



Safety Data Sheet

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

Product identifier:

Product name: Lithium chloride

Product code(SDS NO): 4492E-2

Details of the supplier of the safety data sheet

Manufacturer/Supplier: KISHIDA CHEMICAL CO., LTD.

Address: 3-1, Honmachibashi, Chuo-ku, Osaka 540-0029, 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

Acute toxicity Oral: Category 4

Skin corrosion/irritation: Category 2

Serious eye damage/eye irritation: Category 2A

Reproductive toxicity: Category 2

Specific target organ toxicity – single exposure: Category 2(nerve/nervous system)

Specific target organ toxicity – repeated exposure: Category 2(nerve/nervous system; kidney)

ENVIRONMENT HAZARDS

Hazardous to the aquatic environment – acute hazard: Category 3

Hazardous to the aquatic environment – long-term hazard: Category 3

Label elements



Signal word: Warning

HAZARD STATEMENT

Harmful if swallowed

Causes skin irritation

Causes serious eye irritation

Suspected of damaging fertility or the unborn child

May cause damage to organs after single exposure

May cause damage to organs through prolonged or repeated exposure

Harmful to aquatic life

Harmful to aquatic life with long lasting effects

PRECAUTIONARY STATEMENT

Prevention

Avoid release to the environment.

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

Wash contaminated parts thoroughly after handling.

Wear protective gloves.

Wear eye protection/face protection.

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

**Response**

Get medical advice/attention if you feel unwell.

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

If skin irritation 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.

Rinse mouth.

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

Disposal

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

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

Ingredient name: Lithium chloride

Content(%): 98(min)

Chemical formula: CLi

Chemicals No, Japan: 1-231

CAS No.: 7447-41-8

MW: 42.39

ECNO: 231-212-3

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.

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

5. Fire-fighting measures**Extinguishing media****Suitable extinguishing media**

Use appropriate extinguishing media suitable for surrounding facilities.

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/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 after material pick up is complete.

Wear proper protective equipment.

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/Incompatibility

Wear protective gloves, protective clothing or face protection.

When using do not eat, drink or smoke.

Conditions for safe storage, including any incompatibilities**Recommendation for storage**

Keep container tightly closed.

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

8. Exposure controls/personal protection**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.

**Safety and Health measures**

- Wash ... thoroughly after handling.
- Do not eat, drink or smoke when using this product.
- Take off contaminated clothing and wash it before reuse.

9. Physical and Chemical Properties

Information on basic physical and chemical properties

Physical properties

- Appearance: Small mass or crystalline powder
- Color: Colorless~White
- Odor: Odorless
- pH: 5.0~7.0(50g/L, 25°C)

Phase change temperature

- Initial Boiling Point/Boiling point: 1360°C
- Melting point/Freezing point: 613°C
- Decomposition temperature data N.A.
- Flash point data N.A.
- Auto-ignition temperature data N.A.
- Explosive properties data N.A.
- Vapor pressure data N.A.
- Vapor density data N.A.
- Specific gravity/Density: 2.1

Solubility

- Solubility in water: 76.9 g/100 ml
- n-Octanol /water partition coefficient: log Pow-2.7

10. Stability and Reactivity

Chemical stability

- Hygroscopic (absorbs moisture from the air).

Possibility of hazardous reactions

- The solution in water is corrosive to metals. (ICSC 0711)

Conditions to avoid

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

Incompatible materials

- Strong acids, Oxidizing agents

Hazardous decomposition products

- Chlorine

11. Toxicological Information

Information on toxicological effects

Acute toxicity

Acute toxicity (Oral)

- [GHS Cat. Japan, base data]
- (Lithium chloride)
- rat LD50=526-840 mg/kg (IUCLID, 2000)

Irritant properties

Skin corrosion/irritation

- [GHS Cat. Japan, base data]
- (Lithium chloride)
- rabbit irritating (IUCLID, 2000)



Serious eye damage /irritation

[GHS Cat. Japan, base data]

(Lithium chloride)

rabbit moderate irritating (IUCLID, 2000)

No Allergenic and sensitizing effects data available

No Mutagenic effects data available

No Carcinogenic effects data available

Reproductive toxicity

[GHS Cat. Japan, base data]

(Lithium chloride) cat.2; HSDB, 2007

No Teratogenic effects data available

Delayed and immediate effects and also chronic effects from short- and long-term exposure

STOT

STOT-single exposure

[cat.2]

[Japan published data]

(Lithium chloride) nerve/nervous system (IUCLID, 2000)

STOT-repeated exposure

[cat.2]

[Japan published data]

(Lithium chloride) nerve/nervous system; kidney (IUCLID, 2000)

No Aspiration hazard data available

Additional data

May cause lung disorders by massive inhalation of powdered substance.

-e.g. fibrosis of lung tissue, cough, sputum, breath shortness, dyspnea, decline of lung function, interstitial lung disease, pneumothorax

12. Ecological Information

Ecotoxicity

Aquatic toxicity

Harmful to aquatic life

Harmful to aquatic life with long lasting effects

Aquatic acute toxicity component(s) data

[GHS Cat. Japan, base data]

(Lithium chloride)

Fish(Ptychocheilus lucius) LC50 = 17 mg/L/96hr (AQUIRE, 2011)

Water solubility

(Lithium chloride)

76.9 g/100 ml (ICSC, 1997)

No Persistence and degradability data available

Bioaccumulative potential

(Lithium chloride)

log Pow=-2.7 (ICSC, 1997)

No Mobility in soil data available

Ozone depleting chemical data not available

13. Disposal considerations

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

Not applicable to UN NO.

15. Regulatory Information

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

US major regulations

TSCA

Lithium chloride

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. 4: H302 Harmful if swallowed

Skin Irrit. 2: H315 Causes skin irritation

Eye Irrit. 2A: H319 Causes serious eye irritation

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

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

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

Aquatic Acute 3: H402 Harmful to aquatic life

Aquatic Chronic 3: H412 Harmful to aquatic life with long lasting effects

Reference Book

Globally Harmonized System of classification and labelling of chemicals, (5th ed., 2013), UN

Recommendations on the TRANSPORT OF DANGEROUS GOODS 19th edit., 2015 UN

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

2016 EMERGENCY RESPONSE GUIDEBOOK (US DOT)

2017 TLVs and BEIs. (ACGIH)

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

Supplier's data/information

General Disclaimer

This information contained in this data sheet represents the best information currently available to us. However, no warranty is made with respect to its completeness and we assume no liability resulting from its use. It are advised to make their own tests to determinate the safety and suitability of each such product or combination for their own purposes.

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 2016).