

FMC Lithium

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ADVAGuard® 391 Corrosion Inhibitor

CAS No. 7790-69-4

QS-PDS-1004 Revision: 00

ADVAGuardTM391
Corrosion Inhibitor

Application Lithium Nitrate Anhydrous for corrosion inhibitor, especially in lithium bromide solutions

Appearance White crystals

Product Specifications	Typical	Guaranteed
LiNO ₃ , wt%	99.8	99.0 min
H ₂ O, wt%	0.3	1.0 max
Alkalinity (as Li ₂ CO ₃), wt%	0.002	0.05 max
SO ₄ , wt%	0.01	0.05 max
Cl, wt%	0.002	0.01 max
Fe ₂ O ₃ , wt%	<0.001	0.005 max

Other Data Bulk density 1.4 g/cm³ (90 lb/ft³)

Physical Properties	
Molecular weight	68.95
Density @ 20°C	2.366 g/cm ³
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.

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.

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

MARKETS SERVED	NORTH AMERICA AND HEADQUARTERS FMC Lithium Seven LakePointe Plaza 2801 Yorkmont Road, Suite 300 Charlotte, NC 28208 P: +1.704.868.5300 F: +1.704.868.5370	EUROPE FMC Chemicals Commercial Road Bromborough Merseyside CH62 3NL, England P: +44.151.482.7356 F: +44.151.482.7361	JAPAN FMC Lithium 9F, Aoyama Building 1-2-3, Kita-Aoyama Minato-ku, Tokyo 107-0061, Japan T: +81.3.3402.3716 F: +81.3.3402.3700	CHINA FMC Lithium 15F Far East International Plaza No. 317 Xianxia Road Shanghai 200051 P. R. China T: +86.21.6235.1919 T: +86.21.6235.1917	INDIA FMC India Private Limited 17/2 Palace Road High Grounds Bangalore 560052, India T: +91.80.2238.4311 F: +91.80.2238.5255	TAIWAN FMC Lithium 9F-1, 263 Tun Hwa S. Rd. Sec. 1 Taipei, Taiwan T: +866.2.2705.4400 F: +866.2.2702.7460
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Shipping Containers 110 pounds (50 kg) of product shipped in a 16.5 gallon (62.5 L) polyethylene-lined fiber drum.

Shipping Limitations Shipments of lithium nitrate are described as "Lithium Nitrate, UN 2722," PGIII. All shipments are Hazard Class 5.1 and require "Oxidizer" labels.

Post	Not acceptable
Parcel, Air	Restricted quantities
Sea	Class 5.1 (IMDG)
Road, Rail	Class 5.1.22c (RID/ADR)

For shipments within Europe labeling for supply requirements are:

O	Oxidizing
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).