Safety Data Sheet

Date of issue: 03/02/2020 Revision date: 03/02/2020 Version: 1.0

1.1. Identification

Product form : Mixtures

Product name : Chloractive AP10 B
Product code : BSPCDX-B

1.2. Recommended use and restrictions on use

Use of the substance/mixture : Used in the generation of chlorine dioxide

Recommended use : Disinfectant

Restrictions on use : Not for food, drug or household use

1.3. Details of the manufacturer or supplier of the safety data sheet

BSP Global Chemical and Trade CO.,LTD 55/59 Moo 3 T.Lumlukka A.Lumlukka,

Pathum Thani 121501.4

1.4. Emergency telephone number

Emergency number : +6629870302

2.1. Classification of the substance or mixture

GHS US classification

Skin corrosion/irritation Category 1B

H314 Causes severe skin burns and eye damage

Serious eye damage/eye irritation Category 1

H318 Causes serious eye damage

Ful text of H statements : see section 16

2.2. GHS Label elements, including precautionary statements

GHS US labeling

Hazard pictograms (GHS US)



Signal word (GHS US) : Danger

Hazard statements (GHS US) : H314 - Causes severe skin burns and eye damage

Precautionary statements (GHS US) : P260 - Do not breathe mist, vapors, spray.

P264 - Wash exposed skin thoroughly after handling.

P280 - Wear protective gloves, eye protection, protective clothing, face protection. P301+P330+P331 - IF SWALLOWED: Rinse mouth. Do NOT induce vomiting.

P303+P361+P353 - IF ON SKIN (or hair): Remove/Take off immediately al contaminated

clothing. Rinse skin with water/shower.

P304+P340 - IF INHALED: Remove person to fresh air and keep comfortable for breathing. P305+P351+P338 - If in eyes: Rinse cautiously with water for several minutes. Remove contact

lenses, if present and easy to do. Continue rinsing

P310 - Immediately cal a poison center or doctor/physician.

P363 - Wash contaminated clothing before reuse.

P405 - Store locked up.

P501 - Dispose of contents/container to comply with local, state and federal regulations

2.3. Other hazards which do not result in classification

Other hazards not contributing to the : None.

classification

2.4. Unknown acute toxicity (GHS US)

Not applicable

SECTION 3: Composition/Information on ingredients

3.1. Substances

Not applicable

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3.2. Mixtures

Name	Product identifier	%	GHS US classification
Water	(CAS-No.) 7732-18-5	97.00%	Not classified
Hydrochloric Acid, 35% w/w	(CAS-No.) 7647-01-0	3.00 %	Acute Tox. 4 (Oral), H302 Skin Corr. 1B, H314
			Eye Dam. 1, H318 STOT SE 3, H335

Full text of hazard classes and H-statements: see section 16

SECTION 4: First-aid measures

4.1. Description of first aid measures

First-aid measures general : Never give anything by mouth to an unconscious person. If you feel unwel, seek medical

advice (show the label where possible).

First-aid measures after inhalation : Remove victim to fresh air and keep at rest in a position comfortable for breathing. Immediately

cal a poison center or doctor/physician.

First-aid measures after skin contact : Remove/Take off immediately al contaminated clothing. Rinse skin with water/shower.

Immediately cal a poison center or doctor/physician.

First-aid measures after eye contact : Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to

do. Continue rinsing. Immediately cal a poison center or doctor/physician.

First-aid measures after ingestion : Rinse mouth. Do NOT induce vomiting. Immediately cal a poison center or doctor/physician.

4.2. Most important symptoms and effects (acute and delayed)

Potential Adverse human health effects and

symptoms

Symptoms/effects

: Based on available data, the classification criteria are not met.

: Causes severe skin burns and eye damage.

Symptoms/effects after inhalation : Possible inflammation of the respiratory tract.

Symptoms/effects after skin contact : Caustic burns/corrosion of the skin. Symptoms/effects after eye contact : Causes serious eye damage.

Symptoms/effects after ingestion : Nausea. Vomiting.

Chronic symptoms : Affection/discolouration of the teeth.

4.3. Immediate medical attention and special treatment, if necessary

Obtain medical assistance.

SECTION 5: Fire-fighting measures

5.1. Suitable (and unsuitable) extinguishing media

Suitable extinguishing media : Foam. Dry powder. Carbon dioxide. Water spray. Sand.

Unsuitable extinguishing media : Do not use a heavy water stream.

5.2. Specific hazards arising from the chemical

Fire hazard : Not flammable. Explosion hazard : Not applicable.

Reactivity in case of fire : Thermal decomposition generates : Corrosive vapors.

5.3. Special protective equipment and precautions for fire-fighters

Firefighting instructions : Use water spray or fog for cooling exposed containers. Exercise caution when fighting any

chemical fire. Prevent fire-fighting water from entering environment.

