

## LITHIUM NITRATE ANHYDROUS

CAS No. 7790-69-4

QS-PDS-1035 Revision: 00

**Application** Molten salt chemistry and metallurgy, antistatic agent for non-woven fabrics, oxidizing agent, flame colorant in flares and fireworks, etchant in glass manufacture.

**Appearance** White hygroscopic crystalline powder

### Product Specifications

### Guaranteed

|   |       |     |
|---|-------|-----|
| LiNO <sub>3</sub> , wt%                               | 99.0  | min |
| H <sub>2</sub> O, wt%                                 | 1.0   | max |
| Alkalinity (as Li <sub>2</sub> CO <sub>3</sub> ), wt% | 0.05  | max |
| SO <sub>4</sub> , wt%                                 | 0.05  | max |
| Cl, wt%   | 0.01  | max |
| Fe <sub>2</sub> O <sub>3</sub> , wt%                  | 0.005 | max |

**Other Data** Bulk density 1.4 g/cm<sup>3</sup> (90 lb/ft<sup>3</sup>)

### Physical Properties

|                            |                         |
|----------------------------|-------------------------|
| Molecular weight           | 68.95                   |
| Density @ 20°C             | 2.366 g/cm <sup>3</sup> |
| Melting point              | 251.4°C                 |
| Decomposition temperature  | 600°C                   |
| Specific heat @ 210°C      | 0.387 cal/g/°C          |
| Standard heat of formation | -115.279 kcal/mole      |
| Heat of solution @ 18°C    | -0.333 kcal/mole        |
| Water solubility @ 20°C    | 43 wt %                 |

### Toxicity/Safety Data

OXIDIZER. White granular solid. Lithium nitrate is irritating to the eyes, skin, nose, and throat. Exposure to dusts may cause a burning sensation, cough, wheezing and inflammation of exposed tissue.

Additional information on toxicity and safety is contained in the Material Safety Data Sheet (MSDS) available for this product.

### Air Treatment Construction Energy Fine Chemicals Glass & Ceramics Greases & Lubricants Polymers Pool Water Treatment

|                |  |   |   |  |  |  |
|----------------|--|---|---|--|--|--|
| MARKETS SERVED | <b>NORTH AMERICA AND HEADQUARTERS</b><br>FMC Lithium<br>Seven LakePointe Plaza<br>2801 Yorkmont Road, Suite 300<br>Charlotte, NC 28208<br>P: +1.704.426.5300<br>F: +1.704.426.5370 | <b>EUROPE</b><br>FMC Chemicals<br>Commercial Road<br>Bromborough<br>Merseyside<br>CH62 3NL, England<br>P: +44.151.482.7356<br>F: +44.151.482.7361 | <b>JAPAN</b><br>FMC Lithium<br>9F, Aoyama Building<br>1-2-3, Kita-Aoyama<br>Minato-ku, Tokyo<br>107-0061, Japan<br>T: +81.3.3402.3716<br>F: +81.3.3402.3700 | <b>CHINA</b><br>FMC Lithium<br>15F Far East International Plaza<br>No. 317 Xianxia Road<br>Shanghai 200051 P. R. China<br>T: +86.21.6235.1919<br>T: +86.21.6235.1917 | <b>INDIA</b><br>FMC India Private Limited<br>Embassy Star<br>8, Palace Road<br>High Grounds<br>Bangalore 560052, India<br>T: +91.80.2238.4311<br>F: +91.80.2238.5255 | <b>TAIWAN</b><br>FMC Lithium<br>9F-1, 263 Tun Hwa S. Rd.<br>Sec. 1<br>Taipei, Taiwan<br>T: +866.2.2705.4400<br>F: +866.2.2702.7460 |
|----------------|--|---|---|--|--|--|

### Handling/Storage/Disposal

Do not get in eyes, on skin or clothing. Avoid breathing dust. Wash thoroughly after handling. Store away from readily oxidizable materials, strong acids and flammable materials. Protect from moisture. Keep container closed.

Dispose of waste according to local and Federal laws and regulations.

### Shipping Containers

110 pounds (50 kg) of product in a 16.5 gallon (62.5 L) polyethylene-lined fiber drum.

### Shipping Limitations

Shipments of lithium nitrate anhydrous are described as "Lithium Nitrate Oxidizer, 5.1, UN 2722" PG III. All shipments require "Oxidizer" labels.

For shipments within Europe labeling for supply requirements are:

|             |                                |
|-------------|--------------------------------|
| O           | Oxidizer                       |
| Xn          | Harmful                        |
| R&S phrases | see Material Safety Data Sheet |

Responsible Care initiative dictates that all shipments of lithium chemicals must be transported in an approved vehicle in a responsible manner (i.e., no flat bed trucks).