Safety Data Sheet

SECTION 1: Identification of the substance/mixture and of the company/undertaking

1.1 Product identifier

Trade name/designation:	Haematoxylin Solution STAIN
Product No.:	H0015
Synonymes:	none
CAS No.	not applicable

1.2 Relevant identified uses of the substance or mixture and uses advised against

Relevant identified uses: General chemical reagent

1.3 Details of the supplier of the safety data sheet

Supplier

Avantor Performance Materials India Ltd.

Street	501, 5th floor, Tiffany Building, Hiranandani Business Park,
Postal code/City	Thane, Maharashtra - 400607, India
Telephone	022-41288100

Emergency phone number

Telephone 1800105561

Preparation Information
Product Information Compliance

1.4 E-mail SDS@avantorsciences.com

SECTION 2: Hazard identification

2.1 Classification of the substance or mixture

Health hazards

Acute toxicity, category 4, oral, dermal and inhalation
Skin irritation, category 2
Eye irritation, category 2
Specific target organ toxicity (single exposure), category 2(1)

Target Organs

(1) no data available

Unknown toxicity

10,25 percent of the mixture consists of ingredient(s) of unknown acute toxicity.

2.2 Label elements

Hazard pictograms

Signal word: Warning

Harmful if swallowed, in contact with skin or if inhaled.
Causes skin irritation.
Causes serious eye irritation.
May cause damage to organs.

Prevention

Wear protective gloves/protective clothing/eye protection/face protection.

Response:

IF SWALLOWED: rinse mouth. Do NOT induce vomiting.
IF ON SKIN: Wash with plenty of water/…
IF INHALED: Remove person to fresh air and keep comfortable for breathing.
IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
IF exposed or concerned: Call a POISON CENTER/doctor/…

2.3 Other hazards The substances in the mixture do not meet the PBT/vPvB criteria according to REACH, annex XIII.

SECTION 3: Composition / information on ingredients

Substances

not applicable

Mixtures

Hazardous ingredients

Substance name	Identifier	Concentration	Hazard classes and hazard categories
Methanol	CAS No.: 67-56-1	3-8%	Flam. Liq. 2 - H225 Acute Tox. 3 - H301+H311+H331 STOT SE 1 - H370
Acetic acid	CAS No.: 64-19-7	1-5%	Flam. Liq. 3 - H226 Skin Corr. 1A - H314
Mercury (II) oxide red	CAS No.: 21908-53-2	0.1-1%	Acute Tox. 1 - H310 Acute Tox. 2 - H300 Acute Tox. 2 - H330 STOT RE 2 - H373 Aquatic Chronic 1 - H410
Aluminium potassium sulphate	CAS No.: 10043-67-1	5-15%	Acute Tox. 4 - H302 Skin Irrit. 2 - H315 Eye Irrit. 2 - H319 STOT SE 3 - H335

SECTION 4: First aid measures

4.1 General information

IF exposed or if you feel unwell: Call a POISON CENTRE or doctor/physician. If unconscious but breathing normally, place in recovery position and seek medical advice. Never give anything by mouth to an unconscious person or a person with cramps. Change contaminated, saturated clothing. Do not leave affected person unattended.

After inhalation

Call a POISON CENTRE/doctor. Remove casualty to fresh air and keep warm and at rest. If breathing is irregular or stopped, administer artificial respiration.

In case of skin contact

After contact with skin, wash immediately with plenty of water and soap. Remove contaminated, saturated clothing immediately. In case of skin reactions, consult a physician.

After eye contact

In case of contact with eyes flush immediately with plenty of flowing water for 10 to 15 minutes holding eyelids apart and consult an ophthalmologist. Protect uninjured eye. Remove contact lenses, if present and easy to do. Continue rinsing.

In case of ingestion

If accidentally swallowed rinse the mouth with plenty of water (only if the person is conscious) and obtain immediate medical attention. Do NOT induce vomiting. Give nothing to eat or drink.

Self-protection of the first aider
First aider: Pay attention to self-protection!

