



Samchun Chemicals

Material Safety Data Sheet

Lithium chloride, anhydrous

Section 1 – PRODUCT AND COMPANY IDENTIFICATION

1. Product Identifier	Lithium chloride, anhydrous; Lithium monochloride
2. Recommended Use & Uses advised against	Uses for Laboratory and R&D only
3. Information of Supplier	SAMCHUN PURE CHEMICAL CO.,LTD ADDRESS; (Mogok-dong) 117, Sandan-ro 16Beon-gil, Pyeongtaek-si, Gyeonggi-do, Korea Emergency Phone; 82-31-668-0700/3 Department; Safety & Environment dep. Web site; http://www.samchun.com

Section 2 – HAZARDS and DANGER IDENTIFICATION

1.GHS Classification· Identification	Acute toxic(Oral)	Category4
	Acute toxic(Skin)	Category4
	Skin Corrosion/Skin Irritation	Category2
	Serious Eye Damage/Eye Irritation	Category2

2. Label and Mark including Precautionary Statement

◦Label elements



◦Signal word

Warning

◦Hazard · Danger statement

H302 Harmful if swallowed
H312 Harmful in contact with skin
H315 Causes skin irritation
H319 Causes serious eye irritation

◦Precautionary statement

Precaution

P264 Wash ... thoroughly after handling.
P270 Do not eat, drink or smoke when using this product.
P280 Wear protective gloves/protective clothing/eye protection/face protection

Measures

P330 Rinse mouth.
P301+P312 IF SWALLOWED: Call a POISON CENTER or doctor/physician if you feel unwell.
P312 Call a POISON CENTER or doctor/physician if you feel unwell.
P321 Specific treatment (see Seciton 4. on this label).
P302+P352 IF ON SKIN: Wash with plenty of water
P361+P364 Take off immediately all contaminated clothing, Wash before reuse
P332+P313 If skin irritation occurs: Get medical advice/attention.
P362+P364 Take off contaminated clothing and wash 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
P337+P313 If eye irritation persists: Get medical advice/attention.

Storage

N/A

Dispose

P501 Dispose of contents/container under related law and regulations

3. Other Hazard-Risk which are not included in the classification criteria

NFPA index(0~4steps) : Health=3, Fire=0, Reaction=0

Section 3 – COMPOSITION AND INFORMATION ON INGREDIENTS

Chemical Name	Other Name	CAS No.	Content (%)
Lithium chloride, anhydrous	Lithium monochloride	7447-41-8	100

Section 4 – FIRST AID MEASURES

1. Eye Contact	Rinse with plenty of water for at least 15minutes and get medical attention immediately.
2. Skin Contact	Take off contaminated cloths and shoes immediately, wash with plenty of water and soap for at least 15minutes.
3. Inhalation	Move victim to fresh air. If breathing is difficult, give artificial respiration and get medical attention immediately.
4. Ingestion	Do not induce vomiting. Get medical advice/attention immediately.
5. Immediate medical attention and Notes for physician	Keep the medical personnel aware of the materials involved and take protective action.

Section 5 – FIRE-FIGHT MEASURES

1. Suitable extinguish media	Powder extinguisher, carbon dioxide, foam extinguisher, water spray Unsuitable Extinguishing Media: N/A
2. Special hazards arising from the substance	Thermal decomposition products: chlorine, lithium oxide
3. Special protective equipment and Precautions for fire-fighters	Move containers from fire area if you can do it without risk. When extinguishing a fire, be sure to wear personal protective equipment. If it is not possible to extinguish the fire, withdraw immediately. Keep containers cool by spraying with water for a long time, even after the fire is out. Isolate hazardous areas and deny access to people.

Section 6 – ACCIDENTAL RELEASE MEASURES

1. Personal precautions and Emergency procedures	Do not touch spilled material. Avoid inhalation and skin contact. In case of confined space, wear air respirator and ventilate and remove all sources of ignition.
2. Environmental precautions	Minimize leak/spill, collect and keep leak/spill in container
3. Methods and material for containment and cleaning up	Remove residue with high-efficient cleaner

Section 7 – HANDLING AND STORAGE

1. Precautions for safe Handling	Avoid contact with skin and eyes. Avoid inhalation of vapor or mist. All containers should be grounded. Minimize dust generation and accumulation.
2. Conditions for safe storage	Keep container tightly closed in a dry, cool and well-ventilated place. Keep away from incompatible materials.

Section 8 – EXPOSURE CONTROLS AND PERSONAL PROTECTION

1. Occupational exposure limit, biological exposure limit

National law of Safety management of

N/A

2. Appropriate Engineering controls	Ensure compliance with applicable exposure limits and operate local exhaust ventilation when working.
3. Personal protective equipment	
◦Respiratory protection	Because it is concerned about the harmfulness of human body due to chemical substances, it is recommended to wear respiratory protective equipment with dust mask or dust filter in consideration of physical and chemical characteristics when handling. Respiratory protection should be certified by the Health and Safety Authority.

