

MATERIAL SAFETY DATA SHEET

Lithium Chloride

SECTION 1 . Product and Company Identification

Product Name and Synonym: Lithium Chloride
Product Code: L5161
Material Uses:
Manufacturer: Science Stuff
1104 Newport Ave
Austin, TX 78753
(512) 837-6020
Entry Date : 6/11/2013
Print Date: 6/11/2013
24 Hour Emergency Assistance : Chemtrec 800-424-9300
Canutec 613-996-6666

Health:	2
Flammability:	0
Reactivity:	0

Hazard Rating:
Least Slight Moderate High Extreme
0 1 2 3 4

NA=Not Applicable NE=Not Established

SECTION 2 HAZARD IDENTIFICATION

Harmful if swallowed. May cause irritation. Avoid breathing vapors, or dusts. Use with adequate ventilation. Avoid contact with eyes, skin, and clothes. Wash thoroughly after handling. Keep container closed.

Physical state: Solid. [Crystals. Powder.]
OSHA/HCS status: This material is considered hazardous by the OSHA Hazard Communication Standard (29 CFR 1910.1200).

Emergency overview:

WARNING!
HARMFUL IF
SWALLOWED.
MAY BE HARMFUL IF INHALED
CAUSES RESPIRATORY TRACT, EYE AND SKIN
IRRITATION.
MAY CAUSE DAMAGE TO THE FOLLOWING ORGANS:
CENTRAL NERVOUS SYSTEM
MAY BE HARMFUL IF ABSORBED THROUGH SKIN.

Do not ingest. Do not get in eyes or on skin or clothing.
Avoid contact with skin and clothing.
Keep container tightly closed and sealed until ready for use. Use only with adequate ventilation. Wash thoroughly after handling.

Routes of entry:
Dermal contact. Eye contact. Inhalation. Ingestion.

Potential acute health effects:

Eyes: Irritating to eyes.
Skin: May be harmful in contact with skin. Irritating to skin.
Inhalation: Irritating to respiratory system. May be harmful if inhaled.
Ingestion: Toxic if swallowed.
Carcinogenicity: No known significant effects or critical hazards.
Mutagenicity: No known significant effects or critical hazards.
Teratogenicity/ Reproductive toxicity: No known significant effects or critical hazards.
Developmental effects: No known significant effects or critical hazards.
Fertility effects: No known significant effects or critical hazards.
Target organs: May cause damage to the following organs:
central nervous system (CNS)

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Medical conditions aggravated by over-exposure:
Pre-existing disorders involving any target organs mentioned in this MSDS as being at risk may be aggravated by over-exposure to this product

SECTION 3 MIXTURE COMPONENTS

SARA 313	Component	CAS Number	Percent Comp.	Dimension	Exposure Limits
<input type="checkbox"/>	Lithium Chloride	CAS# 7447-41-8	100%	W/W	OSHA PEL 15 mg/m ³ (total dust)

SECTION 4 FIRST AID MEASURES

Harmful if swallowed. May cause irritation. Avoid breathing vapors, or dusts. Use with adequate ventilation. Avoid contact with eyes, skin, and clothes. Wash thoroughly after handling. Keep container closed.

FIRST AID: SKIN: Remove contaminated clothing. Wash exposed area with soap and water. If symptoms persist, seek medical attention

EYES: Wash eyes with plenty of water for at least 15 minutes, lifting lids occasionally. Seek Medical Aid. INHALATION: Remove to fresh air. If not breathing, give artificial respiration. If breathing is difficult, give oxygen

INGESTION: If swallowed, induce vomiting immediately after giving two glasses of water. Never give anything by mouth to an unconscious person.

SECTION 5 FIRE FIGHTING MEASURES

Fire Extinguisher Type:	Any means suitable for extinguishing surrounding fire
Fire / Explosion Hazards:	When involved in a fire, this material may decompose and produce irritating fumes and toxic gases.
Fire Fighting Procedure:	Wear self-contained breathing apparatus and protective clothing to prevent contact with skin and clothing.

SECTION 6 ACCIDENTAL RELEASE MEASURES

Sweep up and place in suitable (fiberboard) containers for reclamation or later disposal.

Personal precautions: No action shall be taken involving any personal risk or without suitable training. Evacuate surrounding areas. Keep unnecessary and unprotected personal from entering. Do not touch or walk through spilled material. Shut off all ignition sources. No flares, smoking or flames in hazard area. Provide adequate ventilation. Wear appropriate respirator when ventilation is inadequate. Put on appropriate personal protective equipment.

