Date of issue: 2017/04/11
Date of revision: 2024/07/05

Safety Data Sheet

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

Product identifier:
Product name: Chloroacetic acid
SDS No. : 5120E-5
Relevant identified uses of the substance or mixture and uses advised against
Research and Development
Details of the supplier of the safety data sheet
Manufacturer/Supplier: KISHIDA CHEMICAL CO., LTD.
Address: 3-1, Honmachibashi, Chuo-ku, Osaka, JAPAN
Division: Chemical Safety Management Department
Telephone number: +81-6-6946-8061
FAX: +81-6-6946-1607

Section 2. Hazards identification

GHS classification and label elements of the product
Classification of the substance or mixture
HEALTH HAZARDS
Acute toxicity (Oral): Category 3
Acute toxicity (Dermal): Category 2
Acute toxicity (Inhalation): Category 2
Skin corrosion/irritation: Category 1A
Serious eye damage/eye irritation: Category 1
Specific target organ toxicity - single exposure: Category 1 (blood system, cardiovascular system, liver, nervous system, respiratory system, kidneys)
Specific target organ toxicity - repeated exposure: Category 2 (heart, liver, kidneys)
ENVIRONMENT HAZARDS
Hazardous to the aquatic environment, short-term (acute): Category 1
Hazardous to the aquatic environment, long-term (chronic): Category 1
(Note) GHS classification without description: Not classified/Classification not possible
Label elements

Signal word: Danger
HAZARD STATEMENT
H301 Toxic if swallowed
H310 Fatal in contact with skin
H330 Fatal if inhaled
H314 Causes severe skin burns and eye damage
H370 Causes damage to organs (blood system, cardiovascular system, liver, nervous system, respiratory system, kidneys)
H373 May cause damage to organs through prolonged or repeated exposure (heart, liver, kidneys)
H410 Very toxic to aquatic life with long lasting effects

PRECAUTIONARY STATEMENT

Prevention

P273 Avoid release to the environment.
P260 Do not breathe dust/fume/gas/mist/vapors/spray.
P284 In case of inadequate ventilation wear respiratory protection.
P271 Use only outdoors or in a well-ventilated area.
P262 Do not get in eyes, on skin, or on clothing.
P264 Wash contaminated parts thoroughly after handling.
P280 Wear protective gloves or protective clothing.
P280 Wear protective gloves, protective clothing or face protection.
P280 Wear eye protection/face protection.
P270 Do not eat, drink or smoke when using this product.

Response

P391 Collect spillage.
P314 Get medical advice/attention if you feel unwell.
P310 Immediately call a POISON CENTER/doctor/physician.
P308 + P311 IF exposed or concerned: Call a POISON CENTER/doctor/physician.
P304 + P340 IF INHALED: Remove person to fresh air and keep comfortable for breathing.
P302 + P352 IF ON SKIN: Wash with plenty of soap and water.
P303 + P361 + P353 IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water or shower.
P363 Wash contaminated clothing before reuse.
P361 + P364 Take off immediately all contaminated clothing and wash it before reuse.
P305 + P351 + P338 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
P330 IF SWALLOWED: Rinse mouth.
P301 + P310 IF SWALLOWED: Immediately call a POISON CENTER/doctor/physician.
P301 + P330 + P331 IF SWALLOWED: Rinse mouth. Do NOT induce vomiting.

Storage

P403 + P233 Store in a well-ventilated place. Keep container tightly closed.
P405 Store locked up.

Disposal

P501 Dispose of contents/container in accordance with local/national regulation.

Specific adverse human health effects

See "11. Toxicological Information".

Section 3. Composition/information on ingredients

Mixture/Substance selection:

Substance

Ingredient name	Content (%)	CAS No.	Chemicals No, Japan	Chemical formula
Chloroacetic acid	97(min)	79-11-8	2-1145	C2H3ClO2

Note : The figures shown above are not the specifications of the product.

Section 4. First-aid measures

Descriptions of first-aid measures

General measures

Get medical advice/attention if you feel unwell.

IF INHALED

Remove person to fresh air and keep comfortable for breathing.

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

IF ON SKIN

Take off immediately all contaminated clothing. Rinse skin with water or 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.

Do NOT induce vomiting.

Immediately call a POISON CENTER/doctor/physician.

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

Section 5. Fire-fighting measures

Extinguishing media

Suitable extinguishing media

Use appropriate extinguishing media suitable for surrounding facilities.

Unsuitable extinguishing media

Unsuitable extinguishing media data is not available.

Specific hazards arising from the substance or mixture

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

Runoff from fire control or dilution water may cause pollution.

See "10.Stability and Reactivity".

Advice for firefighters

Specific fire-fighting measures

Evacuate non-essential personnel to safe area.