◦ Eye-protection	It is concerned about the harmfulness of the human body depending on the working environment, it should wear respirator, air-purifying respirator.
◦ Hand protection	Wear safety glasses when handling as they may cause human health hazards due to chemicals. Install eye wash facilities and emergency eyewash stations near chemical handling sites
◦ Skin and body protection	Wear safety gloves when handling, as it is likely to harm human health due to chemicals
	Wear chemical protective clothing when handling, as it is likely to harm human health due to chemicals

Section 9 – PHYSICAL AND CHEMICAL PROPERTIES

1. Physical state and color	Solid(White)	2. Odor	Odorless
3. threshold	N/A	4. pH	7~8(50g/L aq.sol)
5. Melting/Freezing point	605°C	6. Boiling point/range	1382°C
7. Flashing point	N/A	8. Evaporation speed	N/A
9. Flammability(solid,gas)	N/A	10. Flash or Explosion limit upper / lower	N/A
11. Vapor pressure	1.33hPa@547°C	12. Solubility	832g/l(20°C)
13. Vapor density	N/A	14. Gravity	2.060
15. n-octanol-water Partition coefficient	N/A	16. Self ignition temp(°C)	N/A
17. Cracking temp(°C)	N/A	18. Viscosity	N/A
19. Molecular Weight	42.38		

Section 10 – STABILITY AND REACTIVITY

1. Chemical stability and Possibility of Hazardous Reactions	Stable under normal temp and pressure.
2. Conditions to Avoid	Avoid contact with prohibited substances. Avoid heat, flames, sparks and other sources of ignition. Contact with combustible material may cause ignition or explosion.
3. Incompatible Materials	Halogen, oxidizing agent, sulfuric acid
4. Hazardous Decomposition Products	Thermal decomposition products: chlorine, lithium oxide

Section 11 – TOXICOLOGICAL INFORMATION

1. Information on the likely routes of exposure.

N/A

2. Health hazard information

◦ Acute toxic	Oral : LD50 526 Rat Skin : LD50 1629mg/kg Rabbit Inhalation : N/A
◦ Serious skin corrosive / irritation	Causes skin irritation
◦ Serious eye damage / irritation	Causes serious eye irritation.
◦ Respiratory sensitization	N/A
◦ Skin sensitization	N/A
◦ Carcinogenicity	N/A
◦ Germ cell Mutagenicity	In vitro Bacillus subtilis recombination assay: negative
◦ Reproductive toxic	No difference in results of 20 mml exposure test in rats for 6 weeks No effect on reproductive toxicity

◦Specific target organ toxicity
(single exposure)

Changes in parental and offspring behavior when exposed to 2.8-3.7 nEq / kg of rats for 10 to 28 days resulted in a decrease in the number of child care, a slow recovery, and a decrease in the number of feeding and carelessness.

N/A

◦Specific target organ toxicity
(repeated exposure)

0.4% exposure to male rats for 15-20 days results in poor hormone and secretory organs.

The size of epithelial cells decreased and shape changed.

◦Aspiration hazard

N/A

Section 12 – ECOLOGICAL INFORMATION

1.Acquatic and
Terrestrial eco toxicity

Fish toxicity : LC50 315mg/l 96hr Fundulus heteroclitus

Invertebrate toxicity : EC50 1.2mg/l 34hr Daphnia magna

Sea algae : N/A

2.Persistence and
degradability

Persistence : log Kow -2.7

Degradability : N/A

3.Bioaccumulative potential

Concentrations : N/A

Bioaccumulative : N/A

4.Mobility in soil

N/A

5.Other adverse effects

N/A

Section 13 – Disposable considerations

1.Waste methods

Dispose in accordance with local regulations.

2.Waste warning

Dispose prohibited substances and waste separately from others.

Section 14 – TRANSPORT INFORMATION

1. UN No.

Non-described

2.Proper shipping Name

Non-described

3.Hazard class

Non-described

4.Packing group

Non-described

5.Marine pollutant

N/A

6.Particular safety

Measures for
transportation

Non-described

Section 15 – REGULATORY INFORMATION

1.Occupation safety and health acts

Non-described

2. Chemical Substances Control Act

Non-described

3. National law of Safety management of
hazardous material

Non-described

4.National law of management of Wastes

Designated Waste

5.Other domestic and
foreign law

Non-described

Section 16 – OTHER INFORMATION

1. Material source

A chemical information MSDS Safety and Health Agency

National Institute of Environmental Research Chemical Information Systems

Korea Industrial Technology National Fire Hazardous Materials Information System

1. The 1st edition

2002.07.30

2. Revision and

5 / 2019.01.03

The final revision

. Other references

* The information provided on this Safety Data Sheet is correct to the best of our knowledge, information and belief at the date of its publication. The information given is designed only as a guide for safe handling, use, processing, storage, transportation, disposal and release and is not to be considered as a warranty or quality specification. The information relates only to the specific material designated and may not be valid for such material used in combination with any other material or in any process, unless specified in the text.