



## Safety Data Sheet

---

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

Product identifier:

Product name: Oxalyl chloride

SDS No. : 5798E-1

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

PHYSICAL AND CHEMICAL HAZARDS

Substances and mixtures which, in contact with water, emit flammable gases: Category 1

HEALTH HAZARDS

Acute toxicity (Inhalation): Category 3

Skin corrosion/irritation: Category 1

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

H260 In contact with water releases flammable gases which may ignite spontaneously

H331 Toxic if inhaled

H314 Causes severe skin burns and eye damage

H335 May cause respiratory irritation

PRECAUTIONARY STATEMENT

Prevention

P223 Do not allow contact with water.

P231 + P232 Handle and store contents under inert gas/appropriate liquid or gas. Protect from moisture.

P260 Do not breathe dust/fume/gas/mist/vapors/spray.

P271 Use only outdoors or in a well-ventilated area.

P264 Wash contaminated parts thoroughly after handling.

P280 Wear protective gloves/protective clothing/eye protection/face protection.

Response

P370 + P378 In case of fire: Use appropriate media to extinguish.



P310 Immediately call a POISON CENTER/doctor/physician.  
P311 Call a POISON CENTER/doctor/physician.  
P312 Call a POISON CENTER/doctor/physician if you feel unwell.  
P304 + P340 IF INHALED: Remove person to fresh air and keep comfortable for breathing.  
P302 + P335 + P334 IF ON SKIN: Brush off loose particles from skin. Immerse in cool 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.  
P305 + P351 + P338 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.  
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.  
P402 + P404 Store in a dry place. Store in a closed container.

**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.	ENCS	Chemical formula
Oxalyl chloride	≥ 98	79-37-8	9-2022	C <sub>2</sub> Cl <sub>2</sub> O <sub>2</sub>

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

**Impurities**

Trichloroacetyl chloride ≤ 0.15% (CAS No. 76-02-8)

Carbon tetrachloride ≤ 0.050% (CAS No. 56-23-5)

---

**Section 4. First-aid measures**

Descriptions of first-aid measures

**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.

IF ON SKIN: Brush off loose particles from skin. Immerse in cool 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.



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.

## 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

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

## 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.

Do not allow contact with water.

(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.

Handle and store contents under inert gas/appropriate liquid or gas. Protect from moisture.

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

Wash contaminated parts thoroughly after handling.

Wash contaminated clothing before reuse.

#### Storage

##### Conditions for safe storage

Keep container tightly closed.

Store locked up. (P405)

Store in a dry place. Store in a closed container.

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

(Carbon tetrachloride)

Japan control value 5ppm

##### Adopted value

(Carbon tetrachloride)

JSOH(1991) 5ppm; 31mg/m<sup>3</sup> (skin)

(Carbon tetrachloride)

ACGIH(1996) TWA: 5ppm;

STEL: 10ppm (Liver dam)

[ACGIH] Notation

(Carbon tetrachloride)

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: Liquid

Color: Colorless to pale yellow

Odor: Pungent odor

Melting point/Freezing point:  $-12^{\circ}\text{C}$

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: Insoluble

Solubility in solvent data is not available.

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

Vapor pressure data is not available.

Density and/or relative density: 1.45

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

Particle characteristics data is not available.

Other information

Other information is not available.

---

## Section 10. Stability and Reactivity

Reactivity

Not available.

Chemical stability

Stable under normal storage/handling conditions.

Possibility of hazardous reactions

Not available.

Conditions to avoid

Contact with incompatible materials.

Contact with fire source.

Incompatible materials

Bases, Oxidizing agents, Water, Alcohols, Alkali metals, Dimethyl sulfoxide

Hazardous decomposition products

Carbon oxides, Chlorine compounds



---

**Section 11. Toxicological Information**

## Information on toxicological effects

## Acute toxicity

## Acute toxicity (Oral)

[Data for components of the product]

[NITE-CHRIP]

(Carbon tetrachloride)

rat LD50: 2350 mg/kg (source: NITE)

## Acute toxicity (Dermal)

[Data for components of the product]

[NITE-CHRIP]

(Carbon tetrachloride)

rat LD50: 5070 mg/kg (source: NITE)

