

MSDS# 19480

Section 1 - Chemical Product and Company Identification

MSDS Name: Potassium nitrite

Catalog Numbers: AC222700000, AC222700010, AC423060000, AC423060050, AC423065000, P267-250, P267-500

Synonyms: Nitrous acid, potassium salt.

Company Identification: Fisher Scientific  
One Reagent Lane  
Fair Lawn, NJ 07410

For information in the US, call: 201-796-7100

Emergency Number US: 201-796-7100

CHEMTREC Phone Number, US: 800-424-9300

Section 2 - Composition, Information on Ingredients

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CAS#: 7758-09-0  
Chemical Name: Potassium nitrite  
%: 96+  
EINECS#: 231-832-4  
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Hazard Symbols:

T O N



Risk Phrases:

25 50 8

Section 3 - Hazards Identification

EMERGENCY OVERVIEW

Danger! Strong oxidizer. Contact with other material may cause a fire. Toxic if swallowed. Very toxic to aquatic organisms.

Target Organs: Blood, respiratory system, gastrointestinal system, eyes, ears.

Potential Health Effects

Eye: Causes eye irritation. Causes redness and pain.

Skin: Causes skin irritation. Causes redness and pain. May be harmful if absorbed through the skin.

Ingestion: Poison by ingestion. May cause headache. May cause nausea and vomiting. Overexposure may cause methemoglobinemia. Ingestion may cause a decrease in blood pressure, rapid pulse and visual disturbances.

Inhalation: Causes respiratory tract irritation. May cause effects similar to those described for ingestion.

Chronic: Absorption into the body leads to the formation of methemoglobin which in sufficient concentrations causes cyanosis (bluish discoloration of skin due to deficient oxygenation of the blood).

Section 4 - First Aid Measures

Eyes: Immediately flush eyes with plenty of water for at least 15 minutes, occasionally lifting the upper and lower eyelids. Get medical aid immediately.

Skin: Get medical aid immediately. Immediately flush skin with plenty of water for at least 15 minutes while removing contaminated clothing and shoes.

Ingestion: Do not induce vomiting. Get medical aid immediately. Call a poison control center.

Inhalation: Get medical aid immediately. Remove from exposure and move to fresh air immediately. If breathing is difficult, give oxygen. Do NOT use mouth-to-mouth resuscitation. If breathing has ceased apply artificial

respiration using oxygen and a suitable mechanical device such as a bag and a mask.

Notes to Physician: Treat symptomatically and supportively.

### Section 5 - Fire Fighting Measures

General Information: As in any fire, wear a self-contained breathing apparatus in pressure-demand, MSHA/NIOSH (approved or equivalent), and full protective gear. Strong oxidizer. Contact with other material may cause fire. Containers may explode in the heat of a fire. This material in sufficient quantity and reduced particle size is capable of creating a dust explosion.

Extinguishing Media: Use water spray, dry chemical, carbon dioxide, or chemical foam. Use flooding quantities of water as spray. Cool containers with flooding quantities of water until well after fire is out.

Autoignition Temperature: 510 deg C ( 950.00 deg F)

Flash Point: Not applicable.

Explosion Limits: Lower: Not available

Explosion Limits: Upper: Not available

NFPA Rating: ; instability: OX

### 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. Flush spill area with water. Do not use combustible materials such as paper towels to clean up spill.

### Section 7 - Handling and Storage

Handling: Use with adequate ventilation. Minimize dust generation and accumulation. Do not get on skin or in eyes. Use only in a chemical fume hood. Keep from contact with clothing and other combustible materials. Do not breathe dust.

Storage: Do not store near combustible materials. Store in a tightly closed container. Store in a cool, dry, well-ventilated area away from incompatible substances. Store protected from moisture.

### Section 8 - Exposure Controls, Personal Protection

Chemical Name	ACGIH	NIOSH	OSHA - Final PELs
Potassium nitrite	none listed	none listed	none listed

OSHA Vacated PELs: Potassium nitrite: None listed

Engineering Controls:

Facilities storing or utilizing this material should be equipped with an eyewash facility and a safety shower. Use only under a chemical fume hood.

Exposure Limits

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 minimize contact with skin.

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: Crystals

Color: white to pale yellow

Odor: odorless

pH: 7-10 (5% aq.sol.)

Vapor Pressure: Not applicable.

Vapor Density: Not available

Evaporation Rate: Not applicable.

Viscosity: Not applicable.

Boiling Point: Not applicable.

Freezing/Melting Point: 387 deg C ( 728.60°F)

Decomposition Temperature:

Solubility in water: 3000 g/l water (20°C)

Specific Gravity/Density: 1.9150

Molecular Formula: KNO2

Molecular Weight: 85.10

#### Section 10 - Stability and Reactivity

Chemical Stability: Hygroscopic: absorbs moisture or water from the air.

Conditions to Avoid: Incompatible materials, excess heat, combustible materials, organic materials, exposure to moist air or water, temperatures above 300°C.

Incompatibilities with Other Materials: Acids, aluminum, amines, chlorates, finely powdered metals, hydrazine, permanganates, boron, amides, hypophosphites, sulfites, carbon, ammonium salts, iodides, mercury salts, cyanides.

Hazardous Decomposition Products: Nitrogen oxides.

Hazardous Polymerization: Has not been reported.

#### Section 11 - Toxicological Information

RTECS#: CAS# 7758-09-0: TT3750000

RTECS:

LD50/LC50: CAS# 7758-09-0: Inhalation, mouse: LC50 = 85 gm/m<sup>3</sup>/2H;  
Oral, rabbit: LD50 = 200 mg/kg;

Carcinogenicity: Potassium nitrite - Not listed as a carcinogen by ACGIH, IARC, NTP, or CA Prop 65.

Other: The toxicological properties have not been fully investigated. See actual entry in RTECS for complete information.

#### Section 12 - Ecological Information

Not available

#### Section 13 - Disposal Considerations

Dispose of in a manner consistent with federal, state, and local regulations.

#### Section 14 - Transport Information

US DOT

Shipping Name: POTASSIUM NITRITE

Hazard Class: 5.1

UN Number: UN1488

Packing Group: II

Canada TDG

Shipping Name: POTASSIUM NITRITE

Hazard Class: 5.1

UN Number: UN1488

Packing Group: II

#### Section 15 - Regulatory Information

European/International Regulations

European Labeling in Accordance with EC Directives

Hazard Symbols: T O N

Risk Phrases:

- R 25 Toxic if swallowed.
- R 50 Very toxic to aquatic organisms.
- R 8 Contact with combustible material may cause fire.

Safety Phrases:

- S 45 In case of accident or if you feel unwell, seek medical advice immediately (show the label where possible).
- S 61 Avoid release to the environment. Refer to special instructions/safety data sheets.

WGK (Water Danger/Protection)

CAS# 7758-09-0: 2

Canada

CAS# 7758-09-0 is listed on Canada's DSL List

Canadian WHMIS Classifications: C, D1B, D2B

This product has been classified in accordance with the hazard criteria of the Controlled Products Regulations and the MSDS contains all of the information required by those regulations.

CAS# 7758-09-0 is listed on Canada's Ingredient Disclosure List

US Federal

TSCA

CAS# 7758-09-0 is listed on the TSCA Inventory.

Section 16 - Other Information

MSDS Creation Date: 4/24/1998

Revision #10 Date 7/20/2009

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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