



Material Safety Data Sheet

Lithium fluoride

MSDS# 00864

Section 1 - Chemical Product and Company Identification

MSDS Name: Lithium fluoride

Catalog Numbers: AC193380000, AC193380050, AC193380250, AC193381000, AC218270000, AC218270100

Synonyms: None.

Company Identification:

Acros Organics BVBA
Janssen Pharmaceuticaaan 3a
2440 Geel, Belgium

Company Identification: (USA)

Acros Organics
One Reagent Lane
Fair Lawn, NJ 07410

For information in the US, call:

800-ACROS-01

For information in Europe, call:

+32 14 57 52 11

Emergency Number, Europe:

+32 14 57 52 99

Emergency Number US:

201-796-7100

CHEMTREC Phone Number, US:

800-424-9300

CHEMTREC Phone Number, Europe:

703-527-3887

Section 2 - Composition, Information on Ingredients

CAS#: 7789-24-4
Chemical Name: Lithium fluoride
%: >97
EINECS#: 232-152-0

Hazard Symbols: T



Risk Phrases: 23/24/25

Section 3 - Hazards Identification

EMERGENCY OVERVIEW

Warning! Harmful if swallowed, inhaled, or absorbed through the skin. Long-term exposure may cause bone and joint changes. Causes eye, skin, and respiratory tract irritation. Target Organs: Kidneys, central nervous system, cardiovascular system, skeletal structures.

Potential Health Effects

Eye: Causes eye irritation.

Skin: Causes skin irritation. Harmful if absorbed through the skin.

Ingestion: Harmful if swallowed. Inorganic fluorides can be harmful. Acute exposure to fluorine compounds can lead to digestive tract burns, and abdominal pain. Exposure to fluoride compounds can result in systemic toxic effects on the heart, liver, and kidneys. It may also deplete calcium levels in the body leading to hypocalcemia and death. Fluoride can reduce calcium levels leading to fatal hypocalcemia.

Inhalation: Harmful if inhaled. Causes respiratory tract irritation.

Chronic: Overexposure to fluoride dust over prolonged periods can result in fluoride deposition in bones and cartilage as evidenced by X-ray changes (fluorosis) which may be accompanied by stiffness of joints. (Alcoa)

Section 4 - First Aid Measures

Eyes: Flush eyes with plenty of water for at least 15 minutes, occasionally lifting the upper and lower eyelids. Get medical aid.

Skin: Get medical aid. Immediately flush skin with plenty of water for at least 15 minutes while removing contaminated clothing and shoes. Wash clothing before reuse.

Ingestion: Never give anything by mouth to an unconscious person. Get medical aid. Do NOT induce vomiting. If conscious and alert, rinse mouth and drink 2-4 cupfuls of milk or water.

Inhalation: Remove from exposure and move to fresh air immediately. If not breathing, give artificial respiration. If breathing is difficult, give oxygen. Get medical aid. Do NOT use mouth-to-mouth resuscitation.

Notes to Physician:

Section 5 - Fire Fighting Measures

General Information: As in any fire, wear a self-contained breathing apparatus in pressure-demand, MSHA/NIOSH (approved or equivalent), and full protective gear. Non-combustible, substance itself does not burn but may decompose upon heating to produce irritating, corrosive and/or toxic fumes.

Extinguishing Media: Use extinguishing media most appropriate for the surrounding fire.

Autoignition Temperature: Not applicable.

Flash Point: Not applicable.

Explosion Limits: Lower: Not available

Explosion Limits: Upper: Not available

NFPA Rating: health: 2; flammability: 0; instability: 0;

Section 6 - Accidental Release Measures

General Information: Use proper personal protective equipment as indicated in Section 8.

Spills/Leaks: Vacuum or sweep up material and place into a suitable disposal container. Avoid generating dusty conditions. Provide ventilation.

Section 7 - Handling and Storage

Handling: Wash thoroughly after handling. Remove contaminated clothing and wash before reuse. Use with adequate ventilation. Minimize dust generation and accumulation. Avoid contact with eyes, skin, and clothing. Avoid breathing dust.

Storage: Store in a cool, dry place. Store in a tightly closed container.

Section 8 - Exposure Controls, Personal Protection

Chemical Name	ACGIH	NIOSH	OSHA - Final PELs
Lithium fluoride	2.5 mg/m3 TWA (as F) (listed under Fluorides).	2.5 mg/m3 TWA (inorganic solids, as F, listed under sodium fluoride) (listed under Fluorides, inorganic).	2.5 mg/m3 TWA (as dust) (listed under Fluorides).2.5 mg/m3 TWA (as F) (listed under Fluorides).

