


Safety Data Sheet LITHIUM FLUORIDE

SECTION 1 : CHEMICAL PRODUCT AND COMPANY IDENTIFICATION		
Product Name	Lithium Fluoride	
Synonym(s)	Lithium Fluoride Anhydrous; Lithium fluoride fused crystal Pieces; Lithium fluoride white powder; Lithium fluoride (99.9% Li) (fused crystals)	
General Use	Chemical Manufacturing, Laboratory Chemicals	
Contact Information	OFFICE : Madras Fluorine Private Ltd No.71, 4 th Main Road Gandhi Nagar, Adyar Chennai 600 020, India E-mail : exim@mfpflfluorine.com	FACTORY Madras Fluorine Private Ltd Express Highway Manali Chennai – 600 068, India
Emergency Telephone No:	+91 44 2442 6830 / 2442 0654 MON – FRI : 9.30 AM – 6.00 PM	+91 44 3290 0358 / 2901 1768 MON – SAT : 9.00 AM – 5.30 PM

SECTION 2 : HAZARDS IDENTIFICATION	
Classification of the substance or mixture	
Classification according to Regulation (EC) No 1272/2008 Acute toxicity, Oral (Category 3), H301 Skin irritation (Category 2), H315 Eye irritation (Category 2), H319 Specific target organ toxicity - single exposure (Category 3), Respiratory system, H335 For the full text of the H-Statements mentioned in this Section, see Section 16.	
Label elements	
Labelling according Regulation (EC) No 1272/2008	
Pictogram	
Signal word	Danger



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Hazard statement(s)

H301 Toxic if swallowed.
H315 Causes skin irritation.
H319 Causes serious eye irritation.
H335 May cause respiratory irritation.

Precautionary statement(s)

P301 + P330 + P331 + P310 IF SWALLOWED: Rinse mouth. Do NOT induce vomiting. Immediately call a POISON CENTER/doctor.
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 information (EU)

EUH032 Contact with acids liberates very toxic gas.

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. Contact with acids liberates very toxic gas. Strong hydrogen fluoride-release

SECTION 3 : COMPOSITION / INFORMATION ON INGREDIENTS

Substances

Formula : LiF
Molecular weight : 25.94 g/mol
CAS-No. : 7789-24-4
EC-No. : 232-152-0

Ingredient	CAS No	Wt. Percent
Lithium Fluoride	7789-24-4	100%

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



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SECTION 4 : FIRST AID MEASURES

Eyes:

Immediately flush with water for at least 15 minutes, lifting the upper and lower eyelids intermittently. See a medical doctor or ophthalmologist immediately.

Skin:

Wash with plenty of soap and water. Get medical attention if irritation occurs and persists.

Ingestion:

Drink plenty of water. Never give anything by mouth to an unconscious person. If any discomfort persists, obtain medical attention.

Inhalation:

Remove to fresh air. If breathing difficulty or discomfort occurs and persists, see a medical doctor. If breathing has stopped, give artificial respiration and see a medical doctor immediately.

Notes To Medical Doctor:

This product has low oral toxicity and may be a severe irritant. Treatment is symptomatic and supportive.

SECTION 5 : FIRE-FIGHTING MEASURES

Extinguishing media

Suitable extinguishing media

Dry powder

Special hazards arising from the substance or mixture

Hydrogen fluoride, Lithium oxides

Advice for firefighters

Wear self-contained breathing apparatus for firefighting if necessary.

Further information

No data available



SECTION 6 : ACCIDENTAL RELEASE MEASURES

Personal precautions, protective equipment and emergency procedures

Wear respiratory protection. Avoid dust formation. Avoid breathing vapours, mist or gas. Ensure adequate ventilation. Evacuate personnel to safe areas. Avoid breathing dust.

For personal protection see section 8.

Environmental precautions

Prevent further leakage or spillage if safe to do so. Do not let product enter drains.

Methods and materials for containment and cleaning up

Pick up and arrange disposal without creating dust. Sweep up and shovel. Do not flush with water. Keep in suitable, closed containers for disposal.

Reference to other sections

For disposal see section 13.

SECTION 7 : HANDLING AND STORAGE

Precautions for safe handling

Avoid contact with skin and eyes. Avoid formation of dust and aerosols. Provide appropriate exhaust ventilation at places where dust is formed.

For precautions see section 2.2.

Conditions for safe storage, including any incompatibilities

Store in cool place. Keep container tightly closed in a dry and well-ventilated place. Never allow product to get in contact with water during storage. Do not store near acids.

Do not store in glass

Storage class (TRGS 510): Combustible solids, toxic

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

Control parameters

Exposure controls

Appropriate engineering controls

Avoid contact with skin, eyes and clothing. Wash hands before breaks and immediately after handling the product.

Personal protective equipment

Eye/face protection

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



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Skin 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.

Full contact

Material: Nitrile rubber

Minimum layer thickness: 0.11 mm

Break through time: 480 min

Material tested: Dermatril® (KCL 740 / Aldrich Z677272, Size M)

Splash contact

Material: Nitrile rubber

Minimum layer thickness: 0.11 mm

Break through time: 480 min

Material tested: Dermatril® (KCL 740 / Aldrich Z677272, Size M)

data source: KCL GmbH, D-36124 Eichenzell, phone +49 (0)6659 87300, e-mail sales@kcl.de,
test method: EN374

If used in solution, or mixed with other substances, and under conditions which differ from EN 374, contact the supplier of the CE approved gloves. This recommendation is advisory only and must be evaluated by an industria situation of anticipated use by our customers. It should not be construed as offering an approval for any specific use scenario.