Environmental precautions: Avoid dispersal of spilled material and runoff and contact with soil, waterways, drains and sewers. Inform the relevant authorities if the product has caused environmental pollution (sewers, waterways, soil or air).

Methods for cleaning up: Move containers from spill area. Approach release from upwind. Prevent entry into sewers, water courses, basements or confined areas. Vacuum or sweep up material and place in a designated, labeled waste container. Dispose of via a licensed waste disposal contractor. Note: see section 1 for emergency contact information and section 13 for waste disposal.

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SECTION 7 HANDLING AND STORAGE

Store in a cool dry place. Do not get in eyes, on skin, on clothing. Wash thoroughly after handling

SECTION 8 EXPOSURE CONTROLS/PERSONAL PROTECTION

Respiratory Protection: NIOSH/MSHA-approved respirator

Ventilation

Local Exhaust

Mechanical

Protective Gloves: Wear appropriate gloves to prevent skin exposure

Eye Protection: Splash Goggles

Other Protective Equipment: Wear appropriate clothing to prevent skin exposure

Consult local authorities for acceptable exposure limits.

Engineering measures: Use only with adequate ventilation. If user operations generate dust, fumes, vapor or mist, use process enclosures, local exhaust ventilation or other engineering controls to keep worker exposure to airborne contaminants below any recommended or statutory limits.

Hygiene measures: Wash hands, forearms and face thoroughly after handling chemical products, before eating, smoking and using the lavatory and at the end of the working period. Appropriate techniques should be used to remove potentially contaminated clothing. Wash contaminated clothing before reusing. Ensure that eyewash stations and safety showers are close to the workstation location.

Personal Protection

Eyes: Safety eyewear complying with an approved standard should be used when a risk assessment indicates this is necessary to avoid exposure to liquid splashes, mists, gases or dusts.

Recommended:
safety glasses with side-shields

Skin: Personal protective equipment for the body should be selected based on the task being performed and risks involved and should be approved by a specialist before handling this product.

Body recommended:
lab coat

Respiratory: Use a properly fitted, air-purifying or air-fed respirator complying with an approved standard if a risk assessment indicates this is necessary. Respirator selection must be based on known or anticipated exposure levels, the hazards of the product and the safe working limits of the selected respirator.

Hands: Chemical-resistant, impervious gloves complying with an approved standard should be worn at all times when handling chemical products if a risk assessment indicates this is necessary.

Recommended: nitrile rubber

Environmental exposure controls: Emissions from ventilation or work process equipment should be checked to ensure they comply with the

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requirements of environmental protection legislation. In some cases, fume scrubbers, filters or engineering modifications to the process equipment will be necessary to reduce emissions to acceptable levels.

SECTION 9 PHYSICAL AND CHEMICAL PROPERTIES

Melting Point:	810 Deg C	Percent Volatile by Volume:	0
Boiling Point:	Information not available	Evaporation Rate	0
Vapor Pressure:	1mm@547°c	Evaporation Standard	
Vapor Density:	Information not available	Auto Ignition Temp	Not applicable
Solubility in Water:	Soluble	Lower Flamm. Limit in Air	Not applicable
Appearance /Odors:	White , crystalline solid	Upper Flamm. Limit in Air	Not applicable
Flash Point:	Not applicable		
Specific Gravity:	2.165		

SECTION 10 STABILITY AND REACTIVITY INFORMATION

Stability:	Stable
Conditions to Avoid:	Incompatible
Materials to Avoid:	Strong acids and oxidizers
Hazardous Decomposition Products:	None known.
Hazardous polymerization:	Will Not Occur
Conditions to Avoid:	None known

SECTION 11 Toxicological Information

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LD50 Dermal Rabbit 1629 mg/kg
LD50 Dermal Rat 1488 mg/kg
LD50 Intracerebral Rat 4800 ug/kg
LD50 Intraperitoneal Rat 925 mg/kg
LD50 Intraperitoneal Rat 514 mg/kg
LD50 Intracerebral Rat 205 mg/kg
LD50 Oral Rat 526 mg/kg
LD50 Oral Rabbit 800 mg/kg
LD50 Oral Bird - wild bird species 422 mg/kg
LD50 Oral Rat 1530 mg/kg
LD50 Subcutaneous Rat 499 mg/kg
TDLo Intraperitoneal Rat 1272 mg/kg
TDLo Intraperitoneal Rat 120 mg/kg
TDLo Intraperitoneal Rat 110 mg/kg
TDLo Intraperitoneal Rat 76 mg/kg
TDLo Intraperitoneal Rat 63.6 mg/kg
TDLo Intraperitoneal Rat 8.2 mg/kg
TDLo Intraperitoneal Rat 127.182 mg/kg

Carcinogenic effects: No known significant effects or critical hazards.
Mutagenic effects: No known significant effects or critical hazards.
Teratogenicity/Reproductive toxicity: No known significant effects or critical hazards.

