

SAFETY DATA SHEET

1. Identification

Product identifier: LITHIUM NITRATE

Other means of identification

Product No.: 2384, 5872

Recommended use and restriction on use

Recommended use: Not available.

Restrictions on use: Not known.

Manufacturer/Importer/Supplier/Distributor Information

Manufacturer

Company Name: Avantor Performance Materials, Inc.
Address: 3477 Corporate Parkway, Suite 200
Center Valley, PA 18034

Telephone: Customer Service: 855-282-6867

Fax:
Contact Person: Environmental Health & Safety
e-mail: info@avantormaterials.com

Emergency telephone number:

24 Hour Emergency: 908-859-2151

Chemtrec: 800-424-9300

2. Hazard(s) identification

Hazard Classification

Physical Hazards

Oxidizing solids Category 3

Health Hazards

Acute toxicity (Oral) Category 4

Serious Eye Damage/Eye Irritation Category 2

Label Elements

Hazard Symbol:



Signal Word: Warning

Hazard Statement: May intensify fire; oxidizer.
Harmful if swallowed.
Causes serious eye irritation.

Precautionary Statement

Prevention: Keep away from heat/sparks/open flames/hot surfaces. No smoking.

Keep/Store away from clothing/combustible materials. Take any precaution to avoid mixing with combustibles. Wear protective gloves/protective clothing/eye protection/face protection. Wash thoroughly after handling. Do not eat, drink or smoke when using this product.

Response: IF SWALLOWED: Call a POISON CENTER or doctor/physician if you feel unwell. Rinse mouth. IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. If eye irritation persists: Get medical advice/attention.

Disposal: Dispose of contents/container to an appropriate treatment and disposal facility in accordance with applicable laws and regulations, and product characteristics at time of disposal.

Other hazards which do not result in GHS classification: None.

3. Composition/information on ingredients

Substances

Chemical Identity	Common name and synonyms	CAS number	Content in percent (%) [*]
NITRIC ACID, LITHIUM SALT		7790-69-4	97 - 100%

^{*} All concentrations are percent by weight unless ingredient is a gas. Gas concentrations are in percent by volume.

4. First-aid measures

General information: Get medical advice/attention if you feel unwell. Show this safety data sheet to the doctor in attendance. Ensure that emergency personnel are aware of the material involved, and take precautions to protect themselves.

Ingestion: Call a physician or poison control center immediately. Do not induce vomiting without advice from poison control center. Never give liquid to an unconscious person.

Inhalation: Move to fresh air. Get medical attention if symptoms persist. If breathing stops, provide artificial respiration. For breathing difficulties, oxygen may be necessary.

Skin Contact: Wash skin thoroughly with soap and water. Get medical attention if irritation persists after washing. Wash contaminated clothing before reuse.

Eye contact: Immediately flush with plenty of water for at least 15 minutes. If easy to do, remove contact lenses. Get medical attention immediately.

Most important symptoms/effects, acute and delayed

Symptoms: Harmful if swallowed. Causes serious eye irritation.

Indication of immediate medical attention and special treatment needed

Treatment: Symptoms may be delayed. Treat symptomatically.

5. Fire-fighting measures

General Fire Hazards: Oxidizing material. Noncombustible, but will support combustion. In case of fire and/or explosion do not breathe fumes.

Suitable (and unsuitable) extinguishing media

Suitable extinguishing media: Use fire-extinguishing media appropriate for surrounding materials.

Unsuitable extinguishing media: None known.

Specific hazards arising from the chemical: May intensify fire; oxidizer.

Special protective equipment and precautions for firefighters

Special fire fighting procedures: Move containers from fire area if you can do so without risk. Use water spray to keep fire-exposed containers cool. Cool containers exposed to flames with water until well after the fire is out. In case of major fire and large quantities: Evacuate area. Fight fire remotely due to the risk of explosion.

Special protective equipment for fire-fighters: Firefighters must use standard protective equipment including flame retardant coat, helmet with face shield, gloves, rubber boots, and in enclosed spaces, SCBA.

6. Accidental release measures

Personal precautions, protective equipment and emergency procedures: Keep unauthorized personnel away. Ventilate closed spaces before entering them. Use personal protective equipment. See Section 8 of the MSDS for Personal Protective Equipment.

Methods and material for containment and cleaning up: Remove sources of ignition. Sweep up and place in a clearly labeled container for chemical waste. Clean surface thoroughly to remove residual contamination. Use only non-sparking tools.

Notification Procedures: Dike for later disposal. Prevent entry into waterways, sewer, basements or confined areas. Inform authorities if large amounts are involved.

Environmental Precautions: Do not contaminate water sources or sewer. Prevent further leakage or spillage if safe to do so. Avoid release to the environment.