OSHA Vacated PELs: Lithium fluoride: 2.5 mg/m3 TWA (listed under Fluorides)

Engineering Controls:

Facilities storing or utilizing this material should be equipped with an eyewash facility and a safety shower. Use adequate general or local exhaust ventilation to keep airborne concentrations below the permissible exposure

limits.

Exposure Limits

Personal Protective Equipment

Eyes: Wear appropriate protective eyeglasses or chemical safety goggles as described by OSHA's eye and face protection regulations in 29 CFR 1910.133 or European Standard EN166.

Skin: Wear appropriate protective gloves to prevent skin exposure.

Clothing: Wear appropriate protective clothing to prevent skin exposure.

Respirators: Follow the OSHA respirator regulations found in 29 CFR 1910.134 or European Standard EN 149. Use a NIOSH/MSHA or European Standard EN 149 approved respirator if exposure limits are exceeded or if irritation or other symptoms are experienced.

Section 9 - Physical and Chemical Properties

Physical State: Powder

Color: white

Odor: odorless

pH: Not available

Vapor Pressure: 1 mm Hg @ 1047 deg C

Vapor Density: Not available

Evaporation Rate: Not available

Viscosity: Not applicable.

Boiling Point: 1681 deg C (3,057.80°F)

Freezing/Melting Point: 845 deg C (1,553.00°F)

Decomposition Temperature: Not available

Solubility in water: Slightly soluble in water.

Specific Gravity/Density: 2.635

Molecular Formula: LiF

Molecular Weight: 25.94

Section 10 - Stability and Reactivity

Chemical Stability: Stable under normal temperatures and pressures.

Conditions to Avoid: Dust generation, excess heat.

Incompatibilities with Other Materials: Strong acids.

Hazardous Decomposition Products: Hydrogen fluoride gas, oxides of lithium.

Hazardous Polymerization: Will not occur.

Section 11 - Toxicological Information

RTECS#: CAS# 7789-24-4: OJ6125000

RTECS:

LD50/LC50: CAS# **7789-24-4**: Oral, mouse: LD50 = 119 mg/kg;
Oral, rat: LD50 = 143 mg/kg;

Carcinogenicity: Lithium fluoride - IARC: Group 3 (not classifiable) (Fluorides, inorganic).

Other: See actual entry in RTECS for complete information.

Section 12 - Ecological Information

Not available

Section 13 - Disposal Considerations

Dispose of in a manner consistent with federal, state, and local regulations.

Section 14 - Transport Information

US DOT

Shipping Name: TOXIC SOLID, INORGANIC, N.O.S.

Hazard Class: 6.1

UN Number: UN3288

Packing Group: III

Canada TDG
Shipping Name: TOXIC SOLID INORGANIC NOS (LITHIUM FLUORIDE)
Hazard Class: 6.1
UN Number: UN3288
Packing Group: III

Section 15 - Regulatory Information

European/International Regulations

European Labeling in Accordance with EC Directives

Hazard Symbols: T

Risk Phrases:

R 23/24/25 Toxic by inhalation, in contact with skin and if swallowed.

Safety Phrases:

S 26 In case of contact with eyes, rinse immediately with plenty of water and seek medical advice.

S 45 In case of accident or if you feel unwell, seek medical advice immediately (show the label where possible).

WGK (Water Danger/Protection)

CAS# 7789-24-4: Not available

Canada

CAS# 7789-24-4 is listed on Canada's DSL List

Canadian WHMIS Classifications: D1B, D2B

This product has been classified in accordance with the hazard criteria of the Controlled Products Regulations and the MSDS contains all of the information required by those regulations.

CAS# 7789-24-4 is listed on Canada's Ingredient Disclosure List

US Federal

TSCA

CAS# 7789-24-4 is listed on the TSCA Inventory.

Section 16 - Other Information

MSDS Creation Date: 9/02/1997

Revision #7 Date 7/20/2009

The information above is believed to be accurate and represents the best information currently available to us. However, we make no warranty of merchantability or any other warranty, express or implied, with respect to such information, and we assume no liability resulting from its use. Users should make their own investigations to determine the suitability of the information for their particular purposes. In no event shall the company be liable for any claims, losses, or damages of any third party or for lost profits or any special, indirect, incidental, consequential, or exemplary damages howsoever arising, even if the company has been advised of the possibility of such damages.
