Safety Data Sheet

1: Identification of substance / mixture

1. Product Identifier

Substance

Product Name	**LITHIUM CHLORIDE**
Product Code	L45000
CAS Number	7447-41-8
Other Names	
IUPAC	
MFCD Number	
EC/EINECS	
REACH Number	Index-No

2. Relevant identified uses of the substance or mixture and uses advised against

For research and laboratory use only

3. Details of the supplier of the safety data sheet

Melford Laboratories Ltd
Bildeston Road,Chelsworth
Ipswich
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IP77LE
UK

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4. Emergency telephone number

+44(0)1449 741178 -

2. Hazards Identification

1. Classification of the substance or mixture

H302	Acute Tox. 4	
H315	Skin Irrit. 2	
H319	Eye Irrit. 2	
H335	STOT SE 3	

2. Label elements

Signal Word **Warning**

Hazard Statements

H302	Harmful if swallowed.
H315	Causes skin irritation.
H319	Causes serious eye irritation.
H335	May cause respiratory irritation.

Precautionary Phrases

P260	Do not breathe dust/fume/gas/mist/vapours/spray.
P302 + P352	IF ON SKIN: Wash with plenty of soap and water.
P304 + P340	IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing.
P305 + P351 + P338	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.

3. Other Hazards

Additional precautionary phrases are located throughout the safety data sheet

3. Composition / Information on Ingredients

1. Substances

Product Name	Hazards	Concentration
LITHIUM CHLORIDE		
CAS Number: 7447-41-8	H302, H315, H319, H335 Acute Tox. 4, Eye Irrit. 2, Skin Irrit. 2, STOT SE 3	<=100%

4. First Aid Measures

1. Description of first aid measures

Skin Contact
P302 + P352: IF ON SKIN: Wash with plenty of soap and water.
P332 + P313: If skin irritation occurs: Get medical advice/attention.
Wash immediately with plenty of soap and water.
Remove all contaminated clothes and footwear immediately unless stuck to skin.
Consult a doctor.

Eye Contact
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.
Bathe the eye with running water for 15 minutes.
Ensure adequate flushing by separating the eyelids with fingers
Consult a doctor.

Ingestion
Wash out mouth with water.
Consult a doctor.

Inhalation
P304 + P340: IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing.
If breathed in, move person into fresh air. If not breathing, give artificial respiration.
If unconscious and breathing is OK, place in the recovery position.
If unconscious, check for breathing and apply artificial respiration if necessary.
If breathing becomes bubbly, have the casualty sit and provide oxygen if available.
Consult a doctor.

2. Most important symptoms and effects

No data available.

3. Indication of any immediate medical attention

No data available.

5. Firefighting measures

1. Extinguishing Media

Suitable
Water spray.
Carbon dioxide.
Alcohol or polymer foam.
Dry chemical powder.

Unsuitable
None

2. Special Hazards arising from the substance or mixture

In combustion emits toxic fumes:
Hydrogen chloride gas, Lithium oxides

3. Advice for Fire Fighters

Wear self-contained breathing apparatus.
Wear protective clothing to prevent contact with skin and eyes.

6. Accidental Release Measures

1. Personal Precautions

Refer to section 8 of SDS for personal protection details.
Mark out the contaminated area with signs and prevent access to unauthorised personnel.

2. Environmental Precautions

Do not discharge into drains or rivers.

3. Methods & Materials

Pick up and arrange disposal without creating dust. Sweep up and shovel.
Transfer to a closable, labelled salvage container for disposal by an appropriate method.

4. Preventing the occurrence of secondary hazards.

Clean up all spills immediately. Wear suitable PPE.

7.Handling and Storage

1. Personal Precautions

Safe Handling	Provide appropriate exhaust ventilation at places where dust is formed. Avoid direct contact with the substance.
Protection against explosions and fires	Normal measures for preventive fire protection.

2. Conditions for safe storage, including any incompatibilities

Managing Storage Risks	Store in cool, well ventilated area.
Storage Controls	Keep container tightly closed.
Maintaining Integrity	No special requirements
Other advice	no further information available

3. Specific End Uses

The end use(s) have not been fully determined. The substance is supplied for Research and Development purposes by professionals only.

