, UNILAB**

**CAS** 78-78-4  
 $\text{CH}_3(\text{CH}_2)_3\text{CH}_3 = 72.15$   
 Density ..... about 0.62g/mL  
 B.R.(95% min.) ..... 27 - 30°C  
 Assay ..... 95% min.  
 Colour (APHA) ..... 10 max.

U.N Number ..... 1265  
 ADG Class ..... 3  
 Packing Group ..... I

**Maximum limit of impurities (%)**  
 Non-vol. .... 0.005

**Pack Size:** 500mL, 2.5L, 20L, 200L

2338

**1-PENTANE SULPHONIC ACID, 0.25 mol/L in acetic acid, UNICHROM**

Specially purified for HPLC. An ion-pairing reagent for the separation of basic compounds.  
 Non-volatile matter ..... 42.8 - 44.2mg/mL  
 UV absorbance ..... 1.0 max (@ 354 nm)

U.N Number ..... 2920  
 ADG Class ..... 8  
 Subsidiary Risk ..... 3  
 Packing Group ..... II



**Pack Size:** 5X20mL

2414

**1-PENTANE SULPHONIC ACID SODIUM SALT, UNICHROM**

**CAS** 22767-49-3  
 $\text{C}_5\text{H}_{11}\text{SO}_3\text{Na} = 174.19$   
 Specially purified for HPLC. An ion-pairing reagent for the separation of basic compounds.  
 Appearance: White flakes  
 Assay ..... 98% min.

**Pack Size:** 10g

**PENTAN-1-OL**

CAS 71-41-0

**Synonyms:** n-Amyl Alcohol $\text{CH}_3(\text{CH}_2)_3\text{CH}_2\text{OH} = 88.15$ 

Density .....about 0.81g/mL

U.N Number ..... 1105

ADG Class ..... 3

Packing Group ..... III

**1357****PENTAN-1-OL, UNIVAR**

Assay ..... 98.0% min.

Colour (APHA) ..... 30

**Maximum limit of impurities (%)**

Acids and Esters ..... 0.075 meq/g

Carbonyl compounds (HCHO) ..... 0.1

Residue after Evaporation ..... 0.003

Water ..... 0.05

**Pack size:** 500mL**63****PENTAN-1-OL, UNILAB**

Assay (GC) ..... 99% min.

Colour (APHA) ..... 15 max.

**Maximum limit of impurities (%)**

R.I ..... about 1.410

Water ..... 0.2% max.

**Pack Size:** 500mL, 2.5L**iso-PENTYL ALCOHOL**(see iso-Amyl Alcohol page 75)**iso-PENTYL ACETATE** (see iso-Amyl Acetate page 75)**2331****PEPTONE, bacteriological, LABCHEM**

High purity for general bacteriological work.

**Pack Size:** 250g



359

## PERCHLORIC ACID 70 %, UNIVAR



CAS 7601-90-3

 $\text{HClO}_4 = 100.46$ 

Description: clear, viscous liquid; odourless.

Density ..... about 1.70g/mL

Assay ..... 69.0 - 72.0% w/w

Colour (APHA) ..... 10 max.

U.N Number ..... 1873

ADG Class ..... 5.1

Subsidiary Risk ..... 8

Packing Group ..... I

**Maximum limit of impurities****(%)**

R.A.I. .... 0.003

Cl ..... 0.001

N cpds (as N) ..... 0.001

HM (as Pb) ..... 0.0001

 $\text{SiO}_2$  &  $\text{PO}_4$  (as  $\text{SiO}_2$ ) ..... 0.0005 $\text{SO}_4$  ..... 0.001

Free Chlorine ..... 0.0001

Al ..... 0.000005

As ..... 0.000005

Ba ..... 0.000005

Co ..... 0.000005

Pb ..... 0.000005

Mo ..... 0.000005

Cd ..... 0.00005

Ca ..... 0.00005

Mg ..... 0.00005

Na ..... 0.00005

Cu ..... 0.00001

Ni ..... 0.00001

K ..... 0.00001

Ag ..... 0.00001

Zn ..... 0.00001

Sr ..... 0.000002

Fe ..... 0.0001

Conforms to ACS

**Pack Size:** 500mL, 2.5L

2281

## PERCHLORIC ACID 0.1M IN ACETIC ACID, UNIVOL



For non-aqueous titrations.

Molarity ..... 0.0995-0.1005mol/L

U.N Number ..... 2920

ADG Class ..... 8

Subsidiary Risk ..... 3

Packing Group ..... II

**Pack Size:** 2.5L

## PERCHLOROETHYLENE (see Tetrachloroethylene page 391)

2389

## PERIODIC ACID, UNILAB



CAS 13444-71-8

 $\text{HIO}_4 \cdot 2\text{H}_2\text{O} = 227.94$ 

Assay ..... 99.0% min.

U.N Number ..... 1479

ADG Class ..... 5.1

Packing Group ..... II

**Maximum limit of impurities****(%)**

Sulphated ash ..... 0.5

**Pack Size:** 25g

1834

**PERIODIC ACID 1% SOLUTION, LABCHEM**



Periodic Acid 1% aqueous solution

**Pack Size:** 500mL

U.N Number ..... 3265  
ADG Class ..... 8  
Packing Group ..... III

1846

**PERIODIC ACID 50% SOLUTION, LABCHEM**



Periodic Acid 50% aqueous solution

**Pack Size:** 500mL

U.N Number ..... 3265  
ADG Class ..... 8  
Packing Group ..... III

2560

**PERIODIC TABLE OF THE ELEMENTS**

Ideal reference for most Laboratories and educational institutions.  
Chart size: 98 cm wide x 68 cm high.  
Gives details on each element for atomic wt, MP, BP, electronic configuration and more.

**Pack Size:** EACH

**PETROLEUM ETHER** (see Petroleum Spirit page 280)

**PETROLEUM SPIRIT B.R. 30-40°C**



CAS 64742-49-0  
**Synonyms:** Petroleum Ether  
Density ..... about 0.62g/mL

U.N Number ..... 3295  
ADG Class ..... 3  
Packing Group ..... I

1158

**PETROLEUM SPIRIT B.R. 30-40°C, UNIVAR**

Description: clear, colourless, volatile liquid.  
B.R.(90% min.) ..... 30 - 40°C

| <b>Maximum limit of impurities</b> | <b>(%)</b>    |
|------------------------------------|---------------|
| Non-vol. ....                      | 0.001         |
| Acidity ....                       | 0.0013 mmol H |
| S cpds (as CS <sub>2</sub> ) ....  | 0.0003        |
| H <sub>2</sub> O ....              | 0.015         |

**Pack Size:** 2.5L, 20L

3455

**PETROLEUM SPIRIT B.R. 30-40°C, PESTICIDE GRADE, BURDICK & JACKSON, CAT. 317**

High purity solvent for pesticide residue analysis and gas chromatography.  
Assay ..... 99% min.

| <b>Maximum limit of impurities</b>   | <b>(%)</b> |
|--------------------------------------|------------|
| GC (ECD, as Heptachlor epoxide) .... | 10 ng/L    |
| H <sub>2</sub> O ....                | 0.01       |
| Residue ....                         | 1mg/L      |

**Pack Size:** 4L

**PETROLEUM SPIRIT B.R. 40-60°C**

CAS 64742-49-0

**Synonyms:** Petroleum Ether

Density ..... about 0.64g/mL

U.N Number ..... 3295

ADG Class ..... 3

Packing Group ..... II

**2324****PETROLEUM SPIRIT B.R. 40-60°C, UNICHROM**

CAS 64742-49-0

Specially purified for HPLC Filtered through 0.45 micron filter.

R.I. .... 1.369

Viscosity @ 20°C ..... 0.28cP

B.R. .... 40 - 60 °C

| <b>Maximum limit of impurities</b> | <b>(%)</b>   |
|------------------------------------|--------------|
| Non-vol. ....                      | 0.001        |
| Acidity .....                      | 0.013 mmol H |
| H <sub>2</sub> O (by K.F.) .....   | 0.01         |

**U.V. Absorbance:**

|          |      |      |     |     |
|----------|------|------|-----|-----|
| λ (nm)   | 280  | 254  | 214 | 200 |
| Max. abs | 0.03 | 0.04 | 0.3 | 1.0 |

**Pack Size:** 2.5L**756****PETROLEUM SPIRIT B.R. 40-60°C (Aromatic free), UNIVAR**

Free from aromatic hydrocarbons.

B.R.(90% min.) ..... 40 - 60°C

| <b>Maximum limit of impurities</b>                  | <b>(%)</b>    |
|-----------------------------------------------------|---------------|
| Non-vol. ....                                       | 0.001         |
| Acidity .....                                       | 0.0013 mmol H |
| Aromatics (as C <sub>6</sub> H <sub>6</sub> ) ..... | 0.001         |
| S cpds (as CS <sub>2</sub> ) .....                  | 0.0003        |
| H <sub>2</sub> O .....                              | 0.015         |

**Pack Size:** 2.5L, 20L**361****PETROLEUM SPIRIT B.R. 40-60°C, UNIVAR**

B.R.(90% min.) ..... 40 - 60°C

| <b>Maximum limit of impurities</b> | <b>(%)</b> |                   |
|------------------------------------|------------|-------------------|
| Non-vol. ....                      | 0.001      | Na ..... 0.00005  |
| Acidity .....                      | 0.0013     | Zn ..... 0.00005  |
| S cpds (as CS <sub>2</sub> ) ..... | 0.0003     | Cr ..... 0.000002 |
| H <sub>2</sub> O (K.F.) .....      | 0.015      | Co ..... 0.000002 |
| Al .....                           | 0.00001    | Cu ..... 0.000002 |
| Ba .....                           | 0.000005   | Mn ..... 0.000002 |
| Mg .....                           | 0.000005   | Ni ..... 0.000002 |
| Cd .....                           | 0.000005   | Sr ..... 0.000002 |
| Pb .....                           | 0.000005   | Fe ..... 0.00002  |
| Ca .....                           | 0.00005    | K ..... 0.00002   |

Conforms to ACS

**Pack Size:** 2.5L, 10L, 20L, 200L

**1384**

### PETROLEUM SPIRIT B.R. 40-70°C, UNILAB



CAS 110-54-3

Description: Clear, colourless, volatile liquid.  
Density ..... about 0.65g/mL  
B.R.(90% min.) ..... 40 - 70°C

U.N Number ..... 1208

ADG Class ..... 3

Packing Group ..... II

**Maximum limit of impurities (%)**  
Non-vol. .... 0.005

**Pack Size:** 2.5L, 20L

**362**

### PETROLEUM SPIRIT B.R. 60-80°C, UNIVAR



CAS 8032-32-4

Description: Clear, colourless, volatile liquid.

Density ..... about 0.67g/mL  
B.R.(90% min.) ..... 60 - 80 °C

U.N Number ..... 3295

ADG Class ..... 3

Packing Group ..... II

**Maximum limit of impurities (%)**  
Non-vol. .... 0.001  
Acidity ..... 0.0013  
S cpds (as CS<sub>2</sub>) ..... 0.0003  
H<sub>2</sub>O ..... 0.015

**Pack Size:** 2.5L, 20L

**363**

### PETROLEUM SPIRIT B.R. 80-110°C, UNIVAR



CAS 64742-49-0

Description: Clear, colourless, volatile liquid.

Density ..... about 0.69g/mL  
B.R. (90% min.) ..... 80 - 110 °C

U.N Number ..... 1268

ADG Class ..... 3

Packing Group ..... II

**Maximum limit of impurities (%)**  
Non-vol. .... 0.001  
Acidity ..... 0.0013  
S cpds (as CS<sub>2</sub>) ..... 0.0003  
H<sub>2</sub>O ..... 0.015

**Pack Size:** 2.5L, 20L

**364**

### PETROLEUM SPIRIT B.R. 100-130°C, UNIVAR



CAS 64742-49-0

Description: Clear, colourless, volatile liquid.

Density ..... about 0.73g/mL  
B.R.(90% min.) ..... 100 - 130°C

U.N Number ..... 1268

ADG Class ..... 3

Packing Group ..... II

**Maximum limit of impurities (%)**  
Non-vols. .... 0.001  
Acidity ..... 0.0013 mmol H  
S cpds (as CS<sub>2</sub>) ..... 0.0003  
H<sub>2</sub>O ..... 0.015

**Pack Size:** 2.5L, 20L

**7870**

### pH STICKS 0-6, OP

For pH measurement in weakly buffered or strongly alkaline solutions  
Gradation: 0-0.5-1.0-1.5-2.0-2.5-3.0-3.5-4.0-4.5-5.0-5.5-6.0

**Pack Size:** 100

2401

**pH STICKS, 0-14, OP**

For pH measurement in weakly buffered or strongly alkaline solutions  
Gradation: 0-1-2-3-4-5-6-7-8-9-10-11-12-13-14

**Pack Size:** 100

7873

**pH STICKS 2-9, OP**

For pH measurement in weakly buffered or strongly alkaline solutions  
Gradation: 2.0-2.5-3.0-3.5-4.0-4.5-5.0-5.5-6.0-6.5-7.0-7.5-8.0-8.5-9.0

**Pack Size:** 100

7871

**pH STICKS 6-10, OP**

For pH measurement in weakly buffered or strongly alkaline solutions  
Gradation: 6.0-6.4-6.7-7.0-7.3-7.6-7.9-8.2-8.4-8.6-8.8-9.1-9.5-10.0

**Pack Size:** 100

7872

**pH STICKS 7-14, OP**

For pH measurement in weakly buffered or strongly alkaline solutions  
Gradation: 7.0-7.5-8.0-8.5-9.0-9.5-10.0-10.5-11.0-11.5-12.0-12.5-13.0-13.5-14.0

**Pack Size:** 100

**1,10-PHENANTHROLINE FERROUS COMPLEX SOLUTION** (see Ferroin solution page 175)

365

**1,10-PHENANTHROLINE HYDRATE, UNIVAR**

**CAS** 5144-89-8

**Synonyms:** o-Phenanthroline Hydrate

$C_{12}H_8N_2 \cdot H_2O = 198.23$

Reagent for Fe. Redox indicator.

Description: white to off-white crystals or crystalline powder.

U.N Number ..... 2811

ADG Class ..... 6.1

Packing Group ..... III

**Maximum limit of impurities (%)**

Suitability as redox indicator ..... To pass test

Suitability for determining Fe ..... To pass test

Transition EMF (@ pH=0) ..... +1.08 V

Transition EMF (@ pH=7) ..... + 1.12 V

Colour change: Oxidized (faint blue) to reduced red)

Conforms to ACS

**Pack Size:** 5g, 100g

**o-PHENANTHROLINE HYDRATE** (1,10-Phenanthroline Hydrate page 283)

1012

**PHENETHYL ALCOHOL, OP**

**CAS** 60-12-8

$C_6H_5CH_2CH_2OH = 122.17$

Assay ..... 99.0% min.

Density ..... 1.0200

Dielectric constant @ 25°C ..... 9.93

R.I. (n<sub>20</sub>/D) ..... 1.5310 - 1.5330

U.N Number ..... 2810

ADG Class ..... 6.1

Packing Group ..... III

Pack size: 100g

**PHENOL****CAS** 108-95-2**Synonyms:** Carbolic AcidC<sub>6</sub>H<sub>5</sub>OH = 94.11

U.N Number ..... 1671

ADG Class ..... 6.1

Packing Group ..... II

**366****PHENOL, UNIVAR**

Description: colourless hygroscopic crystals becoming pink on exposure to light or moisture.

F.P.(dry basis) ..... 40°C

**Maximum limit of impurities****(%)**

|                             |                   |                    |             |
|-----------------------------|-------------------|--------------------|-------------|
| Insol. ....                 | 0.005             | Cu .....           | 0.000005    |
| Non-vol. ....               | 0.02              | Tarry matter ..... | no reaction |
| Acidity or alkalinity ..... | 0.04 mmol H or OH | Ba .....           | 0.00006     |
| Cl .....                    | 0.0005            | Ca .....           | 0.0001      |
| Al .....                    | 0.0005            | Sr .....           | 0.000002    |
| Mg .....                    | 0.0005            | Co .....           | 0.000002    |
| Zn .....                    | 0.0005            | Mn .....           | 0.000002    |
| Fe .....                    | 0.00015           | Mo .....           | 0.000002    |
| Pb .....                    | 0.000005          | Ni .....           | 0.000002    |
| Cd .....                    | 0.000005          | K .....            | 0.001       |
| Cr .....                    | 0.000005          | Na .....           | 0.001       |

Store below 4°C (refrigerate)

**Pack Size:** 500g, 5kg**1159****PHENOL crystals, UNILAB**

Colourless or faintly pink or faintly yellowish crystals or crystalline masses.

Assay ..... 99.0 - 100.5%

F.P. .... 39.5°C min.

**Maximum limit of impurities****(%)**

|                               |              |
|-------------------------------|--------------|
| Acidity. ....                 | To pass test |
| Clarity & colour of sol. .... | To pass test |
| ROE .....                     | 0.05         |

Store below 4°C (refrigerate)

Chemical and physical parameters conform to BP

**Pack Size:** 500g, 5kg, 25kg

## PHENOLPHTHALEIN

CAS 77-09-8  
 $C_{20}H_{14}O_4 = 318.33$

2656

## PHENOLPHTHALEIN, UNILAB

A white or yellowish-white, crystalline or amorphous powder; odourless or almost odourless

Assay (dried subst.) ..... 98.0 - 102.0%  
 Melting point ..... 258 – 263°C

**Maximum limit of impurities (%)**  
 Heavy metals (as Pb) ..... 0.0020  
 Fluoran ..... To pass test  
 L.O.D. .... 1.0  
 Sulphated ash ..... 0.1  
 Chemical and physical parameters conform to BP

**Pack Size:** 100g

368

## PHENOLPHTHALEIN, LABCHEM

Assay .....98%

**Pack Size:** 25g, 100g, 500g, 5kg, 25kg

754

## PHENOLPHTHALEIN SOLUTION, LABCHEM



CAS 64-17-5  
 pH indicator solution.  
 1.0% in methylated spirit.  
 pH 8.0 (colourless) ..... To pass test  
 pH 8.2 (pale pink) ..... To pass test  
 pH 8.6 (pink) ..... To pass test  
 pH 10.0 (red) ..... To pass test

U.N Number ..... 1993  
 ADG Class ..... 3  
 Packing Group ..... II

**Pack Size:** 100mL, 500mL

2300

## PHENOL RED, LABCHEM

CAS 143-74-8  
**Synonyms:** Phenolsulphonaphthalein  
 $C_{19}H_{14}O_5S = 354.37$   
 pH indicator.  
 Visual transition colour  
 pH 0.0 (pink) ..... To pass test  
 pH 2.0 and 6.8 (yellow) ..... To pass test  
 pH 8.2 (red) ..... To pass test

**Pack Size:** 5g, 100g

7880

## PHENOL RED 1% SOLUTION, LABCHEM

Appearance: Intense red solution  
 Free Alkalinity: Colour change red to orange @ 18.5mL ± 2mL  
 Absorbance (0.05% @ 559nm) ..... 0.80 – 0.92

**Pack Size:** 20L

**PHENOLSULPHONEPHTHALEIN** (see Phenol Red page 285)**586****2-PHENOXYETHANOL, LABCHEM****CAS** 122-99-6**Synonyms:** Ethylene Glycol Monophenyl Ether $C_6H_5OCH_2CH_2OH = 138.17$ 

Density at (20°C) ..... about 1.07g/mL

Description: Mobile, colourless liquid. The product is sensitive to iron.

Assay by GLC ..... 99.0%

**Pack Size:** 500mL, 20L**N-PHENYLACETAMIDE** (see Acetanilide page 40)**1160****PHENYLACETIC ACID, UNILAB****CAS** 103-82-2**Synonyms:** Benzeneacetic Acid $C_6H_5CH_2COOH = 136.15$ 

Assay ..... 99% min.

M.P. .... 76-78°C

**Pack Size:** 500g**3092****DL-PHENYLALANINE, UNILAB****CAS** 150-30-1 $C_9H_{11}NO_2 = 165.2$ 

Appearance: White crystalline powder

Assay ..... 99.0% min.

|                                    |            |
|------------------------------------|------------|
| <b>Maximum limit of impurities</b> | <b>(%)</b> |
| H.M (as Pb) .....                  | 0.0005     |

**Pack size:** 25g**3430****L-PHENYLALANINE, UNIVAR****CAS** 63-91-2 $C_9H_{11}NO_2 = 165.2$ 

Appearance: White crystalline powder

Assay ..... 99.0% min.

Specific Rotation ..... -33.0 to -35.2°

|                                    |            |
|------------------------------------|------------|
| <b>Maximum limit of impurities</b> | <b>(%)</b> |
| H.M (as Pb) .....                  | 0.002      |
| As .....                           | 0.0003     |
| L.O.D .....                        | 0.3        |
| Pb .....                           | 0.001      |
| R.O.I .....                        | 0.1        |

**Pack size:** 25g**PHENYL BROMIDE** (see Bromobenzene page 96)**PHENYL CARBINOL** (see Benzyl Alcohol page 90)**PHENYL CHLORIDE** (see Chlorobenzene page 123)



1285

## PHENYL DISODIUM ORTHOPHOSPHATE, LABCHEM

CAS 3279-54-7

**Synonyms:** di-Sodium Phenyl Phosphate $C_6H_5Na_2PO_4 \cdot 2H_2O = 254.09$ 

Assay ..... 98% min.

**Maximum limit of impurities (%)**

L.O.D ..... 15

Free Phenol ..... 0.02

Suitable for detmn of phosphatase ..... To pass test

Store below 4°C (refrigerate)

**Pack Size:** 100g

## PHENYLHYDRAZINE HYDROCHLORIDE (see Phenylhydrazinium Chloride page 287)

1538

## PHENYLHYDRAZINIUM CHLORIDE, LABCHEM



CAS 59-88-1

**Synonyms:** Phenylhydrazine Hydrochloride $C_6H_5NHNH_2 \cdot HCl = 144.61$ 

Reagent for aldehydes &amp; ketones.

U.N Number ..... 2811

ADG Class ..... 6.1

Packing Group ..... II

**Pack Size:** 250g

## PHENYL METHANE (see Toluene page 400)

2332

## PHENYL SALICYLATE, LABCHEM

CAS 118-55-8

**Synonyms:** Salol $HO-C_6H_4-COOC_6H_5 = 214.22$ 

Appearance: White crystals.

M.P ..... about 43°C

**Pack Size:** 100g

1162

## PHLOROGLUCINOL, UNIVAR

CAS 108-73-6

**Synonyms:** 1,3,5 - Benzenetriol $C_6H_6O_3 = 126.1$ 

Appearance: White crystalline powder

Assay ..... 99.0% min.

Melting Point ..... 219 - 222°C

**Maximum limit of impurities (%)**

R.O.I ..... 0.05

**Pack size:** 25g, 100g

## PHOSPHOMOLYBDIC ACID (see dodeca-Molybdophosphoric acid page 260)

## PHOSPHORIC ACID (see Orthophosphoric acid page 273)

## PHOSPHORIC ANHYDRIDE (see Phosphoric Oxide page 288)

324

## PHOSPHORIC OXIDE, UNILAB



CAS 1314-56-3

**Synonyms:** Phosphorus Pentoxide, Phosphoric Anhydride $P_2O_5$  = 141.95

Assay ..... 98.5% min.

U.N Number ..... 1807

ADG Class ..... 8

Packing Group ..... II

**Maximum limit of impurities (%)**

As ..... 0.01

Fe ..... 0.005

H.M. (as Pb) ..... 0.02

Cl ..... 0.005

**Pack Size:** 250g, 5kg

## PHOSPHOROUS OXYCHLORIDE (see Phosphoryl Chloride page 289)

## PHOSPHOROUS CHLORIDE (see Phosphorous Trichloride page 288)

## PHOSPHOROUS PENTOXIDE (see Phosphoric Oxide page 288)

1164

## PHOSPHORUS, RED, AMORPHOUS, LABCHEM



CAS 7723-14-0

P = 30.97

Assay ..... 97% min.

U.N Number ..... 1338

ADG Class ..... 4.1

Packing Group ..... III

**Maximum limit of impurities (%)**

Fe ..... 0.2

**Pack Size:** 500g

374

## PHOSPHORUS TRICHLORIDE, UNILAB



CAS 7719-12-2

**Synonyms:** Phosphorous Chloride $PCl_3$  = 137.33

Density ..... about 1.57g/mL

Assay ..... 99.0% min.

U.N Number ..... 1809

ADG Class ..... 6.1

Subsidiary Risk ..... 8

Packing Group ..... I

**Maximum limit of impurities (%)**

Cu ..... 0.0001

Ni ..... 0.0001

Fe ..... 0.0001

Pb ..... 0.0001

**Pack Size:** 500mL

1167

## PHOSPHORYL CHLORIDE, UNILAB



CAS 10025-87-3

Synonyms: Phosphorus Oxychloride

POCl<sub>3</sub> = 153.33

Density ..... about 1.67g/mL

Assay ..... 99% min.

Boiling Range ..... 106 – 108°C

U.N Number ..... 1810

ADG Class ..... 8

Packing Group ..... II

**Maximum limit of impurities****(%)**

Cu ..... 0.0001

Ni ..... 0.0001

Fe ..... 0.0002

Pb ..... 0.0001

Pack Size: 500mL, 1L

PHOSPHOTUNGSTIC ACID (see dodeca-Tungstophosphoric acid page 408)

PHTHALIC ACID DIBUTYL ESTHER (see Di-n-Butyl Phthalate page 148)

375

## PHTHALIC ANHYDRIDE, UNILAB

CAS 85-44-9

Synonyms: 1,3-Isobenzofurandione

C<sub>8</sub>H<sub>4</sub>O<sub>3</sub> = 148.12

Appearance: White flakes. M.P about 130°C

Assay ..... 99.5% min.

**Maximum limit of impurities****(%)**

Maleic anhydride ..... 0.05

Pack Size: 500g

3099

## PICRIC ACID, UNIVAR



CAS 88-89-1

Synonyms: 2,4,6-Trinitrophenol

(NO<sub>2</sub>)<sub>3</sub>C<sub>6</sub>H<sub>2</sub>OH = 229.11

All data related to water-free substance.

Assay ..... 99.0% min.

M.P. .... 120 - 123°C

U.N Number ..... 1344

ADG Class ..... 4.1

Packing Group ..... I

**Maximum limit of impurities****(%)**

Insoluble in toluene ..... 0.1

Sulph. Ash ..... 0.05

Cl ..... 0.001

SO<sub>4</sub> ..... 0.02

Pack Size: 100g, 500g

PIPERAZINE-N,N'-BIS(2-ETHANESULFONIC ACID (see Pipes page 290)

1013

**PIPERIDINE, OP**



**CAS** 110-89-4

**Synonyms:** Hexahydropyridine, Pentamethylene Amine

$C_5H_{11}N = 85.15$

Assay ..... 99.0% min.

Density ..... 0.8622

R.I (@ 20°C) ..... 1.4515 – 1.4535

U.N Number ..... 2401

ADG Class ..... 8

Subsidiary Risk ..... 3

Packing Group ..... I

**Maximum limit of impurities (%)**

Water (K.F.) ..... 0.5

**Pack size:** 500mL

3434

**PIPES (PIPERAZINE-N-N'-bis[2-ETHANESULPHONIC ACID], BIOLOGICAL BUFFER, UNIVAR**

**CAS** 5625-37-6

**Synonyms:** Piperazine-N,N'-bis(2-Ethanesulfonic Acid)

$C_8H_{18}N_2O_6S_2 = 302.37$

Description: White powder

Assay ..... 99.0% min.

pKa ..... 6.6 – 7.0

**Maximum limit of impurities (%)**

Moisture ..... 1.0

**Pack size:** 100g, 1Kg

**PLATINIC CHLORIDE** (see Chloroplatinic acid page 127)

1170

**PLATINUM WIRE, 0.375mm dia**

**CAS** 7440-06-4

Pt = 195.09

Assay ..... 99.9% min.

**Maximum limit of impurities (%)**

Au ..... 0.0009

Ag ..... 0.0009

Cu ..... 0.0009

Pd ..... 0.0009

Rh ..... 0.0009

**Pack Size:** 25cm

1683

**POLYETHYLENE GLYCOL 4000, TECHNICAL**

**CAS** 25322-68-3

$HO(CH_2CH_2O)_nH$  (n approx. 80)

Apparent MW= 3600-4400

Colour ..... 30 Hazen

pH (5% ) soln ..... 5.0 - 7.0

Viscosity (@ 99°C) ..... 130 – 180 cs

**Maximum limit of impurities (%)**

Ash ..... 0.05

Acidity (HAc) ..... 0.05

**Pack Size:** 500g

5720

**POLYETHYLENE GLYCOL 6000, TECHNICAL**

CAS 25322-68-3

HO (CH<sub>2</sub>CH<sub>2</sub>O)<sub>n</sub>H (n approx.120).

Apparent MW(5800 - 6800)

pH (5%) ..... 5.0 7.0  
 Viscosity (@ 99°C) ..... 330-500 cs  
 Colour ..... 50 Hazen max.

**Maximum limit of impurities (%)**

Ash ..... 0.05  
 Acidity (HAc) ..... 0.05

**Pack Size:** 500g, 5kg**POLYSORBATE 20** (see Ecoteric T20 page 163)**POLYSORBATE 80** (see Ecoteric T80 page 163)

4877

**POLYVINYL ALCOHOL BF-17W, TECHNICAL**

CAS 9002-89-5

MW (77,000 to 82,000)

Fully hydrolysed grade

Viscosity ..... 25 – 30cps  
 Hydrolysis (mole%) ..... 95.0 – 97.0  
 pH ..... 5 – 7  
 Volatile ..... 5.0% max.  
 Ash ..... 1.0% max.

**Pack Size:** 500g

720

**POPOP, Scintillation grade, LABCHEM**

CAS 1806-34-4

C<sub>24</sub>H<sub>16</sub>N<sub>2</sub>O<sub>2</sub> = 364.4

Description: Yellow to yellow-green solid

Assay ..... 97.0% min.  
 Melting point ..... 243 - 246°

**Pack size:** 25g

2645

**POTASSIUM 1000ppm SINGLE ELEMENT ICP STANDARD, UNIPURE**

A 1000 ppm Potassium standard, ready for use.  
 K in 0.5% Nitric acid.

**Traceable to NIST****Pack Size:** 100mL

U.N Number ..... 3264  
 ADG Class ..... 8  
 Packing Group ..... III

2603

**POTASSIUM NITRATE AAS STANDARD, SPECTROSOL**

A 1000 ppm potassium standard, ready for use, each mL contains 1.00 mg +/- 0.005mg of K in 0.5% nitric acid.

**Traceable to NIST****Pack Size:** 500mL

U.N Number ..... 3264  
 ADG Class ..... 8  
 Packing Group ..... III

352

**POTASSIUM ACETATE, UNILAB**

CAS 127-08-2

**Synonyms:** Acetic Acid Potassium SaltCH<sub>3</sub>COOK = 98.14

Assay(after drying) ..... 99.0% min.

**Maximum limit of impurities (%)**

L.O.D. .... 1

H.M (as Pb) ..... 0.005

Cl ..... 0.005

SO<sub>4</sub> ..... 0.005**Pack Size:** 500g**POTASSIUM ALUM** (see Aluminium Potassium Sulphate page 55)**POTASSIUM ALUMINIUM SULPHATE** (see Aluminium Potassium Sulphate page 55)

1171



CAS 1333-78-4

KSbO<sub>3</sub>.3H<sub>2</sub>O = 262.91

Description: white to cream coloured crystalline powder.

Reagent for Na.

Suitable for the detection of Na.

Assay ..... 99.0% min.

**Pack Size:** 100g

U.N Number ..... 1549

ADG Class ..... 6.1

Packing Group ..... III

**POTASSIUM ANTIMONY TARTRATE** (see Antimony Potassium Tartrate page 77)**POTASSIUM BICARBONATE** (see Potassium Hydrogen Carbonate page 303)**POTASSIUM BIPHOSPHATE, MONOBASIC** (see Potassium Dihydrogen Orthophosphate page 300)**POTASSIUM BIPHTHALATE** (see Potassium Hydrogen Phthalate page 304)**POTASSIUM BISULPHATE** (see Potassium Hydrogen Sulphate page 305)**POTASSIUM BITARTRATE** (see Potassium Hydrogen Tartrate page 306)

## POTASSIUM BROMATE



CAS 7758-01-2  
KBrO<sub>3</sub> = 167.00

U.N Number ..... 1484  
ADG Class ..... 5.1  
Packing Group ..... II

1802

## POTASSIUM BROMATE, CERTIFIED REFERENCE STANDARD, UNIPURE

Assay (Iodom.) (dried at 130°C) ..... 99.95 – 100.05%  
pH (5% Soln) ..... 5.0 – 9.0

**Maximum limit of impurities (%)**

Insoluble matter in H<sub>2</sub>O ..... 0.005  
Nitrogen Compounds (as N) ..... 0.001  
Br ..... 0.02  
SO<sub>4</sub> ..... 0.005  
Heavy Metals (as Pb) ..... 0.0005  
Ca ..... 0.005  
Cd ..... 0.0005  
Co ..... 0.0005

Cu ..... 0.0005  
Fe ..... 0.0005  
Mg ..... 0.001  
Mn ..... 0.0005  
Na ..... 0.01  
Ni ..... 0.0005  
Pb ..... 0.0005  
Zn ..... 0.0005

**Pack Size:** 100g

378

## POTASSIUM BROMATE, UNIVAR

Description: white crystalline powder.

Assay ..... 99.8% min.  
pH (5% soln. @ 25°C) ..... 5.0 – 9.0

**Maximum limit of impurities (%)**

Insol. .... 0.005  
Br ..... To pass test  
N cpds (as N) ..... 0.001  
SO<sub>4</sub> ..... 0.005  
Fe ..... 0.002  
H.M. (as Pb) ..... 0.0005  
Na ..... 0.01  
Cl ..... 0.05  
L.O.D. .... 0.1

Chemical and physical parameters conform to FCC  
Conforms to ACS

**Pack Size:** 500g

353

## POTASSIUM BROMATE, UNILAB

Assay ..... 99.0% min.

**Maximum limit of impurities (%)**

Bromide ..... 0.05  
SO<sub>4</sub> ..... 0.005  
H.M (as Pb) ..... 0.002  
Fe ..... 0.002

**Pack Size:** 500g

## POTASSIUM BROMIDE

CAS 7758-02-3

KBr = 119.00

379

## POTASSIUM BROMIDE, UNIVAR

Description: colourless crystals or crystalline powder.

Assay ..... 99.0% min.

pH (5% soln. @ 25°C) ..... 5.8 – 8.8

**Maximum limit of impurities****(%)**

|                        |        |
|------------------------|--------|
| Insol. ....            | 0.005  |
| BrO <sub>3</sub> ..... | 0.001  |
| Cl .....               | 0.2    |
| I .....                | 0.001  |
| N cpds (as N) .....    | 0.005  |
| SO <sub>4</sub> .....  | 0.005  |
| Ba .....               | 0.002  |
| Fe .....               | 0.0005 |

|                       |        |
|-----------------------|--------|
| Na .....              | 0.02   |
| Ca .....              | 0.002  |
| Mg .....              | 0.001  |
| IO <sub>3</sub> ..... | 0.001  |
| Ca .....              | 0.002  |
| Mg .....              | 0.001  |
| H.M (as Pb) .....     | 0.0005 |

Conforms to ACS

Pack Size: 500g

354

## POTASSIUM BROMIDE, UNILAB

Description: colourless crystals or a white, crystalline powder; odourless.

Assay (after drying) ..... 98.0 - 100.5%

**Maximum limit of impurities****(%)**

|                                  |              |
|----------------------------------|--------------|
| Clarity and colour of soln. .... | To pass test |
| L.O.D. ....                      | 1.0          |
| Acidity or alkalinity .....      | To pass test |
| BrO <sub>3</sub> .....           | To pass test |
| I .....                          | To pass test |
| SO <sub>4</sub> .....            | 0.01         |

|                                     |              |
|-------------------------------------|--------------|
| Ba .....                            | To pass test |
| H.M.(as Pb) .....                   | 0.001        |
| Fe .....                            | 0.002        |
| Mg & alk-earth metals (as Ca) ..... | 0.02         |
| Cl .....                            | 0.6          |

Chemical and physical parameters conform to BP

Pack Size: 500g



## POTASSIUM CARBONATE

CAS 584-08-7  
 $K_2CO_3 = 138.21$

380

## POTASSIUM CARBONATE, anhydrous, UNIVAR

Description: white powder.  
 Assay(after drying @ 285°C) ..... 99.5 – 100.5%

| <i>Maximum limit of impurities</i>              | <i>(%)</i>   |                              |      |
|-------------------------------------------------|--------------|------------------------------|------|
| Insol. ....                                     | To pass test | NH <sub>4</sub> OH ppt. .... | 0.01 |
| L.O.D. (@ 285°C) ....                           | 1.0          | Ca&Mg ppt. ....              | 0.01 |
| Cl ..... 0.003                                  |              | As ..... 0.0001              |      |
| N cpds (as N) ..... 0.001                       |              | Pb ..... 0.001               |      |
| PO <sub>4</sub> ..... 0.001                     |              | Fe ..... 0.0005              |      |
| SiO <sub>2</sub> ..... 0.005                    |              | H.M. (as Pb) ..... 0.0005    |      |
| S cpds (as SO <sub>4</sub> ) ..... 0.004        |              | Na ..... 0.02                |      |
| Chemical and physical parameters conform to FCC |              |                              |      |
| Conforms to ACS                                 |              |                              |      |

Pack Size: 500g

381

## POTASSIUM CARBONATE, anhydrous, UNILAB

Assay(after drying @ 285°C) ..... 99.0% min.

| <i>Maximum limit of impurities</i> | <i>(%)</i> |
|------------------------------------|------------|
| L.O.D. (@ 285 °C) ....             | 2.5        |
| Cl ..... 0.03                      |            |
| SO <sub>4</sub> ..... 0.02         |            |
| Fe ..... 0.001                     |            |

Pack Size: 500g, 5kg, 25kg

## POTASSIUM CHLORATE

CAS 3811-04-9  
 $KClO_3 = 122.55$

U.N Number ..... 1485  
 ADG Class ..... 5.1  
 Packing Group ..... II



382

## POTASSIUM CHLORATE, UNIVAR

Description: colourless crystals.  
 Assay ..... 99.5% min.

| <i>Maximum limit of impurities</i> | <i>(%)</i> |
|------------------------------------|------------|
| Insol. ....                        | 0.005      |
| BrO <sub>3</sub> ..... 0.015       |            |
| Cl ..... 0.001                     |            |
| N cpds (as N) ..... 0.001          |            |
| SO <sub>4</sub> ..... 0.002        |            |
| Ca ..... 0.002                     |            |
| Mg ..... 0.002                     |            |
| Fe ..... 0.0003                    |            |
| H.M. (as Pb) ..... 0.0005          |            |
| Na ..... 0.01                      |            |
| Conforms to ACS                    |            |

Pack Size: 500g, 5kg, 25kg

1172

**POTASSIUM CHLORATE, UNILAB**

Assay ..... 99.0% min.

| <b>Maximum limit of impurities</b> | <b>(%)</b> |
|------------------------------------|------------|
| Cl .....                           | 0.04       |
| SO <sub>4</sub> .....              | 0.06       |
| H.M. (as Pb) .....                 | 0.001      |

**Pack Size:** 500g, 5kg

1390

**POTASSIUM CHLORATE, TECHNICAL****Pack Size:** 500g**POTASSIUM CHLORIDE****CAS** 7447-40-7

KCl = 74.55

383

**POTASSIUM CHLORIDE, UNIVAR**

Description: colourless crystals or crystalline powder.