Body 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.

Respiratory protection

Where risk assessment shows air-purifying respirators are appropriate use (EN 143) respirator cartridges as a backup to engineering controls. If th full-face supplied air respirator. Use respirators and components tested and approved under appropriate government standards such as NIOSH (US) or CEN (EU).

Control of environmental exposure

Prevent further leakage or spillage if safe to do so. Do not let product enter drains.



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SECTION 9 : PHYSICAL AND CHEMICAL PROPERTIES

Odor	Odorless
Appearance	White powder with Lumps
pH: (1% Slurry) @ 25°C	8
Percent Volatile	Not applicable
Vapor Pressure	Not applicable
Vapor Density	Not applicable
Boiling Point	1681°C (3060°F)
Melting Point	848°C (1560°F)
Solubility In Water	0.1 % by wt. @ 25°C (77°F)
Evaporation Rate	Not applicable
Specific Gravity	2.6 g/cc
Molecular Weight	25.94
Coeff. Oil/Water	Not applicable
Odor Threshold	Not applicable

SECTION 10 : STABILITY AND REACTIVITY

Conditions To Avoid: Contact with strong acids , Avoid moisture, Reacts dangerously with glass.

Stability: Stable

Polymerization: Does not polymerize

Hazardous Decomposition Products: Toxic fluorides

Incompatible Materials: Strong acids



SECTION 11 : TOXICOLOGICAL INFORMATION

Eye Effects: No data available for the product.

Skin Effects: No data available for the product.

Dermal Ld50: No data available for the product.

Oral Ld50: 608 mg/kg (rat) [FMC I88-1055]

Inhalation Lc50: No data available for the product.

Acute Effects From Overexposure: This product has low oral toxicity. Ingestion of inorganic soluble fluorides may cause kidney and liver damage, vomiting, stomach bleeding, abdominal pain, diarrhea, shortness of breath, slight paralysis, difficulty in speaking, thirst, weak pulse, disturbed color vision, muscular weakness, convulsions and unconsciousness. Fluoride dust may cause irritation to the eyes, skin and respiratory tract.

Chronic Effects From Overexposure:

Chronic overexposure to fluoride may result in digestive disturbances, mottled tooth enamel, abnormal hardening of the bones and other bone changes, and damage to the liver and kidneys. Skin rashes and worker complaints related to bones, joints and muscles have been reported. High doses of stannous fluoride (in drinking water) have been reported to cause impaired reproductive performance in animals. Persons with impaired pulmonary function, pre-existing eye problems, skin disorders and kidney disease may be at increased risk from overexposure to fluorides (NIOSH/OSHA Guidelines, September, 1978).

CARCINOGENICITY:

IARC: Not listed

NTP: Not listed

OSHA: Not listed

OTHER: ACGIH: Not listed

SECTION 12 : ECOLOGICAL INFORMATION

Ecotoxicological Information: No data available for the product.

Chemical Fate Information: No data available for the product.

SECTION 13 : DISPOSAL CONSIDERATIONS

DISPOSAL METHOD: Consult the owner of the waste for proper waste disposal procedure. Dispose of waste according to local and Federal laws and regulations.



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SECTION 14 : TRANSPORT INFORMATION

UN number

ADR/RID: 3288

IMDG: 3288

IATA: 3288

UN proper shipping name

ADR/RID: TOXIC SOLID, INORGANIC, N.O.S. (Lithium fluoride)

IMDG: TOXIC SOLID, INORGANIC, N.O.S. (Lithium fluoride)

IATA: TOXIC SOLID, INORGANIC, N.O.S. (Lithium fluoride)

Transport hazard class(es)

ADR/RID: 6.1

IMDG: 6.1

IATA: 6.1

Packaging group

ADR/RID: III

IMDG: III

IATA: III

Environmental hazards

ADR/RID: no

IMDG Marine pollutant: no

IATA: no

Special precautions for user

No data available

SECTION 15 : REGULATORY INFORMATION

United States

Sara Title Iii (Superfund Amendments And Reauthorization Act)

Sara Title Iii Section 302 Extremely

Hazardous Substances (40 Cfr 355): Not Listed

Section 311 Hazard Category (40 Cfr 370):

Immediate (Acute) Health Hazard

Section 313 Reportable Ingredients (40 CFR 372):

This product does not contain a toxic chemical subject to the reporting requirements of Section 313 of Emergency Planning and Community Right-To-Know Act of 1986.

Cercla (Comprehensive Environmental Response

Compensation And Liability Act)

Cercla Regulatory (40 Cfr 302.4): Not Listed

Tsca (Toxic Substance Control Act)

Tsca Inventory (40 Cfr 710, Subpart B): This product is not subject to TSCA 12 (b) Export Notification Requirements.

Tsca Status (40 CFR 710): Listed

Canada

Whmis (Workplace Hazardous Materials Information System): Product Identification No.: None Hazard Classification: None. Disclosure List: Fluoride (inorganic) is listed



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SECTION 16 : OTHER INFORMATION

Full text of H-Statements referred to under sections 2 and 3.

EUH032	Contact with acids liberates very toxic gas.
H301	Toxic if swallowed.
H315	Causes skin irritation.
H319	Causes serious eye irritation.
H335	May cause respiratory irritation.

Creation Date : 18.9.2000

Disclaimer:

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