4.2 Most important symptoms and effects, both acute and delayed
no data available

4.3 Indication of any immediate medical attention and special treatment needed
no data available

SECTION 5: Firefighting measures

5.1 Extinguishing media

Suitable extinguishing media
The product itself does not burn.
Co-ordinate fire-fighting measures to the fire surroundings.

Extinguishing media which must not be used for safety reasons
no restriction

5.2 Special hazards arising from the substance or mixture
In case of fire may be liberated:
Pyrolysis products, toxic

5.3 Advice for firefighters
DO NOT fight fire when fire reaches explosives.
Special protective equipment for firefighters
Wear a self-contained breathing apparatus and chemical protective clothing.

5.4 Additional information
Do not allow run-off from fire-fighting to enter drains or water courses.
Do not inhale explosion and combustion gases.
Use water spray jet to protect personnel and to cool endangered containers.
In case of fire: Evacuate area.

SECTION 6: Accidental release measures

6.1 Personal precautions, protective equipment and emergency procedures
In case of major fire and large quantities: Remove persons to safety.

6.2 Environmental precautions
Discharge into the environment must be avoided.

6.3 Methods and material for containment and cleaning up
Spilled product must never be returned to the original container for recycling. Collect in closed and suitable containers for disposal.

6.4 Additional information
Clear spills immediately.

SECTION 7: Handling and storage

7.1 Precautions for safe handling

All work processes must always be designed so that the following is as low as possible:
Inhalation
skin contact
Eye contact
Use extractor hood (laboratory).
If handled uncovered, arrangements with local exhaust ventilation have to be used.
If local exhaust ventilation is not possible or not sufficient, the entire working area must be ventilated by technical means.

7.2 Conditions for safe storage, including any incompatibilities

Recommended storage temperature: Keep bottles tightly closed and away from sources of ignition and heat.
Keep container tightly closed and in a well-ventilated place. Keep/Store only in original container.

7.3 Specific end use(s)

Apart from the uses mentioned in section 1.2 no other specific uses are stipulated.

SECTION 8: Exposure controls/personal protection

8.1 Control parameters

Does not contain substances above concentration limits fixing an occupational exposure limit.

8.2 Exposure controls

Appropriate engineering controls
Technical measures and the application of suitable work processes have priority over personal protection equipment. If handled uncovered, arrangements with local exhaust ventilation have to be used.

Personal protection equipment
Wear suitable protective clothing. When handling with chemical substances, protective clothing with CE-labels including the four control digits must be worn.

Eye/face protection
Eye glasses with side protection

Skin protection
Wear suitable gloves. When handling with chemical substances, protective gloves must be worn with the CE-label including the four control digits. In the case of wanting to use the gloves again, clean them before taking off and air them well. Check leak tightness/impermeability prior to use.

By short-term hand contact

Suitable material:	Butyl caoutchouc (butyl rubber)
Thickness of the glove material:	0,50 mm
Breakthrough time::	> 480 min

By long-term hand contact

Suitable material:	Butyl caoutchouc (butyl rubber)
Thickness of the glove material:	0,50 mm
Breakthrough time::	> 480 min

Respiratory protection
no data available

Additional information
Wash hands before breaks and after work. Avoid contact with eyes and skin. When using do not eat, drink or smoke. Provide eye shower and label its location conspicuously.

Environmental exposure controls
no data available

SECTION 9: Physical and chemical properties

9.1 Information on basic physical and chemical properties

(a) Appearance	
Physical state:	liquid
Colour:	no data available
(b) Odour:	no data available
(c) Odour threshold:	no data available

Safety relevant basic data

(d) pH:	no data available
(e) Melting point/freezing point:	no data available
(f) Initial boiling point and boiling range:	no data available
(g) Flash point:	no data available
(h) Evaporation rate:	no data available
(i) Flammability (solid, gas):	not applicable
(j) Flammability or explosive limits	
Lower explosion limit:	no data available
Upper explosion limit:	no data available
(k) Vapour pressure:	no data available
(l) Vapour density:	no data available
(m) Relative density:	no data available
(n) Solubility(ies)	
Water solubility:	no data available
Soluble (g/L) in Ethanol:	no data available
(o) Partition coefficient: n-octanol/water:	no data available
(p) Auto-ignition temperature:	no data available
(q) Decomposition temperature:	no data available
(r) Viscosity	
Kinematic viscosity:	no data available
Dynamic viscosity:	no data available
(s) Explosive properties:	not applicable
(t) Oxidising properties:	not applicable

