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MATERIAL SAFETY DATA SHEET (MSDS)

SECTION 1. Product identifiers

Product name: Lithium chloride, ≥99.5% Product Code: L 1538 CAS No : 7447-41-8

1.2. Relevant identified uses of the substance or mixture and uses advised against Use : Industrial. For professional use only.

1.3. Details of the supplier of the safety data sheet
Company identification
OTTO CHEMIE PVT LTD
101, Aarkay Ruby Industrial Estate(1B), Opp Shree Narayan Industrial Estate, Chinchpada, Vasai East, Waliv, Maharashtra 401208.
Email <u>info@ottokemi.com</u>

1.4. Emergency telephone number Phone no. : + 91 22 2207 0099 (9:00am - 6:00 pm).

SECTION 2: Hazards identification

2.1 Classification of the substance or mixture Classification according to Regulation (EC) No 1272/2008 Acute toxicity, Oral (Category 4), H302 Skin irritation (Category 2), H315 Eye irritation (Category 2), H319 For the full text of the H-Statements mentioned in this Section, see Section 16. 2.2 Label elements Labelling according Regulation (EC) No 1272/2008 Pictogram Signal Word Warning Hazard statement(s) H302 Harmful if swallowed. H315 Causes skin irritation. Causes serious eye irritation. H319 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 IF SWALLOWED: Call a POISON CENTER/ doctor if you feel unwell. P302 + P352 IF ON SKIN: Wash with plenty of water. P305 + P351 + P338 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. Supplemental Hazard none Statements Reduced Labeling (<= 125 ml) Pictogram Signal Word Warning Hazard statement(s) none Precautionary none statement(s)

none

2.3 Other hazards This substance/mixture contains no components considered to be either persistent, bioaccumulative and toxic (PBT), or very persistent and very bioaccumulative (vPvB) at levels of 0.1% or higher.

DISCLAIMER

Statements

Supplemental Hazard

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SECTION 3: Composition/information on ingredients

3.1 Substances	
Formula	: CILi
Molecular weight	: 42,39 g/mol
CAS-No.	: 7447-41-8
EC-No.	: 231-212-3

Component	Classification	Concentration
Lithium chloride		
CAS-No. 7447-41-8	Acute Tox. 4; Skin Irrit. 2; Eye Irrit. 2;	<= 100 %
EC-No. 231-212-3	H302, H315, H319	

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

SECTION 4: First aid measures

4.1 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.

4.2 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

4.3 Indication of any immediate medical attention and special treatment needed

No data available

SECTION 5: Firefighting measures

5.1 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. 5.2 Special hazards arising from the substance or mixture Hydrogen chloride gas Lithium oxides Not combustible. Ambient fire may liberate hazardous vapours. 5.3 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. 5.4 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.

SECTION 6: Accidental release measures

6.1 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.
6.2 Environmental precautions

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Do not let product enter drains.

6.3 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.
6.4 Reference to other sections For disposal see section 13.

SECTION 7: Handling and storage

7.1 Precautions for safe handling
For precautions see section 2.2.
7.2 Conditions for safe storage, including any incompatibilities
Storage conditions
Tightly closed. Dry.
hygroscopic Store under inert gas.
Storage class
Storage class (TRGS 510): 13: Non Combustible Solids
7.3 Specific end use(s)
Apart from the uses mentioned in section 1.2 no other specific uses are stipulated

SECTION 8: Exposure controls/personal protection

8.1 Control parameters Ingredients with workplace control parameters Derived No Effect Level (DNEL)

Application Area	Routes of exposure	Health effect	Value
Worker DNEL, acute	dermal	Systemic effects	
Worker DNEL, acute	inhalation	Systemic effects	30 mg/m3
Worker DNEL, longterm	dermal	Systemic effects	
Worker DNEL, longterm	inhalation	Systemic effects	10 mg/m3
Consumer DNEL, longterm	dermal	Systemic effects	A. C.
Consumer DNEL, longterm	inhalation	Systemic effects	10 mg/m3
Consumer DNEL, longterm	oral	Systemic effects	

Predicted No Effect Concentration (PNEC)

Compartment	Value
Fresh water	10,4 mg/l
Fresh water sediment	49,9 mg/kg
Sea water	1,004 mg/l
Sea sediment	4,99 mg/kg
Soil	4,13 mg/kg
Sewage treatment plant	140,2 mg/l

8.2 Exposure controls

Personal protective equipment

Eye/face protection

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

This recommendation applies only to the product stated in the safety data sheet, supplied by us and for the designated use. When dissolving in or mixing with other substances and under conditions deviating from those stated in EN374 please contact the supplier of CE-approved gloves (e.g. KCL GmbH, D-36124 Eichenzell, Internet: www.kcl.de). Full contact Material: Ntrile rubber Minimum layer thickness: 0,11 mm Break through time: 480 min Material tested:KCL 741 Dermatril® L

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This recommendation applies only to the product stated in the safety data sheet, supplied by us and for the designated use. When dissolving in or mixing with other substances and under conditions deviating from those stated in EN374 please contact the supplier of CE-approved gloves (e.g. KCL GmbH, D-36124 Eichenzell, Internet: www.kcl.de). Splash contact Material: Nitrile rubber Minimum layer thickness: 0,11 mm Break through time: 480 min Material tested:KCL 741 Dermatril® L **Body Protection** protective clothing Respiratory protection required when dusts are generated. Our recommendations on filtering respiratory protection are based on the following standards: DIN EN 143, DIN 14387 and other accompanying standards relating to the used respiratory protection system. Recommended Filter type: Filter type P2 The entrepeneur has to ensure that maintenance, cleaning and testing of respiratory protective devices are carried out according to the instructions of the producer. These measures have to be properly documented. Control of environmental exposure Do not let product enter drains.