7. Handling and storage

Precautions for safe handling: DO NOT handle, store or open near an open flame, sources of heat or sources of ignition. Protect material from direct sunlight. Keep away from combustible material. Use personal protective equipment as required. Do not get in eyes and avoid contact with skin and clothing. Avoid breathing dust/fume/gas/mist/vapors/spray. Do not taste or swallow. Do not eat, drink or smoke when using the product. See Section 8 of the MSDS for Personal Protective Equipment. Wash hands thoroughly after handling. Wear protective gloves/protective clothing/eye protection/face protection.

Conditions for safe storage, including any incompatibilities: Keep away from food, drink and animal feeding stuffs. Keep container tightly closed in a cool, well-ventilated place. Keep container dry. Store away from incompatible materials. Eliminate sources of ignition.

8. Exposure controls/personal protection

Control Parameters

Occupational Exposure Limits

None of the components have assigned exposure limits.

Appropriate Engineering Controls No data available.

Individual protection measures, such as personal protective equipment

- General information:** 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. An eye wash and safety shower must be available in the immediate work area.
- Eye/face protection:** Wear safety glasses with side shields (or goggles) and a face shield.
- Skin Protection**
- Hand Protection:** Chemical resistant gloves
- Other:** Wear suitable protective clothing.
- Respiratory Protection:** If engineering controls do not maintain airborne concentrations below recommended exposure limits (where applicable) or to an acceptable level (in countries where exposure limits have not been established), an approved respirator must be worn.
- Hygiene measures:** Provide eyewash station and safety shower. Always observe good personal hygiene measures, such as washing after handling the material and before eating, drinking, and/or smoking. Routinely wash work clothing and protective equipment to remove contaminants.

9. Physical and chemical properties

Appearance

- Physical state:** Solid
- Form:** Granules
- Color:** Colorless, White, Pale yellow
- Odor:** Odorless
- Odor threshold:** No data available.
- pH:** No data available.
- Melting point/freezing point:** 255 °C
- Initial boiling point and boiling range:** 600 °C
- Flash Point:** Not applicable
- Evaporation rate:** No data available.
- Flammability (solid, gas):** No data available.
- Upper/lower limit on flammability or explosive limits**
- Flammability limit - upper (%):** No data available.
- Flammability limit - lower (%):** No data available.
- Explosive limit - upper (%):** No data available.
- Explosive limit - lower (%):** No data available.
- Vapor pressure:** No data available.
- Vapor density:** No data available.
- Relative density:** 2.38 (20 °C)
- Solubility(ies)**
- Solubility in water:** 522 g/l (20 °C)
- Solubility (other):** ethanol: Soluble
ammonia: Soluble
acetone: Soluble

Partition coefficient (n-octanol/water): No data available.
Auto-ignition temperature: No data available.
Decomposition temperature: No data available.
Viscosity: No data available.

Other information

Molecular weight: 68.95 g/mol (HNO₃.Li)

10. Stability and reactivity

Reactivity: No dangerous reaction known under conditions of normal use.
Chemical Stability: Decomposes explosively upon heating, shock, concussion or friction.
Possibility of Hazardous Reactions: Hazardous polymerization does not occur.
Conditions to Avoid: Heat, sparks, flames. Contact with incompatible materials.
Incompatible Materials: Reducing agents. Flammable/combustible material. Organic compounds.
Hazardous Decomposition Products: Nitrogen Oxides

11. Toxicological information

Information on likely routes of exposure

Ingestion: Harmful if swallowed.
Inhalation: May cause irritation to the respiratory system.
Skin Contact: May cause irritation.
Eye contact: Causes serious eye irritation.

Information on toxicological effects

Acute toxicity (list all possible routes of exposure)

Oral Product: No data available.

Dermal Product: No data available.

Inhalation Product: No data available.

Repeated Dose Toxicity Product: No data available.

Skin Corrosion/Irritation Product: May cause skin irritation.

Serious Eye Damage/Eye Irritation Product: Causes serious eye irritation.

Respiratory or Skin Sensitization Product: Not a skin sensitizer.

Carcinogenicity Product: This substance has no evidence of carcinogenic properties.

IARC Monographs on the Evaluation of Carcinogenic Risks to Humans:

No carcinogenic components identified

US. National Toxicology Program (NTP) Report on Carcinogens:

No carcinogenic components identified

US. OSHA Specifically Regulated Substances (29 CFR 1910.1001-1050):

No carcinogenic components identified

Germ Cell Mutagenicity

In vitro

Product: No mutagenic components identified

In vivo

Product: No mutagenic components identified

Reproductive Toxicity

Product: No components toxic to reproduction

Specific Target Organ Toxicity - Single Exposure

Product: No data available.

Specific Target Organ Toxicity - Repeated Exposure

Product: No data available.

Aspiration Hazard

Product: Not classified

Other Effects: None known.

12. Ecological information

Ecotoxicity:

Acute hazards to the aquatic environment:

Fish

Product: No data available.

Aquatic Invertebrates

Product: No data available.

Chronic hazards to the aquatic environment:

Fish

Product: No data available.

Aquatic Invertebrates

Product: No data available.

Toxicity to Aquatic Plants

Product: No data available.

Persistence and Degradability

Biodegradation

Product: There are no data on the degradability of this product.