Assay (after ignition @ 500°C) ..... 99.8% min.

| <b>Maximum limit of impurities</b>                                  | <b>(%)</b> |                                       |
|---------------------------------------------------------------------|------------|---------------------------------------|
| Insol. ....                                                         | 0.005      | Ca .....0.001                         |
| Br .....0.01                                                        |            | Mg .....0.001                         |
| ClO <sub>3</sub> & NO <sub>3</sub> (as NO <sub>3</sub> ) .....0.003 |            | H.M.(as Pb) .....0.0005               |
| I .....0.002                                                        |            | Fe .....0.0002                        |
| N cpds (as N) .....0.001                                            |            | Cu .....0.0002                        |
| PO <sub>4</sub> .....0.0005                                         |            | Pb .....0.0002                        |
| SO <sub>4</sub> .....0.001                                          |            | Na .....0.005                         |
| Ba .....0.001                                                       |            | pH of 5% Solution 25°C..... 5.4 – 8.6 |

Conforms to ACS

**Pack Size:** 500g, 2kg, 5kg, 25kg

384

**POTASSIUM CHLORIDE, UNILAB**

Description: colourless crystals or a white crystalline powder; odourless.

Assay(dried substance) ..... 99.0 - 100.5%

| <b>Maximum limit of impurities</b>         | <b>(%)</b>   |
|--------------------------------------------|--------------|
| Clarity & colour of soln. ....             | To pass test |
| Acidity or alkalinity .....                | To pass test |
| L.O.D.@ 105 °C .....                       | 1.0          |
| I .....0.0300                              | To pass test |
| SO <sub>4</sub> .....0.0300                |              |
| Ba .....0.0010                             | To pass test |
| H.M.(as Pb) .....0.0010                    |              |
| Fe .....0.0020                             |              |
| Mg & alk.-earth metals (as Ca) .....0.0200 |              |
| Br .....0.1                                |              |

Chemical and physical parameters conform to BP

**Pack Size:** 500g, 5kg, 25kg

943

**POTASSIUM CHLORIDE, LABCHEM**

Assay ..... 98.6% min.

**Maximum limit of impurities (%)**

|                       |      |
|-----------------------|------|
| Br .....              | 0.2  |
| SO <sub>4</sub> ..... | 0.01 |
| Ca .....              | 0.02 |
| NaCl .....            | 1.0  |
| Insol. ....           | 0.05 |

**Pack Size:** 500g

1391

**POTASSIUM CHLORIDE, Technical**

Assay ..... 98.0% min.

**Pack Size:** 500g

970

**POTASSIUM CHLORIDE 3.0 M SOLUTION, LABCHEM**

Description: Clear colourless liquid

Concentration ..... 2.9 – 3.1 mol/L

Filling solution for potentiometer electrodes

Store between 15°C and 25°C

**Pack size:** 250mL**POTASSIUM CHROMATE**

CAS 7789-00-6

K<sub>2</sub>CrO<sub>4</sub> = 194.19

U.N Number ..... 3288

ADG Class ..... 6.1

Packing Group ..... II

385

**POTASSIUM CHROMATE, UNIVAR**

Description: bright yellow crystalline powder.

Assay ..... 99.5% min.

pH (5% soln. @ 25°C) ..... 8.6 – 9.8

**Maximum limit of impurities (%)**

|                       |       |
|-----------------------|-------|
| Insol. ....           | 0.005 |
| Cl .....              | 0.001 |
| SO <sub>4</sub> ..... | 0.005 |
| Ca .....              | 0.005 |
| Na .....              | 0.02  |

Conforms to ACS

**Pack Size:** 500g

1173

**POTASSIUM CHROMATE, UNILAB**

Assay ..... 99.0% min.

**Maximum limit of impurities (%)**

|                       |      |
|-----------------------|------|
| Cl .....              | 0.05 |
| SO <sub>4</sub> ..... | 0.2  |

**Pack Size:** 500g

1174

**POTASSIUM CHROMATE, TECHNICAL**

Assay ..... about 98%

**Pack Size:** 500g**POTASSIUM CITRATE** (see tri-Potassium Citrate page 298)**tri-POTASSIUM CITRATE****CAS** 866-84-2**Synonyms:** Potassium Citrate $K_3C_6H_5O_7 \cdot H_2O = 324.42$ 

386

**tri-POTASSIUM CITRATE, UNIVAR**

Description: colourless crystals or crystalline powder. Hygroscopic.

Assay ..... 99.0% min.

pH (5% soln.) ..... 8.0 – 9.0

**Maximum limit of impurities****(%)**

|                                     |         |
|-------------------------------------|---------|
| Insol. ....                         | 0.003   |
| Cl ..... ..                         | 0.001   |
| C <sub>2</sub> O <sub>4</sub> ..... | 0.01    |
| SO <sub>4</sub> .....               | 0.005   |
| As ..... ..                         | 0.00004 |
| Cu ..... ..                         | 0.00005 |

|                                 |              |
|---------------------------------|--------------|
| Fe ..... ..                     | 0.001        |
| Na ..... ..                     | 0.1          |
| NH <sub>4</sub> .....           | 0.001        |
| Pb ..... ..                     | 0.0005       |
| Readily carbonisable subs. .... | To pass test |
| Red. subs. ....                 | To pass test |

**Pack Size:** 500g

1175

**tri-POTASSIUM CITRATE, UNILAB**

Description: transparent crystals or a white granular powder; odourless; hygroscopic.

Assay (C<sub>6</sub>H<sub>5</sub>K<sub>3</sub>O<sub>7</sub>) ..... 99.0 - 101.0%H<sub>2</sub>O ..... 4.0 – 7.0%**Maximum limit of impurities****(%)**

|                                     |              |
|-------------------------------------|--------------|
| Clarity and colour of soln. ....    | To pass test |
| Acidity or alkalinity .....         | 2.0          |
| Cl ..... ..                         | 0.0050       |
| SO <sub>4</sub> .....               | 0.0150       |
| H.M. (as Pb) .....                  | 0.0010       |
| C <sub>2</sub> O <sub>4</sub> ..... | 0.0300       |
| Readily carbonisable subs. ....     | To pass test |
| Na ..... ..                         | 0.3          |

Chemical and physical parameters conform to BP

**Pack Size:** 500g, 5kg**POTASSIUM CUPRI-TARTRATE SOLUTION** (see Fehling's Solution No. 1 page 175)



2494

**POTASSIUM CYANIDE**

CAS 151-50-8  
KCN = 65.12

U.N Number ..... 1680  
ADG Class ..... 6.1  
Packing Group ..... I

**POTASSIUM CYANIDE, UNIVAR**

Description: colourless crystals or crystalline powder.  
Assay ..... 96.0% min.

| <i>Maximum limit of impurities</i> | <i>(%)</i> |                       |        |
|------------------------------------|------------|-----------------------|--------|
| Cl .....                           | 0.5        | SO <sub>4</sub> ..... | 0.04   |
| PO <sub>4</sub> .....              | 0.005      | Fe .....              | 0.03   |
| S .....                            | 0.003      | Na .....              | 0.5    |
| SCN .....                          | 0.02       | Pb .....              | 0.0002 |

Conforms to ACS

Have pure breathing oxygen available  
Refer MSDS

**Pack Size:** 250g, 5kg

819

**POTASSIUM CYANIDE, UNILAB**

Assay ..... 96.0% min.

| <i>Maximum limit of impurities</i> | <i>(%)</i> |
|------------------------------------|------------|
| SO <sub>4</sub> .....              | 0.05       |
| H.M. (as Pb) .....                 | 0.002      |
| Na .....                           | 1.0        |
| Pb .....                           | 0.002      |
| Fe .....                           | 0.03       |
| Cl .....                           | 0.5        |

Have pure breathing oxygen available.  
Refer MSDS

**Pack Size:** 250g, 5kg

**POTASSIUM DICHROMATE**

1803

CAS 7778-50-9  
**Synonyms:** Potassium Bichromate  
K<sub>2</sub>Cr<sub>2</sub>O<sub>7</sub> = 294.18

U.N Number ..... 3288  
ADG Class ..... 6.1  
Packing Group ..... III

**POTASSIUM DICHROMATE, CERTIFIED REFERENCE STANDARD, UNIPURE**

Assay (Iodom.) (dried at 130°C) ..... 99.95 – 100.05%  
pH (5% Soln) ..... 3.7 – 3.9

| <i>Maximum limit of impurities</i>         | <i>(%)</i>   |          |        |
|--------------------------------------------|--------------|----------|--------|
| Insoluble matter in H <sub>2</sub> O ..... | 0.003        | Cu ..... | 0.001  |
| Suitability to COD determination .....     | To pass test | Fe ..... | 0.001  |
| (according to UNE 77-004-89)               |              | Mg ..... | 0.0005 |
| Cl .....                                   | 0.001        | Mn ..... | 0.0005 |
| SO <sub>4</sub> .....                      | 0.01         | Na ..... | 0.02   |
| Ca .....                                   | 0.002        | Ni ..... | 0.0005 |
| Cd .....                                   | 0.0005       | Pb ..... | 0.001  |
| Co .....                                   | 0.0005       | Zn ..... | 0.0005 |

**Pack Size:** 100g

388

**POTASSIUM DICHROMATE, UNIVAR**

Description: orange-red crystals or crystalline powder.

Assay ..... 99.8% min.

**Maximum limit of impurities****(%)**Insol. & NH<sub>4</sub>OH ppt. .... 0.005

L.O.D. (105°C) ..... 0.05

Cl ..... 0.001

SO<sub>4</sub> ..... 0.005

Ca ..... 0.002

Na ..... 0.01

Cu ..... 0.001

Fe ..... 0.001

Pb ..... 0.005

Conforms to ACS

**Pack Size:** 500g, 5kg

389

**POTASSIUM DICHROMATE, UNILAB**

Assay ..... 99.0% min.

**Maximum limit of impurities****(%)**

Cl ..... 0.005

SO<sub>4</sub> ..... 0.02

Na ..... 0.5

Ca ..... 0.005

**Pack Size:** 500g, 5kg

390

**POTASSIUM DICHROMATE, TECHNICAL****Pack Size:** 500g, 3kg

1359

**POTASSIUM DICHROMATE 1/60 MOL CONCENTRATE, AMPOULES, OP**

Description: plastic ampoule containing clear yellow-reddish liquid

1/60 mole (4.903g K<sub>2</sub>Cr<sub>2</sub>O<sub>7</sub>) to prepare 1L of 0.1N solution

Titer ..... 0.998 – 1.002

U.N Number ..... 3287

ADG Class ..... 6.1

Packing Group ..... III

**Pack size:** Ampoule**POTASSIUM DIHYDROGEN ORTHOPHOSPHATE****CAS** 7778-77-0**Synonyms:** Potassium Phosphate, monobasic, Potassium Biphosphate, monobasicKH<sub>2</sub>PO<sub>4</sub> = 136.09

391

**POTASSIUM DIHYDROGEN ORTHOPHOSPHATE, UNIVAR**

Description: white crystalline powder.

Assay ..... 99.0 - 101.0%

pH (5% soln. @ 25°C) ..... 4.2 – 4.5

**Maximum limit of impurities****(%)**Insol. Ca & NH<sub>4</sub>OH ppt. .... 0.01

L.O.D. (@ 130 °C) ..... 0.2

Cl ..... 0.001

F ..... 0.001

H.M.(as Pb) ..... 0.001

N cpds (as N) ..... 0.005

SO<sub>4</sub> ..... 0.003

Fe ..... 0.002

Mg ..... 0.002

Ca ..... 0.01

Na ..... 0.01

Cu ..... 0.0005

Pb ..... 0.0005

As ..... 0.0002

Reducing substances ..... To pass test

Appearance of solution ..... To pass test

Chemical and physical parameters conform to FCC and EP

**Pack Size:** 500g, 2kg, 5kg, 25kg

392

**POTASSIUM DIHYDROGEN ORTHOPHOSPHATE, UNILAB**

pH (5% soln. @ 25°C) ..... about 4.4  
 Assay(after drying) ..... 99.0% min.

**Maximum limit of impurities (%)**

L.O.D. (over H<sub>2</sub>SO<sub>4</sub>) ..... 0.5  
 Cl ..... 0.02  
 SO<sub>4</sub> ..... 0.05

**Pack Size:** 500g, 5kg, 25kg

**POTASSIUM DISULPHATE** (see Potassium Pyrosulphate page 315)**POTASSIUM FERRICYANIDE**

**CAS** 13746-66-2

**Synonyms:** Potassium Hexacyanoferrate(III)

K<sub>3</sub>Fe(CN)<sub>6</sub> = 329.25

393

**POTASSIUM FERRICYANIDE, UNIVAR**

Description: red crystals.

Assay ..... 99.0% min.

**Maximum limit of impurities (%)**

|                       |        |          |       |
|-----------------------|--------|----------|-------|
| Insol.....            | 0.005  | Co ..... | 0.005 |
| Cl .....              | 0.01   | Cu ..... | 0.001 |
| SO <sub>4</sub> ..... | 0.01   | Na ..... | 0.02  |
| Ferrocyanide.....     | 0.05   | Ni ..... | 0.001 |
| Ca .....              | 0.0005 | Pb ..... | 0.002 |
| Cd .....              | 0.002  | Zn ..... | 0.002 |

Conforms to ACS

**Pack Size:** 100g, 500g, 20kg

394

**POTASSIUM FERRICYANIDE, UNILAB**

Assay ..... 99.0% min.

**Maximum limit of impurities (%)**

Ferrocyanide ..... 0.1  
 Cl ..... 0.1  
 SO<sub>4</sub> ..... 0.05

**Pack Size:** 500g, 5kg

1176

**POTASSIUM FERRICYANIDE, TECHNICAL**

**Pack Size:** 500g

## POTASSIUM FERROCYANIDE

CAS 13943-58-3

Synonyms: Potassium Hexacyanoferrate(II)-3-hydrate

 $K_4Fe(CN)_6 \cdot 3H_2O = 422.39$ 

395

## POTASSIUM FERROCYANIDE, UNIVAR

Description: yellow crystals or crystalline powder.

Assay ..... 98.5 – 102.0%

| <i>Maximum limit of impurities</i> | <i>(%)</i> |
|------------------------------------|------------|
| Insol. ....                        | 0.005      |
| Cl .....                           | 0.01       |
| SO <sub>4</sub> .....              | 0.005      |
| Pb .....                           | 0.002      |
| Cd .....                           | 0.0005     |
| Cu .....                           | 0.002      |
| Na .....                           | 0.02       |

Conforms to ACS

Pack Size: 500g, 5kg

1177

## POTASSIUM FERROCYANIDE, UNILAB

Assay ..... 99.0% min.

| <i>Maximum limit of impurities</i> | <i>(%)</i> |
|------------------------------------|------------|
| Cl .....                           | 0.05       |
| SO <sub>4</sub> .....              | 0.05       |

Pack Size: 500g, 5Kg

1079

## POTASSIUM FLUORIDE, UNILAB

CAS 7789-23-3

KF = 58.10

Assay ..... 99% min.

| <i>Maximum limit of impurities</i> | <i>(%)</i> |
|------------------------------------|------------|
| L.O.I (500° C, 15min) .....        | 0.5        |
| Fe .....                           | 0.005      |
| Cl .....                           | 0.01       |
| SO <sub>4</sub> .....              | 0.05       |

Pack Size: 500g, 5kg, 10kg

U.N Number ..... 1812

ADG Class ..... 6.1

Packing Group ..... III



POTASSIUM HEXACYANOFERRATE(III) (see Potassium Ferricyanide page 301)

POTASSIUM HEXACYANOFERRATE(II)-3-HYDRATE (see Potassium Ferrocyanide page 302)



## POTASSIUM HYDROGEN CARBONATE

CAS 298-14-6

**Synonyms:** Potassium BicarbonateKHCO<sub>3</sub> = 100.12

397

## POTASSIUM HYDROGEN CARBONATE, UNIVAR

Description: white powder.

Assay ..... 99.7 – 101.0%

**Maximum limit of impurities****(%)**

|                                    |        |                       |        |
|------------------------------------|--------|-----------------------|--------|
| Insol. ....                        | 0.01   | Fe .....              | 0.0005 |
| Cl .....                           | 0.001  | H.M. (as Pb) .....    | 0.0005 |
| PO <sub>4</sub> .....              | 0.0005 | Na .....              | 0.03   |
| S cpds (as SO <sub>4</sub> ) ..... | 0.003  | NH <sub>4</sub> ..... | 0.0005 |
| Ca .....                           | 0.002  | As .....              | 0.0003 |
| Mg .....                           | 0.001  |                       |        |

**Pack Size:** 500g, 5kg

1178

## POTASSIUM HYDROGEN CARBONATE, UNILAB

Assay ..... 99.0% min.

pH (1% soln.) ..... 9.6 max.

**Maximum limit of impurities****(%)**

|                                         |       |
|-----------------------------------------|-------|
| Cl .....                                | 0.01  |
| Ca .....                                | 0.05  |
| Mg .....                                | 0.05  |
| R <sub>2</sub> O <sub>3</sub> ppt. .... | 0.05  |
| H.M. (as Pb) .....                      | 0.001 |

**Pack Size:** 500g

1804

## POTASSIUM HYDROGEN DI IODATE, CERTIFIED REFERENCE STANDARD, UNIPURE



CAS 13455-24-8

KH(IO<sub>3</sub>)<sub>2</sub> = 389.92

Assay (Acidim.) (dried at 105°C) ..... 99.95 – 100.05%

Assay (Iodom.) (dried at 105°C) ..... 99.9 – 100.1%

U.N Number ..... 1479

ADG Class ..... 5.1

Packing Group ..... III

**Maximum limit of impurities****(%)**

|                                                            |        |          |        |
|------------------------------------------------------------|--------|----------|--------|
| Insoluble matter in H <sub>2</sub> O .....                 | 0.005  | Cr ..... | 0.0005 |
| Nitrogen cpds (as N) .....                                 | 0.002  | Cu ..... | 0.0005 |
| BrO <sub>3</sub> , Br, ClO <sub>3</sub> , Cl (as Cl) ..... | 0.02   | Fe ..... | 0.001  |
| SO <sub>4</sub> .....                                      | 0.005  | Mg ..... | 0.0005 |
| I .....                                                    | 0.001  | Mn ..... | 0.0005 |
| H.M. (as Pb) .....                                         | 0.001  | Na ..... | 0.005  |
| Ca .....                                                   | 0.002  | Ni ..... | 0.0005 |
| Cd .....                                                   | 0.0005 | Pb ..... | 0.0005 |
| Co .....                                                   | 0.0005 | Zn ..... | 0.0005 |

**Pack Size:** 100g

**di-POTASSIUM HYDROGEN ORTHOPHOSPHATE**

CAS 7758-11-4

**Synonyms:** Potassium Phosphate, dibasic $K_2HPO_4 = 174.18$ **2221****di-POTASSIUM HYDROGEN ORTHOPHOSPHATE, UNIVAR**

Description: white powder.

Assay(after drying) ..... 99.0 - 101.0%

pH (5% soln. @ 25°C) ..... 8.5 – 9.6

**Maximum limit of impurities**

|                       | (%)    |
|-----------------------|--------|
| Insol. ....           | 0.01   |
| L.O.D. ....           | 1.0    |
| Cl ..... ..           | 0.003  |
| N cpds (as N) .....   | 0.001  |
| F ..... ..            | 0.001  |
| SO <sub>4</sub> ..... | 0.005  |
| Ca ..... ..           | 0.005  |
| Fe ..... ..           | 0.0005 |

|                      |              |
|----------------------|--------------|
| Cu..... ..           | 0.0005       |
| Pb ..... ..          | 0.0005       |
| Mg ..... ..          | 0.0005       |
| H.M.(as Pb) .....    | 0.0005       |
| Na ..... ..          | 0.05         |
| As ..... ..          | 0.0003       |
| Identification ..... | To pass test |

Chemical and physical parameters conform to FCC

Conforms to ACS

**Pack Size:** 500g, 5kg, 25kg**398****di-POTASSIUM HYDROGEN ORTHOPHOSPHATE, UNILAB**

pH(5% soln.) ..... about 8.8

Assay(after drying) ..... 99.0% min.

**Maximum limit of impurities**

|                       | (%)   |
|-----------------------|-------|
| L.O.D. ....           | 2.5   |
| Cl ..... ..           | 0.01  |
| SO <sub>4</sub> ..... | 0.05  |
| H.M.(as Pb) .....     | 0.005 |
| Fe ..... ..           | 0.005 |

**Pack Size:** 500g, 5kg, 25kg**POTASSIUM HYDROGEN PHTHALATE**

CAS 877-24-7

**Synonyms:** Potassium Biphthalate $KOOC_6H_4COOH = 204.22$ **1805****POTASSIUM HYDROGEN PHTHALATE, CERTIFIED REFERENCE STANDARD, UNIPURE**

Assay (Acidim) (dried at 105°C) ..... 99.95 – 100.05%

Identity ..... IR to pass test

pH sol. 0.05mol/L to 25±0.2°C ..... 4.00 – 4.02

**Maximum limit of impurities**

|                                            | (%)    |
|--------------------------------------------|--------|
| Insoluble matter in H <sub>2</sub> O ..... | 0.003  |
| Chloride cpds (as Cl) .....                | 0.003  |
| Nitrogen cpds (as N) .....                 | 0.001  |
| Sulphur cpds (as S) .....                  | 0.002  |
| Cl ..... ..                                | 0.002  |
| H.M. (as Pb) .....                         | 0.0005 |
| Ca ..... ..                                | 0.001  |
| Cd ..... ..                                | 0.0005 |
| Co ..... ..                                | 0.0005 |

|             |        |
|-------------|--------|
| Cr ..... .. | 0.001  |
| Cu ..... .. | 0.0005 |
| Fe ..... .. | 0.0005 |
| Mg ..... .. | 0.001  |
| Mn ..... .. | 0.0005 |
| Na ..... .. | 0.005  |
| Ni ..... .. | 0.0005 |
| Pb ..... .. | 0.0005 |
| Zn ..... .. | 0.0005 |

**Pack Size:** 100g

399

**POTASSIUM HYDROGEN PHTHALATE, UNIVAR**

Description: colourless crystals or crystalline powder.

pH(0.05M @25°C) ..... 4.00 - 4.02

Assay(after drying @ 120°C) ..... 99.8 – 100.2%

| <b>Maximum limit of impurities</b> | <b>(%)</b> |
|------------------------------------|------------|
| Insol. ....                        | 0.005      |
| Cl ..... 0.003                     |            |
| S ..... 0.002                      |            |
| Fe ..... 0.0005                    |            |
| H.M. (as Pb) ..... 0.0005          |            |
| Na ..... 0.005                     |            |

**Pack Size:** 100g, 500g, 10kg

1181

**POTASSIUM HYDROGEN PHTHALATE, UNILAB**

pH (0.05M @25°C) ..... about 4.0

Assay ..... 99.5% min.

| <b>Maximum limit of impurities</b> | <b>(%)</b> |
|------------------------------------|------------|
| Cl ..... 0.01                      |            |
| SO <sub>4</sub> ..... 0.06         |            |

**Pack Size:** 500g, 5kg**POTASSIUM HYDROGEN SULPHATE****CAS** 7646-93-7**Synonyms:** Potassium BisulphateKHSO<sub>4</sub> = 136.17

U.N Number ..... 2059

ADG Class ..... 8

Packing Group ..... II

400

**POTASSIUM HYDROGEN SULPHATE, UNIVAR**

Description: colourless crystals.

Assay ..... 99.0 - 102.0%

| <b>Maximum limit of impurities</b> | <b>(%)</b> |
|------------------------------------|------------|
| Insol. .... 0.01                   |            |
| Cl ..... 0.002                     |            |
| PO <sub>4</sub> ..... 0.001        |            |
| As ..... 0.0005                    |            |
| Ca ..... 0.005                     |            |
| Fe ..... 0.002                     |            |
| H.M. (as Pb) ..... 0.001           |            |
| Na ..... 0.01                      |            |
| H <sub>2</sub> O ..... 2.5         |            |

**Pack Size:** 500g, 5kg

401

**POTASSIUM HYDROGEN SULPHATE, UNILAB**

Assay ..... 98.0% min.

| <b>Maximum limit of impurities</b> | <b>(%)</b> |
|------------------------------------|------------|
| Cl ..... 0.02                      |            |
| H.M.(as Pb) ..... 0.005            |            |
| Fe ..... 0.005                     |            |

**Pack Size:** 500g

## POTASSIUM HYDROGEN TARTRATE

CAS 868-14-4

**Synonyms:** Cream of Tartar, Potassium Bi-Tartrate, Potassium Tartrate acid $\text{KHC}_4\text{H}_4\text{O}_6 = 188.18$ 

Description: white crystalline powder.

402

## POTASSIUM HYDROGEN TARTRATE, UNIVAR

Assay(after drying @ 110°C) ..... 99.5% min.  
 pH (0.5% soln. @ 25°C) ..... 3.5 – 3.8

| <b>Maximum limit of impurities</b>         |        | <b>(%)</b>                        |       |
|--------------------------------------------|--------|-----------------------------------|-------|
| Insoluble matter in H <sub>2</sub> O ..... | 0.01   | Pb .....                          | 0.001 |
| L.O.D. (@110°C) .....                      | 0.05   | Ni .....                          | 0.001 |
| Cl .....                                   | 0.001  | Ca .....                          | 0.005 |
| SO <sub>4</sub> .....                      | 0.01   | Cu .....                          | 0.001 |
| As .....                                   | 0.0001 | HM (as Pb) .....                  | 0.001 |
| Fe .....                                   | 0.001  | Ammonium (NH <sub>4</sub> ) ..... | 0.005 |

**Pack Size:** 500g

403

## POTASSIUM HYDROGEN TARTRATE, UNILAB

Assay (after drying @ 110°C) ..... 99.0% min.  
 pH (0.5% soln. @ 25°C) ..... 3.5 – 4.0

| <b>Maximum limit of impurities (%)</b> |       |
|----------------------------------------|-------|
| L.O.D. (@110°C) .....                  | 1.0   |
| Cl .....                               | 0.01  |
| SO <sub>4</sub> .....                  | 0.02  |
| Pb .....                               | 0.005 |

**Pack Size:** 500g

## POTASSIUM HYDROXIDE



CAS 1310-58-3

**Synonyms:** Caustic Potash

KOH = 56.11

U.N Number ..... 1813  
 ADG Class ..... 8  
 Packing Group ..... II

405

## POTASSIUM HYDROXIDE, pellets, UNIVAR

Description: white or grey, deliquescent pellets.  
 Assay ..... 85.0% min.

| Maximum limit of impurities          |        | (%) |                       |        |
|--------------------------------------|--------|-----|-----------------------|--------|
| K <sub>2</sub> CO <sub>3</sub> ..... | 2.0    |     | Fe.....               | 0.0005 |
| Cl.....                              | 0.01   |     | Pb.....               | 0.0005 |
| N cpds (as N).. .....                | 0.001  |     | Ni .....              | 0.0005 |
| Na.. .....                           | 0.05   |     | PO <sub>4</sub> ..... | 0.0005 |
| SO <sub>4</sub> .....                | 0.003  |     | H.M. (as Ag).....     | 0.001  |
| NH <sub>4</sub> OH ppt. ..           | 0.02   |     | Al.....               | 0.001  |
| Cu. ....                             | 0.0005 |     | Ca.....               | 0.001  |

Conforms to ACS

**Pack Size:** 500g, 1kg, 2.5kg, 5kg, 20kg

406

**POTASSIUM HYDROXIDE, pellets, UNILAB**

Description: white sticks, pellets or fused masses; dry, hard, brittle and showing a crystalline fracture; very deliquescent. Strongly alkaline and corrosive. Rapidly absorbs carbon dioxide.

Assay ..... 85.0 - 100.5%

**Maximum limit of impurities****(%)**

Appearance of solution ..... To pass test

K<sub>2</sub>CO<sub>3</sub> ..... 2.0

Cl ..... 0.005

Phosphate ..... 0.002

Sulphate ..... 0.005

H.M. (as Pb) ..... 0.001

Fe ..... 0.001

Na. .... 1.0

Chemical and physical parameters conform to BP

**Pack Size:** 500g, 2.5kg, 20kg

1072

**POTASSIUM HYDROXIDE, flake, UNILAB**

Description: white deliquescent flakes.

Assay ..... 90.0% min.

**Maximum limit of impurities****(%)**

K<sub>2</sub>CO<sub>3</sub> ..... 2.5

Cl ..... 0.05

SO<sub>4</sub> ..... 0.01

Fe ..... 0.001

H.M. (as Pb) ..... 0.005

**Pack Size:** 25kg

705

**POTASSIUM HYDROXIDE 0.100M in Methanol, UNIVOL**

Non-aqueous titrant for volumetric analysis of weak acids etc.

Molarity ..... 0.0995 - 0.1005mol/L

U.N Number ..... 1992

ADG Class ..... 3

Subsidiary Risk ..... 6.1

Packing Group ..... III



**Pack Size:** 1L, 6 x1L, 2.5L, 20L

1378

**POTASSIUM HYDROXIDE 0.1 MOL CONCENTRATE, AMPOULE, OP**

Description: plastic ampoule containing clear colourless liquid

0.1 mole (5.611g KOH) to prepare 1L of 0.1N solution

Titer ..... 1.000 ± 0.002

U.N Number ..... 1814

ADG Class ..... 8

Packing Group ..... II

**Pack size:** Ampoule

1365

**POTASSIUM HYDROXIDE 0.5 MOL CONCENTRATE, AMPOULE, OP**

Description: plastic ampoule containing clear colourless liquid

0.5 mole (28.054g KOH) to prepare 1L of 0.5N solution

Titer ..... 1.000 ± 0.002

U.N Number ..... 1814

ADG Class ..... 8

Packing Group ..... II

**Pack size:** Ampoule

1382

**POTASSIUM HYDROXIDE 1.0 MOL CONCENTRATE, AMPOULE, OP**

Description: plastic ampoule containing clear colourless liquid  
1 mole (56.109g KOH) to prepare 1L of 1N solution  
Titer ..... 1.000 ± 0.002

U.N Number ..... 1814  
ADG Class ..... 8  
Packing Group ..... II

**Pack size:** Ampoule

1183

**POTASSIUM HYDROXIDE FLAKE 90-92 %, TECHNICAL**

CAS 1310-58-3

U.N Number ..... 1813  
ADG Class ..... 8  
Packing Group ..... II

**Pack Size:** 500 g

**POTASSIUM IODATE**

CAS 7758-05-6  
KIO<sub>3</sub> = 214.00

U.N Number ..... 1479  
ADG Class ..... 5.1  
Packing Group ..... II

1806

**POTASSIUM IODATE, CERTIFIED REFERENCE STANDARD, UNIPURE**

Assay (Iodom.) (dried at 130°C) ..... 99.95 – 100.05%  
pH (5% Soln) ..... 5.0 – 8.0

**Maximum limit of impurities (%)**  
Insoluble matter in H<sub>2</sub>O ..... 0.005  
Co. .... 0.0005  
Nitrogen Compounds (as N) ..... 0.002  
Cu. .... 0.0005  
Bromide and Chloride (as Cl) ..... 0.01  
Fe ..... 0.001  
SO<sub>4</sub> ..... 0.005  
Mg ..... 0.001  
I ..... 0.001

Mn ..... 0.0005  
H.M. (as Pb) ..... 0.0005  
Na. .... 0.005  
As ..... 0.0001  
Ni ..... 0.0005  
Ca. .... 0.001  
Pb. .... 0.0005  
Cd. .... 0.0005  
Zn. .... 0.0005

**Pack Size:** 100g

407

**POTASSIUM IODATE, UNIVAR**

Description: white crystalline powder.  
Assay ..... 99.4 - 100.4%  
pH (5% soln. @ 25°C) ..... 5.0 – 8.0

**Maximum limit of impurities (%)**  
Insol. .... 0.005  
Fe ..... 0.001  
Cl & Br (as Cl) ..... 0.01  
H.M. (as Pb) ..... 0.0005  
I ..... 0.001  
Na. .... 0.005  
N cpds (as N) ..... 0.005  
SO<sub>4</sub> ..... 0.005

Conforms to ACS

**Pack Size:** 500g, 5kg

408

**POTASSIUM IODATE, UNILAB**

Assay ..... 99.5% min.

**Maximum limit of impurities (%)**

|                       |      |
|-----------------------|------|
| Cl .....              | 0.1  |
| I .....               | 0.05 |
| SO <sub>4</sub> ..... | 0.05 |

**Pack Size:** 100g, 500g**POTASSIUM IODIDE**

CAS 7681-11-0

KI = 166.00

409

**POTASSIUM IODIDE, UNIVAR**

Description: colourless crystals or a white crystalline powder; odourless.

Assay (after drying @ 150°C) ..... 99.0 – 100.5%

pH (5% soln. @ 25°C) ..... 6.0 – 9.2

**Maximum limit of impurities (%)**

|                       |         |                    |        |
|-----------------------|---------|--------------------|--------|
| Insol. ....           | 0.005   | Ca .....           | 0.005  |
| L.O.D. (@150°C) ..... | 0.2     | Mg .....           | 0.005  |
| Cl & Br (as Cl) ..... | 0.01    | H.M. (as Pb) ..... | 0.0005 |
| IO <sub>3</sub> ..... | 0.0003  | Cu .....           | 0.0002 |
| N cpds (as N) .....   | 0.001   | Fe .....           | 0.0003 |
| PO <sub>4</sub> ..... | 0.001   | Pb .....           | 0.0002 |
| Ba .....              | 0.002   | Na .....           | 0.005  |
| As .....              | 0.00002 |                    |        |
| SO <sub>4</sub> ..... | 0.005   |                    |        |

**Pack Size:** 100g, 500g, 5kg, 25kg

410

**POTASSIUM IODIDE, UNILAB**

Description: colourless crystals or a white powder; odourless.

Assay (after drying ) ..... 99.0 - 100.5%

**Maximum limit of impurities (%)**

|                                  |              |                                         |              |
|----------------------------------|--------------|-----------------------------------------|--------------|
| Colour and clarity of soln. .... | To pass test | SO <sub>4</sub> .....                   | 0.0150       |
| Alkalinity .....                 | To pass test | Thiosulphate & Ba .....                 | To pass test |
| L.O.D. ....                      | 1.0          | As .....                                | 0.0003       |
| H.M.(as Pb) .....                | 0.0010       | NO <sub>3</sub> .....                   | To pass test |
| Fe .....                         | 0.0020       | NO <sub>2</sub> & NH <sub>4</sub> ..... | To pass test |
| IO <sub>3</sub> .....            | To pass test |                                         |              |

Chemical and physical parameters conform to BP &amp; FCC

**Pack Size:** 500g, 5kg, 25kg

2396

**POTASSIUM IODIDE, LABCHEM**

Assay ..... 98% min.

**Pack Size:** 500g, 5kg

## POTASSIUM METABISULPHITE

CAS 16731-55-8

Synonyms: Potassium Pyrosulphite

 $K_2S_2O_5 = 222.33$ 

1184

## POTASSIUM METABISULPHITE, UNIVAR

Description: colourless crystals, with a strong odour of  $SO_2$ .

Assay ..... 96.0% min.

**Maximum limit of impurities****(%)**

Insols. .... 0.005  
 Cl ..... 0.005  
 Ni ..... 0.001  
 Pb ..... 0.001  
 As ..... 0.0001

Cu ..... 0.001  
 Fe ..... 0.001  
 $PO_4$  ..... 0.0002  
 Thiosulphate( $S_2O_3$ ) ..... 0.05

Pack Size: 500g, 5kg

411

## POTASSIUM METABISULPHITE, UNILAB

Assay (as  $SO_2$ ) ..... 51.8 - 57.6%**Maximum limit of impurities****(%)**

Cl ..... 0.1  
 H.M. .... 0.005  
 Fe (as Fe) ..... 0.005

Pack Size: 5kg, 25kg

## POTASSIUM NITRATE

CAS 7757-79-1

Synonyms: Saltpetre

 $KNO_3 = 101.1$ 

U.N Number ..... 1486

ADG Class ..... 5.1

Packing Group ..... III



412

## POTASSIUM NITRATE, UNIVAR

Description: white crystalline powder

Assay ..... 99.0% min.

pH (5% soln. @ 25°C) ..... 4.5 – 8.5

**Maximum limit of impurities****(%)**

Insol. .... 0.005  
 Cl ..... 0.002  
 $IO_3$  ..... 0.00050  
 $NO_2$  ..... 0.001  
 $PO_4$  ..... 0.0005  
 $SO_4$  ..... 0.003  
 Ca ..... 0.005

Mg ..... 0.002  
 $R_2O_3$  ppt. .... 0.01  
 Fe ..... 0.0003  
 H.M. (as Pb) ..... 0.0005  
 Na ..... 0.005  
 $IO_3$  &  $NO_2$  ..... To pass test

Conforms to ACS

Pack Size: 500g, 1kg, 2kg, 5kg, 25kg



791

## POTASSIUM NITRATE, UNILAB

Description: colourless crystals, or a white crystalline powder.  
 Assay ..... 99.0 - 101.0%

| <i>Maximum limit of impurities</i> | <i>(%)</i>   |
|------------------------------------|--------------|
| Appearance of solution .....       | To pass test |
| Reducible substances .....         | To pass test |
| H.M. (as Pb) .....                 | 0.001        |
| Na .....                           | 0.1          |
| NH <sub>4</sub> cpds .....         | To pass test |
| Cl .....                           | 0.002        |
| SO <sub>4</sub> .....              | 0.015        |
| Ca .....                           | 0.005        |
| Fe .....                           | 0.001        |
| L.O.D. ....                        | 0.5          |

**Pack Size:** 500g, 5kg, 25kg

949

## POTASSIUM NITRATE, LABCHEM

Assay (Dry basis) ..... 98.0% min.

| <i>Maximum limit of impurities</i> | <i>(%)</i> |
|------------------------------------|------------|
| Cl .....                           | 0.05       |
| SO <sub>4</sub> .....              | 0.01       |
| Fe .....                           | 0.05       |

**Pack Size:** 500g

1073

## POTASSIUM NITRITE, UNILAB



CAS 7758-09-0  
 KNO<sub>2</sub> = 85.10  
 Assay ..... 97% min.