SECTION 12 Ecological Information

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Acute LC50 186000 to 316000 ug/L Fresh water Fish - Razorback sucker - Xyrauchen texanus - Juvenile (Fledgling, Hatchling, Weanling) - 176 to 186 days - 2 g 96 hours
Acute LC50 >105000 ug/L Marine water Fish - Striped bass - Morone saxatilis - 1.8 g 96 hours
Acute LC50 65000 to 81000 ug/L Fresh water Fish - Bonytail - Gila elegans - Juvenile (Fledgling, Hatchling, Weanling) - 220 to 234 days - 2.6 g 96 hours
Acute LC50 62000 to 75000 ug/L Fresh water Fish - Bonytail - Gila elegans - Juvenile (Fledgling, Hatchling, Weanling) - 138 to 145 days - 1.1 g 96 hours
Acute LC50 53000 to 69000 ug/L Fresh water Fish - Razorback sucker - Xyrauchen texanus - Juvenile (Fledgling, Hatchling, Weanling) - 133 to 139 days - 0.9 g 96 hours
Acute LC50 41000 to 50000 ug/L Fresh water Fish - Colorado squawfish - Ptychocheilus lucius - Juvenile (Fledgling, Hatchling, Weanling) - 193 to 207 days 96 hours
Acute LC50 28000 to 31000 ug/L Fresh water Fish - Colorado squawfish - Ptychocheilus lucius - Juvenile (Fledgling, Hatchling, Weanling) - 99 to 115 days - 0.4 to 1.1 g 96 hours
Acute LC50 25000 to 31000 ug/L Fresh water Fish - Razorback sucker - Xyrauchen texanus - Swim-up - 10 to 17 days 96 hours
Acute LC50 22000 to 28000 ug/L Fresh water Fish - Bonytail - Gila elegans - Swim-up - 11 to 18 days 96 hours
Acute LC50 17000 to 22000 ug/L Fresh water Fish - Colorado squawfish - Ptychocheilus lucius - Swim-up - 17 to 31 days 96 hours

Environmental effects : No known significant effects or critical hazards.
Other adverse effects : No known significant effects or critical hazards.

SECTION 13 Disposal Considerations

The information presented only applies to the material as supplied. The identification based on characteristic(s) or listing may not apply if the material has been used or otherwise contaminated. It is the responsibility of the waste generator to determine the toxicity and physical properties of the material generated to determine the proper waste identification and disposal methods in compliance with applicable regulations. Disposal should be in accordance with applicable regional, national and local laws and regulations.

SECTION 14 Transport Information

DOT Classification: Not Regulated

DOT Regulations may change from time to time. Please consult the most recent D.O.T. regulations.

SECTION 15 Regulatory Information

Federal and State Regulations: TSCA 8(b) inventory: Lithium chloride
Other Regulations: EINECS: This product is on the European Inventory of Existing Commercial Chemical Substances.
Other Classifications:
WHMIS (Canada): CLASS D-2A: Material causing other toxic effects (VERY TOXIC).
DSCG (EEC):
R22- Harmful if swallowed. R36/38- Irritating to eyes and skin. R40- Possible risks of irreversible effects. R62- Possible risk of impaired fertility. R63- Possible risk of harm to the unborn child. S2- Keep out of the reach of children. S36/37- Wear suitable protective clothing and gloves. S46- If swallowed, seek medical advice immediately and show this container or label.

SECTION 16 Additional Information

Lithium Chloride

Flammability

Health

Reactivity

Revisions

NFPA

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The information herein is believed to be accurate and is offered in good faith for the user's consideration and investigation. No warranty either expressed or implied is made for the completeness or accuracy of the information whether originating from the above mentioned company or not. Users of this material should satisfy themselves by independent investigation of current scientific and medical knowledge that the material can be used safely.