

Safety Data Sheet

1. Identification of the substance/mixture and of the company/undertaking

Product identifier:

Product name: Hydroxylammonium chloride

Product code (SDS NO): 20360jis_E2-1

Details of the supplier of the safety data sheet

Manufacturer/Supplier: JUNSEI CHEMICAL CO., LTD.

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Division: Quality Assurance Department

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2. Hazards identification

GHS classification and label elements of the product

Classification of the substance or mixture

HEALTH HAZARDS

Acute toxicity (Oral): Category 3

Skin corrosion/irritation: Category 2

Serious eye damage/eye irritation: Category 2A

Skin sensitization: Category 1

Specific target organ toxicity – single exposure: Category 2(blood)

Specific target organ toxicity – single exposure: Category 3 (Respiratory tract irritation)

(Note) GHS classification without description: Not classified/Classification not possible

Label elements



Signal word: Danger

HAZARD STATEMENT

H301-Toxic if swallowed

H315-Causes skin irritation

H319-Causes serious eye irritation

H317-May cause an allergic skin reaction

H371-May cause damage to organs after single exposure

H335-May cause respiratory irritation

PRECAUTIONARY STATEMENT

Prevention

Do not breathe dust/fume/gas/mist/vapors/spray.

Use only outdoors or in a well-ventilated area.

Wash contaminated parts thoroughly after handling.

Wear protective gloves.

Contaminated work clothing should not be allowed out of the workplace.

Wear eye protection/face protection.

Do not eat, drink or smoke when using this product.

Response

Call a POISON CENTER or doctor/physician if you feel unwell.

IF INHALED: Remove person to fresh air and keep comfortable for breathing.

IF ON SKIN: Wash with plenty of soap and water.

If skin irritation or rash occurs: Get medical advice/attention.

Take off contaminated clothing and wash it before reuse.

IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.

If eye irritation persists: Get medical advice/attention.

IF SWALLOWED: Rinse mouth. Immediately call a POISON CENTER or doctor/physician.

Storage

Store in a well-ventilated place. Keep container tightly closed.

Store locked up.

Disposal

Dispose of contents/container in accordance with local/national regulation.

3. Composition/information on ingredients

Mixture/Substance selection:

Substance

Common name, synonyms: Hydroxylamine hydrochloride

Ingredient name: Hydroxylammonium chloride

Content (%): 96.0 <

Chemical formula: $\text{H}_3\text{NO} \cdot \text{HCl}$

Chemicals No, Japan: 1-215 (Hydrogen chloride), 1-375 (Hydroxylamine)

CAS No.: 5470-11-1

MW: 69.49

ECNO: 226-798-2

4. First-aid measures

Descriptions of first-aid measures

General measures

Call a POISON CENTER or doctor/physician if you feel unwell.

IF INHALED

Remove person to fresh air and keep comfortable for breathing.

Call a POISON CENTER or doctor/physician if you feel unwell.

IF ON SKIN (or hair)

Take off immediately all contaminated clothing. Rinse skin with water/shower.

Wash with plenty of soap and water.

If skin irritation or rash occurs: Get medical advice/attention.

IF IN EYES

Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.

If eye irritation persists: Get medical advice/attention.

IF SWALLOWED

Rinse mouth.

Immediately call a POISON CENTER or doctor/physician.

Call a POISON CENTER or doctor/physician if you feel unwell.

Give a slurry of activated charcoal in water to drink.

Most important symptoms and effects, both acute and delayed

(Symptoms when inhalation or ingestion)

Headache. Dizziness. Nausea. Confusion. Convulsions. Unconsciousness. Blue lips, fingernails and skin.

(Symptoms when skin and/or eye contact)

Redness. Pain. Blue fingernails and skin.

5. Fire-fighting measures

Extinguishing media

Suitable extinguishing media

Use appropriate extinguishing media suitable for surrounding facilities.

The product is non-flammable.

Unsuitable extinguishing media data is not available.

Specific hazards arising from the substance or mixture

Containers may explode when heated.

Fire may produce irritating, corrosive and/or toxic gases.

Runoff from fire control or dilution water may cause pollution.

Advice for firefighters

Specific fire-fighting measures

Evacuate non-essential personnel to safe area.

Special protective equipment and precautions for fire-fighters

Wear fire/flame resistant/retardant clothing.

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

Firefighters should wear self-contained breathing apparatus with full face piece operated positive pressure mode.

6. Accidental release measures

Personnel precautions, protective equipment and emergency procedures

Keep unauthorized personnel away.

In case of contact with substance, immediately flush skin or eyes with running water for at least 20 minutes.

Ventilate area until material pick up is complete.

