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SAFETY DATA SHEET

Section 1- IDENTIFICATION		
COMPOSITION LiCl		PRODUCT NAME Lithium Chloride
SUPPLIER: Plasmaterials, Inc. 2268 Research Drive Livermore, CA 94550 Ph: 925-447-4030	RECOMMENDED USE: Laboratory Chemicals Scientific Research	EMERGENCY TELEPHONE NUMBERS US: 001-800-424-9300 Europe: 001-703-527-3887

Section 2- HAZARD(S) IDENTIFICATION	
HEALTH HAZARDS: -Acute Toxicity (Oral): Category 4 (H302) -Skin Corrosion/Irritation: Category 2 (H315) -Serious Eye Irritation/Eye Damage: Category 2A (H319)	
Physical Hazards: Not Classified	OSHA Defined Hazards: Not Classified Environmental Hazards: Not Classified
LABEL ELEMENTS: Signal Word: Warning	
	
HAZARD STATEMENTS -H302: Harmful if swallowed. -H315: Causes skin irritation -H319: Causes serious eye irritation	
PRECAUTIONARY STATEMENTS -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 -P301+P330+P331: If swallowed: Rinse mouth. Do NOT induce vomiting. -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. -P332+P313: If skin irritation occurs obtain medical advice/attention. -P337+P313: If eye irritation persists get medical advice/attention -P362+P364: Take off contaminated clothing and wash it before reuse. -P420: Store away from incompatible materials -P501: Dispose of contents/container in accordance with local/regional/national/international regulations Hazards not otherwise classified (HNOC): -None identified.	

Section 3- COMPOSITION/INFORMATION ON INGREDIENTS

COMPONENT	CAS-No	Molecular Weight
Lithium Chloride	7447-41-8	42.39 g/mol

Section 4- FIRST AID MEASURES

GENERAL ADVICE: Ensure that medical personnel are aware of the material(s) involved and take precautions to protect themselves. Show this safety data sheet to the doctor in attendance.

INHALATION: Remove victim from exposure to fresh air and keep at rest in a position comfortable for breathing. Give oxygen or artificial respiration if needed. Call a doctor/physician if symptoms develop and/or persist.

SKIN CONTACT: Take off all contaminated clothing. Wash off with plenty of soap and water. Get medical attention if irritation develops and/or persists. Wash work clothing and protective equipment to remove contaminants before reuse.

EYE CONTACT: Immediately flush eyes with plenty of water, lifting upper and lower lids, for at least 15 minutes. Remove contact lenses, if present and easy to do. Continue rinsing. Get medical attention if irritation develops and/or persists.

INGESTION: Rinse mouth. If vomiting occurs, keep head low so that stomach content does not get into the lungs. Get medical advice/attention if you feel unwell.

MOST IMPORTANT SYMPTOMS/EFFECTS: Severe eye irritation. Symptoms may include stinging, tearing, redness, swelling, and blurred vision. Skin irritation. May cause redness and pain.

NOTES TO PHYSICIAN: Provide general supportive measures and treat symptomatically. Keep victim warm. Keep victim under observation. Symptoms may be delayed.

Section 5- FIREFIGHTING MEASURES

Suitable Extinguishing Media: Water Fog, Foam, Dry Chemical Powder, Carbon Dioxide (CO₂)

Unsuitable Extinguishing Media: Do not use water jet as an extinguisher as this will spread the fire.

Specific Hazards Arising from the Chemical: During fire, gases hazardous to health may be formed.

Protective Equipment & Precautions for Firefighters: As in any fire, Firefighters must wear full face, self-contained breathing apparatus pressure-demand, MSHA/NIOSH (approved or equivalent) and full protective clothing to prevent contact with skin and eyes.

Firefighting Instructions/Specific Methods: Use standard firefighting procedures and consider the hazards of other involved materials. Move containers from fire area if you can do so without risk.

General Fire Hazards: No unusual fire or explosion hazards noted.

Section 6- ACCIDENTAL RELEASE MEASURES

Personal Precautions: Keep unnecessary personnel away. Keep people away from and upwind of spill/leak. Wear appropriate protective equipment and clothing during clean-up. Do not touch damaged containers or spilled material unless wearing appropriate protective clothing. Ensure adequate ventilation. Local authorities should be advised if significant spillages cannot be contained. For personal protection, see Section 8 of SDS.