Protection during firefighting : Do not enter fire area without proper protective equipment, including respiratory protection.

Other information : Not applicable.

SECTION 6: Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures

General measures : Try to stop release. Dike and contain spil .

6.1.1. For non-emergency personnel

Protective equipment : Gloves. Safety glasses. Protective clothing. Face-shield.

Emergency procedures : Evacuate unnecessary personnel.

6.1.2. For emergency responders

Protective equipment : Equip cleanup crew with proper protection.

Emergency procedures : Ventilate area.

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6.2. **Environmental precautions**

Prevent entry to sewers and public waters. Notify authorities if liquid enters sewers or public waters.

Methods and material for containment and cleaning up

Methods for cleaning up

: Soak up spil s with inert solids, such as clay or diatomaceous earth as soon as possible. Col ect spil age. Store away from other materials.

6.4. Reference to other sections

See Heading 8. Exposure controls and personal protection.

SECTION 7: Handling and storage

Precautions for safe handling

Precautions for safe handling

: Wash hands and other exposed areas with mild soap and water before eating, drinking or smoking and when leaving work. Provide good ventilation in process area to prevent formation of vapor. Do not breathe mist, vapors, spray.

Hygiene measures

Wash exposed skin thoroughly after handling. Wash contaminated clothing before reuse.

Conditions for safe storage, including any incompatibilities

Technical measures

: Comply with applicable regulations.

Storage conditions

: Keep only in the original container in a cool, wel ventilated place away from : incompatible

materials. Keep container closed when not in use. : metals. cyanides. Strong bases.

Incompatible products Incompatible materials

Direct sunlight.

Packaging materials

Do not store in corrodable metal.

SECTION 8: Exposure controls/personal protection

Control parameters

Hydrochloric Acid, 35% w/w (7647-01-0)		
ACGIH	ACGIH Ceiling (mg/m³)	2.98 mg/m³
ACGIH	ACGIH Ceiling (ppm)	2 ppm
OSHA	OSHA PEL (Ceiling) (mg/m³)	7 mg/m³
OSHA	OSHA PEL (Ceiling) (ppm)	5 ppm
IDLH	US IDLH (ppm)	50 ppm
NIOSH	NIOSH REL (ceiling) (mg/m³)	7 mg/m³
NIOSH	NIOSH REL (ceiling) (ppm)	5 ppm
Water (7732-18-5)		

Not applicable

Appropriate engineering controls

Appropriate engineering controls

: Emergency eye wash fountains should be available in the immediate vicinity of any potential exposure.

Individual protection measures/Personal protective equipment

Personal protective equipment:

Chemical resistant apron. Face shield. Gloves. Safety glasses.

Hand protection:

Wear protective gloves.

Eye protection:

Chemical goggles or face shield

Skin and body protection:

Wear suitable protective clothing

Respiratory protection:

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Respiratory protection not required in normal conditions

Personal protective equipment symbol(s):









Other information:

Do not eat, drink or smoke during use.

SECTION 9: Physical and chemical properties

9.1. Information on basic physical and chemical properties

Physical state : Liquid
Color : Colorless
Odor : Odorless

Odor threshold : No data available рΗ No data available : No data available Melting point : No data available Freezing point Boiling point : No data available : No data available Flash point Relative evaporation rate (butyl acetate=1) : No data available Flammability (solid, gas) : Non flammable. Vapor pressure : No data available Relative vapor density at 20 °C : No data available : No data available Relative density

Specific gravity / density : 1 - 1.1

Molecular mass : 36.46 g/mol

Solubility : Soluble in water. Soluble in ethanol. Soluble in methanol.

Log Pow No data available Auto-ignition temperature : No data available : No data available Decomposition temperature Viscosity, kinematic : No data available Viscosity, dynamic : No data available **Explosion limits** : No data available : Not applicable. Explosive properties Oxidizing properties : None.

9.2. Other information

No additional information available

SECTION 10: Stability and reactivity

10.1. Reactivity

Thermal decomposition generates: Corrosive vapors.

10.2. Chemical stability

Stable under normal conditions. Not established.

10.3. Possibility of hazardous reactions

Reacts violently with (some) bases: release of heat.

10.4. Conditions to avoid

Direct sunlight. Extremely high or low temperatures.

10.5. Incompatible materials

metals. cyanides. Strong bases.

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10.6. Hazardous decomposition products

Hydrogen chloride. Thermal decomposition generates: Corrosive vapors.