Wear proper protective equipment.

PUBLIC SAFETY: Ventilate closed spaces before entering.

Environmental precautions

Avoid release to headsprings, rivers, lakes, ocean and groundwater.

Methods and materials for containment and cleaning up

Absorb spill with inert material (dry sand, earth, et al), then place in a chemical waste container.

Preventive measures for secondary accident

Collect spillage.

Stop leak if you can do it without risk.

ELIMINATE all ignition sources (no smoking, flares, sparks or flames in immediate area).

Prevent entry into waterways, sewers, basements or confined areas.

7. Handling and storage

Precautions for safe handling

Preventive measures

(Exposure Control for handling personnel)

Do not breathe dust/fume/gas/mist/vapors/spray.

Avoid breathing dust/fume/gas/mist/vapors/spray.

(Protective measures against fire and explosion)

Keep away from heat/sparks/open flames/hot surfaces. – No smoking.

(Exhaust/ventilator)

Exhaust/ventilator should be available.

(Safety treatments)

Avoid contact with skin.

Avoid contact with eyes.

Safety Measures

- Use only outdoors or in a well-ventilated area.
- Wear protective gloves, protective clothing or face protection.
- Wear eye protection/face protection.
- Use personal protective equipment as required.
- When using do not eat, drink or smoke.

Any incompatibilities

- Bases, Oxidizing agents should not be mixed with the chemicals.

Advice on general occupational hygiene

- Wash contaminated parts thoroughly after handling.
- Do not eat, drink or smoke when using this product.
- Contaminated work clothing should not be allowed out of the workplace.
- Take off contaminated clothing and wash it before reuse.

Storage**Conditions for safe storage**

- Store in a well-ventilated place. Keep container tightly closed.
- Keep cool. Protect from sunlight.
- Store locked up.

Container and packaging materials for safe handling data is not available.

8. Exposure controls/personal protection**Control parameters**

Control value in MHLW is not available.

Adopted value

- Adopted value in JSOH is not available.
- Adopted value in ACGIH is not available.

OSHA-PEL value is not available.

NIOSH-REL value is not available.

Exposure controls**Appropriate engineering controls**

- Do not use in areas without adequate ventilation.
- Eye wash station should be available.
- Washing facilities should be available.

Individual protection measures**Respiratory protection**

- Wear respiratory protection.

Hand protection

- Wear protective gloves.
- Consult with your glove and/or personnel equipment manufacturer for selection of appropriate compatible materials.

Eye protection

- Wear safety glasses with side-shields.
- Wear eye/face protection.

Skin and body protection

- Wear impervious clothing and boots in case of repeated or prolonged treatment.

9. Physical and Chemical Properties**Information on basic physical and chemical properties**

- Physical state: Crystals
- Color: Colorless~White
- Odor data is not available.
- Odor threshold data is not available.

pH: 2.5~3.5 (50g/L, 25°C)

Boiling point or initial boiling point data is not available.

Boiling range data is not available.

Evaporation rate data is not available.

Melting point/Freezing point: 151~152°C

Decomposition temperature: 151~152°C

Self-Accelerating Decomposition Temperature/SADT data is not available.

Flammability (gases, liquids and solids): Non-ignitable

Flash point data is not available.

Auto-ignition temperature data is not available.

Critical temperature data is not available.

Lower and upper explosion limit/flammability limit data is not available.

Vapor pressure data is not available.

Vapor density data is not available.

VOC data is not available.

Relative vapor density (Air=1) data is not available.

Relative density of the Vapor/air - mixture at 20°C (Air = 1) data is not available.

Density and/or relative density: 1.7

Dynamic viscosity data is not available.

Kinematic viscosity data is not available.

Solubility:

Solubility in water: 83 g/100 ml (17°C)

Solubility in solvent: Soluble in ethanol

n-Octanol/water partition coefficient data is not available.

No Particle characteristics data is not available.

10. Stability and Reactivity

Reactivity data is not available.

Chemical stability

Stable under normal storage/handling conditions.

Hygroscopic.

Possibility of hazardous reactions

Decomposes slowly on contact with moisture.

Upon heating, toxic fumes are formed. Decomposes on heating.

The solution in water is a weak acid.

Conditions to avoid

Contact with incompatible materials.

Open flames. Heat. Moisture. Sun light.