U.N Number ..... 1488  
 ADG Class ..... 5.1  
 Packing Group ..... II

| <i>Maximum limit of impurities</i> | <i>(%)</i> |
|------------------------------------|------------|
| Cl .....                           | 0.01       |
| SO <sub>4</sub> .....              | 0.02       |
| H.M.(as Pb) .....                  | 0.002      |
| As .....                           | 0.0001     |
| Fe .....                           | 0.001      |
| Pb .....                           | 0.0005     |

Chemical and physical parameters conform to FCC

**Pack Size:** 500g, 25kg

1392

## TRIPOTASSIUM ORTHOPHOSPHATE, LABCHEM

CAS 7778-53-2  
**Synonyms:** Potassium Phosphate, tribasic  
 K<sub>3</sub>PO<sub>4</sub>·H<sub>2</sub>O = 230.29  
 Assay ..... 95% min.

| <i>Maximum limit of impurities</i> | <i>(%)</i> |
|------------------------------------|------------|
| L.O.I. (@800°C) .....              | 13         |
| Fe .....                           | 0.002      |
| H.M. (as Pb) .....                 | 0.002      |
| Cl .....                           | 0.005      |
| SO <sub>4</sub> .....              | 0.02       |

**Pack Size:** 500g

## POTASSIUM OXALATE

CAS 583-52-8  
 $(\text{COOK})_2 \cdot \text{H}_2\text{O} = 184.23$

413

## POTASSIUM OXALATE, UNIVAR

Description: colourless crystals or crystalline powder.  
 Assay ..... 98.5 - 101.0%

| <i>Maximum limit of impurities</i> |              | (%)                                                        |              |
|------------------------------------|--------------|------------------------------------------------------------|--------------|
| Insol. ....                        | 0.01         | H.M. (as Pb) .....                                         | 0.002        |
| Neutrality .....                   | To pass test | Na .....                                                   | 0.02         |
| Cl .....                           | 0.002        | NH <sub>4</sub> .....                                      | 0.002        |
| SO <sub>4</sub> .....              | 0.01         | Subs. darkened by hot H <sub>2</sub> SO <sub>4</sub> ..... | To pass test |
| Fe .....                           | 0.001        |                                                            |              |

Conforms to ACS

Pack Size: 500g, 5kg

1186

## POTASSIUM OXALATE, UNILAB

Assay ..... 98.0% min.

| <i>Maximum limit of impurities</i> |       | (%) |
|------------------------------------|-------|-----|
| Cl .....                           | 0.01  |     |
| SO <sub>4</sub> .....              | 0.04  |     |
| Fe .....                           | 0.005 |     |

Pack Size: 500g

1074

## POTASSIUM PERCHLORATE, UNIVAR



CAS 7778-74-7  
 $\text{KClO}_4 = 138.55$   
 Assay ..... 99.0 - 100.5%  
 pH (5% soln.) ..... 6 - 8

U.N Number ..... 1489  
 ADG Class ..... 5.1  
 Packing Group ..... II

| <i>Maximum limit of impurities</i> |        | (%)        |        |
|------------------------------------|--------|------------|--------|
| Insols. ....                       | 0.005  | Ca.....    | 0.005  |
| Cl.....                            | 0.003  | Fe.....    | 0.0005 |
| SO <sub>4</sub> .....              | 0.001  | Na.. ..... | 0.02   |
| H.M.(as Pb) .....                  | 0.0005 |            |        |

Pack Size: 500g

630

## POTASSIUM PERIODATE, UNIVAR



CAS 7790-21-8  
 $\text{KIO}_4 = 230.0$   
 Description: Colourless crystalline powder  
 Assay ..... 99.5% min.

U.N Number ..... 1479  
 ADG Class ..... 5.1  
 Packing Group ..... II

| <i>Maximum limit of impurities</i> |        | (%) |
|------------------------------------|--------|-----|
| Cl .....                           | 0.01   |     |
| SO <sub>4</sub> .....              | 0.005  |     |
| Mn .....                           | 0.0001 |     |

Pack size: 100g, 500g

## POTASSIUM PERMANGANATE



414

CAS 7722-64-7  
KMnO<sub>4</sub> = 158.03

U.N Number ..... 1490  
ADG Class ..... 5.1  
Packing Group ..... II

## POTASSIUM PERMANGANATE, UNIVAR

Description: dark purple crystals with a metallic lustre; odourless. Decomposes on contact with certain organic substances.

Assay ..... 99.0% min.

| <i>Maximum limit of impurities</i>   | <i>(%)</i> |
|--------------------------------------|------------|
| Insol. ....                          | 0.2        |
| Cl ..... 0.005                       |            |
| ClO <sub>3</sub> (as Cl) ..... 0.005 |            |
| N cpds (as N) ..... 0.005            |            |
| SO <sub>4</sub> ..... 0.02           |            |
| As ..... 0.0003                      |            |
| Cu ..... 0.002                       |            |
| Fe ..... 0.002                       |            |
| Pb ..... 0.003                       |            |

Conforms to ACS

**Pack Size:** 500g, 5kg

415

## POTASSIUM PERMANGANATE, UNILAB

Description: dark purple or brownish-black, granular powder or dark purple or almost black crystals having a metallic lustre. It decomposes on contact with certain organic substances.

Assay ..... 99.0 - 100.5%

| <i>Maximum limit of impurities</i> | <i>(%)</i>   |
|------------------------------------|--------------|
| Colour of soln. ....               | To pass test |
| Cl ..... 0.0200                    |              |
| SO <sub>4</sub> ..... 0.0500       |              |
| Water-insoluble matter ..... 1.0   |              |

Chemical and physical parameters conform to BP

**Pack Size:** 500g, 5kg, 25kg

945

## POTASSIUM PERMANGANATE, LABCHEM

Assay ..... 98.0% min.

| <i>Maximum limit of impurities</i> | <i>(%)</i> |
|------------------------------------|------------|
| Cl ..... 0.1                       |            |
| SO <sub>4</sub> ..... 0.1          |            |

**Pack Size:** 500g

634

## POTASSIUM PERMANGANATE, 0.02M Solution, UNIVOL

Molarity ..... 0.0199 - 0.0201mol/L

**Pack Size:** 500mL

1361

**POTASSIUM PERMANGANATE 0.02MOL CONCENTRATE, AMPOULE, OP**

Description: plastic ampoule containing clear dark violet liquid  
0.02 mole (3.161g  $\text{KMnO}_4$ ) to prepare 1L of 0.1N solution  
Titer ..... 0.998 – 1.002

U.N Number ..... 3082  
ADG Class ..... 9  
Packing Group ..... III

**Pack size:** Ampoule**POTASSIUM PEROXYSULPHATE** (see Potassium Persulphate page 314)**POTASSIUM PERSULPHATE**

CAS 7727-21-1  
 $\text{K}_2\text{S}_2\text{O}_8 = 270.32$

U.N Number ..... 1492  
ADG Class ..... 5.1  
Packing Group ..... III

2504

**POTASSIUM PERSULPHATE, UNIVAR**

Description: white powder.

Assay ..... 99% min.

**Maximum limit of impurities****(%)**

Insols. .... 0.005  
Cl ..... 0.001  
Fe ..... 0.001  
H.M (as Pb) ..... 0.001  
Mn ..... 0.0001

Cd ..... 0.0005  
Cu ..... 0.0005  
Zn ..... 0.0005  
Pb ..... 0.0005

**Pack Size:** 500g

2505

**POTASSIUM PERSULPHATE, Low in Nitrogen, UNIVAR**

Description: white powder.

Assay ..... 99.0% min.

**Maximum limit of impurities****(%)**

Insol. .... 0.005  
Cl cpds (as Cl) ..... 0.001  
Fe ..... 0.0005  
H.M.(as Pb) ..... 0.001  
Mn ..... 0.0002  
N cpds (as N) ..... 0.001

Conforms to ACS

**Pack Size:** 500g

1188

**POTASSIUM PERSULPHATE, UNILAB**

Assay ..... 97% min.

**Maximum limit of impurities****(%)**

Cl ..... 0.04

**Pack Size:** 500g

**POTASSIUM PHOSPHATE, MONOBASIC** (see Potassium dihydrogen Orthophosphate page 301)**POTASSIUM PHOSPHATE, DIBASIC** (see di-Potassium Hydrogen Orthophosphate page 304)**POTASSIUM PHOSPHATE, TRIBASIC** (see tri-Potassium Orthophosphate page 311)**2307****POTASSIUM POLYSULPHIDE, LABCHEM**

CAS 37199-66-9

Assay ..... 40% min

Pack Size: 500g, 5kg

U.N Number ..... 3262

ADG Class ..... 8

Packing Group ..... II

**1393****tetra-POTASSIUM PYROPHOSPHATE, LABCHEM**

CAS 7320-34-5

 $K_4P_2O_7 = 330.35$ 

Assay ..... 95% min.

pH (1%) ..... 10.3 min.

**Maximum limit of impurities (%)**

H.M. (as Pb) ..... 0.0005

Fe ..... 0.0020

As ..... 0.0020

Pack Size: 500g

**355****POTASSIUM PYROSULPHATE, powder, UNIVAR**

CAS 7790-62-7

**Synonyms:** Potassium Disulphate $K_2S_2O_7 = 254.33$ 

Description: white powder.

Assay ..... 97.5% min.

**Maximum limit of impurities (%)**

Insolubles ..... 0.01

Total (N) ..... 0.002

Cl ..... 0.0005

PO<sub>4</sub> ..... 0.001

Ca ..... 0.003

Fe ..... 0.0005

H.M. (as Pb) ..... 0.001

Mg ..... 0.0005

Na ..... 0.01

Al ..... 0.001

Pack Size: 500g, 5kg

**POTASSIUM PYROSULPHITE** (see Potassium Metabisulphite page 310)

## POTASSIUM SODIUM TARTRATE

CAS 304-59-6

Synonyms: Rochelle Salt, Sodium Potassium Tartrate

 $\text{KNaC}_4\text{H}_4\text{O}_6 \cdot 4\text{H}_2\text{O} = 282.22$ 

416

## POTASSIUM SODIUM TARTRATE, UNIVAR

Description: colourless crystals.

Assay ..... 99.0 - 102.0%

pH (5% soln. @ 25°C) ..... 6.0 – 8.5

**Maximum limit of impurities****(%)**

Insol. .... 0.005

Cl ..... 0.001

PO<sub>4</sub> ..... 0.002NH<sub>4</sub> ..... 0.002

Mg ..... 0.002

SO<sub>4</sub> ..... 0.005

Ca ..... 0.004

Fe ..... 0.0005

H.M. (as Pb) ..... 0.0005

Cu ..... 0.0002

Pb ..... 0.0002

Conforms to ACS

Pack Size: 500g, 2kg, 5kg, 20kg

1157

## POTASSIUM SODIUM TARTRATE, UNILAB

Assay ..... 98.0 - 104.0%

**Maximum limit of impurities****(%)**

Cl ..... 0.01

SO<sub>4</sub> ..... 0.05

Fe ..... 0.008

H.M. (as Pb) ..... 0.001

Pack Size: 500g, 2kg, 5kg, 25kg

2405

## POTASSIUM SORBATE, UNIVAR

CAS 24634-61-5

 $\text{C}_6\text{H}_7\text{KO}_2 = 150.2$ 

Description: White rod-shaped granules

Solubility: Soluble in water and alcohol. Insoluble in acetone and alcohol.

Assay (Titrimetry) ..... 99.0% min.

**Maximum limit of impurities****(%)**

Fe ..... 0.0005

Cl ..... 0.0005

Ca ..... 0.0005

Pack size: 500g

## POTASSIUM SULPHATE

CAS 7778-80-5  
 $K_2SO_4 = 174.26$

417

## POTASSIUM SULPHATE, UNIVAR

Description: white powder.

Assay ..... 99.0% min.  
 pH (5%soln, @25 ° C) ..... 5.5 – 8.5

**Maximum limit of impurities**

(%)  
 Insol. .... 0.01  
 Cl ..... 0.001  
 N cpds (as N) ..... 0.0005  
 Na ..... 0.02

Fe ..... 0.0005  
 H.M. (as Pb) ..... 0.0005  
 Mg ..... 0.005  
 Ca ..... 0.01

Conforms to ACS

**Pack Size:** 500g, 1kg, 3kg, 5kg, 25kg

418

## POTASSIUM SULPHATE, UNILAB

Assay ..... 98.0% min.

**Maximum limit of impurities**

(%)  
 Cl ..... 0.01  
 N cpds (as N) ..... 0.002  
 Fe ..... 0.001  
 H.M. (as Pb) ..... 0.001

**Pack Size:** 500g, 3kg, 5kg, 25kg

## POTASSIUM SULPHOCYANIDE (see Potassium Thiocyanate page 318)

## POTASSIUM TARTRATE, ACID (see Potassium hydrogen Tartrate page 306)

419

## POTASSIUM (+)- TARTRATE, UNILAB

CAS 921-53-9

**Synonyms:** Potassium Hydrogen Tartrate

$K_2C_4H_4O_6 \cdot \frac{1}{2}H_2O = 235.28$

Assay ..... 99 - 102%

**Maximum limit of impurities**

(%)  
 Cl ..... 0.05  
 $SO_4$  ..... 0.1  
 Pb ..... 0.001  
 As ..... 0.0003  
 Ca ..... 0.01  
 Fe ..... 0.002

$NH_4$  ..... 0.001  
 Cu ..... 0.001  
 Zn ..... 0.001  
 Oxalic acid ..... 0.05  
 H.M.(as Pb) ..... 0.002

**Pack Size:** 500g

3106

## POTASSIUM TELLURITE, LABCHEM

CAS 7790-58-1

$K_2TeO_3 \cdot xH_2O = 253.79 \cdot xH_2O$

**Pack Size:** 10g

U.N Number ..... 3284  
 ADG Class ..... 6.1  
 Packing Group ..... II



**POTASSIUM TETRAIODOMERCURATE(II)** (see Nessler's Reagent page 263)**POTASSIUM THIOCYANATE**

CAS 333-20-0

Synonyms: Potassium Sulphocyanide

KSCN = 97.18

**421****POTASSIUM THIOCYANATE, UNIVAR**

Description: colourless or white deliquescent crystals.

Assay ..... 99.0% min.

pH (5% soln. @ 25°C) ..... 5.3 – 8.7

**Maximum limit of impurities****(%)**

Insol. (in alc) ..... 0.01

Insol. (in H<sub>2</sub>O) ..... 0.005

Iodine consuming subs. .... To pass test

Cl ..... 0.005

SO<sub>4</sub> ..... 0.005

Fe ..... 0.0002

H.M. (as Pb) ..... 0.0005

Na ..... 0.002

NH<sub>4</sub> ..... 0.003**Pack Size:** 500g, 5kg, 25kg**422****POTASSIUM THIOCYANATE, UNILAB**

Assay ..... 97.0% min.

**Maximum limit of impurities****(%)**

Cl ..... 0.01

SO<sub>4</sub> ..... 0.025

Fe ..... 0.0005

**Pack Size:** 500g**3107****L-PROLINE, UNIVAR**

CAS 147-85-3

C<sub>5</sub>H<sub>9</sub>O<sub>2</sub> = 115.1

Description: White crystalline powder

Assay ..... 99.0% min.

Specific rotation ..... -84.0 to -86.0°

**Maximum limit of impurities****(%)**

H.M. (as Pb) ..... 0.002

As ..... 0.0003

L.O.D ..... 0.3

Pb ..... 0.001

R.O.I ..... 0.1

**Pack size:** 25g



427

**PROPAN-1,2-DIOL, UNILAB**

CAS 57-55-6

**Synonyms:** Propylene Glycol $\text{CH}_3\text{CH}(\text{OH})\text{CH}_2\text{OH} = 76.10$ 

Assay ..... 99.5% min.

Distillation Range ..... 185 – 189°

Density @ 25°C ..... 1.035 – 1.037 g/mL

**Maximum limit of impurities****(%)**

Sulph. Ash ..... 0.007

Acidity ..... To pass test

 $\text{H}_2\text{O}$  ..... 0.2

Chloride ..... 0.007

 $\text{SO}_4$  ..... 0.006

H.M (as Pb) ..... 0.0005

As ..... 0.0003

Organic volatile impurities. .... To pass test

Chemical and physical parameters conform to USP and FCC

**Pack Size:** 2.5L, 210kg, 215kg

424

**PROPAN-1-OL, UNILAB**

CAS 71-23-8

**Synonyms:** n-Propanol, n-Propyl Alcohol $\text{C}_2\text{H}_5\text{CH}_2\text{OH} = 60.10$ 

For quantitative and qualitative analysis.

B.R.(95% min.) ..... 96 - 98 °C

Density ..... 0.803 – 0.806 g/mL

**Maximum limit of impurities****(%)**

Non-vol. .... 0.01

U.N Number ..... 1274

ADG Class ..... 3

Packing Group ..... II

**Pack Size:** 500mL, 2.5L, 20L**PROPAN-2-OL**

CAS 67-63-0

**Synonyms:** Isopropyl Alcohol, Isopropanol, Dimethylcarbinol $(\text{CH}_3)_2\text{CHOH} = 60.10$ 

Density ..... about 0.78g/mL

U.N Number ..... 1219

ADG Class ..... 3

Packing Group ..... II

3457

**PROPAN-2-OL, PESTICIDE GRADE, BURDICK & JACKSON, CAT. 323**

High purity solvent for pesticide residue analysis &amp; gas chromatography.

Assay ..... 99.9% min.

**Maximum limit of impurities****(%)**

GC (ECD, as Heptachlor epoxide) ..... 2 µg/L

Water ..... 0.06

Residue ..... 1mg/L

**U.V. Absorbance:**

|                |       |       |       |       |       |
|----------------|-------|-------|-------|-------|-------|
| $\lambda$ (nm) | 205   | 225   | 250   | 300   | 400   |
| Max. abs.      | 1.000 | 0.160 | 0.020 | 0.005 | 0.005 |

**Pack Size:** 4L

2323

**PROPAN-2-OL, UNICHROM**

Description: colourless liquid.

R.I. .... 1.378

Viscosity @ 20°C ..... 2.49cP

Specially purified for HPLC

Filtered through 0.45 micron filter.

Assay(GLC) ..... 99.7% min.

| <b>Maximum limit of impurities</b> | <b>(%)</b>  |
|------------------------------------|-------------|
| Non-vol. ....                      | 0.001       |
| Acidity .....                      | 0.01 mmol H |
| H <sub>2</sub> O (by K.F.) .....   | 0.2         |

**U.V. Absorbance:**

|           |      |      |     |     |
|-----------|------|------|-----|-----|
| λ (nm)    | 280  | 254  | 214 | 210 |
| Max. abs. | 0.03 | 0.07 | 0.6 | 1.0 |

**Pack Size:** 2.5L

593

**PROPAN-2-OL, SPECTROSOL**

Description: colourless liquid.

For U.V. spectroscopy.

Colour (APHA) ..... 10 max.

Assay ..... 99.5% min.

| <b>Maximum limit of impurities</b>                            | <b>(%)</b>        |
|---------------------------------------------------------------|-------------------|
| R.A.E. ....                                                   | 0.001             |
| Aldehydes&ketones(as(CH <sub>3</sub> ) <sub>2</sub> CO) ..... | 0.005             |
| Water .....                                                   | 0.2               |
| Titratable acid or bases .....                                | 0.01 mmol H or OH |
| Sol.in water .....                                            | To pass test      |

| <b>U.V. Absorbance:</b> | <b>λ(nm).....</b> | <b>Max. abs</b> |
|-------------------------|-------------------|-----------------|
| 210.....                |                   | 1.0             |
| 220 .....               |                   | 0.4             |
| 230 .....               |                   | 0.2             |
| 245 .....               |                   | 0.08            |
| 260 .....               |                   | 0.04            |
| 75 .....                |                   | 0.03            |
| 300 .....               |                   | 0.02            |
| 330-400 .....           |                   | 0.01            |

Conforms to ACS

**Pack Size:** 500mL, 2.5L

3515

**ISOPROPYL ALCOHOL, HPLC GRADE, BURDICK & JACKSON, CAT. AH323****CAS** 67-63-0

Assay ..... 99.9%

U.N Number ..... 1219

ADG Class..... 3

Packing Group ..... II

| <b>Maximum limit of impurities</b> | <b>(%)</b> |
|------------------------------------|------------|
| Water .....                        | 0.06       |
| Residue .....                      | 3mg/L      |

**U.V. Absorbance:**

|           |       |       |       |       |       |
|-----------|-------|-------|-------|-------|-------|
| λ (nm)    | 205   | 225   | 250   | 300   | 400   |
| Max. abs. | 1.000 | 0.160 | 0.020 | 0.005 | 0.005 |

**Pack Size:** 4L

425

**PROPAN-2-OL, UNIVAR**

Description: clear, colourless liquid with a characteristic odour.  
For qualitative and quantitative analysis.

Assay ..... 99.5% min.  
Colour (APHA) ..... 10 max.  
Refractive Index ..... 1.376-1.379

**Maximum limit of impurities****(%)**

Related substances ..... 0.3  
R.A.E. .... 0.001  
Titratable acid or base ..... 0.01 mmol H or OH  
Sol. (in H<sub>2</sub>O) ..... To pass test  
Peroxides ..... To pass test  
Na ..... 0.0002  
H<sub>2</sub>O ..... 0.2  
Benzene ..... 0.0002  
Al ..... 0.00001  
Mg ..... 0.00001  
K ..... 0.00001  
Ba ..... 0.000005

Cd ..... 0.000005  
Pb ..... 0.000005  
Ca ..... 0.00005  
Cr ..... 0.000002  
Co ..... 0.000002  
Cu ..... 0.000002  
Mn ..... 0.000002  
Ni ..... 0.000002  
Sr ..... 0.000002  
Zn ..... 0.00002  
Fe ..... 0.00002  
Carbonyl Cpds ..... 0.002

**λ (nm)****Abs.**

230 ..... 0.3  
250 ..... 0.1  
270 ..... 0.03  
290 ..... 0.02  
310 ..... 0.01

Chemical and physical parameters conform to BP  
Conforms to ACS

**Pack Size:** 500mL, 2.5L, 10L, 20L, 200L

426

**PROPAN-2-OL, UNILAB**

R.I. .... about 1.378  
B.R.(95% min.) ..... 81 - 83°C

**Maximum limit of impurities****(%)**

Non-vol. .... 0.01  
Titratable acid or base ..... 0.03 mmol H or OH  
Aldehydes & ketones (as (CH<sub>3</sub>)<sub>2</sub>CO) ..... 0.05

**Pack Size:** 500mL, 2.5L, 20L, 200L

946

**PROPAN-2-OL, LABCHEM**

B.R. (95% maximum) ..... 80-84°C

**Maximum limit of impurities****(%)**

Non-volatile Cpds ..... 0.005

**Pack Size:** 500mL

**ISOPROPANOL** (see Propan-2-ol page 319)

**n-PROPANOL** (see Propan-1-ol page 319)

**2-PROPANONE** (see Acetone page 43)

693



### PROPIONIC ACID, UNILAB

CAS 79-09-4

**Synonyms:** Methyl Acetic Acid

$C_2H_5COOH = 74.08$

Density ..... about 0.99g/mL

Assay ..... 99.5% min.

**Maximum limit of impurities (%)**

Water ..... 0.1

**Pack Size:** 500mL, 2.5L, 20L

U.N Number ..... 1848

ADG Class ..... 8

Packing Group ..... III

2403



### iso-PROPYL ACETATE, UNILAB

CAS 108-21-4

**Synonyms:** 2-Propyl Acetate

$CH_3COOCH(CH_3)_2 = 102.13$

Density ..... about 0.87g/mL

Assay ..... 97.0% min.

**Maximum limit of impurities (%)**

Non-vol. .... 0.01

Acidity (as  $CH_3COOH$ ) ..... 0.03

**Pack Size:** 500mL

U.N Number ..... 1220

ADG Class ..... 3

Packing Group ..... II

**2-PROPYL ACETATE** (see iso-Propyl Acetate page 322)

**n-PROPYL ALCOHOL** (see Propan-1-ol page 319)

**iso-PROPYL ALCOHOL** (see Propan-2-ol page 319)

**iso-PROPYL ETHER** (see Di-iso-Propyl Ether page 161)

**2-iso-PROPYL-5-METHYLPHENOL**(see Thymol page 394)

**PROPYLENE GLYCOL** (see Propane-1,2-Diol page 319)

2446

### PUMICE STONE 5-10mm, LABCHEM

**Pack Size:** 500g

**PYRIDINE**

**CAS** 110-86-1  
 $C_5H_5N = 79.10$   
 Density .....about 0.98g/mL

U.N Number ..... 1282  
 ADG Class ..... 3  
 Packing Group ..... II

**430****PYRIDINE, UNIVAR**

Description: clear liquid with a characteristic odour.  
 Assay ..... 99.0% min.

| <i>Maximum limit of impurities</i> | <i>(%)</i>   |
|------------------------------------|--------------|
| R.A.E. ....                        | 0.002        |
| Sol. (in H <sub>2</sub> O) .....   | To pass test |
| Cl .....                           | 0.001        |
| SO <sub>4</sub> .....              | 0.001        |
| Cu .....                           | 0.0005       |
| NH <sub>3</sub> .....              | 0.002        |
| Reducing substances .....          | To pass test |
| H <sub>2</sub> O .....             | 0.1          |

Conforms to ACS

**Pack Size:** 500mL, 2.5L, 20L

**431****PYRIDINE, UNILAB**

R.I. .... about 1.510  
 Assay ..... 99% min.

| <i>Maximum limit of impurities</i> | <i>(%)</i> |
|------------------------------------|------------|
| Non-vol. ....                      | 0.01       |
| H <sub>2</sub> O .....             | 0.5        |

**Pack Size:** 500mL, 2.5L, 20L

**PYROGALLIC ACID** (see Pyrogallol page 323)**1191****PYROGALLOL, Crystals, UNIVAR**

**CAS** 87-66-1  
 $C_6H_3(OH)_3 = 126.11$   
 Description: dense, white crystals.  
 M.R. (2°C range) ..... 131 - 135°C

| <i>Maximum limit of impurities</i> | <i>(%)</i> |
|------------------------------------|------------|
| R.A.I. ....                        | 0.005      |
| Cl .....                           | 0.001      |
| SO <sub>4</sub> .....              | 0.005      |
| H.M. (as Pb) .....                 | 0.0005     |
| Fe .....                           | 0.001      |

Protect from light  
 Conforms to ACS

**Pack Size:** 100g

3257

**PYRONINE Y (C.I. 45005), LABCHEM**

CAS 92-32-0  
 $C_{17}H_{19}N_2OCl = 302.8$   
 Description: lustrous green crystals  
 Absorption maximum (in 50% Ethanol) ..... 546nm

**Maximum limit of impurities (%)**  
 L.O.D ..... 4.5

**Pack size:** 25g

**1-PYRROLIDINEDITHIOCARBOXYLIC ACID** (see Ammonium Pyrrolidine Dithiocarbamate (844) page 73)

**PYRUVIC ACID SODIUM SALT** (see Sodium Pyruvate page 369)

2421

**QUANTOFIX® AMMONIUM TEST STICKS, OP**

For semi-quantitative determination of Ammonium in solutions.  
 Range ..... 10-400mg/L  $NH_4^+$   
 Gradation ..... 0-10-25-50-100-200-400 mg/L  $NH_4^+$   
 Colour Change ..... Yellow to orange

**Pack Size:** 100

2424

**QUANTOFIX® CHROMATE TEST STICKS, OP**

For semi-quantitative determination of Chromate in solutions.  
 Range ..... 3-100mg/L  $CrO_4^{2-}$   
 Gradation ..... 0-3-10-30-100 mg/L  $CrO_4^{2-}$   
 Colour Change ..... white to violet

**Pack Size:** 100

2425

**QUANTOFIX® COPPER TEST STICKS, OP**

For semi-quantitative determination of Copper in solutions.  
 Range ..... 10-300mg/L  $Cu^+/Cu^{2+}$   
 Gradation ..... 0-10-30-100-300 mg/L  $Cu^+/Cu^{2+}$   
 Colour Change ..... white to red-violet

**Pack Size:** 100

2426

**QUANTOFIX® CYANIDE TEST STICKS, OP**

For semi-quantitative determination of Cyanide in solutions.  
 Range ..... 1-30mg/L  $CN^-$   
 Gradation ..... 0-1-3-10-30 mg/L  $CN^-$   
 Colour Change ..... white to red-violet

**Pack Size:** 100

2423

**QUANTOFIX® MOLYBDATE TEST STICKS, OP**

For semi-quantitative determination of Molybdenum in solutions.  
 Range ..... 5-250mg/L  $Mo^{6+}$   
 Gradation ..... 0-5-20-100-250 mg/L  $Mo^{6+}$   
 Colour Change ..... white to green

**Pack Size:** 100

**2432 QUANTOFIX® NITRATE/NITRITE TEST STICKS, OP**

For semi-quantitative determination of Nitrite in solutions.

Range ..... 1-500mg/L  $\text{NO}_3^-$   
 Gradation ..... 0-10-25-50-100-250-500mg/L  $\text{NO}_3^-$   
 Range ..... 1-80mg/L  $\text{NO}_2^-$   
 Gradation ..... 0-1-5-10-20-40-80mg/L  $\text{NO}_2^-$   
 Colour Change ..... white to red-violet

**Pack Size:** 100

**2419 QUANTOFIX® NITRITE TEST STICKS, OP**

For semi-quantitative determination of Nitrite in solutions.

Range ..... 1-80mg/L  $\text{NO}_2^-$   
 Gradation ..... 0-1-5-10-20-40-80mg/L  $\text{NO}_2^-$   
 Colour Change ..... white to red-violet

**Pack Size:** 100

**2418 QUANTOFIX® NITRITE 3000 TEST STICKS, OP**

For semi-quantitative determination of high concentrations of Nitrite in solutions.

Range ..... 0.1-3g/L  $\text{NO}_2^-$   
 Gradation ..... 0-0.1-0.3-0.6-1-2-3g/L  $\text{NO}_2^-$   
 Colour Change ..... Yellow to red

**Pack Size:** 100

**2429 QUANTOFIX® PEROXIDE 100 TEST STICKS, OP**

For semi-quantitative determination of Hydrogen Peroxide ( $\text{H}_2\text{O}_2$ ) and peroxides in solutions.

Range ..... 1-100mg/L  $\text{H}_2\text{O}_2$   
 Gradation ..... 0-1-3-10-30-100 mg/L  $\text{H}_2\text{O}_2$   
 Colour Change ..... white to blue

**Pack Size:** 100

**2420 QUANTOFIX® SULPHITE TEST STICKS, OP**

For semi-quantitative determination of Sulphite in solutions.

Range ..... 10-1000mg/L  $\text{SO}_3^-$   
 Gradation ..... 0-10-25-50-100-250-500-1000 mg/L  $\text{SO}_3^-$   
 Colour Change ..... white to salmon

**Pack Size:** 100

**2422 QUANTOFIX® ZINC TEST STICKS, OP**

For semi-quantitative determination of Zinc ( $\text{Zn}^{2+}$ ) in solutions.

Range ..... 2-100mg/L  $\text{Zn}^{2+}$   
 Gradation ..... 0-2-5-10-25-50 mg/L  $\text{Zn}^{2+}$   
 Colour Change ..... orange to red

**Pack Size:** 100

**1192**

### QUINHYDRONE, UNIVAR



**CAS** 106-34-3

$C_6H_4O_2 \cdot C_6H_4(OH)_2 = 218.21$

Description: lustrous dark green crystalline powder.

Suitable for pH determination.

M.P. .... 168 171°C

1,4-Benzoquinone ..... 48-52%

Hydroquinone ..... 48-52%

**Maximum limit of impurities (%)**

Insol. (in alc.) ..... 0.02

Sulph. Ash ..... 0.1

Iron ..... 0.001

Sulphate ..... 0.01

**Pack Size:** 100g

U.N Number ..... 2811

ADG Class ..... 6.1

Packing Group ..... III

**261**

### QUINOL, UNILAB



**CAS** 123-31-9

**Synonyms:** Hydroquinone

$C_6H_4(OH)_2 = 110.11$

M.P. .... 171°C

**Maximum limit of impurities (%)**

Sulph. Ash ..... 0.1

Fe ..... 0.001

H.M. (as Pb) ..... 0.001

H<sub>2</sub>O ..... 1.0

**Pack Size:** 500g, 5kg

U.N Number ..... 2662

ADG Class ..... 6.1

Packing Group ..... III

**1194**

### QUINOLINE, UNILAB



**CAS** 91-22-5

$C_9H_7N = 129.16$

Description: Hygroscopic liquid. Darkens on storage in ordinary stoppered bottle.

Penetrating odour, not as offensive as pyridine. Protect from light and moisture.

Assay ..... 96% min.

Density (@ 20°C) ..... about 1.09g/mL

**Pack Size:** 500mL

U.N Number ..... 2656

ADG Class ..... 6.1

Packing Group ..... III

**8-QUINOLINOL** (see 8-Hydroxyquinoline page 204)

**QUINONE** (see p-Benzoquinone page 89)

**RED LEAD** (see Lead Oxide, red page 222)

**RANKIN INDICATOR SOLUTION** (see Sulphur dioxide indicator page 386)



**RESORCINOL**

CAS 108-46-3  
 $C_6H_4(OH)_2 = 110.10$

U.N Number ..... 2876  
 ADG Class ..... 6.1  
 Packing Group ..... III

**1196****RESORCINOL, UNIVAR**

Description: colourless crystals or crystalline powder; becoming red on exposure to air and light.

Assay ..... 99.0% min.  
 M.P. .... 109 – 111°C

| <i>Maximum limit of impurities</i> | <i>(%)</i>   |
|------------------------------------|--------------|
| L.O.D. ....                        | 1            |
| Sulph. Ash .....                   | 0.02         |
| Free acid (as $H_2SO_4$ ) .....    | 0.005        |
| Free alkali (as $NH_3$ ) .....     | 0.002        |
| H.M (as Pb) .....                  | 0.004        |
| Cl .....                           | 0.008        |
| $SO_4$ .....                       | 0.02         |
| Pyrocatechol .....                 | To pass test |

**Pack Size:** 100g

**1197****RESORCINOL, UNILAB**

Description: colourless or slightly pinkish-grey crystals or crystalline powder; odour, characteristic. Turns red on exposure to light and air.

Assay (after drying) ..... 98.5 - 101.0%  
 M.P. .... 109-112°C

| <i>Maximum limit of impurities</i> | <i>(%)</i>   |
|------------------------------------|--------------|
| Clarity and colour of soln. ....   | To pass test |
| Pyrocatechol .....                 | To pass test |
| L.O.D .....                        | 1.0          |
| Sulphated ash .....                | 0.1          |
| Acidity/Alkalinity .....           | To pass test |

**Pack Size:** 100g, 500g

**2336****RHODAMINE B (CI 45170), LABCHEM**

CAS 81-88-9  
 $C_{28}H_{31}N_2O_3Cl = 479.03$   
 Reagent for antimony, gallium, gold and tungsten.

**Pack Size:** 25g, 1Kg

**ROCHELLE SALT** (see Potassium Sodium Tartrate page 316)

**ROSANILINE HYDROCHLORIDE** (see Fuchsin Basic page 180)

3258

**ROSE BENGAL, LABCHEM**

**CAS** 632-69-9

$C_{20}H_2Cl_4I_4Na_2O_5 = 1017.6$

Description: Bright pink coloured crystalline powder

Solubility: Soluble in water.

Dye content ..... about 90%

**Pack size:** 25g

**RUBEANIC ACID** (see Dithio-Oxamide page 162)

3118

**RUBIDIUM CHLORIDE, OP**

**CAS** 7791-11-9

RbCl = 120.92

**Pack Size:** 10g

**RUBIN S** (see Fuchsin Acid page 180)

**RUBINE ACID** (see Fuchsin Acid page 180)

3466

**SAFETY CARRIER/ PROTECTOR FOR 4L BOTTLES, B & J**

The solview B-Jacket incorporates a carry and pouring handle.

The protector jacket is in two parts, which screw together and contain spillage if the 4L bottle is dropped.

**Pack Size:** EACH

2523

**SAFETY IN YOUR LAB WALLCHART**

Useful wallchart for reference & education regarding Australian dangerous goods classes and symbols, fire extinguisher usage, handling cyanides flashpoints etc. Ideal for laboratories, schools, warehouses where chemicals are handled. Chart size 86 x 60 cms

**Pack Size:** EACH

3260

**SAFRANIN O (CI 50240), OP**

**CAS** 477-73-6

**Synonyms:** 3,7-diamino-2,8-dimethyl-5-phenylphenazinium chloride, Cotton red

Stain for microscopy. Redox indicator.

Transition EMF (@ pH=0) ..... +0.24 V

Transition EMF (@ pH=7) ..... -0.29 V

Colour change:

Oxidized (purple) to reduced (colourless) @ pH=0

Oxidized (brown) to reduced (colourless) @ pH=7

**Pack Size:** 25g

1847

**SAFRANIN STAIN SOLUTION, LABCHEM**

Safranin 1% aqueous solution

**Pack Size:** 1L, 5L

2537

**SAFSOLVENT®**, Based on D-Limonene for Histopathology, LABCHEM

CAS 5989-27-5

A safer alternative to xylene, for removing embedding media etc.

Density @ 20°C ..... 0.838 - 0.844g/mL

R.I @ 20°C ..... 1.471 – 1.474

U.N Number ..... 2052

ADG Class ..... 3

Packing Group ..... III

**Pack Size:** 5L, 20L, 200L

429

**SALICYLANILIDE**, TECHNICAL

CAS 87-17-2

HOC<sub>6</sub>H<sub>4</sub>CONHC<sub>6</sub>H<sub>5</sub> = 213.24**Pack Size:** 500g**SALICYLIC ACID**

CAS 69-72-7

**Synonyms:** 2-Hydroxybenzoic AcidHOC<sub>6</sub>H<sub>4</sub>COOH = 138.12

1198

**SALICYLIC ACID**, UNIVAR

Description: fine colourless crystals.

Assay ..... 99.5% min.

| <i>Maximum limit of impurities</i>                                  | <i>(%)</i> |
|---------------------------------------------------------------------|------------|
| R.A.I. ....                                                         | 0.01       |
| Cl ..... 0.001                                                      |            |
| SO <sub>4</sub> ..... 0.003                                         |            |
| Fe ..... 0.0002                                                     |            |
| H.M. (as Pb) ..... 0.0005                                           |            |
| Subs. darkened by H <sub>2</sub> SO <sub>4</sub> ..... To pass test |            |
| Colour & Clarity ..... To pass test                                 |            |
| Conforms to ACS                                                     |            |

**Pack Size:** 500g, 5kg

435

**SALICYLIC ACID**, UNILAB

Description: colourless acicular crystals or white crystalline powder; odourless.

Assay ..... 99.5 - 100.5%

M.P. .... 158-161°C

L.O.D. .... 0.5% max.

| <i>Maximum limit of impurities</i> | <i>(%)</i>   |
|------------------------------------|--------------|
| Clarity and colour of soln. ....   | To pass test |
| Sulph. Ash ..... 0.1               |              |
| Cl ..... 0.010                     |              |
| SO <sub>4</sub> ..... 0.020        |              |
| H.M. (as Pb) ..... 0.0020          |              |
| Related Substances                 |              |

**Pack Size:** 500g, 5kg, 25kg**SALICYLIC ACID SODIUM SALT** (see Sodium Salicylate page 369)**SALICYLSULPHONIC ACID** (see Sulphosalicylic acid page 385)**SALOL** (see Phenyl Salicylate page 287)

**SALTPETRE** (see Potassium Nitrate page 310)**SALT, COMMON** (see Sodium Chloride page 345)**1199****SAND**, acid washed, UNILAB

| <i>Maximum limit of impurities</i> | <i>(%)</i> |
|------------------------------------|------------|
| HCl soluble matter .....           | 0.2        |
| Loss on ignition @ 800 °C .....    | 0.2        |
| Chloride (Cl) .....                | 0.015      |

**Pack Size:** 1kg, 3kg, 5kg, 25kg**764****SAPONIN WHITE**, UNILAB**CAS** 8047-15-2

Description: Natural origin.