9.2 Other information

Bulk density:	no data available
Refraction index:	no data available
Dissociation constant:	no data available
Surface tension:	no data available
Henry's Law Constant:	no data available

SECTION 10: Stability and reactivity

10.1 Reactivity

no data available

10.2 Chemical stability

The product is chemically stable under standard ambient conditions (room temperature).

10.3 Possibility of hazardous reactions

no data available

10.4 Conditions to avoid

no data available

10.5 Incompatible materials

no data available

10.6 Hazardous decomposition products

no data available

SECTION 11: Toxicological information

11.1 Information on toxicological effects

Acute effects

Acute oral toxicity:

Methanol - LD50: > 5628 mg/kg - Rat - (IUCLID)

Methanol - LDLo: > 143 mg/kg - Human - (RTECS)

Acetic acid - LD50: > 3310 mg/kg - Rat - (RTECS)

Mercury (II) oxide red - LD50: > 18 mg/kg - Rat - (RTECS)

Acute dermal toxicity:

Methanol - LD50: > 15800 mg/kg - Rabbit

Acetic acid - LD50: > 1060 mg/kg - Rabbit - (IUCLID)

Mercury (II) oxide red - LD50: > 315 mg/kg - Rat - (RTECS)

Acute inhalation toxicity:

Methanol - TCLo: > 160 ppm (4h) - Human

Acetic acid - LC50: 11,4 mg/l - Rat - (National Library of Medicine ChemID Plus (NLM CIP))

Irritant and corrosive effects
Primary irritation to the skin:
Causes skin irritation.

Irritation to eyes:
Causes serious eye irritation.

Irritation to respiratory tract:
not applicable

Respiratory or skin sensitisation
In case of skin contact: not sensitising
After inhalation: not sensitising

STOT-single exposure
May cause damage to organs.

STOT-repeated exposure
not applicable

CMR effects (carcinogenicity, mutagenicity and toxicity for reproduction)
Carcinogenicity
The table below indicates whether each agency has listed any ingredient as a carcinogen.

Germ cell mutagenicity
No indications of human germ cell mutagenicity exist.

Reproductive toxicity
No indications of human reproductive toxicity exist.

Aspiration hazard
not applicable

Other adverse effects
no data available

SECTION 12: Ecological information

12.1 Ecotoxicity

Fish toxicity:
Methanol - LC50: 24000 mg/l (96 h) - Poirier, S.H., M.L. Knuth, C.D. Anderson-Buchou, L.T. Brooke, A.R. Lima, and P.J. Shubat 1986. Comparative Toxicity of Methanol and N,N-Dimethylformamide to Freshwater Fish and Invertebrates. Bull.Environ.Contam.Toxicol. 37(4):615-621

Acetic acid - LC50: 88 mg/l (96 h) - Mattson, V.R., J.W. Arthur, and C.T. Walbridge 1976. Acute Toxicity of Selected Organic Compounds to Fathead Minnows. EPA-600/3-76-097, U.S.EPA, Duluth, MN :12 p.

Daphnia toxicity:
Methanol - LC50: 3290 mg/l (48 h) - Guilhermino, L., T. Diamantino, M.C. Silva, and A.M.V.M. Soares 2000. Acute Toxicity Test with Daphnia magna: An Alternative to Mammals in the Prescreening of Chemical Toxicity?. Ecotoxicol.Environ.Saf. 46(3):357-362

Methanol - EC50: 24500 mg/l (48 h) - Randall, T.L., and P.V. Knopp 1980. Detoxification of Specific Organic Substances by Wet Oxidation. J.Water Pollut.Control Fed. 52(8):2117-2130