SECTION 11: Toxicological information

11.1. Information on toxicological effects

Acute toxicity (oral) : Not classified
Acute toxicity (dermal) : Not classified
Acute toxicity (inhalation) : Not classified

Hydrochloric Acid, 35% w/w (7647-01-0)		
LD50 oral rat	700 mg/kg	
LD50 dermal rabbit	5010 mg/kg	
ATE US (oral)	700 mg/kg body weight	
ATE US (dermal)	5010 mg/kg body weight	

Water	(7722	10 E\
vvater	1//32	10-01

 LD50 oral rat
 ≥ 90000 mg/kg

 ATE US (oral)
 90000 mg/kg body weight

Skin corrosion/irritation : Causes severe skin burns and eye damage.

Serious eye damage/irritation : Causes serious eye damage.

Respiratory or skin sensitization : Not classified Germ cel mutagenicity : Not classified Carcinogenicity : Not classified

Reproductive toxicity : Not classified STOT-single exposure : Not classified

Hydrochloric Acid, 35% w/w (7647-01-0)

STOT-single exposure May cause respiratory irritation.

STOT-repeated exposure : Not classified

Aspiration hazard : Not classified
Viscosity, kinematic : No data available
Likely routes of exposure : Skin and eye contact.

Potential Adverse human health effects and

symptoms

: Based on available data, the classification criteria are not met.

Symptoms/effects : Causes severe skin burns and eye damage.
Symptoms/effects after inhalation : Possible inflammation of the respiratory tract.

Symptoms/effects after skin contact : Caustic burns/corrosion of the skin. Symptoms/effects after eye contact : Causes serious eye damage.

Symptoms/effects after ingestion : Nausea. Vomiting.

Chronic symptoms : Affection/discolouration of the teeth.

SECTION 12: Ecological information

12.1. Toxicity

Hydrochloric Acid, 35% w/w (7647-01-0)	
LC50 fish 1	282 mg/l (96 h, Gambusia affinis, Pure substance)
EC50 Daphnia 1	< 56 mg/l (72 h, Daphnia magna, Pure substance)

12.2. Persistence and degradability

Hydrochloric Acid, 2.0N (2.0M)		
Persistence and degradability	Not established.	
Hydrochloric Acid, 35% w/w (7647-01-0)		
Persistence and degradability Biodegradability: not applicable.		
Chemical oxygen demand (COD)	Not applicable	

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Hydrochloric Acid, 35% w/w (7647-01-0)	
ThOD	Not applicable
BOD (% of ThOD)	Not applicable
Water (7732-18-5)	
Persistence and degradability	Not established.

12.3. **Bioaccumulative potential**

Hydrochloric Acid, 2.0N (2.0M)		
Bioaccumulative potential	Not established.	
Hydrochloric Acid, 35% w/w (7647-01-0)		
Log Pow	0.25 (QSAR)	
Bioaccumulative potential	Low potential for bioaccumulation (Log Kow < 4).	
Water (7732-18-5)		
Bioaccumulative potential	Not established.	

12.4. **Mobility in soil**

Hydrochloric Acid, 35% w/w (7647-01-0)	
Ecology - soil	No (test)data on mobility of the components available. May be harmful to plant growth,
	blooming and fruit formation.

12.5. Other adverse effects

Other information : Avoid release to the environment.

SECTION 13: Disposal considerations

Disposal methods

Waste disposal recommendations : Dispose in a safe manner in accordance with local/national regulations.

Ecology - waste materials : Avoid release to the environment.

SECTION 14: Transport information

Department of Transportation (DOT)

In accordance with DOT

Transport document description : UN1789 Hydrochloric acid, 8, II

UN-No.(DOT) : UN1789

Proper Shipping Name (DOT) : Hydrochloric acid

Transport hazard class(es) (DOT) : 8 - Class 8 - Corrosive material 49 CFR 173.136

Packing group (DOT) : II - Medium Danger Hazard labels (DOT)

: 8 - Corrosive



DOT Packaging Non Bulk (49 CFR 173.xxx) : 202 DOT Packaging Bulk (49 CFR 173.xxx) : 242

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DOT Special Provisions (49 CFR 172.102)

: A3 - For combination packaging, if glass inner packaging (including ampoules) are used, they must be packed with absorbent material in tightly closed metal receptacles before packing in outer packaging.

A6 - For combination packaging, if plastic inner packaging are used, they must be packed in tightly closed metal receptacles before packing in outer packaging.

B3 - MC 300, MC 301, MC 302, MC 303, MC 305, and MC 306 and DOT 406 cargo tanks and DOT 57 portable tanks are not authorized.

B15 - Packaging must be protected with non-metal ic linings impervious to the lading or have a suitable corrosion allowance.

IB2 - Authorized IBCs: Metal (31A, 31B and 31N); Rigid plastics (31H1 and 31H2); Composite (31HZ1). Additional Requirement: Only liquids with a vapor pressure less than or equal to 110 kPa at 50 C (1.1 bar at 122 F), or 130 kPa at 55 C (1.3 bar at 131 F) are authorized.

