SAFETY DATA SHEET

1. CHEMICAL PRODUCT AND COMPANY IDENTIFICATION

Product Name: Lithium chloride Product Number: S2471

Sarchem Laboratories, Inc. 5012 Industrial Road Farmingdale, NJ 07727 Emergency Phone No: 800-255-3924 International: +1-813-248-0585 ChemTel Contract No: MIS0009049

2. HAZARDS INFORMATION:

Classification of the substance or mixture

GHS Classification in accordance with 29 CFR 1910 (OSHA HCS)

Acute toxicity, Oral (Category 4), H302 Skin irritation (Category 2), H315 Eye irritation (Category 2A), H319

For the full text of the H-Statements mentioned in this Section, see Section 16.

GHS Label elements, including precautionary statements



Pictogram

Signal word Warning

Hazard statement(s)

| H302 | Harmful if swallowed. |
|------|--------------------------------|
| H315 | Causes skin irritation. |
| H319 | Causes serious eye irritation. |

| Precautionary statement(s) | |
|----------------------------|--|
| P264 | Wash skin thoroughly after handling. |
| P270 | Do not eat, drink or smoke when using this product. |
| P280 | Wear protective gloves/ eye protection/ face protection. |
| P301 + P312 + P330 | IF SWALLOWED: Call a POISON CENTER/ doctor if you feel |
| | unwell. Rinse mouth. |

| P302 + P352 P305 + P351 + P338 | IF ON SKIN: Wash with plenty of soap and water. IF IN EYES:Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. |
|-----------------------------------|--|
| P332 + P313 | If skin irritation occurs: Get medical advice/ attention. |
| P337 + P313 | If eye irritation persists: Get medical advice/ attention. |
| P362 | Take off contaminated clothing and wash before reuse. |
| P501 | Dispose of contents/ container to an approved waste disposal plant. |

Hazards not otherwise classified (HNOC) or not covered by GHS - none

3. COMPOSITION/INFORMATION ON INGREDIENTS

| Substances | | | |
|------------------|---------------|------------------------------|---------------|
| Formula | : CILi | | |
| Molecular weight | : 42.39 g/mol | | |
| CAS-No. | : 7447-41-8 | | |
| EC-No. | : 231-212-3 | | |
| Component | | Classification | Concentration |
| Lithium chloride | | | |
| | • | Acute Tox. 4; Skin Irrit. 2; | <= 100 % |
| | | Eye Irrit. 2A; H302, H315, | |
| | | H319 | |

For the full text of the H-Statements mentioned in this Section, see Section 16.

4. FIRST AID MEASURES: Description of first-aid measures

General advice

Show this material safety data sheet to the doctor in attendance.

If inhaled

After inhalation: fresh air.

In case of skin contact

In case of skin contact: Take off immediately all contaminated clothing. Rinse skin with water/ shower.

In case of eye contact

After eye contact: rinse out with plenty of water. Call in ophthalmologist. Remove contact lenses.

If swallowed

After swallowing: immediately make victim drink water (two glasses at most). Consult a physician.

Most important symptoms and effects, both acute and delayed

The most important known symptoms and effects are described in the labelling (see section 2.2) and/or in section 11

Indication of any immediate medical attention and special treatment needed

No data available

5. FIRE FIGHTING MEASURES

Extinguishing media

Suitable extinguishing media

Use extinguishing measures that are appropriate to local circumstances and the surrounding environment.

Unsuitable extinguishing media

For this substance/mixture no limitations of extinguishing agents are given.

Special hazards arising from the substance or mixture

Hydrogen chloride gas Lithium oxides Not combustible. Ambient fire may liberate hazardous vapours.

Advice for firefighters

Stay in danger area only with self-contained breathing apparatus. Prevent skin contact by keeping a safe distance or by wearing suitable protective clothing.

Further information

Suppress (knock down) gases/vapors/mists with a water spray jet. Prevent fire extinguishing water from contaminating surface water or the ground water system.

6. ACCIDENTAL RELEASE MEASURES

Personal precautions, protective equipment and emergency procedures

Advice for non-emergency personnel: Avoid inhalation of dusts. Avoid substance contact.