8. Exposure Controls/Personal Protection

1. Control Parameters

No Data Available

2. Exposure Controls

General protective and hygiene measures	The standard precautionary measures should be adhered to when handling
Engineering measures	Provide appropriate exhaust ventilation at places where dust is formed.
Eye / Face Protection	Safety Glasses with side shields. Use equipment for eye protection tested and approved under appropriate government standards such as NIOSH (US) or EN 166(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. The selected protective gloves have to satisfy the specifications of EU Directive 89/686/EEC and the standard EN 374 derived from it
Respiratory protection	P260: Do not breathe dust/fume/gas/mist/vapours/spray. For nuisance exposures use type P95 (US) or type P1 (EU EN 143) particle respirator. For higher level protection use type OV/AG/P99 (US) or type ABEK-P2 (EU EN 143) respirator cartridges. Use respirators and components tested and approved under appropriate government standards such as NIOSH (US) or CEN (EU).
Skin protection	Complete suit protecting against chemicals, The type of protective equipment must be selected according to the concentration and amount of the dangerous substance at the specific workplace.
Other personal protection advice	no data available

9. Physical and Chemical Properties

1. Physical and Chemical Properties

Appearance	White crystalline powder

Odour	No Data Available
Odour threshold	No Data Available
PH	No Data Available
Melting point / Freezing point	605°C
Initial boiling point and boiling range	1360°C
Flash point	No Data Available
Evaporation rate	No Data Available
Flammability(solid,gas)	No Data Available
Upper/lower flammability or explosive limits	No Data Available
Vapour pressure	No Data Available
Vapour density	No Data Available
Relative density	No Data Available
Solubility(ies):	No Data Available
Partition coefficient: n-octanol/water	No Data Available
Auto-ignition temperature	No Data Available
Decomposition temperature	No Data Available
Viscosity	No Data Available
Explosive properties	No Data Available
Oxidising properties	No Data Available

2. Other Information

No additional information available

10. Stability and Reactivity

1. Reactivity

No data available

2. Stability

Stable under recommended storage conditions

3. Possibility of Hazardous Reactions

No data available

4.Conditions to Avoid

Moist Air.

5. Incompatible Materials

Strong acids, Strong oxidizing agents, Bromine trifluoride

6. Hazardous Decomposition Products

In combustion emits toxic fumes:
Hydrogen chloride gas, Lithium oxides

11. Toxicology information

1. Information

Acute Toxicity	Oral LD50 (rat) 526mg/kg Dermal LD50 (rat) >200 mg/kg Inhalation LC50 (rat) >5.57 mg/L 4h
Skin corrosion/irritation	Skin-Rabbit Result: Skin irritation (OECD Test Guideline 404)
Serious eye Damage/irritation	Eyes-Rabbit Result: Eye irritation (OECD Test Guideline 405)
Respiratory or skin sensitisation	No data available

Germ Cell mutagenicity	No data available
Carcinogenicity	IARC: No component of this product present at levels greater than or equal to 0.1% is identified as probable, possible or confirmed human carcinogen by IARC.
Reproductive toxicity	No data available
STOT-single exposure	No data available
STOT-repeated exposure	No data available
Aspiration hazard	No data available

2. Additional

RTECS: OJ5950000
To the best of our knowledge the acute and chronic toxicity of this substance is not fully known.

12. Ecological Information

1. Toxicity

Toxicity to fish
static test EC50-Oncorhynchus mykiss (rainbow trout)-158 mg/l-96 h
(OECD Test Guideline 203)

Toxicity to daphnia and other aquatic invertebrates
EC50-Daphnia magna (Water flea)-249 mg/l

2. Persistence and degradability

No data available

3. Bio-Accumulative Potential

No data available

4. Mobility and Soil

No data available

5. Results of PBT & vPvB assessment

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

6. Other adverse effects

No data available

13. Disposal Considerations

1. Waste Treatment Methods

Disposal Operations	Consult state, local or national regulations for proper disposal.
Disposal of Packaging	Disposal must be made according to official regulations.

14. Transport Information

Air (ICAO)

Not classified as hazardous for transport

Road (ADR)

Not classified as hazardous for transport

Sea (IMDG)

Not classified as hazardous for transport

15. Safety, health, environmental and national regulations

1. Safety, health, environmental and national regulations:

product is not subject to any additional regulations or provisions

2. Safety Assessment

No Chemical Safety Assessment

16. Other Information

1. Other Information:

ADR: Accord Europeen sur le transport des merchandises Dangereuses par Route(European Agreement concerning the International Carriage of Dangerous Goods by road)
RID:Reglement International concernant le transport des merchandises dangereuses par chemin de fer (Regulations concerning the International transport of Dangerous Goods by Rail)
IMDG: International Maritime Code for Dangerous Goods
IATA: International Air Transport Association
IATA-DGR: Dangerous Goods Regulations by the International Air Transport Association
ICAO:International Civil Aviation Organization
ICAO-TI: Technical Instructions by the ICAO
GHS: Globally Harmonized System of Classification and Labelling of Chemicals
CAS:Chemical Abstracts Service

3. Disclaimer

The product listed is for research and development purposes only and not for human or animal use. As such, in most cases, the toxicological, ecological and physicochemical properties have not been fully determined and the product should be treated with respect and always handled under suitable conditions by appropriately qualified personnel. The responsible party shall use this datasheet only in conjunction with other sources of information gathered by them, and should make an independent judgement of suitability, to ensure proper use and protect the health and safety of employees. This information is furnished without warranty and any use of the product not in conformance with this material safety data sheet, or in combination with any other product or process, is the responsibility of the user.