Cool container with water spray.

Special protective equipment and precautions for fire-fighters

Wear fire resistant or flame retardant clothing.

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

Firefighters should wear self-contained breathing apparatus with a full facepiece operated in the positive pressure mode.

Section 6. Accidental release measures

Personnel precautions, protective equipment and emergency procedures

Keep unauthorized personnel away.

Ventilate area until material pick up is complete.

Wear proper protective equipment.

Environmental precautions

Prevent spills from entering sewers, watercourses, low areas or rivers. To be careful not discharged to the environment without being properly handled waste water contaminated.

Methods and materials for containment and cleaning up

Sweep up, place in a bag and hold for waste disposal.

Preventive measures for secondary accident

Collect spillage.

Section 7. Handling and storage

Precautions for safe handling

Preventive measures

(Exposure Control for handling personnel)

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

(Protective measures against fire and explosion)

Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. 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/eye protection/face protection.

Wash hands et al thoroughly after handling.

When using do not eat, drink or smoke.

Any incompatibilities

See "10.Stability and Reactivity".

Advice on general occupational hygiene

Do not get in eyes, on skin, or on clothing.

Wash contaminated parts thoroughly after handling.

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

Take off immediately all contaminated clothing and wash it before reuse.

Storage

Conditions for safe storage

Keep container tightly closed.

Store locked up. (P405)

Store in a cool, dry place. Do not store in direct sunlight.

Storage in accordance with local/national regulation.

Container and packaging materials for safe handling

Use closed unbreakable containers.

Section 8. Exposure controls/personal protection

Control parameters

Control value and concentration standard value are not available in ISHA.

Adopted value

ACGIH(2006) TWA: 0.5ppm(IFV) (URT irr)

[ACGIH] Notation

Skin

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

Recommend to use protective equipment in conformity with the standards.
Use appropriate protective equipment in accordance with local/national regulation.

Respiratory protection

Wear respiratory protection (dust-proof mask/gas mask). Select chemical cartridge corresponding to type of gases when using a gas mask.

Hand protection

Wear impervious protective glove.

Eye protection

Wear eye/face protection. Wear safety goggles in cases gas is generated.

Skin and body protection

Wear protective clothing.

Section 9. Physical and Chemical Properties

Information on basic physical and chemical properties

Physical state: Crystal
Color: Colorless to white
Odor: Pungent odor
Melting point/Freezing point: 61～64℃
Boiling point or initial boiling point: (Chloroacetic acid)189℃
Boiling range data is not available.
Flammability (gases, liquids and solids) data is not available.
Lower and upper explosion limit/flammability limit:
Lower explosion limit: 8 vol %
Flash point: (Chloroacetic acid)(C.C.) 126℃
Auto-ignition temperature: (Chloroacetic acid)470℃
Decomposition temperature data is not available.
pH data is not available.
Kinematic viscosity data is not available.
Solubility:
Solubility in water: Very good
Solubility in solvent data is not available.
n-Octanol/water partition coefficient: log Pow0.34
Vapor pressure: 8.68 Pa (25℃)
Density and/or relative density: 1.58g/cm3(20℃)
Relative vapor density (Air=1): 3.26
Particle characteristics data is not available.

Other information

Other information is not available.

Section 10. Stability and Reactivity

Reactivity

Not available.

Chemical stability

Deliquescent materials.

Possibility of hazardous reactions

Decomposes on burning. This produces toxic fumes including hydrogen chloride and phosgene. The solution in water is a medium strong acid. Attacks metals. This produces a combustible/explosive gas (hydrogen). Reacts with bases, oxidizing substances and reducing agents. This produces toxic and flammable gases. This generates toxic, fire and explosion hazard. Attacks some forms of plastic, some forms of rubber and coatings. (ICSC 0235)

Conditions to avoid

Contact with incompatible materials.
Contact with fire source.

Incompatible materials

Bases, Oxidizing agents, Reducing agents, Metals

Hazardous decomposition products

Carbon oxides, Hydrogen chloride, Phosgene, Hydrogen

Section 11. Toxicological Information

Information on toxicological effects

Acute toxicity

Acute toxicity (Oral)

[Product]

Category 3, Toxic if swallowed

[Data for components of the product]

[GHS Cat. Japan, base data]

rat LD50=55-200mg/kg (ECETOC TR081, 2001)

Acute toxicity (Dermal)

[Product]

Category 2, Fatal in contact with skin

[Data for components of the product]

[GHS Cat. Japan, base data]

rat LD50=145mg/kg (ACGIH, 2006)

Acute toxicity (Inhalation)

[Product]

Category 2, Fatal if inhaled

[Data for components of the product]

[GHS Cat. Japan, base data]

mist: rat LC50=0.18mg/L/4hr (NITE Initial Risk Assessment Report, 2008)

Irritant properties

Skin corrosion/irritation

[Product]

Category 1A, Causes severe skin burns and eye damage

[Data for components of the product]

[GHS Cat. Japan, base data]

rat/mouse corrosive (EU-RAR, 2005)

Serious eye damage/irritation

[Product]

Category 1, Causes serious eye damage

[Data for components of the product]

[GHS Cat. Japan, base data]

rabbit corrosive (EU-RAR, 2005)

Allergenic and sensitizing effects data is not available.