**Pack Size:** 100g**3261****SCARLET R (CI 26105)**, OP**CAS** 85-83-6**Synonyms:** Lipid Crimson, Oil Red

Stain for microscopy.

Lipoprotein stain.

**Pack Size:** 25g**1848****SCHIFF'S REAGENT**, LABCHEM

Contains Fuchsin Basic 0.5%

**Pack Size:** 500ml**SEBACOYL CHLORIDE****CAS** 111-19-3 $\text{COCl}(\text{CH}_2)_8\text{COCl}$  = 239.14

Density ..... about 1.12g/mL

U.N Number ..... 1760

ADG Class ..... 8

Packing Group ..... II

**2371****SEBACOYL CHLORIDE**, LABCHEM

Assay ..... 90% min.

Store below 4°C (refrigerate)

**Pack Size:** 100mL**2487****SEBACOYL CHLORIDE**, TECHNICAL

Store below 4°C (refrigerate)

**Pack Size:** 100mL**SELENIOS ACID** (see Selenous Acid page 332)

## SELENIUM



CAS 7782-49-2  
Se = 78.96

U.N Number ..... 3283  
ADG Class ..... 6.1  
Packing Group ..... III

761

## SELENIUM, powder, UNIVAR

Description: dark red to black powder.

Assay ..... 99.6% min.

**Maximum limit of impurities (%)**

Insol. (in HNO<sub>3</sub>) ..... 0.05  
Non-vol. .... 0.2  
N cpds (as N) ..... 0.05  
Cu ..... 0.005  
Fe ..... 0.02

Pack Size: 25g, 100g

1590

## SELENIUM, powder, UNILAB

Assay ..... 99.0% min.

Pack Size: 100g

2664

## SELENIUM 1000ppm SINGLE ELEMENT ICP STANDARD, UNIPURE



A 1000 ppm Selenium standard, ready for use.  
Se in 10% Nitric acid.

U.N Number ..... 3264  
ADG Class ..... 8  
Packing Group ..... II

Traceable to NIST

Pack Size: 100mL

2594

## SELENIUM AAS STANDARD, SPECTROSOL



A 1000 ppm Selenium standard, ready for use.  
Each mL contains 1.00 +/- 0.005mg of Se in 10% nitric acid.

U.N Number ..... 3264  
ADG Class ..... 8  
Packing Group ..... II

Traceable to NIST

Pack Size: 500mL

1200

## SELENIUM DIOXIDE, UNILAB



CAS 7446-08-4  
SeO<sub>2</sub> = 110.96  
Assay(after drying) ..... 97.0% min

U.N Number ..... 3283  
ADG Class ..... 6.1  
Packing Group ..... I

Pack Size: 100g

436

**SELENOUS ACID, UNILAB****CAS** 7783-00-8**Synonyms:** Selenious Acid $\text{H}_2\text{SeO}_3 = 128.97$ 

Assay ..... 95% min.

U.N Number ..... 2630

ADG Class ..... 6.1

Packing Group ..... I

**Maximum limit of impurities (%)** $\text{SO}_4$  ..... 0.1**Pack Size:** 100g

2033

**L-SERINE, UNIVAR****CAS** 56-45-1 $\text{C}_3\text{H}_7\text{NO}_3 = 105.1$ 

Description: white crystalline powder

Assay ..... 99.0% min.

Specific rotation ..... +13.5 to 16°

**Maximum limit of impurities (%)**

H.M. (as Pb) ..... 0.002

As ..... 0.0003

L.O.D ..... 0.3

Pb ..... 0.001

R.O.I ..... 0.1

**Pack size:** 25g**SEXTONE** (see Cyclohexanone page 144)

438

**SILICA, pure precipitated, LABCHEM****CAS** 112926-00-8 $\text{SiO}_2 = 60.09$ 

Appearance: Almost white powder

Assay ..... 98% min.

Density ..... approx 0.2g/mL

Particle size - residue on 18 nm ..... 10-50%

pH (5%) ..... 5-7

**Maximum limit of impurities (%)**

L.O.D.@ 105°C ..... 4-7

L.O.I.@ 1000°C ..... 5

**Pack Size:** 500g**SILICA GEL****CAS** 63231-67-4

1453

**SILICA GEL GRADE 12, 28-200 MESH, LABCHEM**

Suitable for chromatography.

Typical bead size ..... 0.075 - 0.60mm

**Pack Size:** 500g, 2kg

**1454****SILICA GEL 230-400 MESH (40-63 MICRONS), LABCHEM**

Typical bead size ..... 0.038 - 0.068mm

Pore Size ..... about 60Å

Pore volume ..... about 0.75mL/g

Specific Surface BET ..... about 450m<sup>2</sup>/g

Suitable for column Chromatography

**Pack Size:** 1Kg, 2.5Kg, 5Kg, 25Kg**1455****SILICA GEL, GRADE 60-200 MESH, LABCHEM**

Typical bead size ..... 0.06 - 0.1mm

Grade "Davison 923". testing of petroleum products,

Suitable for column chromatography

**Pack Size:** 500g**1510****SILICA GEL, 5-10 MESH, self indicating, Blue, LABCHEM**

Typical bead size ..... 2-4mm

Self indicating properties: Blue = active  
Pink = exhausted**Pack Size:** 500g, 3kg, 5kg, 12.5kg**840****SILICA GEL, 4-6 MESH, self indicating, Blue, LABCHEM****CAS** 63231-67-4

Typical bead size ..... 3-5mm

Self indicating properties: Blue = active  
Pink = exhausted**Pack Size:** 500g, 3kg, 5kg, 25kg**1456****SILICA GEL, self indicating sachets, LABCHEM**Useful for preservation of moisture-sensitive products. Blue beads turn pink when exhausted.  
10g sachets**Pack Size:** 500g**8745****SILICA GEL, self indicating, Orange, LABCHEM**

Contains an organic indicator that changes colour from orange to dark blue-green after absorbing moisture.

Typical bead size ..... 2-5mm

**Pack Size:** 500g, 1Kg, 3kg, 5kg, and 25Kg

**2665****SILICON 1000ppm SINGLE ELEMENT ICP STANDARD, UNIPURE**

A 1000 ppm Silicon standard, ready for use.  
Si in distilled water.

**Traceable to NIST**

**Pack Size:** 100mL

U.N Number ..... 1760  
ADG Class ..... 8  
Packing Group ..... III

**2622****SILICON AAS STANDARD, SPECTROSOL**

A 1000 ppm silicon standard, ready for use.  
Each mL contains 1.00 +/-0.005mg of Si.

**Traceable to NIST**

**Pack Size:** 500mL

U.N Number ..... 1760  
ADG Class ..... 8  
Packing Group ..... III

**SILICONE ANTIFOAMING AGENT** (see Antifoam page 77)**SILICONE GLASS TREATMENT SOLUTION** (see Coatasil page 132)**SILICONE GREASE** (see High Vacuum Grease page 195)**1403****SILICONE OIL, 200 FLUID, 350CS, DCS SPECTROSOL**

Water clear Dimethylsiloxane polymeric fluid.  
Uses: mechanical fluid, lubricant, damping and insulating agent, mould release,  
cosmetics, antifoams, polishes etc.  
Service range ..... 40 – 204°C

**Pack Size:** 500mL

**2647****SILVER 1000ppm SINGLE ELEMENT ICP STANDARD, UNIPURE**

A 1000 ppm Silver standard, ready for use.  
Ag in 0.5% Nitric acid.

**Traceable to NIST**

**Pack Size:** 100mL

U.N Number ..... 1760  
ADG Class ..... 8  
Packing Group ..... III

**2623****SILVER NITRATE AAS STANDARD, SPECTROSOL**

A 1000 ppm silver standard, ready for use. Each mL contains 1.00 +/-0.005mg  
of Ag in 0.5% nitric acid.  
Silver content ..... 995 - 1005mg/L

**Traceable to NIST**

**Pack Size:** 500mL

U.N Number ..... 1760  
ADG Class ..... 8  
Packing Group ..... III



445

**SILVER CHLORIDE, LABCHEM**

CAS 7783-90-6

AgCl = 143.32

Assay ..... 99% min.

| <i>Maximum limit of impurities</i> | <i>(%)</i> |
|------------------------------------|------------|
| Fe .....                           | 0.003      |
| Cu .....                           | 0.003      |
| Pb .....                           | 0.003      |
| Ni .....                           | 0.003      |

Pack Size: 25g

448

**SILVER IODIDE, LABCHEM**

CAS 7783-96-2

AgI = 234.77

Assay ..... 99.8% min.

| <i>Maximum limit of impurities</i> | <i>(%)</i> |          |        |
|------------------------------------|------------|----------|--------|
| Cd .....                           | 0.001      | Al ..... | 0.0005 |
| Mn .....                           | 0.001      | Si ..... | 0.001  |
| Mg .....                           | 0.001      | Fe ..... | 0.005  |
| Sn .....                           | 0.0005     | Cu ..... | 0.005  |

Protect from light

Pack Size: 25g, 100g, 5kg

**SILVER NITRATE**

CAS 7761-88-8

AgNO<sub>3</sub> = 169.87

U.N Number ..... 1493

ADG Class ..... 5.1

Packing Group ..... II

1807

**SILVER NITRATE, CERTIFIED REFERENCE STANDARD, UNIPURE**Assay (Arg.) (after drying with H<sub>2</sub>SO<sub>4</sub>) ..... 99.95 – 100.05%

| <i>Maximum limit of impurities</i>                     | <i>(%)</i>   |                |
|--------------------------------------------------------|--------------|----------------|
| Insoluble matter in H <sub>2</sub> O.....              | 0.003        | Ca..... 0.001  |
| Insoluble matter in C <sub>2</sub> H <sub>5</sub> OH . | To pass test | Cu..... 0.0002 |
| Non-precipit. subst. by HCl.....                       | 0.01         | Fe..... 0.0002 |
| Acidity.....                                           | To pass test | Mg..... 0.001  |
| Cl.....                                                | 0.0005       | K..... 0.01    |
| SO <sub>4</sub> .....                                  | 0.002        | Na..... 0.002  |
| Bi.....                                                | 0.0005       | Pb..... 0.001  |

Pack Size: 100g

449

**SILVER NITRATE, UNIVAR**

Description: colourless crystals which become grey or black if exposed to light.

Assay ..... 99.9% min.

| <b>Maximum limit of impurities</b> | <b>(%)</b>   |
|------------------------------------|--------------|
| Clarity of solution .....          | To pass test |
| Free acid .....                    | To pass test |
| Subs. not ppt. by HCl .....        | 0.01         |
| Cl .....                           | 0.0005       |
| SO <sub>4</sub> .....              | 0.002        |
| Cu .....                           | 0.0002       |
| Fe .....                           | 0.0002       |
| Pb .....                           | 0.001        |

Conforms to ACS

Protect from light.

**Pack Size:** 25g, 100g, 250g, 500g

631

**SILVER NITRATE, UNILAB**

Description: colourless, transparent crystals or white, crystalline powder; odourless.

Assay ..... 99.0 - 100.5%

| <b>Maximum limit of impurities</b> | <b>(%)</b>   |
|------------------------------------|--------------|
| Acidity or alkalinity .....        | To pass test |
| Clarity and colour of soln. ....   | To pass test |
| Foreign salts .....                | 0.3          |
| Al .....                           | To pass test |
| Pb .....                           | To pass test |
| Cu .....                           | To pass test |
| Bi .....                           | To pass test |

Chemical and physical parameters conform to BP

Protect from light

**Pack Size:** 25g, 100g, 250g, 500g

948

**SILVER NITRATE, LABCHEM**

Assay ..... 98.0% min.

| <b>Maximum limit of impurities</b> | <b>(%)</b> |
|------------------------------------|------------|
| Foreign salts .....                | 0.5        |

Protect from light

**Pack Size:** 25g, 100g

640

**SILVER NITRATE 0.100M SOLUTION, UNIVOL**

For the volumetric quantitative determination of halides.

Molarity (normality) ..... 0.0995 - 0.1005 mol/L

**Pack Size:** 500mL, 2.5L, 5L

U.N Number ..... 1760  
 ADG Class ..... 8  
 Packing Group ..... III



**1376****SILVER NITRATE 0.1MOL CONCENTRATE, AMPOULE, OP**

Description: plastic ampoule containing clear colourless liquid  
0.1 mole (16.987g AgNO<sub>3</sub>) to prepare 1L of 0.1N solution  
Titer ..... 0.998 – 1.002

U.N Number ..... 1760  
ADG Class ..... 8  
Packing Group ..... III

**Pack size:** Ampoule

**2399****SILVER NITRATE 0.05M SOLUTION, UNIVOL**

Molarity (normality) ..... 0.0497-0.0503M.

U.N Number ..... 1760  
ADG Class ..... 8  
Packing Group ..... III

**Pack Size:** 5L

**2397****SILVER NITRATE 0.0282M SOLUTION, UNIVOL**

Molarity (normality) ..... 0.0279 - 0.0285

U.N Number ..... 1760  
ADG Class ..... 8  
Packing Group ..... III

**Pack Size:** 2.5L

**718****SILVER NITRITE, LABCHEM**

CAS 7783-99-5  
AgNO<sub>2</sub> = 153.88

U.N Number ..... 1479  
ADG Class ..... 5.1  
Packing Group ..... II

**Pack Size:** 25g

**451****SILVER OXIDE, LABCHEM**

CAS 20667-12-3  
Ag<sub>2</sub>O = 231.74

U.N Number ..... 1479  
ADG Class ..... 5.1  
Packing Group ..... III

**Pack Size:** 25g

**SILVER SULPHATE**

CAS 10294-26-5  
Ag<sub>2</sub>SO<sub>4</sub> = 311.80

**2450****SILVER SULPHATE, UNIVAR**

Description: white crystalline powder, darkening on exposure to light.  
Assay ..... 99.0% min.

| <i>Maximum limit of impurities</i>  | <i>(%)</i> |
|-------------------------------------|------------|
| Insol. ....                         | 0.02       |
| NO <sub>3</sub> .....               | 0.001      |
| Fe .....                            | 0.001      |
| Subs. not precipitated by HCl ..... | 0.03       |

Conforms to ACS

**Pack Size:** 25g, 100g, 1kg

1202

**SILVER SULPHATE, UNILAB**

Assay ..... 98.0% min.

**Maximum limit of impurities (%)**

Cl ..... 0.04

Fe ..... 0.005

**Pack Size:** 25g, 100g**SLAKED LIME** (see Calcium Hydroxide page 114)**SODA ASH** (see Sodium Carbonate Anhydrous page 343)

1206

**SODA LIME SELF INDICATING 4-8 MESH, LABCHEM**

Colour change: off-white (active), violet (exhausted).

For removal of carbon dioxide when installed in columns/canisters to protect products from CO<sub>2</sub> absorption.**Pack Size:** 500g, 5kg

2648

**SODIUM 1000ppm SINGLE ELEMENT ICP STANDARD, UNIPURE**A 1000 ppm Sodium standard, ready for use.  
Na in 0.5% Nitric acid.U.N Number ..... 3264  
ADG Class ..... 8  
Packing Group ..... III**Traceable to NIST****Pack Size:** 100mL

2600

**SODIUM NITRATE AAS STANDARD, SPECTROSOL**A 1000 ppm sodium standard, ready for use.  
Each mL contains 1.00 +/- 0.005mg of Na in 0.5% nitric acid.U.N Number ..... 3264  
ADG Class ..... 8  
Packing Group ..... III**Traceable to NIST****Pack Size:** 500mL

# Labware Detergent

## Biodegradable

**Phosphate Free    Chlorine Free**

Ajax Labware detergent does not contain Enzymes or EDTA

**CAT No 7875** See page 146

**SODIUM ACETATE, anhydrous**

CAS 127-09-3

**Synonyms:** Acetic Acid Sodium SaltCH<sub>3</sub>COONa = 82.03**679****SODIUM ACETATE, anhydrous, UNIVAR**

Description: white hygroscopic powder.

Assay (after drying @ 120°C) ..... 99.0% min.

pH (5% soln. @ 25°C) ..... 7.0 – 9.2

**Maximum limit of impurities (%)**

|                        |        |
|------------------------|--------|
| Insol. ....            | 0.01   |
| L.O.D. (@ 120°C) ..... | 1.0    |
| Cl .....               | 0.002  |
| PO <sub>4</sub> .....  | 0.001  |
| SO <sub>4</sub> .....  | 0.003  |
| Fe .....               | 0.0005 |
| Cu .....               | 0.0005 |

|                    |        |
|--------------------|--------|
| Pb .....           | 0.0005 |
| Mg .....           | 0.001  |
| H.M. (as Pb) ..... | 0.001  |
| Al .....           | 0.001  |
| Ca .....           | 0.002  |
| K .....            | 0.02   |
| As .....           | 0.0001 |

Conforms to ACS

**Pack Size:** 500g, 5kg, 25kg**680****SODIUM ACETATE, anhydrous, UNILAB**

Assay (after drying @ 120°C) ..... 99.0% min.

pH (5% soln. @ 25°C) ..... 7.0 – 9.5

**Maximum limit of impurities (%)**

|                         |       |
|-------------------------|-------|
| L.O.D. (@120°C) .....   | 2.0   |
| Cl .....                | 0.02  |
| SO <sub>4</sub> .....   | 0.03  |
| H.M. & Fe (as Fe) ..... | 0.005 |

**Pack Size:** 500g, 5kg, 25kg**SODIUM ACETATE, hydrated**

CAS 6131-90-4

**Synonyms:** Acetic Acid Sodium SaltCH<sub>3</sub>COONa.3H<sub>2</sub>O = 136.08**456****SODIUM ACETATE, hydrated, UNIVAR**

Description: colourless crystals or crystalline powder

Assay ..... 99.0 - 101.0%

pH (5% soln. @ 25°C) ..... 7.5 – 9.2

**Maximum limit of impurities (%)**

|                       |        |
|-----------------------|--------|
| Insol. ....           | 0.005  |
| Cl .....              | 0.001  |
| Ca .....              | 0.001  |
| PO <sub>4</sub> ..... | 0.0005 |
| SO <sub>4</sub> ..... | 0.002  |
| Fe .....              | 0.0005 |
| Al .....              | 0.0005 |

|                                               |              |
|-----------------------------------------------|--------------|
| Cu .....                                      | 0.0005       |
| Pb .....                                      | 0.0005       |
| Mg .....                                      | 0.0005       |
| H.M. (as Pb) .....                            | 0.0005       |
| Subs. reducing KMnO <sub>4</sub> (as O) ..... | To pass test |
| K .....                                       | 0.005        |

Conforms to ACS

**Pack Size:** 500g, 2kg, 5kg, 10kg, 25kg

457

**SODIUM ACETATE**, hydrated, UNILAB

|                     |            |
|---------------------|------------|
| Assay .....         | 99.0% min. |
| pH (5% soln.) ..... | 7.5 – 9.2  |
| L.O.D. ....         | 36 – 41%   |

**Maximum limit of impurities****(%)**

|                       |       |
|-----------------------|-------|
| Cl .....              | 0.005 |
| SO <sub>4</sub> ..... | 0.02  |
| Fe .....              | 0.005 |
| H.M. (as Pb) .....    | 0.001 |

|                           |              |
|---------------------------|--------------|
| Alkalinity .....          | 0.05         |
| As .....                  | 0.0003       |
| Potassium Compounds ..... | To pass test |

Chemical and physical parameters conform to BP and USP

**Pack Size:** 500g, 5kg, 25kg**SODIUM ACID CITRATE** (see di-Sodium Hydrogen Citrate page 354)

1560

**SODIUM ALGinate**, TECHNICAL**CAS** 9005-38-3**Synonyms:** Algin

Aqueous thickener. Particle size (1400 microns) 98% min.

pH (1%) ..... 5.5 – 8.5

Viscosity ..... 2700 – 4000 cps

Dry Matter ..... 85 - 94%

**Pack Size:** 250g

1076

**SODIUM ARSENATE**, hydrated, UNIVAR**CAS** 13464-38-5**Synonyms:** Sodium ortho-arsenateNa<sub>2</sub>HAsO<sub>4</sub>·7H<sub>2</sub>O = 312.01

Description: white crystals or crystalline powder.

Assay ..... 98.0 - 102.0%

U.N Number ..... 1685

ADG Class ..... 6.1

Packing Group ..... II

**Maximum limit of impurities****(%)**

|                                      |       |
|--------------------------------------|-------|
| Insol. ....                          | 0.005 |
| As <sub>2</sub> O <sub>3</sub> ..... | 0.01  |
| Cl .....                             | 0.001 |
| NO <sub>3</sub> .....                | 0.005 |
| SO <sub>4</sub> .....                | 0.01  |
| Fe .....                             | 0.001 |
| H.M. (as Pb) .....                   | 0.002 |

Conforms to ACS

**Pack Size:** 500g

1211

## SODIUM ARSENITE, UNILAB



CAS 7784-46-5

Synonyms: Sodium meta-arsenite

NaAsO<sub>2</sub> = 129.91

Appearance: Off-white to grey. 10% aqueous solution is turbid.

Assay ..... 99.0% min.

U.N Number ..... 2027

ADG Class ..... 6.1

Packing Group ..... II

**Maximum limit of impurities (%)**Insoluble in H<sub>2</sub>O ..... 0.01

Cl ..... 0.01

Cu ..... 0.002

K ..... 0.02

Pb ..... 0.002

Pack Size: 500g

1222

## SODIUM AZIDE, LABCHEM



CAS 26628-22-8

NaN<sub>3</sub> = 65.01

Assay ..... 99.0% min.

Total Moisture ..... 0.2% max.

Free alkalinity (as NaOH) ..... 0.2% max.

U.N Number ..... 1687

ADG Class ..... 6.1

Packing Group ..... II

Pack Size: 100g, 500g, 5 Kg

459

## SODIUM BENZOATE, UNILAB

CAS 532-32-1

Synonyms: Benzoic Acid Sodium salt

C<sub>6</sub>H<sub>5</sub>COONa = 144.11

Description: white, crystalline or granular powder or flakes; slightly hygroscopic.

Assay (after drying) ..... 99.0 - 100.5%

**Maximum limit of impurities (%)**

Clarity &amp; colour of solution ..... To pass test

Acidity or alkalinity ..... To pass test

L.O.D. .... 2.0

Halogenated cpds. (ionic Cl) ..... 0.02

Total Chlorine ..... 0.03

H.M. (as Pb) ..... 0.001

Chemical and physical parameters conform to BP and FCC

Pack Size: 500g, 5kg, 25kg

SODIUM BICARBONATE (see Sodium Hydrogen Carbonate page 353)

SODIUM BICHR0MATE (see Sodium Dichromate page 349)

**SODIUM BISMUTHATE**

CAS 12232-99-4

NaBiO<sub>3</sub> = 279.97**833****SODIUM BISMUTHATE, UNIVAR**

Description: yellow to brown amorphous powder.

Assay ..... 85% min.

| <i>Maximum limit of impurities</i> | <i>(%)</i> |
|------------------------------------|------------|
| Cl .....                           | 0.002      |
| Mn .....                           | 0.0005     |
| NO <sub>3</sub> .....              | 0.004      |
| Soluble peroxide(as O) .....       | 0.008      |

**Pack Size:** 100g**1223****SODIUM BISMUTHATE, UNILAB**

Assay ..... 80.0% min.

| <i>Maximum limit of impurities</i> | <i>(%)</i> |
|------------------------------------|------------|
| Cl .....                           | 0.015      |
| Mn .....                           | 0.002      |

**Pack Size:** 500g**SODIUM BISULPHATE** (see Sodium Hydrogen Sulphate page 356)**SODIUM BORATE** (see Sodium Tetraborate page 374)**SODIUM BOROFLUORIDE** (see Sodium Fluoborate page 351)**2334****SODIUM BOROHYDRIDE, LABCHEM**

CAS 16940-66-2

**Synonyms:** Sodium TetrahydroboraneNaBH<sub>4</sub> = 37.83

Description: Reducing Agent - useful for recovery of metals, in dyeing, organic synthesis.

Typical assay ..... 97% min.

**Pack Size:** 25g, 100g, 500g, 5kg

U.N Number ..... 1426

ADG Class ..... 4.3

Packing Group ..... I

**2562****SODIUM BOROHYDRIDE TABLETS FOR AAS, LABCHEM**

CAS 16940-66-2

Dimension of tablets approx 11mm diameter &amp; 17.5mm long.

Assay ..... approx 97%

Used in AAS hydride determination of arsenic, selenium etc.

U.N Number ..... 1426

ADG Class ..... 4.3

Packing Group ..... I

**Traceable to NIST****Pack Size:** x 500



462

**SODIUM BROMIDE, UNILAB**

CAS 7647-15-6

NaBr = 102.89

Assay (after drying) ..... 99.5% min.

pH (5%) ..... 6 - 8

**Maximum limit of impurities****(%)**

L.O.D. .... 0.3

Alkalinity ..... 0.4 mmol OH

BrO<sub>3</sub> ..... 0.001

Cl ..... 0.1

SO<sub>4</sub> ..... 0.005

As ..... 0.0002

Ba ..... 0.05

Fe ..... 0.0002

Pb ..... 0.001

Hg ..... 0.000002

I ..... 0.01

**Pack Size:** 500g, 10kg**SODIUM CARBONATE, anhydrous**

CAS 497-19-8

**Synonyms:** Soda AshNa<sub>2</sub>CO<sub>3</sub> = 105.99

1808

**SODIUM CARBONATE, anhydrous, CERTIFIED REFERENCE STANDARD, UNIPURE**

Assay (Acidim.) after drying at 120°C ..... 99.95 – 100.05%

**Maximum limit of impurities****(%)**Insoluble matter in H<sub>2</sub>O ..... 0.005Reducing substances I<sub>2</sub> ..... 0.005

Nitrogen cpds (as N) ..... 0.001

Sulphur cpds (as SO<sub>4</sub>) ..... 0.003

Cl ..... 0.001

PO<sub>4</sub> ..... 0.001SiO<sub>2</sub> ..... 0.005

H.M. (as Pb) ..... 0.0005

Al ..... 0.001

As ..... 0.0001

Ca ..... 0.005

Fe ..... 0.0005

K ..... 0.005

Mg ..... 0.002

Ni ..... 0.0005

Cu ..... 0.0005

Pb ..... 0.0005

**Pack Size:** 100g

463

**SODIUM CARBONATE, anhydrous UNIVAR**

Description: white, hygroscopic slightly granular powder.

Assay(after drying @ 285°C) ..... 99.8%

**Maximum limit of impurities****(%)**

Insol. .... 0.01

L.O.D. (@285 °C) ..... 1.0

Cl ..... 0.001

PO<sub>4</sub> ..... 0.001

Al ..... 0.001

N cpds (as N) ..... 0.001

SiO<sub>2</sub> ..... 0.005

Ca ..... 0.01

S cpds (as SO<sub>4</sub>) ..... 0.003

Cu ..... 0.0005

Fe ..... 0.0005

Pb ..... 0.0005

H.M. (as Pb) ..... 0.0005

As ..... 0.0001

Alkali hydroxides &amp; bicarb. .... To pass test

Clarity &amp; colour of solution ..... To pass test

K ..... 0.005

Mg ..... 0.005

Ammonium Hydroxide Pptes ..... 0.01

Chemical and physical parameters conform to ACS and BP

**Pack Size:** 500g, 1.5kg, 5kg, 25kg

464

**SODIUM CARBONATE, anhydrous UNILAB**

A white or almost white, slightly granular powder; hygroscopic.  
 Assay(after drying @ 300°C) ..... 99.5 – 100.5%

| <b>Maximum limit of impurities</b>   | <b>(%)</b>   |
|--------------------------------------|--------------|
| Clarity & colour of sol. ....        | To pass test |
| L.O.D. (@300°C) .....                | 1.0          |
| Cl .....                             | 0.0125       |
| SO <sub>4</sub> .....                | 0.025        |
| As .....                             | 0.0005       |
| Fe .....                             | 0.005        |
| H.M. (as Pb) .....                   | 0.005        |
| Alkali hydroxide & bicarbonate ..... | To pass test |

Chemical and physical parameters conform to BP

**Pack Size:** 500g, 5kg, 25kg

**SODIUM CARBONATE, decahydrate**

**CAS** 6132-02-1  
 $\text{Na}_2\text{CO}_3 \cdot 10\text{H}_2\text{O}$  = 286.15

1224

**SODIUM CARBONATE, decahydrate, UNIVAR**

Description: moist, colourless crystals.  
 Assay ..... 99.0 - 102.0%

| <b>Maximum limit of impurities</b> | <b>(%)</b> |
|------------------------------------|------------|
| Cl .....                           | 0.001      |
| N cpds (as N) .....                | 0.0005     |
| PO <sub>4</sub> .....              | 0.001      |
| SiO <sub>2</sub> .....             | 0.001      |
| S cpds (as SO <sub>4</sub> ) ..... | 0.002      |
| As .....                           | 0.00005    |
| Fe .....                           | 0.0002     |
| H.M. (as Pb) .....                 | 0.0005     |
| K .....                            | 0.005      |

Store below 25°C

**Pack Size:** 500g

1225

**SODIUM CARBONATE, decahydrate, UNILAB**

Description: Colourless, transparent crystals or a white, crystalline powder; odourless; efflorescent.  
 Assay (as  $\text{Na}_2\text{CO}_3$ ) ..... 36.7 - 40.0%

| <b>Maximum limit of impurities</b>   | <b>(%)</b>   |
|--------------------------------------|--------------|
| Clarity & colour of sol. ....        | To pass test |
| Alkali hydroxide & bicarbonate ..... | To pass test |
| Cl .....                             | 0.005        |
| SO <sub>4</sub> .....                | 0.01         |
| Fe .....                             | 0.002        |
| H.M. (as Pb) .....                   | 0.002        |
| As .....                             | 0.0002       |

Chemical and physical parameters conform to BP

Store below 25°C

**Pack Size:** 500g, 1kg, 5kg

1520

## SODIUM CHLORATE, UNILAB



CAS 7775-09-9

NaClO<sub>3</sub> = 106.44

Assay ..... 99.0% min.

U.N Number ..... 1495

ADG Class ..... 5.1

Packing Group ..... II

**Maximum limit of impurities****(%)**

|                       |        |
|-----------------------|--------|
| Cl .....              | 0.050  |
| SO <sub>4</sub> ..... | 0.005  |
| H.M. (as Pb) .....    | 0.002  |
| Ca .....              | 0.005  |
| Fe .....              | 0.0010 |
| K .....               | 0.005  |
| Total N .....         | 0.001  |

**Pack Size:** 500g, 5kg

## SODIUM CHLORIDE

CAS 7647-14-5

**Synonyms:** Salt, common

NaCl = 58.44

1809

## SODIUM CHLORIDE, CERTIFIED REFERENCE STANDARD, UNIPURE

Assay (Arg.) after drying at 110°C ..... 99.95 – 100.05%

pH (5% soln.) ..... 5.0 -8.0

**Maximum limit of impurities****(%)**

|                                                            |        |                        |         |
|------------------------------------------------------------|--------|------------------------|---------|
| Insoluble matter in H <sub>2</sub> O .....                 | 0.005  | SiO <sub>2</sub> ..... | 0.005   |
| Nitrogen cpds (as N) .....                                 | 0.001  | H.M. (as Pb) .....     | 0.0005  |
| Br .....                                                   | 0.01   | As .....               | 0.00004 |
| Chlorate and nitrate (as NO <sub>3</sub> ) .....           | 0.003  | Ba .....               | 0.0005  |
| Hexacyanoferrate (II) & (III) (Fe(CN) <sub>6</sub> ) ..... | 0.0001 | Ca .....               | 0.002   |
| PO <sub>4</sub> .....                                      | 0.0005 | Cu .....               | 0.0002  |
| SO <sub>4</sub> .....                                      | 0.001  | Fe .....               | 0.0002  |
| I .....                                                    | 0.002  | K .....                | 0.005   |
| H.M. (as Pb) .....                                         | 0.0005 | Mg .....               | 0.001   |
| Cl .....                                                   | 0.001  | Ni .....               | 0.0005  |
| PO <sub>4</sub> .....                                      | 0.001  | Pb .....               | 0.0002  |

**Pack Size:** 100g

465

## SODIUM CHLORIDE, UNIVAR

Description: colourless crystals or crystalline powder.

Assay(after ignition @ 500°C) ..... 99.9% min.

pH (5% soln. @ 25°C) ..... 5.0 – 9.0

**Maximum limit of impurities****(%)**

|                                                                |       |                        |        |
|----------------------------------------------------------------|-------|------------------------|--------|
| Insol. ....                                                    | 0.005 | PO <sub>4</sub> .....  | 0.0005 |
| Br .....                                                       | 0.01  | H.M (as Pb) .....      | 0.0005 |
| ClO <sub>3</sub> & NO <sub>3</sub> (as NO <sub>3</sub> ) ..... | 0.003 | SO <sub>4</sub> .....  | 0.004  |
| I .....                                                        | 0.002 | Cu .....               | 0.0002 |
| Ca .....                                                       | 0.002 | Fe .....               | 0.0002 |
| Mg .....                                                       | 0.001 | Pb .....               | 0.0002 |
| N cpds (as N) .....                                            | 0.001 | K .....                | 0.005  |
| Ba .....                                                       | 0.001 | Loss on ignition ..... | 1.0    |

Conforms to ACS

**Pack Size:** 500g, 2.5kg, 5kg, 10kg, 25kg

466

**SODIUM CHLORIDE, UNILAB**

Description: colourless crystals or white crystalline powder; odourless.

Assay(after drying) ..... 99.0 - 100.5%

**Maximum limit of impurities****(%)**

|                                   |                |                                      |         |
|-----------------------------------|----------------|--------------------------------------|---------|
| Appearance of Solution. ....      | 0.01           | Mg & alkali-earth metals as Ca ..... | 0.01    |
| L.O.D. (105 °C for 2 hours) ..... | 0.5            | PO <sub>4</sub> .....                | 0.0025  |
| Acidity or alkalinity .....       | To pass test   | SO <sub>4</sub> .....                | 0.02    |
| Nitrites(Abs @354nm) .....        | 0.01 Abs Units | As .....                             | 0.0001  |
| Br .....                          | To pass test   | H.M.(as Pb) .....                    | 0.0005  |
| I .....                           | To pass test   | Fe .....                             | 0.0002  |
| Ba .....                          | To pass test   | Al .....                             | 0.00002 |
| Ferrocyanide .....                | To pass test   | K .....                              | 0.05    |

Chemical and physical parameters conform to BP and EP

**Pack Size:** 500g, 2.5kg, 5kg, 10kg, 25kg

950

**SODIUM CHLORIDE, LABCHEM**

Assay(after drying) ..... 98.0% min.

**Maximum limit of impurities****(%)**

|                       |       |
|-----------------------|-------|
| SO <sub>4</sub> ..... | 0.03  |
| H.M.(as Pb) .....     | 0.001 |

**Pack Size:** 500g

1226

**SODIUM CHLORIDE, TECHNICAL****Pack Size:** 3kg

1684

**SODIUM CHLORITE 80 %, powder, TECHNICAL****CAS** 7758-19-2Assay (as NaClO<sub>2</sub>) ..... about 80%.

U.N Number ..... 1496

ADG Class ..... 5.1

Packing Group ..... II

**Pack Size:** 500g

2407

**SODIUM CHLOROAUROATE, LABCHEM****CAS** 15189-51-2**Synonyms:** Gold Chloride, yellow, Auric Sodium ChlorideNaAuCl<sub>4</sub>.2H<sub>2</sub>O = 397.80

Assay ..... 99.9%

U.N Number ..... 1759

ADG Class ..... 8

Packing Group ..... III

**Maximum limit of impurities****(%)**

|          |        |          |        |
|----------|--------|----------|--------|
| Pt ..... | 0.001  | Fe ..... | 0.001  |
| Ag. .... | 0.003  | Mn ..... | 0.0001 |
| Al.....  | 0.001  | Cu ..... | 0.001  |
| Cd. .... | 0.0004 | Mg ..... | 0.0001 |
| Si.....  | 0.002  | Zn ..... | 0.001  |

**Pack Size:** 1g

**SODIUM CHROMATE**

CAS 7775-11-3  
 $\text{Na}_2\text{CrO}_4 = 161.97$

U.N Number ..... 3288  
 ADG Class ..... 6.1  
 Packing Group ..... III

**1394****SODIUM CHROMATE, UNILAB**

Assay ..... 99% min.  
 pH (5%) ..... 8.5 – 10.0

**Maximum limit of impurities (%)**

|                       |       |
|-----------------------|-------|
| Cl .....              | 0.005 |
| Ca .....              | 0.005 |
| Cu .....              | 0.001 |
| Fe .....              | 0.001 |
| SO <sub>4</sub> ..... | 0.01  |

Pack Size: 500g

**1389****SODIUM CHROMATE, anhydrous, TECHNICAL**

Pack Size: 500g

**SODIUM CITRATE, DIBASIC** (see di-Sodium Hydrogen Citrate page 354)**SODIUM CITRATE, tribasic** (see tri-Sodium Citrate page 347)**tri-SODIUM CITRATE**

CAS 6132-04-3  
**Synonyms:** Sodium Citrate, tribasic  
 $\text{Na}_3\text{C}_6\text{H}_5\text{O}_7 \cdot 2\text{H}_2\text{O} = 294.10$

**467****tri-SODIUM CITRATE, UNIVAR**

Description: colourless crystals or crystalline powder.

Assay ..... 99.0% min.  
 pH (5% soln. @ 25 °C) ..... 7.0 – 9.0  
 H<sub>2</sub>O (K.F.) ..... 11-13%

**Maximum limit of impurities (%)**

|                                     |        |                   |        |
|-------------------------------------|--------|-------------------|--------|
| PO <sub>4</sub> .....               | 0.002  | Fe .....          | 0.0005 |
| Cl .....                            | 0.001  | Pb .....          | 0.0005 |
| C <sub>2</sub> O <sub>4</sub> ..... | 0.02   | Zn .....          | 0.0005 |
| SO <sub>4</sub> .....               | 0.001  | Ammonia .....     | 0.001  |
| Ca .....                            | 0.005  | H.M (as Pb) ..... | 0.0005 |
| Cu .....                            | 0.0005 | Insols. ....      | 0.003  |

Conforms to ACS

Pack Size: 500g, 1kg, 5kg, 25kg

468

**tri-SODIUM CITRATE, UNILAB**

Description: white granular crystals or white, crystalline powder; odourless. Slightly deliquescent in moist air.

Assay (as  $\text{Na}_3\text{C}_6\text{H}_5\text{O}_7$ ) ..... 99.0 - 101.0% $\text{H}_2\text{O}$  ..... 11.0 - 13.0%**Maximum limit of impurities****(%)**

Clarity &amp; colour of soln. .... To pass test

Acidity or alkalinity ..... 2.0 mmol H or OH

Cl ..... 0.005

 $\text{C}_2\text{O}_4$  ..... 0.0300 $\text{SO}_4$  ..... 0.0150

H.M. (as Pb) ..... 0.0010

Readily carbonisable subs. .... To pass test

Chemical and physical parameters conform to BP

**Pack Size:** 500g, 5kg, 25kg

834

**SODIUM COBALTINITRITE, UNIVAR****CAS** 13600-98-1**Synonyms:** Sodium Hexanitrocobaltate (III) $\text{Na}_3\text{Co}(\text{NO}_2)_6 = 403.94$ 

Description: orange-yellow powder.