Ensure adequate ventilation. Evacuate the danger area, observe emergency procedures, consult an expert. For personal protection see section 8.

Environmental precautions

Do not let product enter drains.

Methods and materials for containment and cleaning up

Cover drains. Collect, bind, and pump off spills. Observe possible material restrictions (see sections 7 and 10). Take up dry. Dispose of properly. Clean up affected area. Avoid generation of dusts.

Reference to other sections

For disposal see section 13.

7. Handling and Storage

Precautions for safe handling

For precautions see section 2.2.

Conditions for safe storage, including any incompatibilities

Storage conditions

Tightly closed. Dry.

hygroscopic Storage class (TRGS 510): 13: Non Combustible Solids

Specific end use(s) Apart from the uses mentioned in section 1.2 no other specific uses are stipulated.

8. EXPOSURE CONTROLS / PERSONAL PROTECTION

Contains no substances with occupational exposure limit values.

Personal protective equipment

Respiratory protection

Where risk assessment shows air-purifying respirators are appropriate use a full-face particle respirator type N99 (US) or type P2 (EN 143) respirator cartridges as a backup to engineering controls. If the respirator is the sole means of protection, use a full-face supplied air respirator. Use respirators and components tested and approved under appropriate government standards such as NIOSH (US) or

CEN (EU).

Hand protection

Handle with gloves. Gloves must be inspected prior to use. Use proper glove removal technique (without touching glove's outer surface) to avoid skin contact with this product. Dispose of contaminated gloves after use in accordance with applicable laws and good laboratory practices. Wash and dry hands.

Eye protection

Face shield and safety glasses Use equipment for eye protection tested and approved under appropriate government standards such as NIOSH (US) or EN 166(EU).

Skin and body protection

Choose body protection in relation to its type, to the concentration and amount of dangerous substances, and to the specific work-place. The type of protective equipment must be selected according to the concentration and amount of the dangerous substance at the specific workplace.

Hygiene measures

Handle in accordance with good industrial hygiene and safety practice.

9. PHYSICAL AND CHEMICAL PROPERTIES:

Information on basic physical and chemical properties

| a) Appearance | Form: crystalline Color: colorless |
|---|--|
| b) Odor | odorless |
| c) Odor Threshold | Not applicable |
| d) pH | ca.6 at 50 g/l at 20 °C (68 °F) |
| e) Melting point/freezing point | Melting point/range: 605 °C (1121 °F) - lit. |
| f) Initial boiling point and boiling range | 1,360 °C 2,480 °F at 1,013 hPa |
| g) Flash point | Not applicable |
| h) Evaporation rate | No data available |
| i) Flammability (solid | The product is not flammable. |

gas)

| j) Upper/lower flammability or explosive limits | No data available |
|--|---|
| k) Vapor pressurel) Vapor density | 1.33 hPa at 547 °C (1017 °F) No data available |
| m) Relative density | No data available |
| n) Water solubility | 569 g/l at 20 °C (68 °F) - OECD Test Guideline 105 - completely soluble |
| o) Partition coefficient: n-octanol/water | Not applicable for inorganic substances |
| p) Autoignition temperature | No data available |
| q) Decomposition temperature | No data available |
| r) Viscosity | No data available |
| s) Explosive properties | No data available |
| t) Oxidizing properties | No data available |
| Other safety information No data available | |

10. Stability and Reactivity

Reactivity

No data available

Chemical stability

The product is chemically stable under standard ambient conditions (room temperature).

