

Mallinckrodt Material Safety Data

Emergency Phone Number: 314-982-5000

POTASSIUM NITRATE

PRODUCT IDENTIFICATION:

Synonyms: Saltpeter, nitre
Formula CAS No.: 757-79-1
Molecular Weight: 101.1
Chemical Formula: KNO_3
Hazardous Ingredients: Not Applicable

PRECAUTIONARY MEASURES

DANGER: STRONG OXIDIZER. CONTACT WITH OTHER MATERIAL MAY CAUSE FIRE. HARMFUL IF SWALLOWED. CAUSES IRRITATION.

Keep from contact with clothing and other combustible materials.

Store in a tightly closed container.

Remove and wash contaminated clothing promptly.

Avoid contact with eyes, skin and clothing.

Wash thoroughly after handling.

Avoid breathing dust.

EMERGENCY/FIRST AID

If swallowed, induce vomiting immediately by giving two glasses of water and sticking finger down throat. Never give anything by mouth to an unconscious person. In case of contact, immediately flush skin or eyes with plenty of water for at least 15 minutes.

If inhaled, remove to fresh air. Get medical attention for any breathing difficulty. In all cases call a physician.

SEE SECTION 5.

DOT Hazard Class: Oxidizer

Mallinckrodt provides the information contained herein in good faith but makes no representation as to its comprehensiveness or accuracy. Individuals receiving this information must exercise their independent judgment in determining its appropriateness for a particular purpose.

Mallinckrodt makes no representations, or warranties, either express or implied, of merchantability, fitness for a particular purpose with respect to the information set forth herein or to the product to which the information refers. Accordingly, Mallinckrodt will not be responsible for damages resulting from use of or reliance upon this information.

Mallinckrodt, Inc., Science Products Division, P. O. Box M, Paris, KY 40361.

SECTION 1 Physical Data

Appearance: White crystals
Odor: Odorless.
Solubility: 36 gm/100 ml water
Boiling Point: Decomposes @ 400°C (752°F)
Melting Point: 333°C (631°F)
Specific Gravity: 2.1
Vapor Density (Air=1): No information found.
Vapor Pressure (mm Hg): No information found.
Evaporation Rate: No information found.

SECTION 2 Fire and Explosion Information

Fire:
Not combustible, but substance is a strong oxidizer and its heat of reaction with reducing agents or combustibles may cause ignition.

Explosions:

Nitrates may explode when shocked, exposed to heat or flame, or by spontaneous chemical reaction.

Fire Extinguishing Media:

Use any means suitable for extinguishing surrounding fire. Water spray may be used to keep fire exposed containers cool.

Special Information:

Wear full protective clothing and breathing equipment for high-intensity fire or potential explosion conditions. This oxidizing material can increase the flammability of adjacent combustible materials.

SECTION 3 Reactivity Data

Stability:
Stable under ordinary conditions of use and storage.
Hazardous Decomposition Products:
Emit nitrous oxides when heated to decomposition.

Hazardous Polymerization:
Will not occur.

Incompatibilities:
Heavy metals, phosphites, organic compounds, carbonaceous materials, strong acids.

SECTION 4 Leak/Spill Disposal Information

Spills: Clean up spills in a manner that does not disperse dust into the air. Pick up spill for recovery or disposal and place in a closed container. (If spilled material is intermixed with combustibles it may be desirable to wet with water and mix with wet sand before pick-up for disposal). Disposal: Whatever cannot be saved for reclamation may be delivered to an approved waste disposal facility.

Ensure compliance with local, state and federal regulations.

NFPA Ratings: Health: 1 Flammability: 0 Reactivity: 0 Other: Oxidizer

Effective Date: 07-30-85

POTASSIUM NITRATE

SECTION 5 Health Hazard Information

A. EXPOSURE / HEALTH EFFECTS

Inhalation:

Irritates the respiratory tract. Symptoms may include coughing, shortness of breath.

Ingestion:

May cause gastroenteritis and abdominal pains. Purging and diarrhea can be expected. Rare cases of nitrates being converted to the more toxic nitrites have been reported, mostly with infants.

Skin Contact:

May cause irritation; symptoms including redness, itching, and pain.

Eye Contact:

May cause irritation; symptoms including redness, itching, and pain.

Chronic Exposure:

Under some circumstances methemoglobinemia occurs in individuals when the nitrate is converted by bacteria in the stomach to nitrite. Nausea, vomiting, dizziness, rapid heart beat, irregular breathing, convulsions, coma, and death can occur should this conversion take place. Chronic exposure to nitrites may cause anemia and adverse effects to kidney.

Aggravation of Pre-existing Conditions:

No information found.

B. FIRST AID

Inhalation:

Remove to fresh air. Get medical attention for any breathing difficulty.

Ingestion:

If swallowed, induce vomiting immediately by giving two glasses of water and sticking finger down throat. Never give anything by mouth to an unconscious person. Call physician immediately.

Skin Exposure:

Remove any contaminated clothing. Wipe off excess from skin. Wash skin with soap and water for at least 15 minutes. Get medical attention if irritation develops or persists.

Eye Exposure:

Wash eyes with plenty of water for at least 15 minutes, lifting lower and upper eyelids occasionally. Get medical attention immediately.

C. TOXICITY DATA (RTECS, 1982)

Oral rabbit LD50: 3015 mg/kg Animal reproductive effects cited

SECTION 6 Occupational Control Measures

Airborne Exposure Limits:

None established.

Ventilation System:

A local exhaust system which captures the contaminant at its source is recommended to prevent dispersion of the contaminant into the workroom air.

Personal Respirators: (NIOSH Approved)

For conditions of use where exposure to the dust is apparent, a dust/mist respirator may be worn. For emergencies, a self-contained breathing apparatus may be necessary.

Skin Protection:

Rubber or neoprene gloves and additional protection including impervious boots, apron, or coveralls, as needed in areas of unusual exposure.

Eye Protection:

Use chemical safety goggles and/or full face shield where dusting or splashing of solutions is possible. Contact lenses should not be worn when working with this material. Maintain eye wash fountain and quick-drench facilities in work area.

SECTION 7 Storage and Special Information

Keep in a tightly closed container, stored in a cool, dry, ventilated area. Protect against physical damage. Separate from combustible, organic or other readily oxidizable materials.