Environmental Precautions: Avoid discharge into drains, water courses or onto the ground.

Methods for Containment & Clean Up:

- Large Spills: Stop the flow of material if this is without risk. Dike the spilled material where this is possible. Absorb in vermiculite, dry sand, or earth and place into containers. Shovel the material into waste container. Following product recovery, flush area with water.
- Small Spills: Wipe up with absorbent material (e.g., cloth, fleece). Clean surface thoroughly to remove residual contamination.
- Never return spills to original containers for re-use.
- For waste disposal, see Section 13 of SDS.

Section 7- HANDLING AND STORAGE

Handling: Do not taste or swallow. Avoid contact with eyes, skin, and clothing. When using, do not eat, drink, or smoke. Provide adequate ventilation. Wear appropriate personal protection equipment. Wash hands thoroughly after handling. Observe good industrial hygiene practices.

Storage: Store in original tightly closed container. Store away from incompatible materials (see Section 10 of SDS)

Section 8- EXPOSURE CONTROLS/PERSONAL PROTECTION

Exposure Guidelines:

Occupational Exposure Limits: No PEL, TLV, or other recommended exposure limit values noted for substance

Biological Limit Values: No biological exposure limits noted for the ingredient(s)

Engineering Measures: Follow standard monitoring procedures. Good general ventilation (typically 10 air changes per hour) should be used. Ventilation rates should be matched to conditions. If applicable, use process enclosures, local exhaust ventilation, or other engineering controls to maintain airborne levels below recommended exposure limits. If exposure limits have not been established, maintain airborne levels to an acceptable level. Provide eyewash station and shower.

Hygiene Measures: Handle in accordance with good industrial hygiene and safety practice. Keep away from food and drink. Wash thoroughly after handling and before eating, drinking and/or smoking. Wash hands before breaks and at the end of the workday. Routinely wash work clothing and protective equipment to remove contaminants. Contaminated work clothing should not be allowed out of the workplace.

Personal Protective Equipment:

Eye/Face Protection: Wear safety glasses with side shields or goggles. Use equipment for eye protection tested and approved under appropriate government standards such as NIOSH (US) or EN 166 (EU).

Skin and Body Protection: Handle with chemical resistant 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.

Wear appropriate chemical resistant protective clothing. Use of an impervious apron is recommended. The type of protective equipment must be selected according to the concentration and amount of the dangerous substance at the specific workplace.

Respiratory Protection: In case of insufficient ventilation, wear suitable respiratory equipment. Where protection from nuisance levels of dusts is desired, use type N95 (US) or type P1 (EN 143) dust masks. Use respirators and components tested and approved under appropriate government standards such as NIOSH (US) or CEN (EU).

Thermal Hazards: Wear appropriate thermal protective clothing, when necessary.

Section 9- PHYSICAL AND CHEMICAL PROPERTIES

Physical State: Solid

Appearance: No information available

Odor: No information available

Odor Threshold: No information available

pH: No information available

Melting Point/Range: 610°C (1130°F)

Boiling Point/Range: 1383°C (2521.4°F)

Flash Point: No information available

Evaporation Rate: No information available

Flammability (solid,gas): No information available

Flammability or Exposure Limits:

Upper: No information available

Lower: No information available

Vapor Pressure: No information available

Vapor Density: No information available

Relative Density: No information available

Solubility: No information available

Partition coefficient; n-octanol/water: No information available

Auto Ignition Temperature: No information available
Decomposition Temperature: No information available
Viscosity: No information available
Density: 2.07 g/cm³ estimated
Specific Gravity: No information available
Explosive Properties: No information available
Oxidizing Properties: No information available

Section 10- STABILITY AND REACTIVITY

Reactive Hazard: Stable and non-reactive under normal conditions of use, storage, and transport.

Stability: Stable under normal conditions.

