



Safety Data Sheet

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

Product identifier:

Product name: Chloroacetic acid

SDS No. : 5120E-4

Details of the supplier of the safety data sheet

Manufacturer/Supplier: KISHIDA CHEMICAL CO., LTD.

Address: 3-1, Honmachibashi, Chuo-ku, Osaka, JAPAN

Division: Safety Management Dept. of Chemicals

Telephone number: +81-6-6946-8061

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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

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 (nerve/nervous system; respiratory apparatus/system; CNS; blood/blood system; liver; kidney)

Specific target organ toxicity – repeated exposure: Category 2 (heart, liver, kidney)

ENVIRONMENT HAZARDS

Hazardous to the aquatic environment (Acute): Category 1

Hazardous to the aquatic environment (Long-term): Category 1

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

Label elements



Signal word: Danger

HAZARD STATEMENT

Toxic if swallowed

Fatal in contact with skin

Fatal if inhaled

Causes severe skin burns and eye damage

Causes serious eye damage

Causes damage to organs after single exposure (nerve/nervous system; respiratory apparatus/system; CNS; blood/blood system; liver; kidney)

May cause damage to organs through prolonged or repeated exposure (heart, liver, kidney)

Very toxic to aquatic life

Very toxic to aquatic life with long lasting effects

PRECAUTIONARY STATEMENT

Prevention

Avoid release to the environment.



Do not breathe dust/fume/gas/mist/vapors/spray.
In case of inadequate ventilation wear respiratory protection. (as specified by the manufacturer/supplier or the competent authority.)
Use only outdoors or in a well-ventilated area.
Do not get in eyes, on skin, or on clothing.
Wash contaminated parts thoroughly after handling.
Wear protective gloves, protective clothing or face protection.
Wear eye protection/face protection.
Do not eat, drink or smoke when using this product.

Response

Collect spillage.
Get medical advice/attention if you feel unwell.
IF exposed or concerned: Call a POISON CENTER or doctor/physician.
IF INHALED: Remove person to fresh air and keep comfortable for breathing.
IF ON SKIN: Wash with plenty of soap and water.
IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water/shower.
Wash contaminated clothing before reuse.
Take off immediately all 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 SWALLOWED: Immediately call a POISON CENTER or doctor/physician.
IF SWALLOWED: Rinse mouth. Do NOT induce vomiting.

Storage

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

Disposal

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

3. Composition/information on ingredients**Mixture/Substance selection:****Substance**

Ingredient name:Chloroacetic acid

Content (%):97(min)

Chemical formula:C2H3ClO2

Chemicals No, Japan:2-1145

CAS No.:79-11-8

MW:94.50

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

4. First-aid measures**Descriptions of first-aid measures****General measures**

Get medical attention/advice 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. Do NOT induce vomiting.

Immediately call a POISON CENTER or doctor/physician.

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

Containers may explode when heated.

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

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/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**

Ventilate area until material pick up is complete.

Wear proper protective equipment.

Environmental precautions

Prevent spills from entering sewers, watercourses or low areas.

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.

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/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 or protective clothing.



Wear eye protection/face protection.

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

Keep under lock and key.

Container and packaging materials for safe handling

Glass

Polyethylene

8. Exposure controls/personal protection

Control parameters

Adopted value

(Chloroacetic acid)

ACGIH(2005) TWA: 0.5ppm(IFV) (URT irr)

Notation

(Chloroacetic acid)

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

Respiratory protection

Wear respiratory protection.

Hand protection

Wear protective gloves.

Eye protection

Wear eye/face protection.

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°C

Boiling point or initial boiling point: 189°C

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°C

Auto-ignition temperature: 470°C



Decomposition temperature data is not available.

pH data is not available.

Kinematic viscosity data is not available.

Solubility:

Solubility in water: Very good

n-Octanol/water partition coefficient: log Pow0.34

Vapor pressure: 8.68 Pa (25°C)

Density and/or relative density: 1.58g/cm³(20°C)

Relative vapor density (Air=1): 3.26

No Particle characteristics data is not available.

10. Stability and Reactivity

Reactivity

Not available.

Chemical stability

Deliquescent material.