N41 - Metal construction materials are not authorized for any part of a packaging which is normal y in contact with the hazardous material.

T8 - 4 178.274(d)(2) Normal..... Prohibited

TP2 - a. The maximum degree of fil ing must not exceed the degree of fil ing determined by the fol owing: (image) Where: tr is the maximum mean bulk temperature during transport, tf is the temperature in degrees celsius of the liquid during fil ing, and a is the mean coefficient of cubical expansion of the liquid between the mean temperature of the liquid during fil ing (tf) and the maximum mean bulk temperature during transportation (tr) both in degrees celsius. b. For liquids transported under ambient conditions may be calculated using the formula: (image) Where: d15 and d50 are the densities (in units of mass per unit volume) of the liquid at 15 C (59 F) and 50 C (122 F), respectively.

TP12 - This material is considered highly corrosive to steel.

DOT Packaging Exceptions (49 CFR 173.xxx) : 154
DOT Quantity Limitations Passenger aircraft/rail : 1 L

(49 CFR 173.27)

DOT Quantity Limitations Cargo aircraft only (49 : 30 L

CFR 175.75)

DOT Vessel Stowage Location : C - The material must be stowed 'on deck only' on a cargo vessel and on a passenger vessel.

Other information : No supplementary information available.

Transport by sea

Transport document description (IMDG) : UN 1789 HYDROCHLORIC ACID, 8, II

UN-No. (IMDG) : 1789

Proper Shipping Name (IMDG) : HYDROCHLORIC ACID Class (IMDG) : 8 - Corrosive substances

Packing group (IMDG) : II - substances presenting medium danger

Air transport

Transport document description (IATA) : UN 1789 Hydrochloric acid, 8, II

UN-No. (IATA) : 1789

Proper Shipping Name (IATA) : Hydrochloric acid
Class (IATA) : 8 - Corrosives
Packing group (IATA) : II - Medium Danger

SECTION 15: Regulatory information

15.1. US Federal regulations

Chloractive AP10 B	
SARA Section 311/312 Hazard Classes	Health hazard - Serious eye damage or eye irritation
	Health hazard - Skin corrosion or Irritation

All components of this product are listed, or excluded from listing, on the United States Environmental Protection Agency Toxic Substances Control Act (TSCA) inventory

Chemical(s) subject to the reporting requirements of Section 313 or Title III of the Superfund Amendments and Reauthorization Act (SARA) of 1986 and 40 CFR Part 372.

Hydrochloric Acid, 35% w/w	CAS-No. 7647-01-0	7.06%
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Hydrochloric Acid, 35% w/w (7647-01-0)	
EPA TSCA Regulatory Flag	T - T - indicates a substance that is the subject of a final TSCA section 4 test rule.
RQ (Reportable quantity, section 304 of EPA's List of Lists)	5000 lb
RQ (Reportable quantity, section 304 of EPA's List of Lists)	5000 lb
SARA Section 302 Threshold Planning Quantity (TPQ)	500 lb
SARA Section 311/312 Hazard Classes	Health hazard - Acute toxicity (any route of exposure) Health hazard - Skin corrosion or Irritation Health hazard - Serious eye damage or eye irritation Health hazard - Specific target organ toxicity (single or repeated exposure)

15.2. International regulations

CANADA

No additional information available

Water (7732-18-5)

Listed on the Canadian DSL (Domestic Substances List)

EU-Regulations

No additional information available

National regulations

No additional information available

15.3. US State regulations

California Proposition 65 - This product does not contain any substances known to the state of California to cause cancer, developmental and/or reproductive harm

SECTION 16: Other information

according to Federal Register / Vol. 77, No. 58 / Monday, March 26, 2012 / Rules and Regulations

Revision date : 11/20/2019
Other information : None.

Ful text of H-phrases: see section 16:

H302	Harmful if swal owed
H314	Causes severe skin burns and eye damage
H318	Causes serious eye damage
H335	May cause respiratory irritation

NFPA health hazard : 3 - Materials that, under emergency conditions, can cause serious or permanent injury.

senous or permanent injury.

NFPA fire hazard : 0 - Materials that wil not burn under typical fire conditions, including intrinsical y noncombustible materials such as

concrete, stone, and sand.

NFPA reactivity : 1 - Materials that in themselves are normal y stable but can become unstable at elevated temperatures and pressures.



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Hazard Rating

Health : 3 Serious Hazard - Major injury likely unless prompt action is taken and medical treatment is

given

Flammability : 0 Minimal Hazard - Materials that wil not burn

Physical : 1 Slight Hazard - Materials that are normal y stable but can become unstable (self-react) at high

temperatures and pressures. Materials may react non-violently with water or undergo hazardous polymerization in the absence of inhibitors.

Personal protection

C - Safety glasses, Gloves, Synthetic apron

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