Possibility of hazardous reactions

Risk of explosion with: Exothermic reaction with: Alkali metals halogen-halogen compounds Violent reactions possible with: Strong acids

Conditions to avoid

Exposure to moisture. no information available

10.5 Incompatible materials

Strong acids, Strong oxidizing agents, Bromine trifluoride, Corrodes steel., Stainless steel, Iron, Nickel

10.6 Hazardous decomposition products

In the event of fire: see section 5

11. Toxicological Information

Acute toxicity

LD50 Oral - Rat - male - 526 mg/kg Remarks: (ECHA) LC50 Inhalation - Rat - male and female - 4 h - > 5.57 mg/l (OECD Test Guideline 403) LD50 Dermal - Rat - male and female - > 2,000 mg/kg (OECD Test Guideline 402) No data available

Skin corrosion/irritation

Skin - Rabbit Result: Severe skin irritation - 24 h Remarks: (RTECS)

Serious eye damage/eye irritation Eyes - Rabbit Result: Eye irritation (OECD Test Guideline 405) Respiratory or skin sensitization Buehler Test - Guinea pig

Result: Not a skin sensitizer. (OECD Test Guideline 406)

Germ cell mutagenicity

Test Type: Ames test Test system: Escherichia coli/Salmonella typhimurium Metabolic activation: with and without metabolic activation Method: OECD Test Guideline 471 Result: negative Remarks: (in analogy to similar products) The value is given in analogy to the following substances: Lithium hydroxideTest Type: In vitro mammalian cell gene mutation test Test system: mouse lymphoma cells Metabolic activation: with and without metabolic activation Method: OECD Test Guideline 476 Result: negative Remarks: (in analogy to similar products) The value is given in analogy to the following substances: Lithium hydroxide Monohydrate Carcinogenicity

- IARC: No ingredient of this product present at levels greater than or equal to 0.1% is identified as probable, possible or confirmed human carcinogen by IARC.
- NTP : No ingredient of this product present at levels greater than or equal to 0.1% is identified as a known or anticipated carcinogen by NTP.
- OSHA: No component of this product present at levels greater than or equal to 0.1% is on OSHA's list of regulated carcinogens.

Reproductive toxicity

No data available Specific target organ toxicity - single exposure No data available

Specific target organ toxicity - repeated exposure

No data available

Aspiration hazard

No data available

Additional Information

RTECS: OJ5950000 To the best of our knowledge, the chemical, physical, and toxicological properties have not been thoroughly investigated.

Stomach - Irregularities - Based on Human Evidence

Stomach - Irregularities - Based on Human Evidence

12. Ecological Information

12.1 Toxicity

| Toxicity to fish | static test LC50 - Oncorhynchus mykiss (rainbow trout) - 158 mg/l - 96 h (OECD Test Guideline 203) |
|---|--|
| Toxicity to daphnia and other aquatic invertebrates | static test EC50 - Daphnia magna (Water flea) - 249 mg/l - 48 h (OECD Test Guideline 202) |
| Toxicity to algae | static test ErC50 - Desmodesmus subspicatus (green algae) - > 400 mg/l - 72 h (OECD Test Guideline 201) |
| Toxicity to bacteria | static test EC50 - activated sludge - 320.05 mg/l - 3 h (OECD Test Guideline 209) Remarks: (in analogy to similar products) The value is given in analogy to the following substances: Lithium hydroxide |

Persistence and degradability

The methods for determining the biological degradability are not applicable to inorganic substances.

Bioaccumulative potential

No data available

Mobility in soil

No data available

Results of PBT and vPvB assessment

PBT/vPvB assessment not available as chemical safety assessment not required/not conducted

Other adverse effects

No data available

13. Disposal Considerations

Product

Waste material must be disposed of in accordance with the national and local regulations. Leave chemicals in original containers. No mixing with other waste. Handle uncleaned containers like the product itself. See www.retrologistik.com for processes regarding the return of chemicals and containers, or contact us there if you have further questions.

14. Transportation Information

DOT (US) Not Dangerous Goods

IMDG

Not Dangerous Goods

IATA Not Dangerous Goods

15. Regulatory Information

SARA 302 Components

No chemicals in this material are subject to the reporting requirements of SARA Title III, Section 302.

SARA 313 Components

This material does not contain any chemical components with known CAS numbers that exceed the threshold (De Minimis) reporting levels established by SARA Title III, Section 313.

SARA 311/312 Hazards

Acute Health Hazard, Chronic Health Hazard

16. OTHER INFORMATION:

Further Information

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