Assay ..... 95.0% min.

U.N Number ..... 2627

ADG Class ..... 5.1

Packing Group ..... II

**Maximum limit of impurities****(%)**

Insol. .... 0.02

Cl ..... 0.005

 $\text{SO}_4$  ..... 0.01

Suitability for K detmn. .... To pass test

Conforms to ACS

**Pack Size:** 100g, 500g

469

**SODIUM CYANIDE, powder, UNILAB****CAS** 143-33-9 $\text{NaCN} = 49.01$ 

Assay ..... 97.0% min.

U.N Number ..... 1689

ADG Class ..... 6.1

Packing Group ..... I

**Maximum limit of impurities****(%)**

Cl ..... 0.2

 $\text{SO}_4$  ..... 0.01

H.M. &amp; Fe (as Fe) ..... 0.005

Have pure breathing Oxygen ready.

Refer MSDS

**Pack Size:** 250g, 5kg

# Ampoules

See page 38 for the full range and  
concentrations of ampoules available.

Hydrochloric Acid  
Oxalic Acid  
Sulphuric Acid  
Ammonium Thiocyanate  
Silver Nitrate  
EDTA  
Iodine  
Potassium Dichromate  
Potassium Hydroxide  
Potassium Permanganate  
Sodium Hydroxide  
Sodium Thiosulphate

**SODIUM DICHROMATE, dihydrate**

CAS 7789-12-0

**Synonyms:** Sodium BichromateNa<sub>2</sub>Cr<sub>2</sub>O<sub>7</sub>·2H<sub>2</sub>O = 298.00

U.N Number ..... 3288

ADG Class ..... 6.1

Packing Group ..... II

**1227****SODIUM DICHROMATE, dihydrate, UNILAB**

Assay ..... 99.0% min.

**Maximum limit of impurities (%)**

Cl ..... 0.05

SO<sub>4</sub> ..... 0.1

V ..... 0.003

**Pack Size:** 500g, 25kg**1228****SODIUM DICHROMATE, dihydrate, TECHNICAL****Pack Size:** 3kg**SODIUM 5,5-DIETHYLBARBITURATE** (see Barbitone Sodium page 82)**1229****SODIUM DIETHYLDITHIOCARBAMATE, UNIVAR**

CAS 148-18-5

(C<sub>2</sub>H<sub>5</sub>)<sub>2</sub>NCSSNa·3H<sub>2</sub>O = 225.30

Description: colourless crystals or crystalline powder.

Reagent for Cu and many metals.

Na (as Na<sub>2</sub>SO<sub>4</sub>) ..... 30.5 32.5%**Maximum limit of impurities (%)**Solubility (in H<sub>2</sub>O) ..... To pass test

Sensitivity to copper ..... To pass test

Conforms to ACS

**Pack Size:** 25g**SODIUM DIHYDROGEN ORTHOPHOSPHATE**

CAS 13472-35-0

**Synonyms:** Sodium Phosphate, monobasicNaH<sub>2</sub>PO<sub>4</sub>·2H<sub>2</sub>O = 156.01**471****SODIUM DIHYDROGEN ORTHOPHOSPHATE, UNIVAR**

Description: fine colourless crystals.

Assay ..... 99.0 - 101.0%

pH (5% soln.) ..... 4.3 - 4.5

**Maximum limit of impurities (%)**

Insol. .... 0.01

Cl ..... 0.001

Fe ..... 0.001

Mg ..... 0.001

SO<sub>4</sub> ..... 0.005

K ..... 0.005

As ..... 0.00004

Ca ..... 0.002

Cu ..... 0.0001

Pb ..... 0.0001

**Pack Size:** 500g, 3kg, 5kg, 25kg

472

**SODIUM DIHYDROGEN ORTHOPHOSPHATE, UNILAB**

Description: colourless crystals or white, crystalline powder; odourless.

|                            |               |
|----------------------------|---------------|
| Assay .....                | 98.0 - 100.5% |
| Acidity (pH, 5% w/v) ..... | 4.2 – 4.5     |
| Clarity and colour .....   | To pass test  |
| Loss on drying .....       | 21.5 – 24.0%  |

| <b>Maximum limit of impurities</b> |              | <b>(%)</b> |                          |
|------------------------------------|--------------|------------|--------------------------|
| Cl .....                           | 0.020        |            | Arsenic(As) ..... 0.0002 |
| SO <sub>4</sub> .....              | 0.030        |            | HM (as Pb) ..... 0.0010  |
| Reducing Substances .....          | To pass test |            | Iron(Fe) ..... 0.0010    |

Chemical and physical parameters conform to BP

**Pack Size:** 500g, 5kg, 10kg, 25kg

3964

**SODIUM DIHYDROGEN ORTHOPHOSPHATE, Anhydrous, UNIVAR****CAS** 7558-80-7NaH<sub>2</sub>PO<sub>4</sub> = 119.98

|             |            |
|-------------|------------|
| Assay ..... | 99.0% min. |
|-------------|------------|

| Maximum limit of impurities |       | (%)    |                 |              |
|-----------------------------|-------|--------|-----------------|--------------|
| Insoluble matter            | ..... | 0.01   | Pb              | ..... 0.0005 |
| Ca                          | ..... | 0.005  | Mg              | ..... 0.002  |
| Cu                          | ..... | 0.0002 | K               | ..... 0.01   |
| Fe                          | ..... | 0.001  | SO <sub>4</sub> | ..... 0.01   |
| K                           | ..... | 0.002  |                 |              |

Conforms to ACS

**Pack size:** 500g, 5Kg

4745

**SODIUM DIHYDROGEN ORTHOPHOSPHATE, monohydrate, UNILAB****CAS** 10049-21-5NaH<sub>2</sub>PO<sub>4</sub> .H<sub>2</sub>O = 137.99

|                                  |                |
|----------------------------------|----------------|
| Assay .....                      | 98.0 – 100.5%. |
| Identity (according to BP) ..... | To pass test   |
| pH (5% solution) .....           | 4.2 – 4.5      |

| Maximum limit of impurities              |              | (%) |                                                |
|------------------------------------------|--------------|-----|------------------------------------------------|
| Appearance and colour of solution        | To pass test |     | SO <sub>4</sub> ..... 0.03                     |
| Insoluble matter in H <sub>2</sub> O     | 0.005        |     | Al, Ca and related elements ..... To pass test |
| Loss on drying at 130°C                  | 11.5 – 13.5  |     | Heavy Metals (as Pb) ..... 0.001               |
| Organic volatile impurities              | To pass test |     | As ..... 0.0002                                |
| Reducing substances to KMnO <sub>4</sub> | To pass test |     | Fe ..... 0.001                                 |
| Cl                                       | 0.014        |     |                                                |

Chemical and physical parameters conform to BP and USP

**Pack Size:** 25Kg**SODIUM DIOXIDE** (see Sodium Peroxide page 367)



3130

**SODIUM DIPHENYLAMINE-4-SULPHONATE, OP**

CAS 6152-67-6

 $C_6H_5NHC_6H_4SO_3Na = 271.27$ 

Redox indicator.

Transition EMF (@ pH=0) ..... +0.84 V

Colour change: Oxidized (red-violet) to reduced (colourless)

Pack Size: 25g

481

**SODIUM DITHIONITE, TECHNICAL**

CAS 7775-14-6

Synonyms: Sodium Hydrosulphite

 $Na_2S_2O_4 + H_2O$ 

Description: White powder.

Assay ..... 80% min.

Density ..... 0.7 – 0.8

pH ..... 6.0 – 7.0

Pack Size: 500g

U.N Number ..... 1384

ADG Class ..... 4.2

Packing Group ..... II

**SODIUM DODECYL SULPHATE** (see Sodium Lauryl Sulphate page 361)

2400

**SODIUM FLUOBORATE, TECHNICAL**

CAS 13755-29-8

Synonyms: Sodium Borofluoride, Sodium Fluoroborate

 $NaBF_4 = 109.79$ 

Assay ..... about 97%

U.N Number ..... 2811

ADG Class ..... 6.1

Packing Group ..... III

**Maximum limit of impurities (%)**

Fe ..... 0.005

H.M. (as Pb) ..... 0.005

Cl ..... 0.1

 $SO_4$  ..... 0.1

Pack Size: 250g

**SODIUM FLUORIDE**

CAS 7681-49-4

Synonyms: Villaumite

 $NaF = 41.99$ 

U.N Number ..... 1690

ADG Class ..... 6.1

Packing Group ..... III



1230

**SODIUM FLUORIDE, UNIVAR**

Description: white crystalline powder.

Assay ..... 99.0% min.

**Maximum limit of impurities (%)**

Insol. .... 0.02

L.O.D. (@150 °C) ..... 0.3

Titratable acid ..... 0.03 meq/g

Titratable base ..... 0.01 meq/g

Cl ..... 0.001

 $Na_2SiF_6$  ..... 0.1 $SO_4$  ..... 0.01 $SO_3$  ..... 0.005

Fe ..... 0.001

H.M. (as Pb) ..... 0.001

Cu ..... 0.0005

K ..... 0.01

Conforms to ACS

Pack Size: 500g, 5kg

1231

**SODIUM FLUORIDE, UNILAB**

Assay ..... 98% min.

**Maximum limit of impurities (%)**

|                                 |      |
|---------------------------------|------|
| Cl .....                        | 0.01 |
| SO <sub>4</sub> .....           | 0.5  |
| H.M.(as Pb) .....               | 0.01 |
| Fe .....                        | 0.02 |
| Sodium hexafluorosilicate ..... | 1    |

**Pack Size:** 500g, 5kg, 20kg, 25kg

217

**SODIUM FLUORIDE, TECHNICAL**

Assay ..... 96% approx.

**Maximum limit of impurities (%)**

|                                               |     |
|-----------------------------------------------|-----|
| Na <sub>2</sub> SiF <sub>6</sub> approx ..... | 1.5 |
|-----------------------------------------------|-----|

**Pack Size:** 500g**SODIUM FLUOROBORATE** (see Sodium Fluoborate page 351)**SODIUM FORMATE**

**Synonyms:** Formic Acid Sodium Salt  
 CAS 141-53-7  
 HCOONa = 68.01  
 Description: colourless crystals or crystalline powder.

2349

**SODIUM FORMATE, UNIVAR**

Assay ..... 99.0% min.

**Maximum limit of impurities (%)**

|                       |        |
|-----------------------|--------|
| Insols. ....          | 0.005  |
| Cl .....              | 0.001  |
| SO <sub>4</sub> ..... | 0.001  |
| Ca .....              | 0.005  |
| Fe .....              | 0.0005 |
| H.M. (as Pb) .....    | 0.0005 |

Conforms to ACS

**Pack Size:** 500g

1232

**SODIUM FORMATE, UNILAB**

Assay ..... 98.0% min.

**Maximum limit of impurities (%)**

|                       |       |
|-----------------------|-------|
| Cl .....              | 0.005 |
| SO <sub>4</sub> ..... | 0.005 |
| H.M. (as Pb) .....    | 0.001 |
| Fe .....              | 0.001 |

**Pack Size:** 500g

734

**SODIUM GLUCONATE, TECHNICAL**

CAS 527-07-1

 $\text{CH}_2\text{OH}(\text{CHOH})_4\text{COONa} = 218.15$ 

Assay ..... approx 99.5%

| <i>Maximum limit of impurities</i> | <i>(%)</i> |
|------------------------------------|------------|
| As .....                           | 0.0003     |
| H.M. (as Pb) .....                 | 0.0020     |
| Pb .....                           | 0.0010     |

Pack Size: 500g

**SODIUM HEXAMETAPHOSPHATE** (see Sodium polymetaphosphate page 368)**SODIUM HEXANITROCOBALTATE (III)** (see Sodium Cobaltinitrite page 348)**SODIUM HYDROGEN CARBONATE**

CAS 144-55-8

**Synonyms:** Sodium Bicarbonate $\text{NaHCO}_3 = 84.01$ 

475

**SODIUM HYDROGEN CARBONATE, UNIVAR**

Description: soft white crystalline powder.

Assay ..... 99.7 - 100.3%

| <i>Maximum limit of impurities</i> | <i>(%)</i> |                            |
|------------------------------------|------------|----------------------------|
| Insol. ....                        | 0.015      | Mg ..... 0.005             |
| Cl. ....                           | 0.003      | H.M. (as Pb) ..... 0.0005  |
| $\text{PO}_4$ ....                 | 0.001      | $\text{NH}_4$ ..... 0.0005 |
| Fe. ....                           | 0.001      | Cu ..... 0.0005            |
| S cpds (as $\text{SO}_4$ ) ....    | 0.003      | Pb ..... 0.0005            |
| K ..... 0.005                      |            | Ca ..... 0.02              |

Conforms to ACS

Pack Size: 500g, 1kg, 5kg, 25kg

476

**SODIUM HYDROGEN CARBONATE, UNILAB**

Description: white, crystalline powder; odourless. Changes progressively into sodium carbonate when heated in the dry state or in solution.

Assay ..... 99.0 - 101.0%

pH (5% soln.) ..... 8.6 max.

| <i>Maximum limit of impurities</i> | <i>(%)</i>   |
|------------------------------------|--------------|
| Clarity and colour of soln. ....   | To pass test |
| Cl ..... 0.015                     |              |
| $\text{SO}_4$ ..... 0.015          |              |
| As ..... 0.0002                    |              |
| Ca ..... 0.01                      |              |
| H.M. (as Pb) ..... 0.001           |              |
| $\text{NH}_4$ ..... 0.002          |              |
| Fe ..... 0.002                     |              |

Chemical and physical parameters conform to BP

Pack Size: 1kg, 5kg, 25kg

477

**di-SODIUM HYDROGEN CITRATE, UNILAB**

CAS 144-33-2

**Synonyms:** Sodium Acid Citrate, Sodium Citrate, dibasic $C_6H_6O_7Na_2 \cdot \frac{1}{2}H_2O = 263.09$ 

Description: white powder; odourless or almost odourless.

Assay ..... 98.0 - 104.0%

**Maximum limit of impurities****(%)**

Cl ..... 0.0330

SO<sub>4</sub> ..... 0.12

As ..... 0.0002

H.M. (as Pb) ..... 0.0020

Oxalate ..... 0.0150

Readily carbonisable subs. .... To pass test

Chemical and physical parameters conform to BP

**Pack Size:** 500g, 5kg**di-SODIUM HYDROGEN ORTHOPHOSPHATE, anhydrous**

CAS 7558-79-4

**Synonyms:** Sodium Phosphate, dibasic $Na_2HPO_4 = 141.96$ 

621

**di-SODIUM HYDROGEN ORTHOPHOSPHATE, anhydrous, UNIVAR**

Description: white powder. Suitable for buffer solutions.

Assay ..... 99.0 - 101.0%

**Maximum limit of impurities****(%)**

Insol. .... 0.01

L.O.D. @ 105°C ..... 0.2

Cl ..... 0.002

N cpds (as N) ..... 0.002

K ..... 0.02

SO<sub>4</sub> ..... 0.005

F ..... 0.005

Cu ..... 0.001

Pb ..... 0.001

As ..... 0.0003

H.M (as Pb) ..... 0.001

Fe ..... 0.002

Chemical and physical parameters conform to FCC

Conforms to ACS

**Pack Size:** 500g, 5kg, 25kg

1234

**di-SODIUM HYDROGEN ORTHOPHOSPHATE, anhydrous, UNILAB**

Assay ..... 99.0% min.

pH (5% soln. @ 25°C) ..... 8.7 – 9.3

**Maximum limit of impurities****(%)**

L.O.D. .... 1.0

Cl ..... 0.04

SO<sub>4</sub> ..... 0.05

H.M. &amp; Fe (as Fe) ..... 0.01

**Pack Size:** 500g, 5kg, 25kg

458

**di-SODIUM HYDROGEN ORTHOPHOSPHATE, anhydrous, TECHNICAL** $\text{Na}_2\text{HPO}_4 = 141.96$ 

Assay ..... 98.0% min.

| <i>Maximum limit of impurities</i> | <i>(%)</i> |
|------------------------------------|------------|
| As .....                           | 0.0003     |
| F .....                            | 0.005      |
| HM (as Pb) .....                   | 0.001      |
| Insol Sub .....                    | 0.2        |
| LOD .....                          | 5.0        |

**Pack Size:** 500g, 25kg**di-SODIUM HYDROGEN ORTHOPHOSPHATE, dodecahydrate****CAS** 10039-32-4 $\text{Na}_2\text{HPO}_4 \cdot 12\text{H}_2\text{O} = 358.15$ 

478

**di-SODIUM HYDROGEN ORTHOPHOSPHATE, dodecahydrate, UNIVAR**

Description: colourless, efflorescent crystals.

Assay ..... 99.0 - 101.0%

pH (5% soln. @ 25°C) ..... 8.7 – 9.3

| <i>Maximum limit of impurities</i> | <i>(%)</i> |                                         |
|------------------------------------|------------|-----------------------------------------|
| Insol. ....                        | 0.003      | H.M. (as Pb) ..... 0.0005               |
| Cl .....                           | 0.002      | As ..... 0.0002                         |
| N cpds (as N) .....                | 0.0015     | Monosodium phosphate ..... To pass test |
| SO <sub>4</sub> .....              | 0.005      | Reducing subs. .... To pass test        |
| Fe .....                           | 0.001      |                                         |

Store below 25°C

**Pack Size:** 500g, 5kg, 25kg

358

**di-SODIUM HYDROGEN ORTHOPHOSPHATE, dodecahydrate, UNILAB**

Assay(after drying @ 130°C) ..... 98 – 103%

H<sub>2</sub>O (@ 130°C) ..... 57 – 61%

pH (2% soln.) ..... 8.7 – 9.4

| <i>Maximum limit of impurities</i> | <i>(%)</i> |
|------------------------------------|------------|
| Cl .....                           | 0.002      |
| SO <sub>4</sub> .....              | 0.01       |
| H.M.(as Pb) .....                  | 0.002      |
| Fe .....                           | 0.002      |

Store below 25°C

**Pack Size:** 500g, 5kg, 25kg

**di-SODIUM HYDROGEN PHOSPHATE, Dihydrate**

CAS 10028-24-7  
 $\text{Na}_2\text{HPO}_4 \cdot 2\text{H}_2\text{O} = 178.0$

**3965****di-SODIUM HYDROGEN PHOSPHATE, Dihydrate, UNIVAR**

Description: white hygroscopic granular powder  
 Assay ..... 99.5% min.

| <i>Maximum limit of impurities</i> | <i>(%)</i> |
|------------------------------------|------------|
| Fe.....                            | 0.001      |
| H.M (as Pb).....                   | 0.001      |
| Cl.....                            | 0.001      |
| Insoluble matter. ....             | 0.01       |
| SO <sub>4</sub> .....              | 0.005      |

**Pack size:** 500g, 5Kg

**3966****di-SODIUM HYDROGEN PHOSPHATE, Dihydrate, UNILAB**

Description: White crystalline powder  
 Assay ..... 99.0% min.

| <i>Maximum limit of impurities</i> | <i>(%)</i> |
|------------------------------------|------------|
| Fe .....                           | 0.002      |
| Pb .....                           | 0.002      |
| Cl .....                           | 0.01       |
| SO <sub>4</sub> .....              | 0.01       |

**Pack size:** 500g, 5Kg

**2365****SODIUM HYDROGEN SELENITE, LABCHEM**

CAS 7782-82-3  
**Synonyms:** Sodium Selenite, acid  
 $\text{NaHSeO}_3 = 150.96$   
 Assay ..... 97% min.  
 pH (2%) ..... 4-7

U.N Number ..... 2630  
 ADG ..... 6.1  
 Packing Group ..... I

**Pack Size:** 25g, 500g

**1540****SODIUM HYDROGEN SULPHATE, TECHNICAL**

CAS 7681-38-1  
**Synonyms:** Sodium Bisulphate  
 $\text{NaHSO}_4 = 120.06$   
 Assay ..... 95% min.  
 Acidity ..... 38-40%

U.N Number ..... 1759  
 ADG Class ..... 8  
 Packing Group ..... III

**Pack Size:** 500g

**1238****SODIUM HYDROGEN L-TARTRATE, Anhydrous, LABCHEM**

CAS 526-94-3  
 $\text{C}_4\text{H}_5\text{NaO}_6 = 172.04$   
 Description: white crystalline powder  
 Assay ..... 98% min.

**Pack size:** 500g

**SODIUM HYDROSULPHITE** (see Sodium Dithionite page 351)**SODIUM HYDROXIDE**

CAS 1310-73-2

Synonyms: Caustic Soda

NaOH = 40.00

U.N Number ..... 1823

ADG Class ..... 8

Packing Group ..... II

**482****SODIUM HYDROXIDE, pellets, UNIVAR**

Description: white deliquescent pellets.

Assay ..... 97.0% min.

**Maximum limit of impurities****(%)**

Na<sub>2</sub>CO<sub>3</sub> ..... 1.0  
 Cl ..... 0.005  
 N cpds (as N) ..... 0.001  
 PO<sub>4</sub> ..... 0.001  
 Fe ..... 0.0005  
 Ni ..... 0.0005  
 Pb ..... 0.0005  
 Cu ..... 0.0005

SO<sub>4</sub> ..... 0.003  
 NH<sub>4</sub>OH ppt ..... 0.02  
 H.M. (as Ag) ..... 0.002  
 Ca ..... 0.002  
 Hg ..... 0.00001  
 K ..... 0.02  
 Silicate ..... 0.0005  
 Al ..... 0.00005

Conforms to ACS

**Pack Size:** 500g, 2.5kg, 5kg, 10kg, 20kg**483****SODIUM HYDROXIDE, pellets, UNILAB**

Description: White, crystalline masses supplied as sticks, pellets or slabs; deliquescent. Readily absorbs carbon dioxide.

Assay (as NaOH) ..... 97.0 - 100.5%

**Maximum limit of impurities****(%)**

Na<sub>2</sub>CO<sub>3</sub> ..... 2.0  
 Clarity & colour of solution ..... To pass test  
 SO<sub>4</sub> ..... 0.0050  
 H.M. (as Pb) ..... 0.0020  
 Fe ..... 0.0010  
 Cl ..... 0.0050

Chemical and physical parameters conform to BP

**Pack Size:** 500g, 2.5kg, 5kg, 10kg, 20kg**951****SODIUM HYDROXIDE, pellets, LABCHEM**

Assay (as NaOH) ..... 96.0% min.

**Maximum limit of impurities****(%)**

SO<sub>4</sub> ..... 0.01  
 H.M. (as Pb) ..... 0.01

**Pack Size:** 500g

2534

**SODIUM HYDROXIDE, mini pearls, UNIVAR**

Description: white deliquescent mini pearls.

Assay ..... 97.0% min.

**Maximum limit of impurities****(%)**

Na<sub>2</sub>CO<sub>3</sub> ..... 1.5  
 Cl ..... 0.015  
 N cpds (as N) ..... 0.001  
 PO<sub>4</sub> ..... 0.05  
 SO<sub>4</sub> ..... 0.006  
 NH<sub>4</sub>OH ppt. .... 0.02

Fe ..... 0.002  
 Hg ..... 0.00001  
 Heavy metals (as Ag) ..... 0.002  
 K ..... 0.08  
 Ni ..... 0.001

**Pack Size:** 500g, 2.5kg, 5kg, 20kg

2535

**SODIUM HYDROXIDE, mini pearls, UNILAB**

Description: White, crystalline masses supplied as mini pearls; deliquescent .Readily absorbs carbon dioxide.

Total alkali (as NaOH) ..... 97.5 - 100.5%

**Maximum limit of impurities****(%)**

Na<sub>2</sub>CO<sub>3</sub> ..... 2.0  
 Cl ..... 0.005  
 SO<sub>4</sub> ..... 0.005  
 Clarity & colour of soln. .... To pass test  
 Fe ..... 0.001  
 H.M. (as Pb) ..... 0.002

Chemical and physical parameters conform to BP

**Pack Size:** 500g, 5kg, 2.5kg, 20kg

301

**SODIUM HYDROXIDE, flake, TECHNICAL**

Assay (typical) ..... 98% min.

Na<sub>2</sub>CO<sub>3</sub> (typical) ..... 0.4 – 0.6**Pack Size:** 2kg

548

**SODIUM HYDROXIDE 60% W/V SOLN, TECHNICAL**

Appearance: Clear colourless solution

Density (@ 20°C) ..... 1.435 – 1.452 g/mL

Assay ..... 59-62% w/v

U.N Number ..... 1824

ADG Class ..... 8

Packing Group ..... II

**Pack Size:** 2.5L

2539

**SODIUM HYDROXIDE 0.333M SOLN, UNIVOL**

The 0.333N volumetric solution is a ready-to-use titrant for the wine industry.

Each mL of Cat No. 2539 is equivalent to 25mg (+/-0.5%) of tartaric acid.

Molarity ..... 0.331 - 0.335mol/L

U.N Number ..... 1824

ADG Class ..... 8

Packing Group ..... III

**Pack Size:** 2.5L



**2538****SODIUM HYDROXIDE 0.05M SOLN, UNIVOL**

Molarity .....0.0497-0.0503M

 U.N Number ..... 1824  
 ADG Class ..... 8  
 Packing Group ..... III
**Pack Size:** 5L**637****SODIUM HYDROXIDE 0.100M SOLN, UNIVOL**

Molarity .....0.0995 - 0.1005mol/L

 U.N Number ..... 1824  
 ADG Class ..... 8  
 Packing Group ..... III
**Pack Size:** 1L, 6x1L, 2.5L, 5L, 20L**1386****SODIUM HYDROXIDE 0.1MOL CONCENTRATE, AMPOULE, OP**
 Description: plastic ampoule containing clear colourless liquid  
 0.1 mole (4.000g NaOH) to prepare 1L of 0.1N solution  
 Titer ..... 0.998 – 1.002

 U.N Number ..... 1824  
 ADG Class ..... 8  
 Packing Group ..... II
**Pack size:** Ampoule**636****SODIUM HYDROXIDE 1.000M SOLN, UNIVOL**

Molarity ..... 0.995 - 1.005mol/L

 U.N Number ..... 1824  
 ADG Class ..... 8  
 Packing Group ..... III
**Pack Size:** 1L, 6 x1L, 2.5L, 5L, 20L**1387****SODIUM HYDROXIDE 1.0MOL CONCENTRATE, AMPOULE, OP**
 Description: plastic ampoule containing clear colourless liquid  
 1 mole (40.00g NaOH) to prepare 1L of 1N solution  
 Titer ..... 0.998 – 1.002

 U.N Number ..... 1824  
 ADG Class ..... 8  
 Packing Group ..... II
**Pack size:** Ampoule**SODIUM HYPOCHLORITE**

CAS 7681-52-9

 U.N Number ..... 1791  
 ADG Class ..... 8  
 Packing Group ..... III
**4799****SODIUM HYPOCHLORITE 5 % w/v SOLUTION****Synonyms:** Bleach**Pack Size:** 9x250mL, 4x5L**485****SODIUM HYPOCHLORITE 12.5 %, TECHNICAL****Pack Size:** 5L

1240

**SODIUM HYPOPHOSPHITE**, monohydrate, LABCHEM

CAS 7681-53-0

Synonyms: Sodium Phosphinate

NaH<sub>2</sub>PO<sub>2</sub>·H<sub>2</sub>O = 105.99Assay(as NaH<sub>2</sub>PO<sub>2</sub>·H<sub>2</sub>O) ..... 99 - 105%**Maximum limit of impurities (%)**

H.M (as Pb) ..... 0.001

Fe ..... 0.001

Pack Size: 500g

**SODIUM HYPOSULPHITE** (see Sodium Thiosulphate page 376)

3132

**SODIUM IODATE**, OP

CAS 7681-55-2

NaIO<sub>3</sub> = 197.89

Assay ..... about 99%

U.N Number ..... 1479

ADG Class ..... 5.1

Packing Group ..... II

**Maximum limit of impurities (%)**ClO<sub>3</sub> ..... 0.05SO<sub>4</sub> ..... 0.05

Fe ..... 0.001

H.M.(as Pb) ..... 0.002

Pack Size: 100g

**SODIUM IODIDE**

CAS 7681-82-5

NaI = 149.89

486

**SODIUM IODIDE**, UNILAB

Description: colourless crystals or white crystalline powder; odourless,hygroscopic.

Assay(after drying) ..... 99.0 - 100.5%

**Maximum limit of impurities (%)**

Clarity and colour of soln. .... To pass test

L.O.D. .... 3.0

Alkalinity ..... 0.6 mmol OH

IO<sub>3</sub> ..... To pass testSO<sub>4</sub> ..... 0.015S<sub>2</sub>O<sub>3</sub> ..... To pass test

Fe ..... 0.002

H.M. (as Pb) ..... 0.001

Pack Size: 100g, 500g, 5kg, 50kg

2486

**SODIUM IODIDE**, LABCHEM

Assay ..... 99% min.

**Maximum limit of impurities (%)**SO<sub>4</sub> ..... 0.015

Fe ..... 0.002

H.M. (as Pb) ..... 0.001

Pack Size: 500g, 25kg

**738 SODIUM LACTATE 70% SOLUTION, UNILAB**

CH<sub>3</sub>CH(OH)COONa = 112.06  
 Density ..... 1.372 - 1.380 @ 20°C  
 Assay ..... 69.0 - 71.0% w/w  
 pH (5% soln.) ..... 8.0 min.

**Pack Size:** 500mL, 20L

**1241 SODIUM LAURYL SULPHATE, TECHNICAL**

**CAS** 151-21-3

**Synonyms:** Sodium Dodecyl Sulphate

Description: a mixture of sodium normal primary alkyl sulphates, consisting chiefly of sodium lauryl sulphate.

**Pack Size:** 500g, 5kg

**SODIUM META-ARSENITE** (see Sodium Arsenite page 341)**SODIUM METABISULPHITE**

**CAS** 7681-57-4

**Synonyms:** Sodium Pyrosulphite

Na<sub>2</sub>S<sub>2</sub>O<sub>5</sub> = 190.11

**487 SODIUM METABISULPHITE, UNIVAR**

Description: white powder with a strong sulphurous odour.

Assay ..... 97.0% min.

| <i>Maximum limit of impurities</i>  | <i>(%)</i> |
|-------------------------------------|------------|
| Insol. ....                         | 0.005      |
| Cl .....                            | 0.05       |
| S <sub>2</sub> O <sub>3</sub> ..... | 0.05       |
| Cu .....                            | 0.001      |
| Pb .....                            | 0.001      |
| Zn .....                            | 0.001      |
| H.M. (as Pb) .....                  | 0.001      |
| As .....                            | 0.00005    |
| Fe .....                            | 0.0005     |

Conforms to ACS

**Pack Size:** 500g, 5kg, 25kg

**488 SODIUM METABISULPHITE, UNILAB**

Description: colourless prismatic crystals or white or creamy white powder; odour, sulphurous. Freely soluble in water, slightly soluble in alcohol (96%).

Assay ..... 95.0 - 100.5%  
 pH (5% soln. @ 25°C) ..... 3.5 – 5.0

| <i>Maximum limit of impurities</i> | <i>(%)</i>   |
|------------------------------------|--------------|
| Appearance of solution .....       | To pass test |
| Thiosulphates .....                | To pass test |
| Arsenic .....                      | 0.0005       |
| H.M(as Pb) .....                   | 0.002        |
| Iron .....                         | 0.002        |

Chemical and physical parameters conform to BP

**Pack Size:** 500g, 5kg, 25kg

**SODIUM METAPERIODATE** (see Sodium Periodate page 367)**707****SODIUM METASILICATE, pentahydrate, TECHNICAL****CAS** 6834-92-0 $\text{Na}_2\text{SiO}_3 \cdot 5\text{H}_2\text{O} = 212.14$ 

pH (1%) ..... approx 12.5  
 $\text{SiO}_2$  (typical) ..... 27.8 - 29.2%  
 $\text{NaO}$  (typical) ..... 28.1 – 29.5%  
 $\text{H}_2\text{O}$  ..... 43.0% min.

U.N Number ..... 3253

ADG Class ..... 8

Packing Group ..... III

**Maximum limit of impurities (%)**

Fe ..... 0.01

Insol. .... 0.02

**Pack Size:** 500g**3134****SODIUM METAVANADATE, LABCHEM****CAS** 13718-26-8 $\text{NaVO}_3 = 121.9$ 

Description: white crystalline powder

Assay ..... 98% min.

**Pack size:** 100g**SODIUM MOLYBDATE****CAS** 10102-40-6 $\text{Na}_2\text{MoO}_4 \cdot 2\text{H}_2\text{O} = 241.95$ **360****SODIUM MOLYBDATE, UNIVAR**

Description: white crystalline powder.

Assay ..... 99.5 - 103.0%

pH (5% soln. @ 25°C) ..... 7.0 – 10.5

**Maximum limit of impurities (%)**

Insol. .... 0.005

Cl ..... 0.005

 $\text{PO}_4$  ..... 0.0005 $\text{SO}_4$  ..... 0.015 $\text{NH}_4$  ..... 0.001

Fe ..... 0.001

H.M. (as Pb) ..... 0.0005

Conforms to ACS

**Pack Size:** 500g, 5kg**396****SODIUM MOLYBDATE, UNILAB**

Assay ..... 98.0% min.

**Maximum limit of impurities (%)**

Cl ..... 0.02

 $\text{PO}_4$  ..... 0.005**Pack Size:** 500g

## SODIUM NITRATE



CAS 7631-99-4  
**Synonyms:** Chile Saltpetre  
 NaNO<sub>3</sub> = 84.99

U.N Number ..... 1498  
 ADG Class ..... 5.1  
 Packing Group ..... III

490

## SODIUM NITRATE, UNIVAR

Description: colourless, deliquescent crystals.

Assay ..... 99.0% min.  
 pH (5% soln. @ 25°C) ..... 5.5 – 8.3

**Maximum limit of impurities**

|                       | (%)    |                                         |        |
|-----------------------|--------|-----------------------------------------|--------|
| Insol. ....           | 0.005  | Ca .....                                | 0.005  |
| Cl .....              | 0.001  | Mg .....                                | 0.005  |
| IO <sub>3</sub> ..... | 0.0005 | R <sub>2</sub> O <sub>3</sub> ppt. .... | 0.005  |
| NO <sub>2</sub> ..... | 0.001  | Fe .....                                | 0.0003 |
| PO <sub>4</sub> ..... | 0.0005 | H.M. (as Pb) .....                      | 0.0005 |
| SO <sub>4</sub> ..... | 0.003  |                                         |        |

Conforms to ACS

**Pack Size:** 500g, 5kg

491

## SODIUM NITRATE, UNILAB

Assay ..... 98.0% min.

**Maximum limit of impurities**

|                       | (%)   |
|-----------------------|-------|
| Cl .....              | 0.05  |
| PO <sub>4</sub> ..... | 0.001 |
| SO <sub>4</sub> ..... | 0.01  |
| Fe .....              | 0.002 |
| H.M. (as Pb) .....    | 0.002 |

**Pack Size:** 500g, 5kg, 20kg

## SODIUM NITRITE



CAS 7632-00-0  
 NaNO<sub>2</sub> = 69.00

U.N Number ..... 1500  
 ADG Class ..... 5.1  
 Subsidiary Risk ..... 6.1  
 Packing Group ..... III



492

## SODIUM NITRITE, UNIVAR

Description: pale yellow, moist crystals.

Assay ..... 97.0% min.

**Maximum limit of impurities**

|                       | (%)   |                    |       |
|-----------------------|-------|--------------------|-------|
| Insol. ....           | 0.01  | Fe .....           | 0.001 |
| C .....               | 0.005 | H.M. (as Pb) ..... | 0.001 |
| SO <sub>4</sub> ..... | 0.01  | K .....            | 0.005 |
| Ca .....              | 0.01  |                    |       |

Conforms to ACS

**Pack Size:** 500g, 5kg, 20kg

493

**SODIUM NITRITE, UNILAB**

Assay ..... 97.0 - 100.5%  
 L.O.D. .... 0.25% max.

**Maximum limit of impurities (%)**  
 H.M(as Pb) ..... 0.002  
 Pb ..... 0.001

Chemical and physical parameters conform to FCC

**Pack Size:** 500g, 5kg

**SODIUM NITROFERRICYANIDE** (Sodium Nitroprusside page 364)**SODIUM NITROPRUSSIDE**

**CAS** 13755-38-9

**Synonyms:** Sodium Nitroferricyanide

$\text{Na}_2\{\text{Fe}(\text{CN})_5\text{NO}\} \cdot 2\text{H}_2\text{O} = 297.95$

U.N Number ..... 2811

ADG Class ..... 6.1

Packing Group ..... III

494

**SODIUM NITROPRUSSIDE, UNIVAR**

Description: ruby-red crystals or crystalline powder.

Used as TLC visualization agent.

Assay ..... 99.0 - 102.0%

**Maximum limit of impurities (%)**  
 Insol. .... 0.01  
 Cl ..... 0.02  
 $\text{SO}_4$  ..... 0.01

Conforms to ACS

**Pack Size:** 100g, 500g

1243

**SODIUM NITROPRUSSIDE, UNILAB**

Assay ..... 98.0% min.

**Maximum limit of impurities (%)**  
 $\text{SO}_4$  ..... 0.02

**Pack Size:** 500g

**SODIUM ORTHO-ARSENATE** (see Sodium Arsenate page 340)

**tri-SODIUM ORTHOPHOSPHATE**

CAS 7601-54-9

Synonyms: Sodium Phosphate, tribasic

 $\text{Na}_3\text{PO}_4 \cdot 12\text{H}_2\text{O}$  = 380.12**2220****tri-SODIUM ORTHOPHOSPHATE, UNIVAR**

Description: moist colourless, crystals which may lose some water of crystallisation during storage.

Assay ..... 98.0 - 102.0%

**Maximum limit of impurities (%)**

|                     |       |                       |        |
|---------------------|-------|-----------------------|--------|
| Insol. ....         | 0.01  | SO <sub>4</sub> ..... | 0.01   |
| Excess NaOH .....   | 2.5   | As .....              | 0.0005 |
| Cl .....            | 0.001 | Fe .....              | 0.001  |
| N cpds (as N) ..... | 0.001 | H.M. (as Pb) .....    | 0.001  |

Conforms to ACS

Store below 25°C

Pack Size: 500g, 5kg

**811****tri-SODIUM ORTHOPHOSPHATE, UNILAB**Assay(as  $\text{Na}_3\text{PO}_4 \cdot 12\text{H}_2\text{O}$ ) ..... 98.0% min.**Maximum limit of impurities (%)**

|                       |       |
|-----------------------|-------|
| Cl .....              | 0.1   |
| SO <sub>4</sub> ..... | 0.05  |
| Fe .....              | 0.004 |

Store below 25°C

Pack Size: 500g, 25kg

**SODIUM OXALATE**

CAS 62-76-0

 $(\text{COONa})_2$  = 134.00**495****SODIUM OXALATE, UNIVAR**

Description: white crystalline powder.