SECTION 9: Physical and chemical properties

9.1 Information on basic physical and chemical properties

a) Physical state b) Color c) Odor d) Melting point/freezing point e) Initial boiling point and boiling range f) Flammability (solid, gas) g) Upper/lower flammability or explosive limits h) Flash point i) Autoignition temperature j) Decomposition temperature k) pH I) Viscosity m) Water solubility

n) Partition coefficient: n-octanol/water o) Vapor pressure p) Density Relative density q) Relative vapor density r) Particle characteristics s) Explosive properties t) Oxidizing properties 9.2 Other safety information No data available crystalline colorless odorless Melting point/range: 605 °C - lit.

1.360 °C at 1.013 hPa

The product is not flammable.

No data available

Not applicable No data available

No data available

ca.6 at 50 g/l at 20 °C Viscosity, kinematic: No data available Viscosity, dynamic: No data available 569 g/l at 20 °C - OECD Test Guideline 105- completely soluble Not applicable for inorganic substances

1,33 hPa at 547 °C 2,07 g/cm3 at 20 °C No data available No data available

No data available

No data available none

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SECTION 10: Stability and reactivity

10.1 Reactivity No data available 10.2 Chemical stability The product is chemically stable under standard ambient conditions (room temperature) . 10.3 Possibility of hazardous reactions Risk of explosion with: Exothermic reaction with: Alkali metals halogen-halogen compounds Violent reactions possible with: Strong acids 10.4 Conditions to avoid Exposure to moisture. no information available 10.5 Incompatible materials No data available 10.6 Hazardous decomposition products In the event of fire: see section 5

SECTION 11: Toxicological information

11.1 Information on toxicological effects Routes of Entry: Absorbed through skin. Dermal contact. Eye contact. Toxicity to Animals: Oral LD50 Rat: 1500 mg/kg; Dermal LD50 Rabbit: 2000mg/kg Inhalation LC50 Rat: > 50mg/L. Chronic Effects on Humans: CARCINOGENIC EFFECTS: Classified None. by NTP, None. by OSHA, None. by NIOSH. Other Toxic Effects on Humans: Hazardous in case of skin contact (irritant), of inhalation (lung irritant). Special Remarks on Toxicity Special Remarks on Othonic Effects on Humans: Not available. Special Remarks on other Toxic Effects on Humans: Not available.

SECTION 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 Toxicity to fish(Chronic toxicity) semi-static test NOEC - Danio rerio (zebra fish) - 18 mg/l - 34 d (OECD Test Guideline 210) Toxicity to daphnia and other aquatic invertebrates(Chronic toxicity) semi-static test EC50 - Daphnia magna (Water flea) - > 10,4 mg/l -21 d (OECD Test Guideline 211)

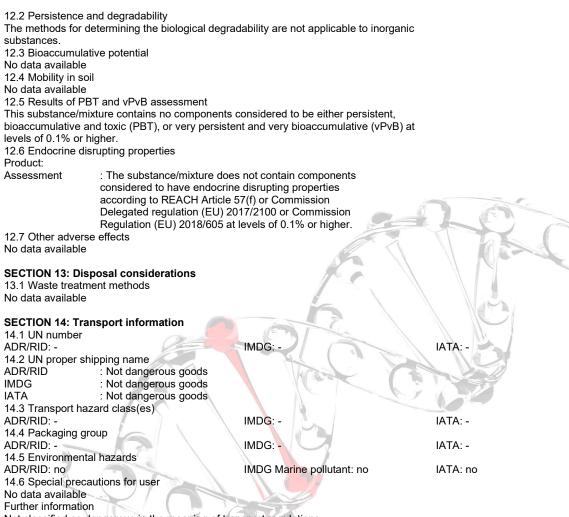
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Not classified as dangerous in the meaning of transport regulations.

SECTION 15: Regulatory information

15.1 Safety, health and environmental regulations/legislation specific for the substance or mixture
This material safety data sheet complies with the requirements of Regulation (EC) No. 1907/2006.
Other regulations
Observe work restrictions regarding maternity protection in accordance to Dir 92/85/EEC or stricter national regulations where applicable.
Take note of Dir 94/33/EC on the protection of young people at work.
15.2 Chemical Safety Assessment
A Chemical Safety Assessment has been carried out for this substance.

SECTION 16: Other Information

This safety data sheet should be used in conjunction with technical sheets. It does not replace them. The information given is based on our knowledge of this product, at the time of publication. It is given in good faith. The attention of the user is drawn to the possible risks incurred by using the product for any other purpose other than that for which it was intended. This does not in any way excuse the user from knowing and applying all the regulations governing his activity. It is the sole responsibility of the user to take all

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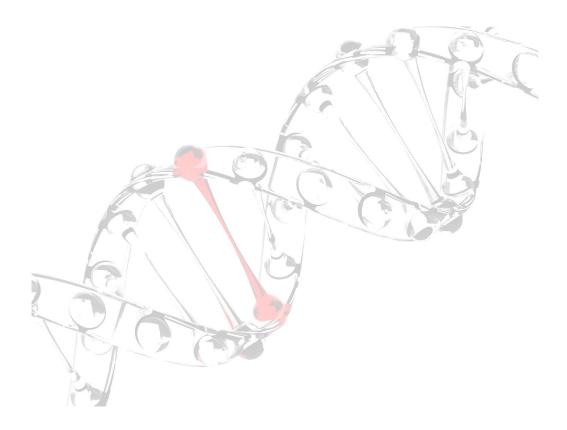
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precautions required in handling the product. The aim of the mandatory regulations mentioned is to help the user to fulfill his obligations regarding the use of hazardous products.



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