Section 1 - Chemical Product and Company Identification

MSDS Name:
Potassium nitrate

Catalog Numbers:

Synonyms:
Nitric acid potassium salt; Niter; Saltpeter.

Company Identification: Fisher Scientific UK
Bishop Meadow Road, Loughborough
Leics. LE11 5RG
For information in Europe, call:(01509) 231166
Emergency Number, Europe: 01509 231166

Section 2 - Composition, Information on Ingredients

CAS#: 7757-79-1
Chemical Name: Potassium nitrate
%
>E99
EINECS#: 231-818-8

Section 3 - Hazards Identification

Emergency Overview
Contact with combustible material may cause fire. Hygroscopic (absorbs moisture from the air).
Potential Health Effects
Eye:
May cause eye irritation.
Skin:
Dust causes mechanical irritation. Low hazard for usual industrial handling.
Inhalation:
Causes gastrointestinal irritation with nausea, vomiting and diarrhea. May be harmful if swallowed.
Inhalation:
May cause respiratory tract irritation. Methemoglobinemia is characterized by dizziness, drowsiness, headache, shortness of breath, cyanosis (bluish discoloration of skin due to deficient oxygenation of the blood), rapid heart rate and chocolate-brown blood. May cause methemoglobinemia.
Chronic:
Prolonged exposure may cause anemia and methemoglobinemia, characterized by dizziness, drowsiness, headache, breath shortness, cyanosis (bluish skin due to deficient oxygenation of the blood), rapid heart rate and chocolate-brown colored blood. May cause kidney injury.

Section 4 - First Aid Measures
Eyes: In case of contact, immediately flush eyes with plenty of water for at least 15 minutes. Get medical aid.

Skin: In case of contact, flush skin with plenty of water. Remove contaminated clothing and shoes. Get medical aid if irritation develops and persists. Wash clothing before reuse.

Ingestion: If swallowed, do not induce vomiting unless directed to do so by medical personnel. Never give anything by mouth to an unconscious person. Get medical aid.

Inhalation: If inhaled, remove to fresh air. If not breathing, give artificial respiration. If breathing is difficult, give oxygen. Get medical aid.

Notes to Physician:

Section 5 - Fire Fighting Measures

General Information: Strong oxidizer. Contact with other material may cause fire. During a fire, irritating and highly toxic gases may be generated by thermal decomposition or combustion. Wear appropriate protective clothing to prevent contact with skin and eyes. Wear a self-contained breathing apparatus (SCBA) to prevent contact with thermal decomposition products. Some oxidizers may react explosively with hydrocarbons(fuel). May accelerate burning if involved in a fire.

Extinguishing Media: Cool containers with flooding quantities of water until well after fire is out. For small fires, do NOT use dry chemicals, carbon dioxide, halon or foams. USE WATER ONLY. For large fires flood fire with water from a distance.

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. Clean up spills immediately, observing precautions in the Protective Equipment section. Avoid generating dusty conditions. Remove all sources of ignition. Provide ventilation. Do not use combustible materials such as paper towels to clean up spill. Keep combustibles (wood, paper, oil, etc,) away from spilled material.

Section 7 - Handling and Storage

Handling: Wash thoroughly after handling. Avoid prolonged or repeated contact with skin. Avoid contact with eyes. Keep container tightly closed. Avoid ingestion and inhalation. Use with adequate ventilation. Wash clothing before reuse. Keep from contact with clothing and other combustible materials. Inform laundry personnel of contaminant’s hazards.


Section 8 - Exposure Controls, Personal Protection
Engineering Controls:
Facilities storing or utilizing this material should be equipped with an eyewash facility and a safety shower. Use adequate ventilation to keep airborne concentrations low.

Exposure Limits
CAS# 7757-79-1:

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 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: Solid
Color: white
Odor: odorless
pH: 4.5-8.5 (5% soln)
Vapor Pressure: Not available
Viscosity: Not available
Boiling Point: 400 deg C (752.00 F)
Freezing/Melting Point: 334 deg C (633.20 F)
Autoignition Temperature: Not available.
Flash Point: Not applicable.

Explosion Limits: Lower: Not available
Explosion Limits: Upper: Not available

Decomposition Temperature: Not available.

Solubility in water: Soluble
Specific Gravity/Density: 2.11
Molecular Formula: KNO3
Molecular Weight: 101.1

Section 10 - Stability and Reactivity

Chemical Stability: Stable under normal temperatures and pressures.

Conditions to Avoid:
Dust generation, excess heat.

Incompatibilities with Other Materials
Not available

Hazardous Decomposition Products
Nitrogen oxides, oxygen.

Hazardous Polymerization
Will not occur.

Section 11 - Toxicological Information

RTECS#:
CAS# 7757-79-1: TT3700000
LD50/LC50:
RTECS: CAS# 7757-79-1: Oral, rabbit: LD50 = 1901
mg/kg; Oral, rat: LD50 = 3750 mg/kg; Oral, rat: LD50 = 3540 mg/kg.
Carcinogenicity:
Potassium nitrate -
Not listed as a carcinogen by ACGIH, IARC, NTP, or CA Prop 65.
Other:
See actual entry in RTECS for complete information.

Section 12 - Ecological Information
Other:

Section 13 - Disposal Considerations
Dispose of in a manner consistent with federal, state, and local regulations.

Section 14 - Transport Information
IATA
Shipping Name: POTASSIUM NITRATE
Hazard Class: 5.1
UN Number: 1486
Packing Group: III
IMO
Shipping Name: POTASSIUM NITRATE
Hazard Class: 5.1
UN Number: 1486
Packing Group: III
RID/ADR
Shipping Name: POTASSIUM NITRATE
Hazard Class: 5.1
UN Number: 1486
Packing Group: III

Section 15 - Regulatory Information
European/International Regulations
European Labeling in Accordance with EC Directives
Hazard Symbols: O
Risk Phrases: R 8 Contact with combustible material may cause fire.
Safety Phrases: S 17 Keep away from combustible material.
WGK (Water Danger/Protection)
CAS# 7757-79-1: 1
Canada
CAS# 7757-79-1 is listed on Canada's DSL List
US Federal
TSCA
CAS# 7757-79-1 is listed on the TSCA Inventory.

Section 16 - Other Information
MSDS Creation Date: 8/14/1998
Revision #7 Date 4/17/2007
Revisions were made in Sections: 9
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.

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