



## Safety Data Sheet

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

#### Product identifier:

Product name: 10w/v% Trichloroacetic acid solution

SDS No. : E0121E-2

#### 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

FAX: +81-6-6946-1607

e-mail address: kagakuhinanzenkanri@kishida.co.jp

### 2. Hazards identification

#### GHS classification and label elements of the product

#### Classification of the substance or mixture

##### HEALTH HAZARDS

Skin corrosion/irritation: Category 1

Serious eye damage/eye irritation: Category 1

Germ cell mutagenicity: Category 2

Carcinogenicity: Category 2

Reproductive toxicity: Category 2

#### Label elements



Signal word: Danger

#### HAZARD STATEMENT

Causes severe skin burns and eye damage

Suspected of causing genetic defects

Suspected of causing cancer

Suspected of damaging fertility or the unborn child

#### PRECAUTIONARY STATEMENT

##### Prevention

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

Wash contaminated parts thoroughly after handling.

Wear protective gloves, protective clothing or face protection.

Wear eye protection/face protection.

##### Response

IF exposed or concerned: Get medical advice/attention.

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

IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water or shower.

Wash contaminated clothing 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: Rinse mouth. Do NOT induce vomiting.

##### Disposal



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

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### 3. Composition/information on ingredients

Mixture/Substance selection:

Mixture

Ingredient name:Trichloroacetic acid

Content (%):9.6

Chemical formula:CCl<sub>3</sub>COOH

Chemicals No, Japan:2-1188

CAS No.:76-03-9

MW:163.39

ECNO:200-927-2

Ingredient name:Water

Content (%):90

Chemical formula:H<sub>2</sub>O

CAS No.:7732-18-5

MW:18.02

ECNO:231-791-2

Note : The figures shown above are not the specifications of the product. The content of products may exceed the figures shown above.

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### 4. First-aid measures

Descriptions of first-aid measures

General measures

IF exposed or concerned: Get medical advice/attention.

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 (or hair)

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

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.

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

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### 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.

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 full face piece operated positive pressure mode.

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## 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

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

Preventive measures for secondary accident

Collect spillage.

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## 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

Wear protective gloves, protective clothing or face protection.

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

Wash contaminated parts thoroughly after handling.

Wash contaminated clothing before reuse.

Storage

Conditions for safe storage

Keep container tightly closed.

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

Container and packaging materials for safe handling

Glass

Polyethylene



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## 8. Exposure controls/personal protection

### Control parameters

#### Adopted value

(Trichloroacetic acid)

ACGIH(2014) TWA: 0.5ppm (Eye & URT irr)

### 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.

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## 9. Physical and Chemical Properties

### Information on basic physical and chemical properties

Physical state: Liquid

Color: Colorless

Odor: None

Melting point/Freezing point data is not available.

Boiling point or initial boiling point data is not available.

Boiling range data is not available.

Flammability (gases, liquids and solids) data is not available.

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

Flash point data is not available.

Auto-ignition temperature data is not available.

Decomposition temperature data is not available.

pH data is not available.

Kinematic viscosity data is not available.

#### Solubility:

Solubility in water: Soluble

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

Vapor pressure data is not available.

Density and/or relative density: 1.04

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

Particle characteristics data is not available.

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## 10. Stability and Reactivity

### Reactivity

Not available.

### Chemical stability

Stable under normal storage/handling conditions.

### Possibility of hazardous reactions

(Trichloroacetic acid)

Decomposes on heating. This produces toxic and corrosive fumes including hydrogen chloride and chloroform. The solution in water is a strong acid. It reacts violently with bases and is corrosive to many metals. (ICSC 0586)

**Conditions to avoid**

- Contact with incompatible materials.
- Contact with fire source.