Assay ..... 99.9% min.

**Maximum limit of impurities (%)**

|                       |              |                                                            |              |
|-----------------------|--------------|------------------------------------------------------------|--------------|
| Insol. ....           | 0.005        | Fe .....                                                   | 0.001        |
| L.O.D. ....           | 0.01         | H.M. (as Pb) .....                                         | 0.002        |
| Neutrality .....      | To pass test | K .....                                                    | 0.005        |
| Cl .....              | 0.002        | NH <sub>4</sub> .....                                      | 0.002        |
| SO <sub>4</sub> ..... | 0.002        | Subs. darkened by hot H <sub>2</sub> SO <sub>4</sub> ..... | To pass test |

Conforms to ACS

Pack Size: 100g, 500g

496

**SODIUM OXALATE, UNILAB**

Assay ..... 99.0% min.

**Maximum limit of impurities (%)**

|                       |       |
|-----------------------|-------|
| Cl .....              | 0.04  |
| SO <sub>4</sub> ..... | 0.02  |
| Fe .....              | 0.005 |
| H.M. (as Pb) .....    | 0.005 |

**Pack Size:** 500g

1810

**di-SODIUM OXALATE, CERTIFIED REFERENCE STANDARD, UNIPURE****CAS** 62-76-0C<sub>2</sub>Na<sub>2</sub>O<sub>4</sub> = 134.00

Assay (Perm.) after drying at 130°C ..... 99.95 – 100.05%

**Maximum limit of impurities (%)**

|                                                             |              |                    |        |
|-------------------------------------------------------------|--------------|--------------------|--------|
| Insoluble matter in H <sub>2</sub> O .....                  | 0.005        | H.M. (as Pb) ..... | 0.002  |
| Darkened substances by H <sub>2</sub> SO <sub>4</sub> ..... | To pass test | Cu .....           | 0.001  |
| Neutrality .....                                            | To pass test | Fe .....           | 0.0005 |
| SO <sub>4</sub> .....                                       | 0.002        | K .....            | 0.005  |
| Cl .....                                                    | 0.002        | Ni .....           | 0.001  |
| PO <sub>4</sub> .....                                       | 0.005        | Pb .....           | 0.001  |
| NH <sub>4</sub> .....                                       | 0.002        |                    |        |

**Pack Size:** 100g

678

**SODIUM PERBORATE, LABCHEM****CAS** 10486-00-7NaBO<sub>3</sub>·4H<sub>2</sub>O = 153.86

Assay ..... 96.0% min.

Avail O<sub>2</sub> ..... 10.0% min.

pH (1%) ..... 10.2% min.

**Pack Size:** 500g

1245

**SODIUM PERCHLORATE, UNIVAR****CAS** 7791-07-3NaClO<sub>4</sub>·H<sub>2</sub>O = 140.46

Assay ..... 85.0 - 90.0% min.

pH (5%) ..... 6.0 – 8.0

**Maximum limit of impurities (%)**

|                        |        |
|------------------------|--------|
| Cl .....               | 0.003  |
| Ca .....               | 0.02   |
| SO <sub>4</sub> .....  | 0.002  |
| Fe .....               | 0.0005 |
| H.M (as Pb) .....      | 0.0005 |
| K .....                | 0.05   |
| Insoluble matter ..... | 0.005  |

Conforms to ACS

**Pack Size:** 500g

U.N Number ..... 1502

ADG Class ..... 5.1

Packing Group ..... II





## SODIUM PERIODATE



695

CAS 7790-28-5  
**Synonyms:** Sodium Metaperiodate  
 $\text{NaIO}_4 = 213.89$

U.N Number ..... 1479  
 ADG Class ..... 5.1  
 Packing Group ..... II

## SODIUM PERIODATE, UNIVAR

Description: white crystals or crystalline powder.  
 Assay(after drying) ..... 99.8 - 100.3%

| <i>Maximum limit of impurities</i> | <i>(%)</i> |
|------------------------------------|------------|
| Insol. ....                        | 0.005      |
| Other halogens (as Cl) ....        | 0.02       |
| Mn ....                            | 0.0003     |

Conforms to ACS

**Pack Size:** 100g, 250g, 5kg

1246

## SODIUM PERIODATE, UNILAB

Assay ..... 98.0% min.

| <i>Maximum limit of impurities</i> | <i>(%)</i> |
|------------------------------------|------------|
| Other halogens (as Cl) ....        | 0.2        |
| Mn ....                            | 0.001      |

**Pack Size:** 100g, 5kg

497

## SODIUM PEROXIDE, UNIVAR



CAS 1313-60-6  
**Synonyms:** Sodium Dioxide  
 $\text{Na}_2\text{O}_2 = 77.98$   
 Description: small pale yellow granules. If mixed with organic matter a fire may result.  
 Assay ..... 93.0% min.

U.N Number ..... 1504  
 ADG Class ..... 5.1  
 Packing Group ..... I

| <i>Maximum limit of impurities</i> | <i>(%)</i> |
|------------------------------------|------------|
| Cl ....                            | 0.002      |
| N cpds (as N) ....                 | 0.003      |
| $\text{PO}_4$ ....                 | 0.0005     |
| $\text{SO}_4$ ....                 | 0.001      |
| Fe ....                            | 0.005      |
| H.M. (as Pb) ....                  | 0.002      |

Conforms to ACS

**Pack Size:** 500g

**di-SODIUM PHENYL PHOSPHATE** (see Phenyl disodium orthophosphate page 287)

**SODIUM PHOSPHATE, MONOBASIC** (see Sodium Dihydrogen Orthophosphate page 349)

**SODIUM PHOSPHATE, DIBASIC** (see di-sodium Hydrogen Orthophosphate page 354)

**SODIUM PHOSPHATE, TRIBASIC** (see tri-Sodium Orthophosphate page 365)

**SODIUM PHOSPHINATE** (see Sodium Hypophosphite page 360)**474****SODIUM POLYMETAPHOSPHATE, TECHNICAL****CAS** 10124-56-8**Synonyms:** Sodium Hexametaphosphate  
(NaPO<sub>3</sub>)<sub>n</sub>.Na<sub>2</sub>O**Pack Size:** 500g**SODIUM POLYPHOSPHATE** (see sodium polymetaphosphate page 368)**SODIUM POTASSIUM (+)-TARTRATE** (see Potassium Sodium Tartrate page 316)**tetra-SODIUM PYROPHOSPHATE****CAS** 7722-88-5**Synonyms:** Sodium Pyrophosphate, Tetrasodium Pyrophosphate  
Na<sub>4</sub>P<sub>2</sub>O<sub>7</sub>·10H<sub>2</sub>O = 446.06**499****tetra-SODIUM PYROPHOSPHATE, UNIVAR**

Description: colourless crystals or crystalline powder.

Assay ..... 99.0% min.

pH (5% soln. @ 25°C) ..... 9.5 – 10.7

**Maximum limit of impurities****(%)**

|                       |              |          |        |
|-----------------------|--------------|----------|--------|
| Insol. ....           | 0.01         | Ca ..... | 0.01   |
| CO <sub>3</sub> ..... | To pass test | Cu ..... | 0.0005 |
| Cl .....              | 0.005        | Fe ..... | 0.0005 |
| NO <sub>3</sub> ..... | 0.003        | Mg ..... | 0.01   |
| SO <sub>4</sub> ..... | 0.005        | Ni ..... | 0.0005 |
| As .....              | 0.0003       | Pb ..... | 0.0005 |

**Pack Size:** 500g, 5kg**500****tetra-SODIUM PYROPHOSPHATE, UNILAB**

pH(5% soln.) ..... about 10

Assay ..... 99.0% min.

**Maximum limit of impurities****(%)**

|                    |       |
|--------------------|-------|
| Cl .....           | 0.01  |
| Fe .....           | 0.005 |
| H.M. (as Pb) ..... | 0.005 |

**Pack Size:** 25kg**SODIUM PYROPHOSPHATE** (see tetra-Sodium Pyrophosphate page 368)**SODIUM PYROSULPHITE** (see Sodium Metabisulphite page 361)

2387

**SODIUM PYRUVATE, LABCHEM****CAS** 113-24-6**Synonyms:** Pyruvic Acid Sodium Salt $\text{CH}_3\text{COCOONa}$  = 110.05

Assay ..... 99% min.

**Maximum limit of impurities (%)** $\text{H}_2\text{O}$  (K.F) ..... 0.5

H.M. (as Pb) ..... 0.002

**Pack Size:** 25g

1513

**SODIUM SALICYLATE, LABCHEM****CAS** 54-21-7**Synonyms:** Salicylic Acid Sodium Salt $\text{C}_6\text{H}_4(\text{OH})\text{COONa}$  = 160.11

Description: colourless, small crystals or crystalline flakes, or a white, crystalline powder; odourless or with a faint, characteristic odour.

Assay(after drying) ..... 99.0 - 101.0%

**Maximum limit of impurities (%)**

Clarity and colour of soln. .... To pass test

Acidity ..... To pass test

L.O.D. .... 0.5

Cl ..... 0.020

 $\text{SO}_4$  ..... 0.060

H.M. (as Pb) ..... 0.0020

Chemical and physical parameters conform to BP

Protect from light

**Pack Size:** 500g, 10kg

2507

**SODIUM SELENATE, anhydrous, UNILAB****CAS** 13410-01-0 $\text{Na}_2\text{SeO}_4$  = 188.94

Assay (as sodium) ..... 23.85%

**Pack Size:** 100G

U.N Number ..... 2630

ADG Class ..... 6.1

Packing Group ..... I

501

**SODIUM SELENITE, TECHNICAL****CAS** 10102-18-8 $\text{Na}_2\text{SeO}_3$  = 172.94**Pack Size:** 100g, 5kg

U.N Number ..... 2630

ADG Class ..... 6.1

Packing Group ..... I

**SODIUM SELENITE ACID** (see Sodium Hydrogen Selenite page 356)

## SODIUM SULPHATE

CAS 7757-82-6

Na<sub>2</sub>SO<sub>4</sub> = 142.04

137

## SODIUM SULPHATE, anhydrous, granular, UNIVAR

Description: hygroscopic colourless crystalline granules.  
 Assay (after ign. @ 800°C) ..... 99% min.  
 pH (5% soln. @ 25°C) ..... 5.2 – 9.2  
 Particle size (0.25mm) ..... 80% min.

| <b>Maximum limit of impurities</b> |        | <b>(%)</b>               |        |
|------------------------------------|--------|--------------------------|--------|
| Insol. ....                        | 0.01   | As .....                 | 0.0001 |
| L.O.I. (@800 °C) .....             | 0.5    | Fe .....                 | 0.0002 |
| Cl .....                           | 0.001  | Cu .....                 | 0.0002 |
| Mg .....                           | 0.001  | Pb .....                 | 0.0002 |
| N cpds (as N) .....                | 0.0005 | Se .....                 | 0.003  |
| H.M (as Pb) .....                  | 0.0005 | L.O.D. (anhydrous) ..... | 1.0    |
| Ca .....                           | 0.01   | PO <sub>4</sub> .....    | 0.001  |
| K .....                            | 0.01   |                          |        |

Chemical and physical parameters conform to FCC

Conforms to ACS

Pack Size: 500g, 3kg, 5kg, 25kg

146

## SODIUM SULPHATE, anhydrous, granular, UNILAB

Assay(after ign. @ 800°C) ..... 99.0% min.  
 pH (5% soln. @ 25°C) ..... 5.2 – 9.2

| <b>Maximum limit of impurities</b> |       | <b>(%)</b> |  |
|------------------------------------|-------|------------|--|
| L.O.I. (@800°C) .....              | 1.0   |            |  |
| N cpds (as N) .....                | 0.005 |            |  |
| Cl .....                           | 0.01  |            |  |
| Fe .....                           | 0.002 |            |  |
| H.M. (as Pb) .....                 | 0.005 |            |  |

Pack Size: 500g, 3kg, 5kg, 25kg

503

## SODIUM SULPHATE, anhydrous, powder, UNIVAR

Description: hygroscopic white powder.  
 Assay ..... 99.0% min.  
 pH (5% soln. @ 25°C) ..... 5.2 – 9.2

| <b>Maximum limit of impurities</b> |        | <b>(%)</b>         |        |
|------------------------------------|--------|--------------------|--------|
| Insol. ....                        | 0.01   | Ca .....           | 0.01   |
| L.O.I. (@800°C) .....              | 0.5    | Mg .....           | 0.005  |
| Cl .....                           | 0.001  | Fe .....           | 0.001  |
| N cpds (as N) .....                | 0.0005 | K .....            | 0.01   |
| PO <sub>4</sub> .....              | 0.001  | H.M. (as Pb) ..... | 0.0005 |
| As .....                           | 0.0001 |                    |        |

Conforms to ACS

Pack Size: 500g, 3kg, 5kg, 25kg

504

**SODIUM SULPHATE, anhydrous, powder, UNILAB**

Assay(after ignition @ 800°) ..... 99.0% min.  
 pH (5% soln. @ 25°C) ..... 5.2 – 9.2

**Maximum limit of impurities****(%)**

L.O.I. ( @800°C) ..... 1.0  
 N cpds (as N) ..... 0.005  
 Cl ..... 0.01

Fe ..... 0.002  
 H.M. (as Pb) ..... 0.005

**Pack Size:** 500g, 5kg

506

**SODIUM SULPHATE, hydrated, UNIVAR****CAS** 7757-82-6Na<sub>2</sub>SO<sub>4</sub>·10H<sub>2</sub>O = 322.20

Colourless,transparent crystals or a white crystalline powder;odourless.

Assay (dried basis) ..... 99.0 - 100.5%

L.O.D. .... 52.0 – 57.0%

**Maximum limit of impurities****(%)**

Insol. .... 0.005  
 Cl ..... 0.001  
 N cpds (as N) ..... 0.0002  
 As ..... 0.0001  
 Ca ..... 0.01

Mg ..... 0.01  
 R<sub>2</sub>O<sub>3</sub> ..... 0.01  
 Acidity or alkalinity ..... To pass test  
 Clarity & colour of solution ..... To pass test

Store below 25°C

Chemical and physical parameters conform to BP

**Pack Size:** 500g, 5kg**SODIUM SULPHIDE****CAS** 1313-84-4Na<sub>2</sub>S·9H<sub>2</sub>O = 240.18

U.N Number ..... 1849

ADG Class ..... 8

Packing Group ..... II

508

**SODIUM SULPHIDE, UNIVAR**

Description: colourless or slightly yellow crystals.

Assay ..... 98.0 - 103.0%

**Maximum limit of impurities****(%)**

SO<sub>3</sub> & S<sub>2</sub>O<sub>3</sub> (as SO<sub>4</sub>) ..... 0.1  
 NH<sub>4</sub> ..... 0.005  
 Fe ..... To pass test

Store below 4°C (refrigerate)

Conforms to ACS

**Pack Size:** 250g, 5kg, 25kg

658

**SODIUM SULPHIDE, UNILAB**

Assay ..... 95.0% min.

**Maximum limit of impurities (%)**SO<sub>3</sub> & S<sub>2</sub>O<sub>3</sub> (as SO<sub>2</sub>) ..... 1.5**Pack Size:** 250g, 5kg

706

**SODIUM SULPHIDE 60 %, flake, TECHNICAL****Pack Size:** 500g**SODIUM SULPHITE, anhydrous**

CAS 7757-83-7

Na<sub>2</sub>SO<sub>3</sub> = 126.04

509

**SODIUM SULPHITE, anhydrous, UNIVAR**

Description: white crystalline powder.

Assay ..... 98.0% min.

**Maximum limit of impurities (%)**

|                             |              |
|-----------------------------|--------------|
| Insol. ....                 | 0.005        |
| Free acid .....             | To pass test |
| Titrateable free base ..... | 0.03 meq/g   |
| Cl .....                    | 0.02         |
| As .....                    | 0.00005      |
| Fe .....                    | 0.001        |
| Mg .....                    | 0.001        |

|                    |        |
|--------------------|--------|
| Zn .....           | 0.001  |
| H.M. (as Pb) ..... | 0.001  |
| Ca .....           | 0.01   |
| K .....            | 0.01   |
| Cu .....           | 0.0005 |
| Pb .....           | 0.0005 |

Conforms to ACS

**Pack Size:** 500g, 5kg, 25kg

510

**SODIUM SULPHITE, anhydrous, UNILAB**

Assay ..... 95.0% min.

**Maximum limit of impurities (%)**

|                    |       |
|--------------------|-------|
| Cl .....           | 0.04  |
| Fe .....           | 0.004 |
| H.M. (as Pb) ..... | 0.005 |

**Pack Size:** 500g, 5kg, 25kg**SODIUM SULPHOCYANIDE** (see Sodium Thiocyanate page 375)

## SODIUM TARTRATE

CAS 868-18-8

Synonyms: Tartaric Acid Disodium Salt

 $\text{Na}_2\text{C}_4\text{H}_4\text{O}_6 \cdot 2\text{H}_2\text{O} = 230.08$ 

1811

## SODIUM TARTRATE DIHYDRATE, CERTIFIED REFERENCE STANDARD, UNIPURE

Assay (Perchl. Ac.) ..... 99.95 – 100.05%  
 pH (5% soln.) ..... 7.0 – 9.0

| <i>Maximum limit of impurities</i>             | <i>(%)</i>   |          |         |
|------------------------------------------------|--------------|----------|---------|
| Insoluble matter in $\text{H}_2\text{O}$ ..... | 0.005        | As ..... | 0.00005 |
| L.O.D at 105°C .....                           | 15.66 ± 0.05 | Ca ..... | 0.005   |
| $\text{SO}_4$ .....                            | 0.002        | Cu ..... | 0.0005  |
| Cl .....                                       | 0.0005       | Fe ..... | 0.0005  |
| $\text{PO}_4$ .....                            | 0.0005       | K .....  | 0.002   |
| $\text{NH}_4$ .....                            | 0.003        | Ni ..... | 0.0005  |
| H.M. (as Pb) .....                             | 0.0005       | Pb ..... | 0.0005  |

Pack Size: 100g

513

## SODIUM TARTRATE, UNIVAR

Suitable for standardisation of Karl Fischer reagent.

Description: white crystalline powder.

Assay ..... 99.0 - 101.0%  
 L.O.D. (@ 150°C) ..... 15.61 – 15.71%  
 pH (5% soln. @ 25°C) ..... 7.0 – 9.0

| <i>Maximum limit of impurities</i> | <i>(%)</i> |                     |        |
|------------------------------------|------------|---------------------|--------|
| Insol. ....                        | 0.005      | Ca .....            | 0.01   |
| Cl .....                           | 0.0005     | Fe .....            | 0.001  |
| $\text{PO}_4$ .....                | 0.0005     | H.M. (as Pb) .....  | 0.0005 |
| $\text{SO}_4$ .....                | 0.005      | $\text{NH}_4$ ..... | 0.003  |
| Conforms to ACS                    |            |                     |        |

Pack Size: 500g, 5kg

514

## SODIUM TARTRATE, UNILAB

Assay ..... 99.0% min.  
 pH (5% soln. @25°C) ..... about 8.0

| <i>Maximum limit of impurities</i> | <i>(%)</i> |
|------------------------------------|------------|
| Cl .....                           | 0.01       |
| $\text{SO}_4$ .....                | 0.05       |
| Fe .....                           | 0.01       |
| H.M. (as Pb) .....                 | 0.002      |

Pack Size: 5kg

## SODIUM TETRABORATE

CAS 1303-96-4

Synonyms: Sodium Borate, Borax

 $\text{Na}_2\text{B}_4\text{O}_7 \cdot 10\text{H}_2\text{O}$  = 381.37

460

## SODIUM TETRABORATE, UNIVAR

Description: colourless crystals or white crystalline powder; efflorescent in dry air.

Assay ..... 99.5 - 103.0%

pH (0.01mol/L @ 25°C) ..... 9.15-9.20

| <b>Maximum limit of impurities</b> |              | <b>(%)</b>            |        |
|------------------------------------|--------------|-----------------------|--------|
| Clarity & colour of soln. ....     | To pass B.P. | As .....              | 0.0005 |
| Insolubles .....                   | 0.005        | Ca .....              | 0.005  |
| Cl .....                           | 0.001        | Fe .....              | 0.0005 |
| PO <sub>4</sub> .....              | 0.001        | H.M. (as Pb) .....    | 0.001  |
| SO <sub>4</sub> .....              | 0.005        | NH <sub>4</sub> ..... | 0.001  |

Chemical and physical parameters conform to BP

Conforms to ACS

Pack Size: 500g, 5kg, 25kg

461

## SODIUM TETRABORATE, powder, UNILAB

Assay ..... 98.0% min.

pH (5% soln. @ 25°C) ..... 9.0-9.6

| <b>Maximum limit of impurities</b> |      | <b>(%)</b>         |       |
|------------------------------------|------|--------------------|-------|
| Cl .....                           | 0.02 | Fe .....           | 0.008 |
| SO <sub>4</sub> .....              | 0.05 | H.M. (as Pb) ..... | 0.002 |

Pack Size: 500g, 5kg, 25kg

## SODIUM TETRAHYDROBORANE (see Sodium Borohydride page 342)

3133

## SODIUM TETRAPHENYLBORATE, UNILAB

CAS 143-66-8

 $\text{Na}_2\text{H}_{20}\text{BNa}$  = 342.2

Description: white crystalline powder

Assay ..... 99.0% min.

| <b>Maximum limit of impurities</b> |     | <b>(%)</b> |  |
|------------------------------------|-----|------------|--|
| L.O.D .....                        | 0.5 |            |  |

Pack size: 25g



**SODIUM THIOCYANATE****CAS** 540-72-7**Synonyms:** Sodium Sulphocyanide

NaSCN = 81.07

**659****SODIUM THIOCYANATE, UNIVAR**

Description: colourless, deliquescent crystals.

Assay ..... 98.0% min.

| <i>Maximum limit of impurities</i>                          | <i>(%)</i> |                       |        |
|-------------------------------------------------------------|------------|-----------------------|--------|
| Insol. ....                                                 | 0.005      | Sulphide (as S) ..... | 0.001  |
| Cl .....                                                    | 0.02       | Fe .....              | 0.0002 |
| CO <sub>3</sub> (as Na <sub>2</sub> CO <sub>3</sub> ) ..... | 0.2        | H.M. (as Pb) .....    | 0.0005 |
| SO <sub>4</sub> .....                                       | 0.01       | NH <sub>4</sub> ..... | 0.002  |

**Pack Size:** 500g**516****SODIUM THIOCYANATE, UNILAB**

Assay(after drying) ..... 98.0% min.

| <i>Maximum limit of impurities</i> | <i>(%)</i> |
|------------------------------------|------------|
| Cl .....                           | 0.05       |
| SO <sub>4</sub> .....              | 0.1        |

**Pack Size:** 500g**2390****SODIUM THIOGLYCOLLATE, UNILAB****CAS** 367-51-1**Synonyms:** Thioglycollic Acid, sodium saltHSCH<sub>2</sub>COONa = 114.10

White powder.

Assay ..... 98% min.

| <i>Maximum limit of impurities</i> | <i>(%)</i> |
|------------------------------------|------------|
| SO <sub>4</sub> .....              | 0.06       |

Store below +4°C (Refrigerate)

**Pack Size:** 100g**ICP STANDARDS**

High Quality Single Element Standards  
 Aqueous standards specifically for ICP Instrumentation  
 See page 33 for more details

## SODIUM THIOSULPHATE

CAS 7772-98-7

Synonyms: Sodium Hyposulphite

 $\text{Na}_2\text{S}_2\text{O}_3 \cdot 5\text{H}_2\text{O}$  = 248.18

517

## SODIUM THIOSULPHATE, UNIVAR

Description: colourless crystals.

Assay ..... 99.5 - 101.0%

pH (5% soln. @ 25°C) ..... 6.0 – 8.4

**Maximum limit of impurities (%)**

Insol. .... 0.005

N cpds (as N) ..... 0.002

Sulphide (S) ..... 0.0001

K ..... 0.001

 $\text{SO}_4$  &  $\text{SO}_3$  (as  $\text{SO}_4$ ) ..... 0.1

Ca ..... 0.002

Cu ..... 0.0005

Fe ..... 0.0005

Mg ..... 0.001

Pb ..... 0.0005

Conforms to ACS

Pack Size: 500g, 2kg, 5kg, 25kg

518

## SODIUM THIOSULPHATE, UNILAB

Assay ..... 98.0% min.

**Maximum limit of impurities (%)** $\text{SO}_4$  ..... 0.5

Pack Size: 500g, 5kg, 25kg

953

## SODIUM THIOSULPHATE, LABCHEM

Assay ..... 97.0% min.

**Maximum limit of impurities (%)** $\text{SO}_4$  ..... 1.0

Pack Size: 500g

505

## SODIUM THIOSULPHATE, anhydrous, TECHNICAL

Synonyms: Sodium Hyposulphite

CAS 7772-98-7

 $\text{Na}_2\text{S}_2\text{O}_3$  = 158.11

Assay ..... 97% min.

Pack Size: 500g

638

## SODIUM THIOSULPHATE 0.100M Solution, UNIVOL

Stabilized with sodium azide 0.01%. Used in iodometric analysis. For end-point detection, we recommend VITEX indicator.

Molarity ..... 0.09950 - 0.1005 mol/L

Pack Size: 1L, 6x1L, 20L

1388

**SODIUM THIOSULPHATE 0.1MOL CONCENTRATE, AMPOULE, OP**

Description: plastic ampoule containing clear colourless liquid  
 0.1 mole (24.818g  $\text{Na}_2\text{S}_2\text{O}_3 \cdot 5\text{H}_2\text{O}$ ) to prepare 1L of 0.1N solution  
 Titer ..... 0.998 – 1.002

**Pack size:** Ampoule

1397

**SODIUM THIOSULPHATE 0.200M Solution, UNIVOL**

Stabilized with sodium azide 0.01%. Used in iodometric analysis. For end-point detection, we recommend VITEX indicator.

Molarity ..... 0.1995 - 0.2005 mol/L

**Pack Size:** 20L

**SODIUM TOLUENE-P-SULPHONCHLOROAMIDE** (see Chloramine-T page 122)**SODIUM TUNGSTATE**

**CAS** 10213-10-2

**Synonyms:** Sodium Wolframate

$\text{Na}_2\text{WO}_4 \cdot 2\text{H}_2\text{O}$  = 329.86

520

**SODIUM TUNGSTATE, UNIVAR**

Description: colourless crystals or white crystalline powder.  
 Assay(after ignition) ..... 99.0 - 101.0%

| <i>Maximum limit of impurities</i> | <i>(%)</i> |
|------------------------------------|------------|
| Insol. ....                        | 0.01       |
| Titrateable free base .....        | 0.02 meq/g |
| Mo .....                           | 0.001      |
| Cl .....                           | 0.005      |
| As .....                           | 0.0005     |
| $\text{SO}_4$ .....                | 0.01       |
| Fe .....                           | 0.001      |
| H.M(as Pb) .....                   | 0.001      |
| Nitrogen compounds(as N) .....     | 0.001      |

Conforms to ACS

**Pack Size:** 100g, 500g, 5kg

521

**SODIUM TUNGSTATE, UNILAB**

Assay ..... 98.5% min.

| <i>Maximum limit of impurities</i> | <i>(%)</i> |
|------------------------------------|------------|
| Cl .....                           | 0.05       |
| H.M.(as Pb), Fe .....              | 0.005      |

**Pack Size:** 100g

**SODIUM WOLFRAMATE** (Sodium Tungstate page 377)

**SOLID GREEN** (see Malachite green page 233)

**SOLOCHROME BLACK** (see Erichrome black T page 164)

**SOLUBLE BLUE** (see Methyl Blue page 251)

**SOLVENT ETHER** (see Diethyl Ether page 153)

**SOLVENT YELLOW 94** (see Fluorescein page 176)

**SORBIC ACID, UNILAB**

**320**

**CAS** 110-44-1

**Synonyms:** Hexa-2,4-dienoic Acid

$\text{CH}_3\text{CH}:\text{CHCH}:\text{CHCOOH} = 112.13$

Assay ..... 99.2% min.

M.P. .... 133 - 135°C

**Maximum limit of impurities** (%)

Cl ..... 0.015

$\text{SO}_4$  ..... 0.02

$\text{H}_2\text{O}$  ..... 0.4

As ..... 0.0002

H.M. (as Pb) ..... 0.0010

R.O.I ..... 0.05

**Pack Size:** 100g, 5kg

**1585**

**D-SORBITOL, powder, UNILAB**

**CAS** 50-70-4

**Synonyms:** D-Glucitol

$\text{CH}_2\text{OH}(\text{CHOH})_4\text{CH}_2\text{OH} = 182.17$

White, crystalline powder.

Assay (anhydrous subst.) ..... 98.0 - 100.5%

Spec. rotn. (@ 20°C) ..... +4.0 to +7.0°

**Maximum limit of impurities** (%)

R.O.I. .... 0.1

L.O.D ..... 1.0

Acidity or alkalinity ..... To pass test

Clarity & colour ..... To pass test

Cl ..... 0.005

$\text{SO}_4$  ..... 0.01

As ..... 0.0003

Pb ..... 0.00005

Ni ..... 0.0001

Reducing sugars (as  $\text{Cu}_2\text{O}$ ) ..... 0.3

Total sugars ..... 1

Chemical and physical parameters conform to BP, USP and FCC

**Pack Size:** 500g, 5kg

1849

**SORENSEN'S BUFFER CONCENTRATE SOLUTION, LABCHEM**

pH ..... 6.8  
 20 X Concentrate. Dilute 1 part with 19 parts of water

**Pack Size:** 1L, 5L

**STANNIC COMPOUNDS** (see Tin(IV) compounds page 396)

**STANNIC CHLORIDE** (see Tin(IV) Chloride page 396)

**STANNOUS COMPOUNDS** (see Tin(II) compounds page 395)

**STANNOUS CHLORIDE** (see Tin(II) Chloride page 396)

**STANNOUS OXIDE** (see Tin(II) Oxide page 397)

**STANNOUS SULPHATE** (see Tin(II) Sulphate page 397)

**STARCH INDICATOR** (see Vitex indicator page 412)

**STARCH**

**CAS** 9005-25-8

1534

**STARCH, potato, LABCHEM**

Purified white powder, suitable for food use.

pH ..... 6 - 8

| <i>Maximum limit of impurities</i> | <i>(%)</i> |
|------------------------------------|------------|
| H <sub>2</sub> O (L.O.D) .....     | 21         |
| Ash (typical) .....                | 0.3        |
| SO <sub>2</sub> (typical) .....    | 0.0005     |
| Fe .....                           | 0.001      |
| As .....                           | 0.000005   |
| Cd .....                           | 0.000005   |
| Hg .....                           | 0.000005   |
| Pb .....                           | 0.00001    |

Chemical and physical parameters conform to FCC

**Pack Size:** 500g

526

**STARCH, soluble, UNIVAR**

Description: white powder. Iodometric indicator.

| <i>Maximum limit of impurities</i> | <i>(%)</i>   |
|------------------------------------|--------------|
| R.A.I. ....                        | 0.4          |
| pH(2% soln. @25°C) .....           | 5.0 – 7.0    |
| Sensitivity to iodine .....        | To pass test |
| Solubility .....                   | To pass test |
| Conforms to ACS                    |              |

**Pack Size:** 100g, 500g, 5kg

1254

**STARCH, soluble, UNILAB**

Iodometric indicator.  
Sensitivity to iodine ..... To pass test

**Maximum limit of impurities (%)**  
R.A.I ..... 0.5

**Pack Size:** 500g

1547

**STARCH, maize, LABCHEM**

Unmodified food grade material.  
pH ..... 6.5 - 7.5

**Maximum limit of impurities (%)**  
H<sub>2</sub>O ..... 13  
Protein ..... 0.4

**Pack Size:** 25kg

1255

**STEARIC ACID, powder, UNILAB**

**CAS** 57-11-4

**Synonyms:** Octadecanoic Acid

CH<sub>3</sub>(CH<sub>2</sub>)<sub>16</sub>COOH = 284.49

C<sub>12</sub>-C<sub>14</sub> ..... 4% saturated.  
C<sub>15</sub>-C<sub>16</sub> ..... 41% saturated.  
C<sub>17</sub>-C<sub>18</sub> ..... 54% saturated.  
C<sub>18</sub> ..... 1% unsaturated.

**Maximum limit of impurities (%)**  
Iodine Value ..... 1  
Acid Value ..... 202 - 208  
Titre (°C) ..... 54 - 57.5  
Colour (5 1/4" LOV) ..... 6.0Y/1.0R

**Pack Size:** 500g, 25kg

**STOPCOCK GREASE** (see High Vacuum Grease page 195)

1516

**STRONTIUM CARBONATE, UNILAB**

**CAS** 1633-05-2

SrCO<sub>3</sub> = 147.63

Assay ..... 97% min.

**Maximum limit of impurities (%)**  
Cl ..... 0.005  
SO<sub>4</sub> ..... 0.01  
Ba ..... 1  
Ca ..... 0.07

Fe ..... 0.002  
H.M. (as Pb) ..... 0.002  
Total N ..... 0.1

**Pack Size:** 500g, 5kg

## STRONTIUM CHLORIDE

CAS 10025-70-4  
 $\text{SrCl}_2 \cdot 6\text{H}_2\text{O} = 266.62$

1257

## STRONTIUM CHLORIDE, UNIVAR

Description: colourless crystals

Assay ..... 99.0% min.  
 pH (5% soln @ 20°C) ..... 5.0 – 7.0

**Maximum limit of impurities (%)**

Insol ..... 0.003  
 $\text{SO}_4$  ..... 0.005  
 $\text{NO}_3$  ..... 0.002  
 Ba ..... 0.2  
 Ca ..... 0.05

Fe ..... 0.001  
 K ..... 0.01  
 H.M. (as Pb) ..... 0.001  
 Na ..... 0.05

Pack Size: 500g

1258

## STRONTIUM CHLORIDE, UNILAB

Assay ..... 98.0% min.

**Maximum limit of impurities (%)**

$\text{SO}_4$  ..... 0.06  
 H.M. & Fe (as Fe) ..... 0.005

Pack Size: 500g



## STRONTIUM NITRATE

CAS 10042-76-9  
 $\text{Sr}(\text{NO}_3)_2 = 211.63$

U.N Number ..... 1507  
 ADG Class ..... 5.1  
 Packing Group ..... III

1517

## STRONTIUM NITRATE, UNIVAR

Description: white crystalline powder.

Assay(after drying) ..... 99.0% min.  
 pH (5% @ 25°C) ..... 5.0 – 7.0

**Maximum limit of impurities (%)**

Insol. .... 0.01  
 L.O.D. (@ 105°C) ..... 0.1  
 Cl ..... 0.002  
 $\text{SO}_4$  ..... 0.005  
 Ba ..... 0.05  
 Ca ..... 0.05  
 Mg ..... 0.1  
 Heavy Metals (as Pb) ..... 0.0005  
 Fe ..... 0.0005  
 Na ..... 0.1

Conforms to ACS

Pack Size: 500g, 5kg

527

**STRONTIUM NITRATE, UNILAB**

Assay ..... 99.0% min.

**Maximum limit of impurities (%)**

|                       |       |
|-----------------------|-------|
| Cl .....              | 0.005 |
| SO <sub>4</sub> ..... | 0.01  |
| Ba .....              | 0.5   |
| H.M. (as Pb) .....    | 0.005 |

**Pack Size:** 500g, 5kg

473

**STYRENE, monomer, stabilized, UNILAB****CAS** 100-42-5C<sub>6</sub>H<sub>5</sub>CH:CH<sub>2</sub> = 104.15

Density(@25°C) ..... about 0.90g/mL

Assay ..... 99.7%

U.N Number ..... 2055

ADG Class ..... 3

Packing Group ..... III

Store below 4° (refrigerate)

**Pack Size:** 500mL, 20L

528

**SUCCINIC ACID, UNIVAR****CAS** 110-15-6(CH<sub>2</sub>COOH)<sub>2</sub> = 118.09

Description: colourless crystals.

Assay ..... 99.5% min.

M.P. .... 185 - 191°C

**Maximum limit of impurities (%)**

|                              |        |
|------------------------------|--------|
| Sulph. Ash .....             | 0.02   |
| Cl .....                     | 0.0005 |
| SO <sub>4</sub> .....        | 0.005  |
| Fe .....                     | 0.0005 |
| H.M. (as Pb) .....           | 0.0005 |
| NH <sub>4</sub> .....        | 0.001  |
| H <sub>2</sub> O (K.F) ..... | 0.5    |

**Pack Size:** 500g, 5kg

**NEW**

**UNIPURE**

**ICP Standards**

**Certified Reference Standards**

**Extra Pure Acids**

**E x t r a p u r e**

a n a l y t i c a l R e a g e n t s

Ultra pure reagents exceeding ACS specifications. Suitable for highly sensitive analysis.

- Acids for Trace Metal Analysis
- Certified Reference Standards
- Single Element Standards ICP Standards



**SUCROSE**

CAS 57-50-1

Synonyms: Sugar, common

 $C_{12}H_{22}O_{11} = 342.30$ **530****SUCROSE, UNIVAR**

Description: colourless crystals or white, crystalline powder. Used in electrophoresis. Added to PAGE buffers to improve the physical stability of gels.

Spec. rotn. (@25°C) ..... +66.3 to +66.8°C

**Maximum limit of impurities (%)**

|                                             |              |                    |         |
|---------------------------------------------|--------------|--------------------|---------|
| Insol. ....                                 | 0.005        | Fe .....           | 0.0003  |
| L.O.D. ....                                 | 0.03         | H.M. (as Pb) ..... | 0.0005  |
| R.A.I. ....                                 | 0.01         | Invert sugar ..... | 0.05    |
| Titrateable acid .....                      | 0.0008 meq/g | Ca.....            | 0.001   |
| Cl . ....                                   | 0.005        | Cu.....            | 0.00001 |
| SO <sub>4</sub> .....                       | 0.005        | Ni.....            | 0.00001 |
| SO <sub>3</sub> (as SO <sub>4</sub> ) ..... | 0.005        | Pb.....            | 0.0001  |
| Cd .....                                    | 0.00002      | Zn.....            | 0.00005 |

Conforms to ACS

Pack Size: 500g, 2kg, 5kg, 25kg

**1784****SUCROSE, UNILAB**

Spec. rotn. (@25°C) ..... +66 to +67 °C

**Maximum limit of impurities (%)**

|                             |                   |
|-----------------------------|-------------------|
| Sulph. Ash .....            | 0.02              |
| SO <sub>4</sub> .....       | 0.01              |
| H.M. (as Pb) .....          | 0.001             |
| Acidity or alkalinity ..... | 0.25 mmol H or OH |

Pack Size: 500g

**954****SUCROSE, LABCHEM**

Spec. rotn. (@25°C) ..... +65 to +68 °C

**Maximum limit of impurities (%)**

|                    |       |
|--------------------|-------|
| Cl .....           | 0.01  |
| H.M. (as Pb) ..... | 0.002 |

Pack Size: 500g

**3263****SUDAN III (CI 26100), OP**

CAS 85-86-9

Stain for microscopy.