## Acute toxicity (Inhalation)

[Product]

Category 3, Toxic if inhaled

[Data for components of the product]

[NITE-CHRIP]

(Carbon tetrachloride)

vapor: rat LC50: 8000 ppm (4-hour) (source: NITE)

[Company proprietary data]

(Oxalyl chloride)

rat LC50=1,840 ppm/1hr

## Irritant properties

## Skin corrosion/irritation

[Product]

Category 1, Causes severe skin burns and eye damage

[Data for components of the product]

[Company proprietary data]

(Oxalyl chloride)

Category 1B

(Trichloroacetyl chloride)

Category 1B

Serious eye damage/irritation data is not available.

Allergenic and sensitizing effects data is not available.

Mutagenic effects data is not available.

## Carcinogenicity

[Data for components of the product]

[IARC]

(Carbon tetrachloride)

Group 2B : Possibly carcinogenic to humans

[ACGIH]

(Carbon tetrachloride)

A2(1996) : Suspected Human Carcinogen

[NTP]

(Carbon tetrachloride)

RAHC : Reasonably Anticipated to be Human Carcinogens

[EU]

(Carbon tetrachloride)



Category 2; Substances suspected human carcinogens  
Reproductive toxicity data is not available.  
Specific target organ toxicity (STOT)  
STOT-single exposure  
[Product]  
Category 3, May cause respiratory irritation  
[Data for components of the product]  
[Company proprietary data]  
(Oxalyl chloride)  
Category 3 (Respiratory tract irritation)  
STOT-repeated exposure data is not available.  
Aspiration hazard data is not available.

---

## Section 12. Ecological Information

Toxicity  
Aquatic toxicity  
[Data for components of the product]  
Hazardous to the aquatic environment, short-term (acute)  
[NITE-CHRIP]  
(Carbon tetrachloride)  
Algae (*Raphidocelis subcapitata*) 72-hour ErC50: 0.46 mg/L (source: NITE)  
Fish (*Oryzias latipes*) 96-hour LC50: 7.6 mg/L (source: NITE)  
Hazardous to the aquatic environment, long-term (chronic)  
[NITE-CHRIP]  
(Carbon tetrachloride)  
Crustacea (*Daphnia magna*) 21-day NOEC: 0.49 mg/L (source: NITE)  
Water solubility  
(Carbon tetrachloride)  
0.1 g/100 mL (20°C) (source: ICSC, 2000)  
Persistence and degradability  
[Data for components of the product]  
(Carbon tetrachloride)  
Not rapidly degradable (Degradation rate: 0% (by BOD)) (source: NITE)  
Bioaccumulative potential  
[Data for components of the product]  
(Carbon tetrachloride)  
log Pow: 2.64 (source: ICSC, 2000)  
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  
Dispose of contents/container as industrial waste. Accordance with local/national regulation.



---

**Section 14. Transport Information**

UN Number or ID Number : 3129  
UN Proper Shipping Name :  
WATER-REACTIVE LIQUID, CORROSIVE, N.O.S.  
Class or division (Transport hazard class) : 4.3  
Subsidiary hazard(s) : 8  
Packing group : I  
ERG GUIDE No.: 138

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

UN Number or ID Number : 3129  
UN Proper Shipping Name :  
WATER-REACTIVE LIQUID, CORROSIVE, N.O.S.  
Class or division (Transport hazard class) : 4.3  
Subsidiary hazard(s) : 8  
Packing group : I

**IATA (Dangerous Goods Regulations)**

UN Number or ID Number : 3129  
UN Proper Shipping Name :  
WATER-REACTIVE LIQUID, CORROSIVE, N.O.S.  
Class or division (Transport hazard class) : 4.3  
Subsidiary hazard(s) : 8  
Hazard labels : Dang. when wet & Corrosive  
Packing group : I

**Environmental hazards**

Marine pollutants (yes/no) : no

---

**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

Carbon tetrachloride; Trichloroacetyl chloride; Oxalyl chloride

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**

© KISHIDA CHEMICAL CO., LTD.

Unauthorized translation or modification is prohibited.

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 Data published in Japan (National Institute of Technology and Evaluation (NITE) Chemical Risk Information Platform (NITE-CHRIP), up to FY2023).