Mutagenic effects data is not available.

Carcinogenicity
[Data for components of the product]
[ACGIH]
A4(2006) : Not Classifiable as a Human Carcinogen
Reproductive toxicity data is not available.
Specific target organ toxicity (STOT)
STOT-single exposure
[Product]
Category 1, Causes damage to organs
[Data for components of the product]
[cat.1]
[GHS Cat. Japan, base data]
blood system, cardiovascular system, liver, nervous system, respiratory system, kidneys (ACGIH 7th, 2006)
STOT-repeated exposure
[Product]
Category 2, May cause damage to organs through prolonged or repeated exposure
[Data for components of the product]
[cat.2]
[GHS Cat. Japan, base data]
heart, liver, kidneys (EU-RAR, 2005)
Aspiration hazard data is not available.

Section 12. Ecological Information

Toxicity
Aquatic toxicity
[Product]
Category 1, Very toxic to aquatic life
Category 1, Very toxic to aquatic life with long lasting effects
[Data for components of the product]
Hazardous to the aquatic environment, short-term (acute)
[GHS Cat. Japan, base data]
Algae (Desmodesmus subspicatus) ErC50=0.033mg/L/72hr (NITE Initial Risk Assessment Report, 2008)
Hazardous to the aquatic environment, long-term (chronic)
[GHS Cat. Japan, base data]
Algae (Pseudokirchneriella subcapitata) NOEC <0.005mg/L/72hr (NITE Initial Risk Assessment Report, 2008)
Water solubility
very good (ICSC, 2003)
Persistence and degradability
[Data for components of the product]
Rapidly degradable (BOD : 65.0%/3 weeks; TOC : 98.8%/3 weeks; GC : 100%/3 weeks (MITI official bulletin))
Bioaccumulative potential
[Data for components of the product]
log Pow=0.22 (PHYSPROP DB, 2005)
Mobility in soil
Mobility in soil data is not available.

Other adverse effects

Ozone depleting chemical data is not available.

Section 13. Disposal considerations

Description of waste residues and information on their safe handling and methods of disposal, including the disposal of any contaminated packaging

Waste treatment methods

Avoid release to the environment.

Dispose of contents/container as industrial waste. Accordance with local/national regulation.

Section 14. Transport Information

UN Number or ID Number : 1751
UN Proper Shipping Name :
CHLOROACETIC ACID, SOLID
Class or division (Transport hazard class) : 6.1
Subsidiary hazard(s) : 8
Packing group : II
ERG GUIDE No.: 153

IMDG Code (International Maritime Dangerous Goods Regulations)

UN Number or ID Number : 1751
UN Proper Shipping Name :
CHLOROACETIC ACID, SOLID
Class or division (Transport hazard class) : 6.1
Subsidiary hazard(s) : 8
Packing group : II

IATA (Dangerous Goods Regulations)

UN Number or ID Number : 1751
UN Proper Shipping Name :
CHLOROACETIC ACID, SOLID
Class or division (Transport hazard class) : 6.1
Subsidiary hazard(s) : 8
Hazard labels : Toxic & Corrosive
Packing group : II

Environmental hazards

Marine pollutants (yes/no) : yes

Section 15. Regulatory Information

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

U.S. Toxic Substances Control Act (TSCA) Inventory

Chemicals listed in TSCA Inventory

Applicable

Other regulatory information

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

Section 16. Other information

References and sources for data

Globally Harmonized System of classification and labelling of chemicals, UN
Recommendations on the TRANSPORT OF DANGEROUS GOODS 22nd edit., 2021 UN
IMDG Code, 2022 Edition (Incorporating Amendment 41-22)
IATA Dangerous Goods Regulations (65th Edition) 2024
2020 EMERGENCY RESPONSE GUIDEBOOK (US DOT)
2024 TLVs and BEIs. (ACGIH)
JIS Z 7252 : 2019
JIS Z 7253 : 2019
2023 Recommendation on TLVs (JSOH)
Supplier's data/information

General Disclaimer

Please provide SDS to customers for selling or transferring.
All chemicals have unknown hazard. Handle the product with care.
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, 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 2022).