Conditions to Avoid: Keep away from heat, hot surfaces, sparks, open flames, and other ignition sources. Contact with incompatible materials

Incompatible Materials: Strong oxidizing agents

Hazardous Decomposition Products: No information available

Hazardous Polymerization: No information available

Hazardous Reactions: No information available

Section 11- TOXICOLOGICAL INFORMATION

Information on likely Routes of Exposure:

Inhalation: No adverse effects due to inhalation are expected.

Skin Contact: Causes skin irritation

Eye Contact: Causes serious eye irritation

Ingestion: Harmful if swallowed

Symptoms Related to the Physical, Chemical & Toxicological Characteristics: Severe eye irritation. Symptoms may include stinging, tearing, redness, swelling, and blurred vision. Skin irritation. May cause redness and pain.

Information on Toxicological Effects:

Acute Toxicity: Harmful if swallowed.

Skin Corrosion/Irritation: Causes skin irritation

Serious Eye Damage/Eye Irritation: Causes serious eye irritation

Respiratory or Skin Sensitization: No information available

Carcinogenicity: This product is not considered to be a carcinogen by IARC, ACGIH, NTP or OSHA.

Germ Cell Mutagenicity: No information available

Reproductive Toxicity: No information available

Development Toxicity: No information available

Specific Target Organ Toxicity – single exposure: No information available

Specific Target Organ Toxicity – repeated exposure: No information available.

Aspiration Hazard: No information available

Chronic Effects: No information available.

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

Section 12- ECOLOGICAL INFORMATION

Toxicity: The product is not classified as environmentally hazardous. However, this does not exclude the possibility that large or frequent spills can have a harmful or damaging effect on the environment.

Toxicity to Aquatic: LC50-Razorback sucker (*Xyrauchen texanus*) – 20-31 mg/l – 96 hours

Persistence and Degradability: No information available

Bioaccumulation/Accumulation: No information available

Mobility in Soil: No information available

Other Adverse Effects: No information available

Section 13- DISPOSAL CONSIDERATIONS

Waste Disposal Methods: Collect and reclaim or dispose in sealed containers at a licensed waste disposal site. Dispose of empty containers and contaminated packaging as unused product. Dispose of contents/container in accordance with local/regional/national/international regulations.

Section 14- TRANSPORT INFORMATION

DOT: Not regulated as dangerous goods

IATA: Not regulated as dangerous goods

IMDG: Not regulated as dangerous goods

Section 15- REGULATORY INFORMATION

US Federal Regulations: This product is a "Hazardous Chemical" as defined by the OSHA Hazard Communication Standard, 29 CFR 1910.1200.

TSCA Section 12(b) Export Notification (40 CFR 707, Subpt. D): Not regulated

CERCLA Hazardous Substance List (40 CFR 302.4): Not listed

U.S. OSHA Specifically Regulated Substances (29 CFR 1910.1001-1052): Not regulated

SARA 302 Extremely Hazardous Substance: No chemicals in this material are subject to the reporting requirements of SARA Title III, Section 302

SARA 304 Emergency Release Notification: Not Regulated

SARA 311/312 Hazardous Chemical: Yes

SARA 313 (TRI Reporting): 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

Safe Drinking Water Act (SWDA): Not regulated

Clean Air Act (CAA) Section 112 Hazardous Air Pollutants (HAPs) List: Not regulated

Clean Air Act (CAA) Section 112(r) Accidental Release Prevention (40 CFR 68.130): Not regulated

US California Proposition 65: This material is not known to contain any chemicals currently listed as carcinogens or reproductive toxins.

Section 16- OTHER INFORMATION

The above information is accurate to the best of our knowledge. However, since data, safety standards and government regulations are subject to change, the conditions of handling and use, or misuse are beyond our control, Plasmaterials, Inc. makes no warranty, either expressed or implied, with respect to the completeness or continuing accuracy of the information contained herein and disclaims all liability for reliance thereon. Users should satisfy themselves that they have all current data relevant to their particular use.

The information in this SDS was obtained from sources, which we believe are reliable. However, the information is provided without any representation or warranty, expressed or implied, regarding the accuracy or correctness.

The conditions or methods of handling, storage, use and disposal of the product are beyond our control and may be beyond our knowledge. For this and other reasons, we do not assume responsibility and expressly disclaim liability for loss, damage or expense arising out of or in any way connected with the handling, storage, use or disposal of the product.

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