BOD/COD Ratio

Product: No data available.

Bioaccumulative Potential

Bioconcentration Factor (BCF)

Product: No data available on bioaccumulation.

Partition Coefficient n-octanol / water (log Kow)

Product: No data available.

Mobility in Soil: The product is water soluble and may spread in water systems.

Other Adverse Effects: Contains a substance which causes risk of hazardous effects to the environment.

13. Disposal considerations

Disposal instructions: Discharge, treatment, or disposal may be subject to national, state, or local laws. Dispose of contents/container to an appropriate treatment and disposal facility in accordance with applicable laws and regulations, and product characteristics at time of disposal.

Contaminated Packaging: Since emptied containers retain product residue, follow label warnings even after container is emptied.

14. Transport information

DOT

UN Number:	UN 2722
UN Proper Shipping Name:	Lithium nitrate
Transport Hazard Class(es)	
Class(es):	5.1
Label(s):	5.1
Packing Group:	III
Marine Pollutant:	No

IMDG

UN Number:	UN 2722
UN Proper Shipping Name:	LITHIUM NITRATE
Transport Hazard Class(es)	
Class(es):	5.1
Label(s):	5.1
EmS No.:	F-A, S-Q
Packing Group:	III
Marine Pollutant:	No

IATA

UN Number:	UN 2722
Proper Shipping Name:	Lithium nitrate
Transport Hazard Class(es):	
Class(es):	5.1
Label(s):	5.1
Marine Pollutant:	No
Packing Group:	III

15. Regulatory information

US Federal Regulations

TSCA Section 12(b) Export Notification (40 CFR 707, Subpt. D)
US. OSHA Specifically Regulated Substances (29 CFR 1910.1001-1050)
 None present or none present in regulated quantities.

CERCLA Hazardous Substance List (40 CFR 302.4):
 None present or none present in regulated quantities.

Superfund Amendments and Reauthorization Act of 1986 (SARA)

Hazard categories

Acute (Immediate) Chronic (Delayed) Fire Reactive Pressure Generating

SARA 302 Extremely Hazardous Substance
 None present or none present in regulated quantities.

SARA 304 Emergency Release Notification
 None present or none present in regulated quantities.

SARA 311/312 Hazardous Chemical

Chemical Identity	Threshold Planning Quantity
NITRIC ACID, LITHIUM SALT	500 lbs

SARA 313 (TRI Reporting)

Chemical Identity	Reporting threshold for other users	Reporting threshold for manufacturing and processing
NITRIC ACID, LITHIUM SALT	10000 lbs	25000 lbs.

Clean Water Act Section 311 Hazardous Substances (40 CFR 117.3)
 None present or none present in regulated quantities.

Clean Air Act (CAA) Section 112(r) Accidental Release Prevention (40 CFR 68.130):
 None present or none present in regulated quantities.

US State Regulations

US. California Proposition 65
 No ingredient regulated by CA Prop 65 present.

US. New Jersey Worker and Community Right-to-Know Act
 NITRIC ACID, LITHIUM SALT Listed

US. Massachusetts RTK - Substance List
 No ingredient regulated by MA Right-to-Know Law present.

US. Pennsylvania RTK - Hazardous Substances
 No ingredient regulated by PA Right-to-Know Law present.

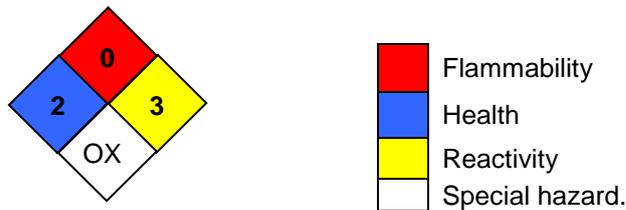
US. Rhode Island RTK
 NITRIC ACID, LITHIUM SALT Listed

Inventory Status:

Australia AICS:	On or in compliance with the inventory
Canada DSL Inventory List:	On or in compliance with the inventory
EINECS, ELINCS or NLP:	On or in compliance with the inventory
Japan (ENCS) List:	On or in compliance with the inventory
China Inv. Existing Chemical Substances:	On or in compliance with the inventory
Korea Existing Chemicals Inv. (KECI):	On or in compliance with the inventory
Canada NDSL Inventory:	Not in compliance with the inventory.
Philippines PICCS:	On or in compliance with the inventory
US TSCA Inventory:	On or in compliance with the inventory
New Zealand Inventory of Chemicals:	On or in compliance with the inventory
Japan ISHL Listing:	On or in compliance with the inventory
Japan Pharmacopoeia Listing:	Not in compliance with the inventory.

16. Other information, including date of preparation or last revision

NFPA Hazard ID



Hazard rating: 0 - Minimal; 1 - Slight; 2 - Moderate; 3 - Serious; 4 - Severe
 OXY: Oxidizer

Issue Date:	12-05-2014
Revision Date:	No data available.
Version #:	1.0
Further Information:	No data available.

Disclaimer:

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