**Incompatible materials**

Bases

**Hazardous decomposition products**

Hydrogen chloride, Chloroform

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**11. Toxicological Information****Information on toxicological effects****Acute toxicity****Acute toxicity (Oral)**

- [GHS Cat. Japan, base data]  
(Trichloroacetic acid)  
rat LD50=3320mg/kg (ACGIH 7th, 2001)

**Irritant properties****Skin corrosion/irritation**

- [GHS Cat. Japan, base data]  
(Trichloroacetic acid)  
rabbit corrosive (SIDS, Access on Apr. 2009)

**Serious eye damage/irritation**

- [GHS Cat. Japan, base data]  
(Trichloroacetic acid)  
rabbit severe eyes damage (ECETOC TR 48, 1998)

Allergenic and sensitizing effects data is not available.

**Germ cell mutagenicity**

- [GHS Cat. Japan, base data]  
(Trichloroacetic acid)  
cat. 2; rat : ACGIH, 2001

**Carcinogenicity**

- [GHS Cat. Japan, base data]  
(Trichloroacetic acid)  
cat.2; IARC Gr. 2B (IARC 106, 2014)  
(Trichloroacetic acid)  
IARC-Gr.2B : Possibly carcinogenic to humans  
(Trichloroacetic acid)  
ACGIH-A3(2014) : Confirmed Animal Carcinogen with Unknown Relevance to Humans

**Reproductive toxicity**

- [GHS Cat. Japan, base data]  
(Trichloroacetic acid)  
cat. 2; rat : ACGIH, 2001

**STOT****STOT-single exposure**

- [cat.3 (drow./dizz.)]  
[GHS Cat. Japan, base data]  
(Trichloroacetic acid)  
narcotic effect (ACGIH 7th, 2001)

STOT-repeated exposure data is not available.

Aspiration hazard data is not available.



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## 12. Ecological Information

### Ecotoxicity

#### Aquatic toxicity

Hazardous to the aquatic environment (Acute)

[GHS Cat. Japan, base data]

(Trichloroacetic acid)

Crustacea (Daphnia magna) EC50=2000mg/L/48hr (SIDS, 2000)

#### Water solubility

(Trichloroacetic acid)

4.4 g/100 ml (PHYSPROP\_DB, 2005)

#### Persistence and degradability

Persistence and degradability data is not available.

#### Bioaccumulative potential

(Trichloroacetic acid)

log Pow=1.7 (ICSC, 1998)

#### Mobility in soil

Mobility in soil data is not available.

#### Other adverse effects

Ozone depleting chemical data is not available.

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## 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

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

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## 14. Transport Information

UN No. or ID No.: 2564

UN Proper Shipping Name :

TRICHLOROACETIC ACID SOLUTION

Class or division (Transport hazard class) : 8

Packing group : III

ERG GUIDE No.: 153

Special provisions No.: 223

#### IMDG Code (International Maritime Dangerous Goods Regulations)

UN No.: 2564

Proper Shipping Name :

TRICHLOROACETIC ACID SOLUTION

Class or division : 8

Packing group : III

Special provisions No.: 223

#### IATA Dangerous Goods Regulations

UN No.: 2564

Proper Shipping Name :

TRICHLOROACETIC ACID SOLUTION

Class or division : 8

Hazard labels : Corrosive

Packing group : III

Special provisions No.: A3; A803

#### Environmental hazards

MARPOL Annex III – Prevention of pollution by harmful substances



Marine pollutants (yes/no) : no  
Maritime transport in bulk according to IMO instruments  
Non Noxious Liquid ; Cat. OS  
Water

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#### 15. Regulatory Information

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

Chemicals listed in TSCA Inventory

Trichloroacetic acid; Water

Other regulatory information

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

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#### 16. Other information

GHS classification and labelling

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

Muta. 2: H341 Suspected of causing genetic defects

Carc. 2: H351 Suspected of causing cancer

Repr. 2: H361 Suspected of damaging fertility or the unborn child

Reference Book

Globally Harmonized System of classification and labelling of chemicals, UN

Recommendations on the TRANSPORT OF DANGEROUS GOODS 21th edit., 2019 UN

IMDG Code, 2018 Edition (Incorporating Amendment 39-18)

IATA Dangerous Goods Regulations (62nd Edition) 2021

2020 EMERGENCY RESPONSE GUIDEBOOK (US DOT)

2021 TLVs and BEIs. (ACGIH)

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).