Pack Size: 25g

3264

**SUDAN BLACK B (CI 26150), LABCHEM**

CAS 4197-25-5

 $C_{29}H_{24}N_6 = 456.6$ 

Description: Brownish black crystalline powder with metallic lustre

Absorption maximum (in 95% Ethanol) ..... 596 – 605nm

**Maximum limit of impurities (%)**

L.O.D ..... 5.0

Pack size: 25g

**SUGAR OF LEAD** (see Lead(II) Acetate page 218)**SUGAR, COMMON** (see Sucrose page 383)**SULPHAMIC ACID**

CAS 5329-14-6

Synonyms: Amidosulphonic Acid

 $H_2NSO_3H = 97.09$ 

U.N Number ..... 2967

ADG Class ..... 8

Packing Group ..... III

531

**SULPHAMIC ACID, UNIVAR**

Description: colourless crystals.

Assay (after drying) ..... 99.5% min.

**Maximum limit of impurities (%)**

R.O.I. .... 0.02

Cl ..... 0.001

 $SO_4$  ..... 0.1

H.M.(as Pb) ..... 0.001

Fe ..... 0.003

Pack Size: 500g

532

**SULPHAMIC ACID, UNILAB**

Assay ..... 98.0% min.

**Maximum limit of impurities (%)**

Sulph. Ash ..... 0.1

L.O.D. .... 0.5

Pack Size: 500g, 5kg, 25kg

2380

**SULPHANILAMIDE, LABCHEM**

CAS 63-74-1

 $NH_2C_6H_4SO_2NH_2 = 172.21$ 

M.P. .... (approx) 164-166°C

Assay (tit) ..... 98% min.

Pack Size: 100g, 500g

674

**SULPHANILIC ACID, UNIVAR**

CAS 121-57-3

**Synonyms:** 4-Aminobenzenesulphonic AcidNH<sub>2</sub>C<sub>6</sub>H<sub>4</sub>SO<sub>3</sub>H = 173.19Reagent for NO<sub>2</sub>

Description: white crystals or crystalline powder.

Sensitivity to NO<sub>2</sub> ..... 1 part in 10 million

Assay ..... 98.0 - 102.0%

| <b>Maximum limit of impurities</b>             | <b>(%)</b> |
|------------------------------------------------|------------|
| Insol. (Na <sub>2</sub> CO <sub>3</sub> soln.) | 0.02       |
| R.A.I.                                         | 0.01       |
| Cl                                             | 0.002      |
| NO <sub>2</sub>                                | 0.00005    |
| SO <sub>4</sub>                                | 0.01       |
| H.M (as Pb)                                    | 0.001      |

Conforms to ACS

**Pack Size:** 100g, 500g

533

**SULPHOSALICYLIC ACID, UNIVAR**

CAS 97-05-2

**Synonyms:** Salicylsulphonic AcidHOCOC<sub>6</sub>H<sub>3</sub>(OH)SO<sub>3</sub>H.2H<sub>2</sub>O = 254.22

Appearance: White crystals. Used as fixative and solvent in electrophoresis. With methyl green, 10% sulphosalicylic acid is used for fixing (staining) and destaining.

Assay ..... 99 - 101%

M.P. .... 107-111°C

| <b>Maximum limit of impurities</b> | <b>(%)</b> |
|------------------------------------|------------|
| Sulph. Ash                         | 0.1        |
| Cl                                 | 0.002      |
| Fe                                 | 0.002      |
| Salicylic acid                     | 0.2        |
| H.M (as Pb)                        | 0.002      |

Conforms to ACS

**Pack Size:** 500g**SULPHUR**

CAS 7704-34-9

S = 32.06

U.N Number ..... 1350

ADG Class ..... 4.1

Packing Group ..... III



1686

**SULPHUR, powder, TECHNICAL****Synonyms:** Atomic Sulphur

Assay ..... 99.3% min.

| <b>Maximum limit of impurities</b>           | <b>(%)</b> |
|----------------------------------------------|------------|
| Ash                                          | 0.5        |
| H <sub>2</sub> O                             | 0.2        |
| Acidity (as H <sub>2</sub> SO <sub>4</sub> ) | 0.1        |

**Pack Size:** 500g

1685

**SULPHUR, roll, TECHNICAL****Pack Size:** 1kg

786

**SULPHUR, sublimed, TECHNICAL****Synonyms:** Flowers of Sulphur

Assay ..... 99.5% min.

Polymeric insol ..... 30% min.

**Maximum limit of impurities (%)**

Ash ..... 0.2

Acidity ..... 0.15

**Pack Size:** 500g

1868

**SULPHUR DIOXIDE INDICATOR SOLUTION FOR USE IN RANKIN'S APPARATUS , LABCHEM****Synonyms:** Rankin Indicator Solution

Methylene Blue and Methyl Red in Ethanol (45%)

U.N Number ..... 1170

ADG Class ..... 3

Packing Group ..... III

**Pack Size:** 100mL**SULPHURIC ACID****CAS** 7664-93-9 $H_2SO_4 = 98.08$ 

Density ..... about 1.84 g/mL

U.N Number ..... 1830

ADG Class ..... 8

Packing Group ..... II

1401

**SULPHURIC ACID, EXTRA PURE, UNIPURE**

Assay ..... 94 - 98%

**Maximum limit of impurities (ppb):**

Al ..... 5

Sb ..... 1

As ..... 1

Ba ..... 1

Be ..... 1

Bi ..... 1

B ..... 1

Cd ..... 1

Ca ..... 5

Cr ..... 1

Co ..... 1

Cu ..... 1

Fe ..... 5

Pb ..... 1

Li ..... 1

Mg ..... 1

Mn ..... 1

Hg ..... 1

Mo ..... 1

Ni ..... 1

K ..... 1

Se ..... 10

Ag ..... 1

Na ..... 5

Sr ..... 1

Th ..... 1

Sn ..... 1

Ti ..... 5

U ..... 1

V ..... 1

Zn ..... 1

Zr ..... 1

**Pack size:** 500mL, 2.5L

534

**SULPHURIC ACID, UNIVAR**

Description: clear, oily liquid. Hygroscopic. Free from suspended or insoluble matter.

Assay ..... 95.0 - 98.0% w/w

Colour ..... (APHA) 10 max.

**Maximum limit of impurities****(%)**

Ignition residue, Na ..... 0.0005  
 Cl ..... 0.00002  
 NO<sub>3</sub> ..... 0.00005  
 Subs. red KMnO<sub>4</sub> (as SO<sub>2</sub>) ..... 0.0002  
 Al ..... 0.00001  
 Cr ..... 0.00001  
 Mg ..... 0.00005  
 Zn ..... 0.00005  
 K ..... 0.00005  
 Ca ..... 0.0001  
 Se ..... 0.0001  
 NH<sub>4</sub> ..... 0.0002  
 Ba ..... 0.000005

Cd ..... 0.000005  
 Pb ..... 0.000005  
 Mo ..... 0.000005  
 Ni ..... 0.000005  
 Co ..... 0.000002  
 Cu ..... 0.000002  
 Mn ..... 0.000002  
 Sr ..... 0.000002  
 Hg ..... 0.0000005  
 As ..... 0.000001  
 Fe ..... 0.00002  
 Heavy Metals (as Pb) ..... 0.0001

Conforms to ACS

**Pack Size:** 500mL, 2.5L, 340kg

955

**SULPHURIC ACID, LABCHEM**

Assay ..... 94.0% w/w min.

**Maximum limit of impurities****(%)**

Cl ..... 0.001  
 Heavy Metals (as Pb) ..... 0.001

**Pack Size:** 500mL, 2.5L

535

**SULPHURIC ACID 98%, TECHNICAL****Pack Size:** 2.5L

1599

**SULPHURIC ACID 94%, for milk testing, LABCHEM**

Assay ..... 93.0 - 94.5% w/w

**Pack Size:** 2.5L, 15L

1598

**SULPHURIC ACID 90%, for milk testing, LABCHEM**

Density @ 20°C ..... 1.812 - 1.818g/mL

**Pack Size:** 2.5L

808

**SULPHURIC ACID 50% W/W, UNIVAR**

Density ..... about 1.40g/mL  
 Assay ..... 49 - 51%

U.N Number ..... 2796  
 ADG Class ..... 8  
 Packing Group ..... II

**Pack Size:** 2.5L

**2433****SULPHURIC ACID 10% W/W, UNILAB**

Useful for general laboratory reagent purposes.

Description: Clear, colourless liquid

Assay ..... 9.5 - 10.5% w/w

Density (@ 20°C) ..... 1.062 – 1.072 g/mL

U.N Number ..... 2796

ADG Class ..... 8

Packing Group ..... II

**Pack size:** 20L**647****SULPHURIC ACID 1.000N SOLN, UNIVOL**

Normality 1.000N

Molarity ..... 0.495 - 0.505mol/L

U.N Number ..... 2796

ADG Class ..... 8

Packing Group ..... II

**Pack Size:** 2.5L**1375****SULPHURIC ACID 0.5 MOL CONCENTRATE 1.0N, AMPOULE, OP**

Description: plastic ampoule containing clear colourless liquid

0.5 mole (49.039g H<sub>2</sub>SO<sub>4</sub>) to prepare 1L of 1N solution

Titer ..... 0.998 – 1.002

U.N Number ..... 2796

ADG Class ..... 8

Packing Group ..... II

**Pack size:** Ampoule**1373****SULPHURIC ACID 0.05 MOL CONCENTRATE 0.1N, AMPOULE, OP**

Description: plastic ampoule containing clear colourless liquid

0.05 mole (4.904g H<sub>2</sub>SO<sub>4</sub>) to prepare 1L of 0.1N solution

Titer ..... 0.998 – 1.002

U.N Number ..... 2796

ADG Class ..... 8

Packing Group ..... II

**Pack size:** Ampoule**639****SULPHURIC ACID SOLUTION 0.1N, UNIVOL**

Normality 0.100N.

Molarity ..... 0.0497 - 0.0503 mol/L

**Pack Size:** 2.5L, 5L**661****SULPHURIC ACID SOLUTION 0.020N, UNIVOL**

Normality 0.020N

**Pack Size:** 6X1L

1284

**TALC, TECHNICAL**

CAS 14807-96-6

Bulk Density ..... (approx) 0.9g/mL

**Maximum limit of impurities (%)**

L.O.I.(typical) ..... 5.3

SiO<sub>2</sub> (typical) ..... 61.7Al<sub>2</sub>O<sub>3</sub> (typical) ..... 0.8Fe<sub>2</sub>O<sub>3</sub> (typical) ..... 1.0

CaO (typical) ..... 0.4

MgO (typical) ..... 30.4

Pack Size: 500g

536

**TANNIC ACID, UNILAB**

CAS 1401-55-4

Synonyms: Tannin

C<sub>76</sub>H<sub>52</sub>O<sub>46</sub> = 1701.22**Maximum limit of impurities (%)**

L.O.D ..... 12.0

Sulphated ash ..... 1.0

As ..... 0.0003

H.M.(as Pb) ..... 0.004

Gum or dextrin ..... To pass test

Resinous substances ..... To pass test

Organic volatile impurities ..... To pass test

Chemical and physical parameters conform to USP

Pack Size: 500g, 5kg

**TANNIN** (see Tannic Acid page 389)**TARTAR EMETIC** (see Antimony Potassium Tartrate page 77)**(+) -TARTARIC ACID**

CAS 87-69-4

(CHOHCOOH)<sub>2</sub> = 150.09

537

**(+) -TARTARIC ACID, UNIVAR**

Description: colourless crystals or crystalline powder.

Assay(after drying) ..... 99.5% min.

**Maximum limit of impurities (%)**

Insol. .... 0.005

R.A.I. .... 0.02

Cl ..... 0.001

C<sub>2</sub>O<sub>4</sub> ..... 0.1PO<sub>4</sub> ..... 0.001

S cpds (as S) ..... 0.002

Fe ..... 0.0005

H.M. (as Pb) ..... 0.0005

Conforms to ACS

Pack Size: 500g, 5kg, 25kg

455

**(+) -TARTARIC ACID, UNILAB**

Description: colourless crystals, or white, or almost white, crystalline powder; odourless or almost odourless.

Assay (after drying) ..... 99.5 - 101.5%

Spec. rotn. (20% w/v in H<sub>2</sub>O) ..... 12.0 – 12.8°

| <b>Maximum limit of impurities</b> | <b>(%)</b>   |
|------------------------------------|--------------|
| Clarity and colour of soln. ....   | To pass test |
| Sulph. Ash .....                   | 0.1          |
| L.O.D. ....                        | 0.2          |
| Cl .....                           | 0.010        |
| Oxalic Acid .....                  | 0.035        |
| SO <sub>4</sub> .....              | 0.0150       |
| H.M. (as Pb) .....                 | 0.0010       |
| Ca .....                           | 0.02         |

**Pack Size:** 500g, 5kg**L(+) -TARTARIC ACID AMMONIUM SALT** (see Ammonium (+) Tartrate page 74)**TARTARIC ACID DISODIUM SALT** (see Sodium Tartrate page 373)

3265

**TARTRAZINE (C.I. 19140), LABCHEM****CAS** 1934-21-0C<sub>16</sub>H<sub>9</sub>N<sub>4</sub>Na<sub>3</sub>O<sub>6</sub>S<sub>2</sub> = 534.4

Description: Orange-yellow coloured powder

Assay ..... 99.0% min.

| <b>Maximum limit of impurities</b> | <b>(%)</b> |
|------------------------------------|------------|
| Fe .....                           | 0.001      |
| As .....                           | 0.0005     |
| Pb .....                           | 0.001      |
| Cl .....                           | 0.005      |
| Nitrogen compounds (as N) .....    | 0.001      |
| Cu .....                           | 0.001      |
| SO <sub>4</sub> .....              | 0.01       |

**Pack size:** 25g**TEA** (see Triethanolamine page 404)

3436

**TES (N-TRIS(HYDROXYMETHYL) METHYL-2-AMINOETHANE SULPHONIC ACID), BIOLOGICAL BUFFER, UNIVAR****CAS** 7365-44-8**Synonyms:** N-tris(Hydroxymethyl)methyl-2-aminoethane sulfonic AcidC<sub>6</sub>H<sub>15</sub>NO<sub>6</sub>S = 229.5

Description: White amorphous powder

Solubility (in H<sub>2</sub>O): freely soluble in water

Assay ..... 99.0% min.

pKa (@20°C) ..... 7.5

Melting Point ..... 225°C

| Maximum limit of impurities |        | (%)                               |        |
|-----------------------------|--------|-----------------------------------|--------|
| Mg .....                    | 0.0005 | Cu .....                          | 0.0005 |
| Ca .....                    | 0.001  | Cd .....                          | 0.0005 |
| Fe .....                    | 0.0005 | SO <sub>4</sub> .....             | 0.005  |
| Cl .....                    | 0.2    | L.O.D. (110°C) .....              | 0.5    |
| Na .....                    | 0.02   | R.O.I (as SO <sub>4</sub> ) ..... | 0.2    |
| Mn .....                    | 0.0005 |                                   |        |

**Pack size:** 100g, 1Kg



## TEST STICKS FOR SEMI-QUANTITATIVE DETERMINATION (see under QUANTOFIX® page 324)

802

## sym-TETRABROMOETHANE, UNILAB



CAS 79-27-6

**Synonyms:** Acetylene Tetrabromide, 1,1,2,2-TetrabromoethaneCHBr<sub>2</sub>CHBr<sub>2</sub> = 345.65

Density ..... 2.95 - 2.97g/mL

R.I. .... 1.636 – 1.639

U.N Number ..... 2504

ADG Class ..... 6.1

Packing Group ..... III

**Maximum limit of impurities (%)**

Non-vol. .... 0.03

**Pack Size:** 500mL

## 1,1,2,2-TETRABROMOETHANE (see sym-Tetrabromoethane page 391)

1352

## TETRABUTYLAMMONIUM HYDROGEN SULPHATE, UNICHROM

CAS 32503-27-8

(CH<sub>3</sub>CH<sub>2</sub>CH<sub>2</sub>CH<sub>2</sub>)<sub>4</sub> NHSO<sub>4</sub> = 339.54

Assay ..... 99.0%

Optical Absorbance of 10% in water at:

210nm ..... 0.05

220nm ..... 0.04

230nm ..... 0.03

260nm ..... 0.02

**Pack size:** 10g

1281

## TETRACHLOROETHYLENE, UNILAB



CAS 127-18-4

**Synonyms:** PerchloroethyleneCCl<sub>2</sub>:CCl<sub>2</sub> = 165.83

Density ..... about 1.62g/mL

R.I. .... about 1.502

B.R.(95% min.) ..... 120 – 122°C

U.N Number ..... 1897

ADG Class ..... 6.1

Packing Group ..... III

**Maximum limit of impurities (%)**

Non-vol. .... 0.01

**Pack Size:** 500mL, 2.5L, 20L

2453

## TETRAETHYLAMMONIUM BROMIDE, UNILAB

CAS 71-91-0

(C<sub>2</sub>H<sub>5</sub>)<sub>4</sub>NBr = 210.16

Assay ..... 99.0% min.

M.P. .... 284-286°C

pH (10% soln.) ..... 4.5 – 6.5

**Maximum limit of impurities (%)**

Sulph. Ash ..... 0.05

**Pack Size:** 100g

## TETRAHYDROBENZENE (see Cyclohexene page 144)

## TETRAHYDROFURAN



CAS 109-99-9

Synonyms: THF

 $C_4H_8O = 72.11$ 

Density ..... about 0.89g/mL

U.N Number ..... 2056

ADG Class ..... 3

Packing Group ..... II

2317

## TETRAHYDROFURAN, UNICHROM

Description: clear liquid Specially purified for HPLC. Stabilized with BHT Filtered through 0.45 micron filter &amp; packed under nitrogen.

Assay (GLC) ..... 99.7%min.

| <i>Maximum limit of impurities</i> | <i>(%)</i>  |
|------------------------------------|-------------|
| Non vol. ....                      | 0.001       |
| Acidity .....                      | 0.06 mmol H |
| H <sub>2</sub> O (by K.F.) .....   | 0.05        |

**U.V. Absorbance:**

|                |      |     |         |
|----------------|------|-----|---------|
| $\lambda$ (nm) | 280  | 254 | 215-210 |
| Max. abs.      | 0.05 | 0.3 | 1.0     |

**Pack Size:** 2.5L

3517

## TETRAHYDROFURAN, HPLC GRADE, BURDICK &amp; JACKSON, CAT. AH340

Packed under Nitrogen

|                     |                                                                       |
|---------------------|-----------------------------------------------------------------------|
| Preservative .....  | None                                                                  |
| Water .....         | Less than 0.030% (KF)                                                 |
| RI .....            | 1.4070 +/- 0.005 @ 20°C                                               |
| Residue .....       | Less than 3 mg/L                                                      |
| Purity .....        | Greater than 99.8% by GC analysis                                     |
| Peroxides .....     | Less than 2mg/L as H <sub>2</sub> O <sub>2</sub> at time of packaging |
| Colour (APHA) ..... | Less than 20                                                          |

**UV Absorbance:**

|                |      |       |       |       |       |
|----------------|------|-------|-------|-------|-------|
| $\lambda$ (nm) | 212  | 250   | 300   | 350   | 400   |
| Max. abs.      | 1.00 | 0.180 | 0.020 | 0.005 | 0.005 |

Conforms to ACS

**Pack Size:** 4L

3465

## TETRAHYDROFURAN, UV &amp; HPLC, BURDICK &amp; JACKSON, CAT. 340

High purity solvent for HPLC, GC &amp; Spectrophotometry. Packed under nitrogen.

Assay (GC) ..... 99.9% min.

| <i>Maximum limit of impurities</i> | <i>(%)</i>                                                            |
|------------------------------------|-----------------------------------------------------------------------|
| Preservative .....                 | None                                                                  |
| R.A.E. ....                        | 0.0001                                                                |
| Peroxides .....                    | Less than 2mg/L as H <sub>2</sub> O <sub>2</sub> at time of packaging |
| Water(KF) .....                    | 0.03                                                                  |

**U.V. Absorbance:**

|                |       |       |       |       |       |
|----------------|-------|-------|-------|-------|-------|
| $\lambda$ (nm) | 212   | 250   | 300   | 350   | 400   |
| Max. abs.      | 1.000 | 0.180 | 0.020 | 0.005 | 0.005 |

**Pack Size:** 4L

540

**TETRAHYDROFURAN, UNILAB**

R.I. .... about 1.407  
 Assay (GC) ..... 99.8% min.  
 Water ..... 0.03% max.

**Maximum limit of impurities (%)**  
 Peroxides ..... 0.005

**Pack Size:** 500mL, 2.5L, 20L

**TETRAHYDRO-1,4-OXAZINE** (see Morpholine page 261)

2427

**TETRAMETHYLAMMONIUM HYDROXIDE 25 %, LABCHEM**

(CH<sub>3</sub>)<sub>4</sub>NOH = 91.15  
 Aqueous solution  
 Assay (acidimetric) ..... 25% min.  
 Density ..... about 1.03 g/mL

U.N Number ..... 1835  
 ADG Class ..... 8  
 Packing Group ..... II

**Pack size:** 100mL

**TETRAMETHYLENEGLYCOL** (see 1,4-Butandiol page 103)**TETRASODIUM PYROPHOSPHATE** (see tetra-Sodium Pyrophosphate page 368)**TFA** (see Trifluoroacetic Acid page 404)

2447

**THALLIUM(I) NITRATE, LABCHEM**

CAS 10102-45-1  
 TINO<sub>3</sub> = 266.37

U.N Number ..... 2727  
 ADG Class ..... 6.1  
 Subsidiary class ..... 5.1  
 Packing Group ..... II



**Pack Size:** 25g

627

**THIOACETAMIDE, UNIVAR**

CAS 62-55-5

**Synonyms:** Ethanethioamide

CH<sub>3</sub>CSNH<sub>2</sub> = 75.13

Description: colourless leaflets. When stored at room temperature it may decompose slightly and produce a turbid aqueous solution.

Assay ..... 99.0% min.  
 M.R. .... 111 – 114°C

**Maximum limit of impurities (%)**  
 Clarity of 2% soln. .... To pass test  
 R.A.I. .... 0.05  
 Conforms to ACS

**Pack Size:** 25g, 100g

**THIOCARBAMIDE** (see Thiourea page 394)

545

## THIOGLYCOLIC ACID, UNILAB



CAS 68-11-1

**Synonyms:** Mercaptoacetic AcidHSCH<sub>2</sub>COOH = 92.12

Reagent for Fe Sensitivity to Fe 1 part in 25 million

Density ..... about 1.33g/mL

Assay (ex acid) ..... 95.0% min.

U.N Number ..... 1940

ADG Class ..... 8

Packing Group ..... II

**Pack Size:** 100mL, 500mL

## THIOGLYCOLIC ACID SODIUM SALT (see Sodium Thioglycollate page 375)

546

## THIOUREA, UNILAB



CAS 62-56-6

**Synonyms:** ThiocarbamideCS(NH<sub>2</sub>)<sub>2</sub> = 76.12

Assay (after drying) ..... 98.0% min.

U.N Number ..... 2811

ADG Class ..... 6.1

Packing Group ..... III

**Maximum limit of impurities (%)**

Sulph. Ash ..... 0.1

**Pack Size:** 500g, 5kg

3904

## DL-THREONINE, UNIVAR

CAS 80-68-2

C<sub>4</sub>H<sub>9</sub>NO<sub>3</sub> = 119.1

Description: white crystalline powder

Assay ..... 99.0% min.

**Maximum limit of impurities (%)**Ammonium (NH<sub>4</sub>) ..... 0.01

H.M (as Pb) ..... 0.001

**Pack size:** 25g

3903

## L-THREONINE, UNIVAR

CAS 72-19-5

C<sub>4</sub>H<sub>9</sub>NO<sub>3</sub> = 119.1

Description: white crystalline powder

Assay ..... 99.0% min.

Specific rotation ..... -26.0 to -29.0°

**Maximum limit of impurities (%)**

H.M (as Pb) ..... 0.002

As ..... 0.0003

L.O.D ..... 0.2

Pb ..... 0.001

R.O.I ..... 0.1

**Pack size:** 25g

2328

## THYMOL, LABCHEM

CAS 89-83-8

**Synonyms:** 2-iso-Propyl-5-Methylphenol(CH<sub>3</sub>)<sub>2</sub>CHC<sub>6</sub>H<sub>3</sub>(CH<sub>3</sub>)OH = 150.22

M.P. .... about 50°C

**Pack Size:** 100g

700

**THYMOL BLUE, LABCHEM****CAS** 76-61-9**Synonyms:** Thymolsulfonephthalein $C_{27}H_{30}O_5S = 466.60$ 

Indicator for pH and for non-aqueous titrations.

| <i>Maximum limit of impurities</i> | <i>(%)</i>                 |
|------------------------------------|----------------------------|
| Visual transition interval:        |                            |
| (Acid range) .....                 | 1.2 (red) to 2.8 (yellow)  |
| (Alkaline range) .....             | 8.0 (yellow) to 9.2 (blue) |

**Pack Size:** 5g

2343

**THYMOLPHTHALEIN, LABCHEM****CAS** 125-20-2 $C_{28}H_{30}O_4 = 430.52$ 

pH indicator.

| <i>Maximum limit of impurities</i> | <i>(%)</i>    |
|------------------------------------|---------------|
| Insol Matter .....                 | To pass test  |
| Clarity of soln .....              | To pass test  |
| Visual transition interval .....   | pH 8.8 – 10.5 |

**Pack Size:** 5g, 1kg**THYMOLSULFONEPHTHALEIN** (see Thymol Blue page 395)

2649

**TIN 1000ppm SINGLE ELEMENT ICP STANDARD, UNIPURE**

A 1000 ppm Tin standard, ready for use.

Sn in 0.5% Hydrochloric acid.

**Traceable to NIST****Pack Size:** 100mL

2625

**TIN(II) CHLORIDE AAS STANDARD, SPECTROSOL**

A 1000 ppm tin standard, ready for use. Each mL contains 1.00 +/- 0.005mg of Sn in 10% hydrochloric acid, 32%

**Traceable to NIST****Pack Size:** 500mL**TIN****CAS** 7440-31-5

Sn = 118.69

745

**TIN, granulated, LABCHEM**

| <i>Maximum limit of impurities</i> | <i>(%)</i> |
|------------------------------------|------------|
| Bi .....                           | 0.02       |
| Cu .....                           | 0.01       |
| Fe .....                           | 0.02       |
| Pb .....                           | 0.05       |
| Sb .....                           | 0.05       |

**Pack Size:** 100g

1528

**TIN, powder, TECHNICAL****Pack Size:** 500g**TIN(II) CHLORIDE, hydrated****CAS** 7772-99-8**Synonyms:** Stannous Chloride $\text{SnCl}_2 \cdot 2\text{H}_2\text{O} = 225.63$ 

523

**TIN(II) CHLORIDE, hydrated, UNIVAR**

Description: colourless crystals.

Assay ..... 98.0 - 103.0%

| <i>Maximum limit of impurities</i> | <i>(%)</i>   |
|------------------------------------|--------------|
| Sol. (in HCl) .....                | To pass test |
| SO <sub>4</sub> .....              | To pass test |
| Fe .....                           | 0.003        |
| Pb .....                           | 0.01         |
| Ca .....                           | 0.005        |
| K .....                            | 0.005        |
| Na .....                           | 0.01         |

Conforms to ACS

**Pack Size:** 100g, 500g

524

**TIN(II) CHLORIDE, hydrated, UNILAB**

Assay ..... 95.0% min.

| <i>Maximum limit of impurities</i> | <i>(%)</i> |
|------------------------------------|------------|
| SO <sub>4</sub> .....              | 0.02       |

**Pack Size:** 500g, 5kg

1526

**TIN(II) CHLORIDE, Anhydrous, TECHNICAL****CAS** 7772-99-8**Synonyms:** Stannous Chloride $\text{SnCl}_2 = 189.60$ **Pack Size:** 500g, 20kg

1253

**TIN(IV) CHLORIDE, hydrated, UNILAB****CAS** 10026-06-9**Synonyms:** Stannic Chloride, Tin Tetrachloride $\text{SnCl}_4 \cdot 5\text{H}_2\text{O} = 350.58$ 

Assay ..... 98% min.

| <i>Maximum limit of impurities</i> | <i>(%)</i> |
|------------------------------------|------------|
| SO <sub>4</sub> .....              | 0.025      |
| Fe .....                           | 0.005      |
| K .....                            | 0.01       |
| Na .....                           | 0.01       |
| Pb .....                           | 0.005      |

**Pack Size:** 100g, 500g

U.N Number ..... 2440

ADG Class ..... 8

Packing Group ..... III



2347

**TIN(II) OXIDE, LABCHEM**

CAS 21651-19-4

**Synonyms:** Stannous Oxide

SnO = 134.70

Assay (typical) ..... 95% min.

**Maximum limit of impurities (%)**Assay of SnO<sub>2</sub> ..... 5.0**Pack Size:** 100g

525

**TIN(II) SULPHATE, UNILAB**

CAS 7488-55-3

**Synonyms:** Stannous Sulphate

Assay ..... 95% min.

**Maximum limit of impurities (%)**

Insol. .... 0.1

As ..... 0.01

Sb ..... 0.01

**Pack Size:** 500g**TIN TETRACHLORIDE** (see Tin(IV) Chloride page 396)

2541

**TISAB II BUFFER, LABCHEM**

Total Ionic Strength Adjustment Buffer solution for use with ion selective electrodes. Contains sodium acetate, acetic acid, sodium chloride, CDTA.

pH ..... 5.0 - 5.5

**Pack Size:** 500mL, 5L, 20L

1863

**TISSUE MARKING DYE, BLACK, LABCHEM**

Black pigment (10%) in Ethanol (45%) and Glycerol (45%)

U.N Number ..... 1170

ADG Class ..... 3

Packing Group ..... III

**Pack Size:** 500mL

1850

**TISSUE MARKING DYE, BLUE, LABCHEM**

Blue pigment (10%) in Ethanol (45%) and Glycerol (45%)

U.N Number ..... 1170

ADG Class ..... 3

Packing Group ..... III

**Pack Size:** 500mL

1861

**TISSUE MARKING DYE, GREEN, LABCHEM**

Green pigment (10%) in Ethanol (45%) and Glycerol (45%)

U.N Number ..... 1170

ADG Class ..... 3

Packing Group ..... III

**Pack Size:** 500mL

**1864****TISSUE MARKING DYE, RED, LABCHEM**

Red pigment (10%) in Ethanol (45%) and Glycerol (45%)

**Pack Size:** 500mL
 U.N Number ..... 1170  
 ADG Class ..... 3  
 Packing Group ..... III
**1862****TISSUE MARKING DYE, VIOLET, LABCHEM**

Violet pigment (10%) in Ethanol (45%) and Glycerol (45%)

**Pack Size:** 500mL
 U.N Number ..... 1170  
 ADG Class ..... 3  
 Packing Group ..... III
**1860****TISSUE MARKING DYE, YELLOW, LABCHEM**

Yellow pigment (10%) in Ethanol (45%) and Glycerol (45%)

**Pack Size:** 500mL
 U.N Number ..... 1170  
 ADG Class ..... 3  
 Packing Group ..... III
**547****TITANIUM DIOXIDE, UNILAB****CAS** 13463-67-7**Synonyms:** Titanium(IV) OxideTiO<sub>2</sub> = 79.90

A white or almost white powder; odourless.

Assay ..... 99.0 - 100.5%

**Maximum limit of impurities****(%)**

Clarity &amp; colour of solution ..... To pass test

L.O.D. (@ 105°C) ..... 0.5

L.O.I. (@ 1000°C) ..... 0.5

Acid-soluble matter ..... 0.5

Water-soluble matter ..... 0.25

Acidity/alkalinity ..... 1.0 mmol H or OH

Sb ..... 0.005

Chemical and physical parameters conform to BP &amp; USP

As ..... 0.0001

Ba ..... To pass test

Fe ..... 0.005

Pb ..... 0.002

H.M (as Pb) ..... 0.002

Organic volatile impurities ..... To pass test

**Pack Size:** 500g, 5kg, 25kg**TITANIUM(IV) OXIDE** (see Titanium Dioxide page 398)**3165****TITANIUM TRICHLORIDE 15% SOLN, OP**TiCl<sub>3</sub> = 154.26

Density ..... about 1.20g/mL

**Pack Size:** 250mL
 U.N Number ..... 1760  
 ADG Class ..... 8  
 Packing Group ..... II
**1852****TLC GLASS PLATES, SILICA GEL 60**

Does not contain fluorescent indicator

Plate dimension 20 x 20cm

Layer thickness 0.25mm

**Pack Size:** 25 Sheets



**1853 TLC GLASS PLATES, SILICA GEL 60 F254**

Contains fluorescent indicator  
 Plate dimension 20 x 20cm  
 Layer thickness 0.25mm

**Pack Size:** 25 sheets

**1855 TLC ALUMINIUM PLATES, SILICA GEL 60**

Does not contain fluorescent indicator  
 Plate dimension 20 x 20cm

**Typical specifications:**

Particle size ..... 5 - 17  $\mu\text{m}$   
 Mean pore diameter ..... 60  $\text{\AA}$   
 Specific Pore Volume ..... 0.75 ml/g  
 Specific Surface (BET) ..... about 500  $\text{m}^2/\text{g}$

**Pack Size:** 25 Sheets

**1854 TLC ALUMINIUM PLATES, SILICA GEL 60 F254**

Contains fluorescent indicator  
 Plate dimension 20 x 20cm

**Typical specifications:**

Particle size ..... 5 - 17  $\mu\text{m}$   
 Mean pore diameter ..... 60  $\text{\AA}$   
 Specific Pore Volume ..... 0.75 ml/g  
 Specific Surface (BET) ..... about 500  $\text{m}^2/\text{g}$

**Pack Size:** 25 Sheets

**1856 HPTLC PLATES, SILICA GEL 60 F254**

Contains fluorescent indicator  
 Plate dimension 10 x 20cm

**Typical specifications:**

Particle size ..... 5 - 17  $\mu\text{m}$   
 Mean pore diameter ..... 60  $\text{\AA}$   
 Specific Pore Volume ..... 0.75 ml/g  
 Specific Surface (BET) ..... about 500  $\text{m}^2/\text{g}$

**Pack Size:** 50 Sheets

**1858 TLC POLYESTER PLATES, SILICA GEL 60**

Does not contain fluorescent indicator  
 Plate dimension 20 x 20cm

**Typical specifications:**

Particle size ..... 5 - 17  $\mu\text{m}$   
 Mean pore diameter ..... 60  $\text{\AA}$   
 Specific Pore Volume ..... 0.75 ml/g  
 Specific Surface (BET) ..... about 500  $\text{m}^2/\text{g}$

**Pack Size:** 25 Sheets

1859

**TLC POLYESTER PLATES, SILICA GEL 60 F254**

Contains fluorescent indicator  
Plate dimension 20 x 20cm

**Typical specifications:**

Particle size ..... 5 - 17 µm  
Mean pore diameter ..... 60 Å  
Specific Pore Volume ..... 0.75 ml/g  
Specific Surface (BET) ..... about 500 m<sup>2</sup>/g

**Pack Size:** 25 Sheets**TOLUENE****CAS** 108-88-3**Synonyms:** Methyl Benzene, Methyl Benzol, Phenyl Methane $C_6H_5CH_3 = 92.14$ 

Density ..... about 0.86g/mL

U.N Number ..... 1294  
ADG Class ..... 3  
Packing Group ..... II

3458

**TOLUENE – PESTICIDE GRADE, BURDICK & JACKSON, CAT. 347**

High purity solvent for pesticide residue analysis & gas chromatography.  
Assay ..... 99.8% min.

**Maximum limit of impurities (%)**  
GC (ECD, as Heptachlor epoxide) ..... 2 µg/L  
Residue ..... 1mg/L  
Water(KF) ..... 0.03

**U.V. Absorbance:**

|           |       |       |       |       |       |
|-----------|-------|-------|-------|-------|-------|
| λ (nm)    | 284   | 300   | 325   | 350   | 400   |
| Max. abs. | 1.000 | 0.120 | 0.025 | 0.005 | 0.005 |

**Pack Size:** 4L

3518

**TOLUENE, HPLC GRADE, BURDICK & JACKSON, CAT. AH347****CAS** 108-88-3

Assay ..... 99.8% min.

**Maximum limit of impurities (%)**  
Residue ..... 3mg/L  
Water(KF) ..... 0.03

**U.V. Absorbance:**

|           |       |       |       |       |       |
|-----------|-------|-------|-------|-------|-------|
| λ (nm)    | 284   | 300   | 325   | 350   | 400   |
| Max. abs. | 1.000 | 0.100 | 0.025 | 0.005 | 0.005 |

**Pack Size:** 4L

551

**TOLUENE, UNIVAR**

Description: clear liquid, odour characteristic.

B.R.(100%) ..... 2.0°C max. incl. 110.6 +/- 0.1°C

Colour (APHA) ..... 10 max.

R.I. .... 1.4950 – 1.4970

**Maximum limit of impurities****(%)**

R.A.E. .... 0.005

S cpds (as S) ..... 0.003

H<sub>2</sub>O ..... 0.05Subs. darkened by H<sub>2</sub>SO<sub>4</sub> ..... To pass test

Al ..... 0.000005

Cd ..... 0.000005

Pb ..... 0.000005

Ba ..... 0.000002

Cr ..... 0.000002

Mn ..... 0.000002

Co ..... 0.000002

Cu ..... 0.000002

Ni ..... 0.000002

Sr ..... 0.000002

Ca ..... 0.000002

Fe ..... 0.00001

K ..... 0.00001

Mg ..... 0.00001

Zn ..... 0.00001

Na ..... 0.00005

**Pack Size:** 500mL, 2.5L, 10L, 20L, 200L

552

**TOLUENE, UNILAB**

B.R.(95% min.) ..... 109 – 111°C

**Maximum limit of impurities****(%)**

Non-vol. .... 0.005

S cpds (as S) ..... 0.003

**Pack Size:** 500mL, 2.5L, 20L, 200L

1553

**TOLUENE, TECHNICAL**

Assay ..... 97% min.

**Pack Size:** 2.5L

2329

**TOLUENE-4-SULPHONIC ACID, UNILAB**

CAS 104-15-4

CH<sub>3</sub>C<sub>6</sub>H<sub>4</sub>SO<sub>3</sub>H = 172.22

Melting point ..... approx 102°C.

Assay ..... 95% min.

U.N Number ..... 2585

ADG Class ..... 8

Packing Group ..... III

**Maximum limit of impurities****(%)**

Sulph. Ash ..... 0.2

Free acid ..... 3

Free H<sub>2</sub>O (K.F) ..... 2**Pack Size:** 250g

3268

**TOLUIDINE BLUE (CI 52040), LABCHEM**

CAS 92-31-9

Stain for microscopy. Used as a stain for acid mucopolysaccharides, oligodeoxynucleotides, RNA and RNase.

**Pack Size:** 10g, 25g**TOXILIC ACID** (see Maleic Acid page 234)

**TRIBROMOMETHANE** (see Bromoform page 97)**556****TRI-n-BUTYL PHOSPHATE, UNILAB****CAS** 126-73-8{CH<sub>3</sub>(CH<sub>2</sub>)<sub>3</sub>}<sub>3</sub>PO<sub>4</sub> = 266.32

Description: Used as an antifoam agent and plasticizer.