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

Hydrogen chloride, Phosgene, Hydrogen

11. Toxicological Information

Information on toxicological effects

Acute toxicity

Acute toxicity (Oral)

[GHS Cat. Japan, base data]

(Chloroacetic acid)

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

Acute toxicity (Dermal)

[GHS Cat. Japan, base data]

(Chloroacetic acid)

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

Acute toxicity (Inhalation)

[GHS Cat. Japan, base data]

(Chloroacetic acid)

mist: rat LC50=0.18mg/L/4hr (NITE primary risk assessment, 2008)

Irritant properties

Skin corrosion/irritation

[GHS Cat. Japan, base data]

(Chloroacetic acid)

rat/mouse corrosive (EU-RAR, 2005)

Serious eye damage/irritation

[GHS Cat. Japan, base data]



(Chloroacetic acid)
rabbit corrosive (EU-RAR, 2005)
Allergenic and sensitizing effects data is not available.
Mutagenic effects data is not available.
Carcinogenicity
(Chloroacetic acid)
ACGIH-A4(2005) : Not Classifiable as a Human Carcinogen
Reproductive toxicity data is not available.
STOT
STOT-single exposure
[cat.1]
[GHS Cat. Japan, base data]
(Chloroacetic acid)
nervous system; respiratory system; CNS; blood system; liver; kidney (ACGIH 7th, 2006)
STOT-repeated exposure
[cat.2]
[GHS Cat. Japan, base data]
(Chloroacetic acid)
heart; liver; kidney (EU-RAR, 2005)
Aspiration hazard data is not available.

12. Ecological Information

Ecotoxicity
Aquatic toxicity
Very toxic to aquatic life
Very toxic to aquatic life with long lasting effects
Hazardous to the aquatic environment (Acute)
[GHS Cat. Japan, base data]
(Chloroacetic acid)
Algae (Scenedesmus) ErC50=0.033mg/L/72hr (NITE primary risk assessment, 2008)
Hazardous to the aquatic environment (Long-term)
[GHS Cat. Japan, base data]
(Chloroacetic acid)
Algae (Pseudokirchneriella subcapitata) NOEC <0.005mg/L/72hr (NITE primary risk assessment, 2008)
Water solubility
(Chloroacetic acid)
very good (ICSC, 2003)
Persistence and degradability
(Chloroacetic acid)
Degrade rapidly (BOD : 65.0%/3 weeks; TOC : 98.8%/3 weeks; GC : 100%/3 weeks (MITI official bulletin))
Bioaccumulative potential
(Chloroacetic acid)
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.



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 (– if this is not the intended use).

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

14. Transport Information

UN No. or ID No.: 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 No.: 1751

Proper Shipping Name :

CHLOROACETIC ACID, SOLID

Class or division : 6.1

Subsidiary hazard(s) : 8

Packing group : II

IATA Dangerous Goods Regulations

UN No.: 1751

Proper Shipping Name :

CHLOROACETIC ACID, SOLID

Class or division : 6.1

Subsidiary hazard(s) : 8

Hazard labels : Toxic & Corrosive

Packing group : II

Environmental hazards

MARPOL Annex III – Prevention of pollution by harmful substances

Marine pollutants (yes/no) : yes

MARPOL Annex V – Prevention of pollution by garbage discharge

Hazardous to the aquatic environment – acute hazard: cat.1

Chloroacetic acid

Hazardous to the aquatic environment – long-term hazard: cat.1, 2

Chloroacetic acid

15. Regulatory Information

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

Chemicals listed in TSCA Inventory

Chloroacetic acid

Other regulatory information

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



16. Other information**GHS classification and labelling**

Acute Tox. 3: H301 Toxic if swallowed

Acute Tox. 2: H310 Fatal in contact with skin

Acute Tox. 2: H330 Fatal if inhaled

Skin Corr. 1A: H314 Causes severe skin burns and eye damage

Eye Dam. 1: H318 Causes serious eye damage

STOT SE 1: H370 Causes damage to organs after single exposure

STOT RE 2: H373 May cause damage to organs through prolonged or repeated exposure

Aquatic Acute 1: H400 Very toxic to aquatic life

Aquatic Chronic 1: H410 Very toxic to aquatic life with long lasting effects

Reference Book

Globally Harmonized System of classification and labelling of chemicals, (7th revised edition, 2017), UN

Recommendations on the TRANSPORT OF DANGEROUS GOODS 20th edit., 2017 UN IMDG Code, 2018 Edition (Incorporating Amendment 39-18)

IATA Dangerous Goods Regulations (61th Edition) 2020

Classification, labelling and packaging of substances and mixtures (Table 3 ECNO6182012)

2016 EMERGENCY RESPONSE GUIDEBOOK (US DOT)

2020 TLVs and BEIs. (ACGIH)

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

Supplier's data/information

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, 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 2019).