Acetic acid - EC50: 90.1 mg/l (48 h) - Espiritu, E.Q., C.R. Janssen, and G. Persoone 1995. Cyst-Based Toxicity Tests. VII. Evaluation of the 1-h Enzymatic Inhibition Test (Fluotox) with Artemia nauplii. Environ.Toxicol.Water Qual. 10:25-34

Acetic acid - LC50: 65 mg/l (48 h) - Janssen, C.R., E.Q. Espiritu, and G. Persoone 1993. Evaluation of the new ""Enzymatic Inhibition"" Criterion for Rapid Toxicity Testing with Daphnia magna

Algae toxicity:
no data available

Bacteria toxicity:
no data available

12.2 Persistence and degradability
no data available

12.3 Bioaccumulative potential
Partition coefficient: n-octanol/water: no data available

12.4 Mobility in soil:
no data available

12.5 Results of PBT/vPvB assessment
The substances in the mixture do not meet the PBT/vPvB criteria according to REACH, annex XIII.

12.6 Other adverse effects
no data available

SECTION 13: Disposal considerations

13.1 Waste treatment methods

Appropriate disposal / Product
Dispose according to local legislation. Consult the appropriate local waste disposal expert about waste disposal.

Appropriate disposal / Package
Dispose according to local legislation. Handle contaminated packages in the same way as the substance itself.

SECTION 14: Transport information

Land transport (ADR/RID)

No dangerous good in sense of this transport regulation.

Sea transport (IMDG)

No dangerous good in sense of this transport regulation.

Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code
not relevant

Air transport (ICAO-TI / IATA-DGR)

No dangerous good in sense of this transport regulation.

SECTION 15: Regulatory information

15.1 Safety, health and environmental regulations/legislation specific for the substance or mixture

SECTION 16: Other information

Abbreviations and acronyms

H225 - Highly flammable liquid and vapour.
H226 - Flammable liquid and vapour.
H300 - Fatal if swallowed.
H301+H311+H331 - Toxic if swallowed, in contact with skin or if inhaled.
H302 - Harmful if swallowed.
H310 - Fatal in contact with skin.
H314 - Causes severe skin burns and eye damage.
H315 - Causes skin irritation.
H319 - Causes serious eye irritation.
H330 - Fatal if inhaled.
H335 - May cause respiratory irritation.
H370 - Causes damage to organs.
H373 - May cause damage to organs through prolonged or repeated exposure.
H410 - Very toxic to aquatic life with long lasting effects.

ACGIH - American Conference of Governmental Industrial Hygiensts
ADR - European Agreement concerning the International Carriage of Dangerous Goods by Road
AGS - Committee on Hazardous Substances (Ausschuss für Gefahrstoffe)
CLP - Regulation on Classification, Labelling and Packaging of Substances and Mixtures
DFG - German Research Foundation (Deutsche Forschungsgemeinschaft)
Gestis - Information system on hazardous substances of the German Social Accident Insurance (Gefahrstoffinformationssystem der Deutschen Gesetzlichen Unfallversicherung)
IATA-DGR - International Air Transport Association-Dangerous Goods Regulations
ICAO-TI - International Civil Aviation Organization-Technical Instructions
IMDG - International Maritime Code for Dangerous Goods
LTV - Long Term Value
NIOSH - National Institute for Occupational Safety and Health
OSHA - Occupational Safety & Health Administration
PBT - Persistent, Bioaccumulative and Toxic
RID - Regulation concerning the International Carriage of Dangerous Goods by Rail
STV - Short Term Value
SVHC - Substances of Very High Concern
vPvB - very Persistent, very Bioaccumulative

Training advice: Provide adequate information, instruction and training for operators.

Classification according to Regulation (EC) No 1272/2008 [CLP] Classification procedure

Hazard statements	Hazard classes and hazard categories	Classification procedure
H302+H312+H332	Acute Tox. 4	Calculation method.
H315	Skin Irrit. 2	Calculation method.
H319	Eye Irrit. 2	Calculation method.
H371	STOT SE 2	Calculation method.

Additional information

Indication of changes	general update If you need an explanation of the change, contact the supplier. (SDS@avantorsciences.com)

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