Incompatible materials

Bases, Oxidizing agents, Aluminum, Copper, Zinc, Tin

Hazardous decomposition products

Nitrogen oxides, Chlorides

11. Toxicological Information

Information on toxicological effects

Acute toxicity

Acute toxicity (Oral)

[GHS Cat. Japan, base data]

rat LD50=141mg/kg (RTECS, 1997)

Irritant properties

Skin corrosion/irritation

[GHS Cat. Japan, base data]

skin irritation (ICSC, 1997)
Serious eye damage/irritation
[GHS Cat. Japan, base data]
eyes irritation (ICSC, 1997)
Sensitization
Skin sensitization
[GHS Cat. Japan, base data]
cat. 1; MAK list : Sensitization
Mutagenic effects data is not available.
Carcinogenicity
EU-Category 2; Substances suspected human carcinogens
Reproductive toxicity data is not available.
STOT
STOT-single exposure
[cat.2]
[GHS Cat. Japan, base data]
blood (ICSC, 1997)
[cat.3 (resp. irrit.)]
[GHS Cat. Japan, base data]
respiratory tract irritation (ICSC, 1997)
STOT-repeated exposure data is not available.
Aspiration hazard data is not available.

12. Ecological Information

Ecotoxicity data is not available.
Persistence and degradability data is not available.
Bioaccumulative potential data is not available.
Mobility in soil data is not available.
Ozone depleting chemical data is not available.

13. Disposal considerations

Waste treatment methods
Dispose of contents/container in accordance with local/national regulation.

14. Transport Information

UN No., UN CLASS
UN No.: 2923
Proper Shipping Name : CORROSIVE SOLID, TOXIC, N.O.S.
Class or division : 8
Subsidiary hazard(s) : 6.1
Packing group : III
ERG GUIDE No.: 154
IMDG Code (International Maritime Dangerous Goods Regulations)
UN No.: 2923
Proper Shipping Name : CORROSIVE SOLID, TOXIC, N.O.S.
Class or division : 8
Subsidiary hazard(s) : 6.1
Packing group : III
IATA Dangerous Goods Regulations
UN No.: 2923
Proper Shipping Name :

CORROSIVE SOLID, TOXIC, N.O.S.

Class or division : 8

Subsidiary hazard(s) : 6.1

Hazard labels : Corrosive & Toxic

Packing group : III

Environmental hazards

MARPOL Annex III – Prevention of pollution by harmful substances

Marine pollutants (yes/no) : no

15. Regulatory Information

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

Environmental hazards

US major regulations

TSCA

Hydroxylammonium chloride

Other regulatory information

We are not able to check up the regulatory information with regard to the substances in your country or region, therefore, we request this matter would be filled by your responsibility.

Regulatory information with regard to this substance in your country or in your region should be examined by your own responsibility.

Ensure this material in compliance with federal requirements and ensure conformity to local regulations.

Regulatory information in this section are limited to intentional ingredient(s), but does not contain information on non-intentional ingredients or impurities which are not informed by supplier(s).

16. Other information

GHS classification and labelling

H301–Acute Tox. 3: H301 Toxic if swallowed

H315–Skin Irrit. 2: H315 Causes skin irritation

H319–Eye Irrit. 2A: H319 Causes serious eye irritation

H317–Skin Sens. 1: H317 May cause an allergic skin reaction

H371–STOT SE 2: H371 May cause damage to organs after single exposure

H335–STOT SE 3: H335 May cause respiratory irritation

Reference Book

Globally Harmonized System of classification and labelling of chemicals, (6th ed., 2015), UN Recommendations on the TRANSPORT OF DANGEROUS GOODS 20th edit., 2017 UN IMDG Code, 2018 Edition (Incorporating Amendment 39–18)

IATA Dangerous Goods Regulations (60th Edition) 2019

Classification, labelling and packaging of substances and mixtures (table3–1 ECNO6182012)

2016 EMERGENCY RESPONSE GUIDEBOOK (US DOT)

2019 TLVs and BEIs. (ACGIH)

<http://monographs.iarc.fr/ENG/Classification/index.php>

Supplier's data/information

Chemicals safety data management system "GHS Assistant" (<https://www.asahi-ghs.com/>)

NITE Chemical Risk Information Platform (NITE-CHRIP)

https://www.nite.go.jp/en/chem/chrip/chrip_search/systemTop

GHS Classification Guidance for Enterprises 2013 Revised Edition (Aug. 2013, METI)

General Disclaimer

This data sheet was created based on the information we currently have and may be revised according to new information. In addition, the precautions apply only to normal handling,



Hydroxylammonium chloride, JUNSEI CHEMICAL CO., LTD., 20360jis_E2-1, 10/10/2019

and in the case of special handling, please make adequate countermeasure to maintain your safety.

The data given here is based on current knowledge and experience. The purpose of this Safety Data Sheet is to describe the products in terms of their safety requirements. The data does not signify any warranty with regard to the products' properties.

The GHS classification data given here is based on current Japan official data (NITE published in 2018).