Density ..... about 0.97 g/mL

B.P (5 mm bar) ..... 130°C.

R.I. .... 1.423 - 1.425

Assay ..... 99% min.

**Maximum limit of impurities (%)**

Acidity (as DBHP) ..... 0.02

Butanol ..... 0.2

H<sub>2</sub>O ..... 0.2**Pack Size:** 500mL**TRICHLOROACETALDEHYDE HYDRATE** (see Chloral Hydrate page 122)**TRICHLOROACETIC ACID****CAS** 76-03-9**Synonyms:** TCACCl<sub>3</sub>COOH = 163.39

U.N Number ..... 1839

ADG Class ..... 8

Packing Group ..... II

**558****TRICHLOROACETIC ACID, UNIVAR**

Description: colourless, deliquescent crystals or crystalline masses; odour pungent. Very acidic and corrosive. Used as a fixative and solvent in electrophoresis.

Assay ..... 99.0% min.

**Maximum limit of impurities (%)**

R.A.I. .... 0.03

Cl ..... 0.001

NO<sub>3</sub> ..... 0.002PO<sub>4</sub> ..... 0.0005SO<sub>4</sub> ..... 0.02

Fe ..... 0.001

H.M. (as Pb) ..... 0.002

Subs. darkened by H<sub>2</sub>SO<sub>4</sub> ..... To pass test

Conforms to ACS

**Pack Size:** 100g, 250g, 5kg**559****TRICHLOROACETIC ACID, UNILAB**

Description: colourless, deliquescent crystals or crystalline masses; odour pungent. Very acidic and corrosive.

Assay ..... 98.0 - 100.5%

**Maximum limit of impurities (%)**

Clarity and colour of soln. .... To pass test

Sulph. Ash ..... 0.1

Cl ..... 0.010

**Pack Size:** 250g, 5kg

3471

**1,2,4-TRICHLOROBEZENE, BURDICK & JACKSON, CAT 348**

CAS 120-82-1

 $C_6H_3Cl_3 = 181.46$ 

A high-purity grade for GC, Spectrophotometry &amp; Gel permeation chromatography. Filtered through 0.5 micron filter

Assay (GC) ..... 98.0% min.

**Maximum limit of impurities (%)**

Water (KF) ..... 0.01

U.V. Spectrophotometry:

|                 |       |      |      |     |     |
|-----------------|-------|------|------|-----|-----|
| Wavelength (nm) | 400   | 375  | 350  | 310 | 308 |
| Absorbances     | 0.005 | 0.01 | 0.05 | 0.5 | 1.0 |

Pack Size: 4L

**2,2,2-TRICHLORO-1,1-ETHANDIOL** (see Chloral Hydrate page 122)**TRICHLOROETHENE** (see Trichloroethylene page 403)**TRICHLOROETHYLENE**

CAS 79-01-6

**Synonyms:** Ethylene Trichloride, Trichloroethene, Ethynyl Trichloride $CCl_2:CHCl = 131.39$ 

Density ..... about 1.46g/mL

U.N Number ..... 1710

ADG Class ..... 6.1

Packing Group ..... III

1266

**TRICHLOROETHYLENE, UNIVAR**

Appearance: Clear &amp; colourless liquid

R.I. .... about 1.477

B.R. (95% min.) ..... 86 – 87°C

Density ..... 1.460 – 1.465 g/mL

**Maximum limit of impurities (%)**

Acidity ..... 0.2 mmol H

Free  $Cl_2$  ..... 0.001

Pack Size: 2.5L

1265

**TRICHLOROETHYLENE, UNILAB**

Pack Size: 2.5L

**TRICHLOROMETHANE** (see Chloroform page 124)

3437

**TRICINE (N-TRIS(HYDROXYMETHYL) METHYLGLYCINE), BIOLOGICAL BUFFER, UNIVAR**

CAS 5704-04-1

 $C_6H_{13}NO_5 = 179.20$ 

Description: White powder

Solubility (0.1M in  $H_2O$ ): Clear and complete

Assay ..... 99.0% min.

pKa ..... 7.9 – 8.3

pH ..... (1% in  $H_2O$ ) 4.0 – 6.0**Maximum limit of impurities (%)**

Moisture ..... 1.0

Pack size: 100g, 1Kg

787

## TRIETHANOLAMINE, UNILAB

CAS 102-71-6

**Synonyms:** Tris(2-Hydroxyethyl)Amine, TEA $N(CH_2CH_2OH)_3 = 149.19$ 

Clear, colourless or pale yellow liquid; odourless or almost odourless; hygroscopic.

Assay (nitritotriethanol) ..... 99.0% min.

Density ..... 1.12 – 1.13 g/mL

R.I. @ 20°C ..... 1.482 – 1.485

Total bases ..... 19.9 – 22.1 mL 1M HCl

**Maximum limit of impurities (%)**

Sulph. Ash ..... 0.1

Related substances ..... To pass BP test

Chemical and physical parameters conform to BP

**Pack Size:** 500mL, 2.5L, 20L

1024

## TRIETHYLAMINE, UNILAB



CAS 121-44-8

**Synonyms:** N,N-Diethylethanamine $(C_2H_5)_3N = 101.19$ 

Density ..... about 0.73g/mL

R.I. .... about 1.400

Assay ..... 99.0% min.

**Maximum limit of impurities (%)**

Non-vol. .... 0.01

**Pack Size:** 500mL, 2.5L

U.N Number ..... 1296

ADG Class ..... 3

Subsidiary Risk ..... 8

Packing Group ..... II



2519

## TRIFLUOROACETIC ACID, for peptide work, LABCHEM



CAS 76-05-1

**Synonyms:** TFA $C_2HF_3O_2 = 114.02$ 

Density ..... about 1.50 g/mL.

Specially pure for peptide work.

Assay (tit) ..... 99.9% min.

**Maximum limit of impurities (%)**

Trifluoroacetic Anhydride ..... not detected

H<sub>2</sub>O ..... 0.05

Cl ..... 0.001

F ..... 0.001

SO<sub>4</sub> ..... 0.001

Fe ..... 0.0001

R.A.E ..... 0.0002

UV Absorbance: 230 nm: 0.15 (typical)

230 nm: 0.15 (typical)

**Pack Size:** 500mL

U.N Number ..... 2699

ADG Class ..... 8

Packing Group ..... I

## TRI IODOMETHANE (see Iodoform page 208)

## 1,2,3-TRIKETOHYDRINDENE HYDRATE (see Ninhydrin page 267)

2456

## TRIMETHYLCHLOROSILANE, LABCHEM



CAS 75-77-4

**Synonyms:** Chlorotrimethylsilane $(\text{CH}_3)_3\text{SiCl}$  = 108.64

Density ..... about 0.86g/mL

R.I ..... (approx) 1.387.

Assay (GC) ..... 97% min.

B.R. .... 55 - 57°C

U.N Number ..... 1298

ADG Class ..... 3

Subsidiary Risk ..... 8

Packing Group ..... II

**Pack Size:** 100mL

## 2,2,4-TRIMETHYLPENTANE



CAS 540-84-1

**Synonyms:** Iso-Octane $\text{C}_8\text{H}_{18}$  = 114.23

Density(@25°C) ..... about 0.69g/mL

U.N Number ..... 1262

ADG Class ..... 3

Packing Group ..... II

3459

## 2,2,4-TRIMETHYLPENTANE, PESTICIDE GRADE, BURDICK &amp; JACKSON, CAT. 362

High purity solvent for pesticide residue analysis &amp; gas chromatography.

Assay ..... 99.0% min.

**Maximum limit of impurities (%)**

GC (ECD, as Heptachlor epoxide) ..... 2 µg/L

Residue ..... 1mg/L

Water(KF) ..... 0.01

**U.V. Absorbance:**

| $\lambda$ (nm) | 190   | 200   | 250   | 300   | 400   |
|----------------|-------|-------|-------|-------|-------|
| Max. abs.      | 0.010 | 0.010 | 0.020 | 0.005 | 0.005 |

**Pack Size:** 4L

2516

## 2,2,4-TRIMETHYLPENTANE, UNICHROM

Description: Clear liquid; characteristic odour.

Specially purified for HPLC.

Filtered through 0.45 micron filter.

R.I. .... 1.389 – 1.392

Assay (GC) ..... 99.5% min.

**Maximum limit of impurities (%)**

R.A.E. .... 0.001

Water-sol. titratable acid ..... 0.03

 $\text{H}_2\text{O}$  ..... 0.05**UV Absorbance:**

| $\lambda$ (nm) | Max Abs. |
|----------------|----------|
| 205 .....      | 1.00     |
| 220 .....      | 0.20     |
| 230 .....      | 0.10     |
| 254-280 .....  | 0.01     |

**Pack Size:** 2.5L

592

**2,2,4-TRIMETHYLPENTANE, SPECTROSOL**

Description: clear liquid; characteristic odour.

For U.V. spectroscopy.

Colour (APHA) ..... 10 max.

R.I. .... 1.39 – 1.392

Assay (GLC) ..... 99.5% max.

**Maximum limit of impurities****(%)**

R.A.E. .... 0.001

Water-sol. titratable acid ..... 0.03 mmol H

S cpds (as S) ..... 0.005

UV Absorbance:

|                |     |     |     |      |         |
|----------------|-----|-----|-----|------|---------|
| $\lambda$ (nm) | 215 | 220 | 230 | 240  | 250-400 |
| Max. abs.      | 1.0 | 0.4 | 0.1 | 0.04 | 0.015   |

Conforms to ACS

**Pack Size:** 500mL, 2.5L

348

**2,2,4-TRIMETHYLPENTANE, UNIVAR**

Description: clear liquid with a characteristic odour.

Assay ..... 99.0% min.

Colour (APHA) ..... 10 max.

**Maximum limit of impurities****(%)**

R.A.E. .... 0.001

Water-sol. titratable acid ..... 0.0003 meq/g

S cpds (as S) ..... 0.005

Conforms to ACS

**Pack Size:** 500mL, 2.5L

349

**2,2,4-TRIMETHYLPENTANE, UNILAB**

Assay ..... 98.5% min.

**Maximum limit of impurities****(%)**

Non-vol. .... 0.005

Water ..... 0.05

Free acid (as CH<sub>3</sub>COOH) ..... 0.01**Pack Size:** 2.5L, 20L**2,4,6-TRINITROPHENOL** (see Picric Acid page 289)**TRIS BUFFER** (see Tris(hydroxymethyl) methylamine page 407)**TRIS (2-HYDROXYETHYL)AMINE**(see Triethanolamine page 404)



**TRIS (HYDROXYMETHYL) METHYLAMINE**

CAS 77-86-1

**Synonyms:** 2-Amino-2(Hydroxymethyl)-Propane-1,3-Diol, TRIS Buffer $\text{NH}_2\text{C}(\text{CH}_2\text{OH})_3 = 121.14$ **1812****TRIS (HYDROXYMETHYL) AMINOMETHANE, CERTIFIED REFERENCE STANDARD, UNIPURE**

Assay (Perchl. Ac.) after drying at 105°C ..... 99.95 – 100.05%

Identity ..... IR to pass test

Melting Range ..... 169-171°C

pH of 0.05 mol/l sol. .... 10.2 – 10.6

**Maximum limit of impurities****(%)**Insoluble matter in H<sub>2</sub>O ..... 0.005R.O.I. (as SO<sub>4</sub>) ..... 0.01ABS at  $\lambda$ 290nm 40% sol. in water ..... 0.2

Cl ..... 0.0005

H.M. (as Pb) ..... 0.0005

As ..... 0.00005

Ca ..... 0.001

Cd ..... 0.0001

Co ..... 0.0001

Cr ..... 0.0001

Cu ..... 0.0002

Fe ..... 0.0005

K ..... 0.001

Mg ..... 0.001

Na ..... 0.001

Ni ..... 0.0005

Pb ..... 0.0002

Zn ..... 0.0002

**Pack Size:** 100g**2311****TRIS (HYDROXYMETHYL) METHYLAMINE, UNIVAR**

Description: white crystals or crystalline powder. Suitable for buffer and enzyme work.

Assay ..... 99.8% min.

M.P. .... 168-172°C

**Maximum limit of impurities****(%)**

Insol. .... 0.003

Sulph. Ash ..... 0.01

L.O.D.@ 105 °C ..... 0.5

Cl ..... 0.001

SO<sub>4</sub> ..... 0.005

As ..... 0.0001

Cu ..... 0.0001

Fe ..... 0.0001

Pb ..... 0.0002

**Pack Size:** 100g, 500g, 5kg, 25kg**563****TRIS (HYDROXYMETHYL) METHYLAMINE, UNILAB**

Assay after drying ..... 99.0% min.

pH (5% in water) ..... 10.5 – 11.5

M.P. .... 164 – 170°C

**Maximum limit of impurities****(%)**

L.O.D. .... 1

**Pack Size:** 500g, 5kg**N-TRIS (HYDROXYLMETHYL)METHYL-2-AMINOETHANE SULFONIC ACID** (see TES page 390)**N-TRIS (HYDROXYLMETHYL)METHYLGLYCINE** (see TRICINE page 403)

1552

**TRITON X100, LABCHEM**

Non-ionic wetting agent.  
 Density (@25°C) ..... about 1.07g/mL  
 Solubilizes protein aggregates, allowing better electrophoresis separations.

U.N Number ..... 3082  
 ADG Class ..... 9  
 Packing Group ..... III

**Pack Size:** 500mL, 2.5L, 20L

2352

**TROPAEOLIN OO (CI 13080), LABCHEM**

CAS 554-73-4  
**Synonyms:** Orange IV  
 pH indicator.

**Pack Size:** 25g

3269

**TRYPAN BLUE (CI 23850), OP**

CAS 72-57-1  
 Stain for microscopy.

U.N Number ..... 2811  
 ADG Class ..... 6.1  
 Packing Group ..... III

**Pack Size:** 10g

3429

**L-TRYPTOPHAN, UNILAB**

CAS 73-22-3  
 $C_{11}H_{12}N_2O_2 = 204.2$   
 Description: white crystalline powder  
 Assay ..... 98.0% min.

| <b>Maximum limit of impurities</b> | <b>(%)</b> |
|------------------------------------|------------|
| H.M. (as Pb) .....                 | 0.001      |
| As .....                           | 0.00015    |
| L.O.D .....                        | 0.5        |

**Pack size:** 25g

**dodeca-TUNGSTOPHOSPHORIC ACID**

CAS 12067-99-1  
**Synonyms:** Phosphotungstic Acid  
 $H_3PO_4 \cdot 12WO_3 \cdot xH_2O$

566

**dodeca-TUNGSTOPHOSPHORIC ACID, UNIVAR**

Description: white or off-white crystals or crystalline powder.

| <b>Maximum limit of impurities</b> | <b>(%)</b> |                            |
|------------------------------------|------------|----------------------------|
| Insol. ....                        | 0.005      | Fe .....0.002              |
| Cl.....                            | 0.001      | K.....0.03                 |
| NO <sub>3</sub> .....              | 0.002      | Na.....0.2                 |
| SO <sub>4</sub> .....              | 0.01       | NH <sub>4</sub> .....0.002 |
| Cu. ....                           | 0.001      | Pb.....0.002               |

**Pack Size:** 250g

567

**dodeca-TUNGSTOPHOSPHORIC ACID, UNILAB****Pack Size:** 100g, 250g**TWEEN 20** (see Ecoteric T20 page 163)**TWEEN 80** (see Ecoteric T80 page 163)

3439

**DL-TYROSIN, UNILAB**

CAS 556-03-6

 $C_9H_{11}NO_3 = 181.2$ 

Description: white amorphous silky needles

Assay ..... 99.0% min.

**Pack size:** 25g

3143

**L-TYROSIN, UNIVAR**

CAS 60-18-4

 $C_9H_{11}NO_3 = 181.2$ 

Description: white Crystalline powder

Assay ..... 99.0% min.

| <i>Maximum limit of impurities</i> | <i>(%)</i> |
|------------------------------------|------------|
| H.M. (as Pb) .....                 | 0.0005     |
| SO <sub>4</sub> .....              | 0.01       |

**Pack size:** 100g

2574

**UNIVERSAL INDICATOR COLOUR CHARTS**

Colour chart showing the nine colour tints when Ajax Cat 613 is added to buffers at 2% v/v concentration. Supplied in packs of 50.

**Pack Size:** x 50

613

**UNIVERSAL INDICATOR SOLUTION, LABCHEM**

pH indicator solution.

Useful for demonstration purposes in schools etc.

|             |               |
|-------------|---------------|
| pH 3 .....  | Red           |
| pH 4 .....  | Orange        |
| pH 5 .....  | Orange/yellow |
| pH 6 .....  | Yellow/green  |
| pH 7 .....  | Green         |
| pH 8 .....  | Dark green    |
| pH 9 .....  | Turquoise     |
| pH 10 ..... | Blue          |
| pH 11 ..... | Dark blue     |

U.N Number ..... 1993

ADG Class ..... 3

Packing Group ..... II

**Pack Size:** 100mL, 500mL, 2.5L**URANIN** (see Fluorescein Sodium salt page 176)

## UREA

CAS 57-13-6

Synonyms: Carbamide, Carbonyldiamide

 $\text{NH}_2\text{CONH}_2 = 60.06$ 

817

## UREA, UNIVAR

Description: slightly hygroscopic white crystals or crystalline powder. In electrophoresis preps., urea is used in conjunction with other reagents to completely solubilize protein aggregates.

Assay ..... 99.0 - 101.0%

M.P. .... 132 - 135°C

**Maximum limit of impurities****(%)**

Clarity &amp; colour of sol. .... To pass test

Alkalinity ..... To pass test

Ammonium ..... 0.05

H.M (as Pb) ..... 0.001

Biuret ..... 0.1

L.O.D ..... 1.0

Insoluble matter ..... 0.01

R.A.I ..... 0.01

Cl ..... 0.0005

SO<sub>4</sub> ..... 0.001

Fe ..... 0.001

Chemical and physical parameters conform to BP

Conforms to ACS

Pack Size: 500g, 5kg, 25kg

572

## UREA, UNILAB

Assay(after drying) ..... 98% min.

M.P. .... 131 – 135°C

**Maximum limit of impurities****(%)**

Sulph. Ash ..... 0.1

Pack Size: 500g, 5kg, 25kg

## URETHANE (see Ethyl Carbamate page 170)

## VACUUM GREASE (see High Vacuum Grease page 195)

3152

## DL-VALINE, UNIVAR

CAS 516-06-3

 $\text{C}_9\text{H}_{11}\text{NO}_3 = 181.2$ 

Description: white Crystalline powder

Assay ..... 99.0% min.

**Maximum limit of impurities****(%)**

H.M. (as Pb) ..... 0.001

Pack size: 25g, 100g

2595

## VANADIUM AAS STANDARD, SPECTROSOL



A 1000 ppm Vanadium standard, ready for use.  
Each mL contains 1.00 +/- 0.005mg of V in 10% nitric acid.

U.N Number ..... 3264  
ADG Class ..... 8  
Packing Group ..... II

Traceable to NIST

Pack Size: 500mL

2667

## VANADIUM 1000ppm SINGLE ELEMENT ICP STANDARD, UNIPURE



A 1000 ppm Vanadium standard, ready for use.  
Each mL contains 1.00 +/- 0.005mg of V in 10% nitric acid.

U.N Number ..... 3264  
ADG Class ..... 8  
Packing Group ..... II

Traceable to NIST

Pack Size: 500mL

2395

## VANADIUM PENTOXIDE, LABCHEM



CAS 1314-62-1  
V<sub>2</sub>O<sub>5</sub> = 181.88  
Assay ..... 99.5% min.

U.N Number ..... 2862  
ADG Class ..... 6.1  
Packing Group ..... III

| <i>Maximum limit of impurities</i> | <i>(%)</i> |
|------------------------------------|------------|
| L.O.I. ....                        | 0.5        |
| Fe .....                           | 0.02       |
| H.M. (as Pb) .....                 | 0.02       |
| Cl .....                           | 0.02       |
| SO <sub>4</sub> .....              | 0.05       |

Pack Size: 100g

574

## VANILLIN, UNIVAR

CAS 121-33-5  
**Synonyms:** 4-Hydroxy-3-Methoxybenzaldehyde  
CH<sub>3</sub>OC<sub>6</sub>H<sub>3</sub>(OH)CHO = 152.15  
Description: white or cream-coloured, crystalline needles or powder, with a characteristic odour of vanilla.  
Assay ..... 99.0% min.  
M.P. .... 81 – 83°C

| <i>Maximum limit of impurities</i> | <i>(%)</i> |
|------------------------------------|------------|
| Insol. (in alc.) .....             | 0.01       |
| Sulph. Ash .....                   | 0.01       |

Pack Size: 100g

VILLAUMITE (see Sodium Fluoride page 351)

VITAMIN B (see Nicotinic Acid page 266)

VITAMIN C (see L-Ascorbic Acid page 80)

620

**VITEX INDICATOR**, for iodometry, LABCHEM**Synonyms:** Iodometric Indicator

0.3g of dry VITEX added to the solution to be titrated gives a deeper blue than starch-iodine.

Sensitivity to iodine passes test.

**Pack Size:** 100g, 250g, 5kg**WATER****CAS** 7732-18-5H<sub>2</sub>O = 18.02

3519

**WATER, HPLC GRADE, BURDICK & JACKSON, CAT. AH365**

Burdick &amp; Jackson HPLC water has undergone rigorous purification in order to ensure its suitability for gradient elution HPLC.

RI ..... 1.3330 +/- 0.0010 @ 20°C

Residue ..... Less than 3 mg/L

HPLC gradient elution: No UV absorbing peak greater than 0.15 absorbance unit at 200 nm in a gradient from 100% water to 100% acetonitrile on a 15cm x 4.6mm HLD C<sub>8</sub> column after an initial loading of 20mL water.

UV Absorbance:

|          |       |       |       |       |       |
|----------|-------|-------|-------|-------|-------|
| λ (nm)   | 190   | 200   | 250   | 300   | 400   |
| Max. abs | 0.010 | 0.010 | 0.005 | 0.005 | 0.005 |

**Pack Size:** 4L

1275

**WATER, UNIVAR**

Description: clear colourless, odourless liquid.

Specific Conductivity (25°C) ..... 2.0 x 10<sup>-6</sup> Ohm cm<sup>-1</sup>

| <b>Maximum limit of impurities</b>    | <b>(%)</b>   |
|---------------------------------------|--------------|
| SiO <sub>3</sub> .....                | 0.000001     |
| H.M. (as Pb) .....                    | 0.000001     |
| Subs reducing KMnO <sub>4</sub> ..... | To pass test |

Conforms to ACS

**Pack Size:** 2.5L, 20L**WIJS SOLUTION** (see Iodine Solution page 207)

3270

**WRIGHT'S STAIN POWDER, LABCHEM****CAS** 68988-92-1

Description: Bluish glistening powder

Absorption maximum ..... about 518nm

**Pack size:** 25g

1851

**WRIGHT'S STAIN SOLUTION, LABCHEM**

0.25% in Methanol

**Pack Size:** 1L, 5L

U.N Number ..... 1230

ADG Class ..... 3

Packing Group ..... II

**WHITE LEAD** (see Lead(II) Carbonate, basic page 219)**WHITE VITRIOL** (see Zinc Sulphate page 419)**WOOD SUGAR** (see D(+)-Xylose page 415)**XYLOL** (see Xylene page 413)**D-XILOPYRANOSE** (see D(+)-Xylose page 415)**XYLENE****CAS** 1330-20-7**Synonyms:** Dimethylbenzene, Xylol $C_6H_4(CH_3)_2 = 106.17$ 

Density ..... about 0.86g/mL

U.N Number ..... 1307

ADG Class ..... 3

Packing Group ..... III

3463

**XYLENE, PESTICIDE GRADE, BURDICK & JACKSON, CAT. 370**

High purity grade for GC &amp; Spectrophotometry.

R I @ 20°C ..... 1.504 – 1.506

GC Purity (min.) ..... 95.0 % (o-Xylene)

Assay (GC) ..... 99.0% min. as Xylenes

**Maximum limit of impurities (%)**

Residue ..... 1 mg/L

Water ..... 0.02

UV Spectrophotometry:

| $\lambda$ (nm) | 400   | 350  | 325  | 300 | 288 |
|----------------|-------|------|------|-----|-----|
| Max. abs.      | 0.005 | 0.01 | 0.05 | 0.2 | 1.0 |

**Pack Size:** 4L

576

**XYLENES, UNIVAR**

Description: clear liquid which consists of the three isomers and ethylbenzene.

Assay(isomers + EBZ) ..... 98.5% min.

Colour (APHA) ..... 10 max.

**Maximum limit of impurities (%)**

|                                   |              |          |          |
|-----------------------------------|--------------|----------|----------|
| Non-vol. ....                     | 0.002        | Pb ..... | 0.000002 |
| S cpds (as S) .....               | 0.003        | Mn ..... | 0.000002 |
| Subs. darkened by $H_2SO_4$ ..... | To pass test | Ni ..... | 0.000002 |
| $H_2O$ (K.F.) .....               | 0.05         | Sr ..... | 0.000002 |
| Al .....                          | 0.00001      | Cd ..... | 0.000005 |
| K .....                           | 0.00001      | Mg ..... | 0.000005 |
| Ba .....                          | 0.000002     | Ca ..... | 0.00005  |
| Cr .....                          | 0.000002     | Fe ..... | 0.00002  |
| Co .....                          | 0.000002     | Na ..... | 0.00002  |
| Cu .....                          | 0.000002     | Zn ..... | 0.00002  |

Conforms to ACS

**Pack Size:** 500mL, 2.5L, 10L, 20L, 200L

577

**XYLENES, UNILAB**

B.R.(95% min.) ..... 136 - 144°C

**Maximum limit of impurities (%)**

Non-vol. .... 0.01

S cpds (as S) ..... 0.0005

**Pack Size:** 2.5L, 10L, 20L

5001

**XYLENES, HP**

Solvent for Histopathology

Pack size: 10L, 20L

2342

**XYLENES, LABCHEM**

Description: clear, colourless liquid with a characteristic odour. Density @ 20°C about 0.86g/mL

B.R. .... 136 – 144°C

**Maximum limit of impurities (%)**

Sulphur compounds (as S) ..... 0.001

Foreign odour ..... To pass test

**Pack Size:** 5L, 20L

1554

**XYLENES, TECHNICAL**

B.R. .... 137 – 143°C

**Pack Size:** 2.5L**XYLENE SUBSTITUTE FOR HISTOLOGY** (see SAFSOLVENT® page 329)

257

**XYLENE CYANOL FF(C.I. 43535), LABCHEM****CAS** 2650-17-1**Synonyms:** Cyanol $C_{25}H_{27}N_2O_7S_2Na = 554.61$ 

Redox indicator. In electrophoresis, used as a tracking dye during the separation of nucleic acids. It is used to monitor electrophoresis of low M. W. nucleic acids.

Transition EMF (@ pH = 0) ..... + 1.05 V

Colour change: Oxidized (orange) to reduced (green)

**Pack Size:** 25g

3148

**XYLENOL ORANGE, OP****CAS** 1611-35-4**Synonyms:** o-Cresolsulphonphthalein-3,3 bismethyliminodiacetic $C_{31}H_{28}N_2Na_4O_{13}S = 760.59$ 

Metal indicator.

**Pack Size:** 1g



662

**D (+)-XYLOSE, UNILAB**

CAS 58-86-6

**Synonyms:** D-Xilopyranose, Wood SugarC<sub>5</sub>H<sub>10</sub>O<sub>5</sub> = 150.13

Description: colourless needles or a white crystalline powder; odourless or almost odourless.

Spec.optical rotn. .... +18.5 to +19.5°

M.P. .... 148 - 152°C

| <b>Maximum limit of impurities</b> | <b>(%)</b>   |
|------------------------------------|--------------|
| Colour & clarity of soln. ....     | To pass test |
| Sulph. Ash ....                    | 0.1          |
| L.O.D. ....                        | 0.5          |
| Acidity ....                       | 0.4 mmol H   |
| Cl ....                            | 0.033        |
| H.M.(as Pb) ....                   | 0.002        |

Chemical and physical parameters conform to BP

**Pack Size:** 100g, 500g**YELLOW GOLD CHLORIDE** (see Sodium Chloroaurate page 346)

2391

**ZINC, foil, LABCHEM**

CAS 7440-66-6

Zn = 65.37

| <b>Maximum limit of impurities</b> | <b>(%)</b> |
|------------------------------------|------------|
| Iron ....                          | 0.002      |

**Pack Size:** 500g**ZINC, powder**

CAS 7440-66-6

Zn = 65.37

U.N Number ..... 1436  
 ADG Class ..... 4.3  
 Packing Group ..... II

2312

**ZINC, powder, UNIVAR**

Description: fine grey powder free from all but small aggregates.

Assay ..... 99.9% min.

| <b>Maximum limit of impurities</b>     | <b>(%)</b> |
|----------------------------------------|------------|
| Insol. (in acid) ....                  | 0.05       |
| N cpds (as N) ....                     | 0.01       |
| Fe ....                                | 0.002      |
| Subs.red.KMnO <sub>4</sub> (as O) .... | 0.0015     |
| Pb ....                                | 0.003      |
| Cd ....                                | 0.003      |
| Sn ....                                | 0.001      |

**Pack Size:** 500g

538

**ZINC, powder, TECHNICAL****Pack Size:** 500g

1562

**ZINC, shots, UNILAB**

CAS 7440-66-6

Zn = 65.37

1-3 mm in size.

Assay ..... 99.99% min.

**Maximum limit of impurities (%)**

As ..... 0.00001

Fe ..... 0.02

**Pack Size:** 500g

2628

**ZINC NITRATE AAS STANDARD, SPECTROSOL**

A 1000 ppm zinc standard, ready for use. Each mL contains 1.00 +/-0.005mg of Zn in 0.5% nitric acid

U.N Number ..... 3264

ADG Class ..... 8

Packing Group ..... III

**Traceable to NIST****Pack Size:** 500mL

2651

**ZINC 1000ppm SINGLE ELEMENT ICP STANDARD, UNIPURE**

A 1000 ppm Zinc standard, ready for use.

Zn in 0.5% Nitric acid.

U.N Number ..... 3264

ADG Class ..... 8

Packing Group ..... III

**Traceable to NIST****Pack Size:** 100mL

581

**ZINC ACETATE, UNIVAR**

CAS 5970-45-6

**Synonyms:** Acetic Acid Zinc salt $(\text{CH}_3\text{COO})_2\text{Zn} \cdot 2\text{H}_2\text{O} = 219.49$ 

Description: colourless or white crystals with a faint odour of acetic acid.

Assay ..... 99.5% min.

pH (5% soln.) ..... 6.0 – 6.6

**Maximum limit of impurities (%)**

Insol. .... 0.003

Cl. .... 0.001

N cpds (as N) .. 0.002

SO<sub>4</sub> ..... 0.005

As ..... 0.00004

Ca ..... 0.002

Cd. .... 0.001

Cu ..... 0.0005

Fe ..... 0.0005

K ..... 0.005

Mn ..... 0.001

Na ..... 0.005

Pb ..... 0.001

**Pack Size:** 500g, 5kg

2468

## ZINC BROMIDE, UNILAB



CAS 7699-45-8

ZnBr<sub>2</sub> = 225.20

Assay ..... 98.0% min.

U.N Number ..... 3077

ADG Class ..... 9

Packing Group ..... III

**Maximum limit of impurities (%)**

|                       |       |
|-----------------------|-------|
| SO <sub>4</sub> ..... | 0.01  |
| Ba .....              | 0.001 |
| Ca .....              | 0.01  |
| Fe .....              | 0.001 |
| K .....               | 0.01  |
| Mg .....              | 0.01  |
| Na .....              | 0.01  |
| Pb .....              | 0.005 |

Pack Size: 500g

1518

## ZINC CARBONATE, basic, UNILAB

CAS 3486-35-9

Synonyms: Zinc Hydroxide Carbonate

Approx. ZnCO<sub>3</sub>·2ZnO·3H<sub>2</sub>O

Assay (as Zn) ..... 53% min.

**Maximum limit of impurities (%)**

|                       |     |
|-----------------------|-----|
| Cl .....              | 0.3 |
| SO <sub>4</sub> ..... | 1.0 |

Pack Size: 500g

## ZINC CHLORIDE



CAS 7646-85-7

ZnCl<sub>2</sub> = 136.28

U.N Number ..... 2331

ADG Class ..... 8

Packing Group ..... III

1687

## ZINC CHLORIDE, UNILAB

Assay ..... 95% min.

**Maximum limit of impurities (%)**

|                       |       |
|-----------------------|-------|
| SO <sub>4</sub> ..... | 0.05  |
| ZnO (typical) .....   | 2     |
| Pb (typical) .....    | 0.003 |
| Fe (typical) .....    | 0.003 |
| Cu (typical) .....    | 0.001 |

Pack Size: 500g, 5kg, 25kg

959

## ZINC CHLORIDE, LABCHEM

Assay ..... 94% min.

**Maximum limit of impurities (%)**

|                       |     |
|-----------------------|-----|
| SO <sub>4</sub> ..... | 0.1 |
|-----------------------|-----|

Pack Size: 500g

## ZINC HYDROXIDE CARBONATE (see Zinc Carbonate, basic page 417)

**ZINC NITRATE**

CAS 10196-18-6  
 $\text{Zn}(\text{NO}_3)_2 \cdot 6\text{H}_2\text{O} = 297.47$

U.N Number ..... 1514  
 ADG Class ..... 5.1  
 Packing Group ..... II

**967****ZINC NITRATE, LABCHEM**

Assay (dry basis) ..... 98% min.

**Maximum limit of impurities (%)**

Mg ..... 0.01  
 Fe ..... 0.01

Store below 25°C

**Pack Size:** 500g

**1271****ZINC NITRATE, TECHNICAL**

Assay (typical) ..... 98% min.

**Maximum limit of impurities (%)**

Insol. .... 0.01  
 Cl ..... 0.01  
 $\text{SO}_4$  ..... 0.05

Store below 25°C

**Pack Size:** 500g

**ZINC OXIDE**

CAS 1314-13-2  
 $\text{ZnO} = 81.39$

U.N Number ..... 3077  
 ADG Class ..... 9  
 Packing Group ..... III

**1813****ZINC OXIDE, CERTIFIED REFERENCE STANDARD UNIPURE**

Assay (Compl.) after drying at 130°C ..... 99.95 – 100.05%

**Maximum limit of impurities (%)**

|                                                   |              |          |        |
|---------------------------------------------------|--------------|----------|--------|
| Insoluble matter in $\text{H}_2\text{SO}_4$ ..... | 0.01         | Cu ..... | 0.0005 |
| Alkalinity .....                                  | To pass test | Fe ..... | 0.0005 |
| Sulphur cpds (as $\text{SO}_4$ ) .....            | 0.01         | K .....  | 0.005  |
| Cl .....                                          | 0.001        | Mg ..... | 0.005  |
| $\text{NO}_3$ .....                               | 0.002        | Mn ..... | 0.0005 |
| As .....                                          | 0.0001       | Na ..... | 0.005  |
| Ca .....                                          | 0.005        | Ni ..... | 0.0005 |
| Cd .....                                          | 0.002        | Pb ..... | 0.001  |
| Co .....                                          | 0.0005       |          |        |

**Pack Size:** 100g

582

**ZINC OXIDE, UNIVAR**

Description: light, white, amorphous powder.

Assay ..... 99.0% min.

**Maximum limit of impurities****(%)**

Insol. (in dil. H<sub>2</sub>SO<sub>4</sub>) ..... 0.01  
 Alkalinity ..... To pass test  
 Cl ..... 0.001  
 NO<sub>3</sub> ..... 0.003  
 S cpds (as SO<sub>4</sub>) ..... 0.01  
 As ..... 0.0002  
 Fe ..... 0.001

Mn ..... 0.0005  
 Pb ..... 0.005  
 Mg ..... 0.005  
 K ..... 0.01  
 Na ..... 0.05  
 Ca ..... 0.005

Conforms to ACS

**Pack Size:** 500g, 5kg, 25kg

1270

**ZINC OXIDE, UNILAB**

Description: white, or faintly yellowish-white, soft powder, free from grittiness; odourless.

Assay(after ignition @ 500°C) ..... 99 – 100.5%

**Maximum limit of impurities****(%)**

L.O.I. (@500°C) ..... 1.0  
 CO<sub>3</sub> & Insol. (in HCl) ..... To pass test  
 Alkalinity ..... 3 mmol OH  
 As ..... 0.0005  
 Fe ..... 0.0200  
 Pb ..... 0.0050  
 Cd ..... 0.0010

Chemical and physical parameters conform to BP

**Pack Size:** 500g**ZINC SULPHATE****CAS** 7446-20-0**Synonyms:** White VitriolZnSO<sub>4</sub>·7H<sub>2</sub>O = 287.54

583

**ZINC SULPHATE, UNIVAR**

Description: colourless, efflorescent crystals.

Assay ..... 99.0 - 103.0%

pH (5% soln. @ 25°C) ..... 4.4 – 6.0

**Maximum limit of impurities****(%)**

Insol. .... 0.01  
 Cl ..... 0.0005  
 Cd ..... 0.0005  
 Cu ..... 0.0005  
 Fe ..... 0.0005  
 NO<sub>3</sub> ..... 0.002  
 As ..... 0.0001

Ca ..... 0.001  
 Pb ..... 0.001  
 K ..... 0.001  
 Na ..... 0.001  
 NH<sub>4</sub> ..... 0.001  
 Mn ..... 0.0003  
 Mg ..... 0.005

Conforms to ACS

**Pack Size:** 500g, 5kg, 25kg

584

**ZINC SULPHATE, UNILAB**

Description: colourless transparent crystals, or a white crystalline powder; odourless. Efflorescent.

Assay ..... 99.0 - 104.0%

pH (5% soln.) ..... 4.4 – 5.6

**Maximum limit of impurities (%)**

Clarity and colour of soln. .... To pass test

Cl ..... 0.030

Fe ..... 0.010

Chemical and physical parameters conform to BP

**Pack Size:** 500g, 5kg, 25kg

969

**ZINC SULPHATE, LABCHEM**

Assay ..... 98.0%

**Maximum limit of impurities (%)**

Mg ..... 0.002

Cl ..... 0.002

**Pack Size:** 500g

1269

**ZINC SULPHIDE, UNILAB****CAS** 1314-98-3

ZnS = 97.46

Description: white to grayish-white powder

Assay ..... 98.0% min.

**Maximum limit of impurities (%)**

Mg ..... 0.05

Ca ..... 0.02

Fe ..... 0.01

Ba ..... 1.5

Co ..... 0.05

**Pack size:** 500g**ZIRCONIUM(IV) OXIDE CHLORIDE** (see Zirconyl Chloride page 417)

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**ZIRCONYL CHLORIDE, LABCHEM****CAS** 7699-43-6**Synonyms:** Zirconium(IV) Oxide Chloride $\text{ZrOCl}_2 \cdot 8\text{H}_2\text{O}$  = 322.25

Assay ..... 99.5% min.

**Maximum limit of impurities (%)**

Fe ..... 0.001

Ti ..... 0.01

H.M (as Pb) ..... 0.001

 $\text{SO}_4$  ..... 0.005**Pack Size:** 100g
**COSMOS SUPPLY CO., LTD**  
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