

## MATERIAL SAFETY DATA SHEET

EM SCIENCE

## 1. CHEMICAL PRODUCT AND COMPANY IDENTIFICATION

Manufacturer.....: Preparation Date.: 10/8/91  
 EM SCIENCE  
 A Division of EM Industries Information Phone Number.: 856-423-6300  
 P.O. Box 70 Hours: Mon. to Fri. 8:30-5  
 480 Democrat Road Chemtrec Emergency Number: 800-424-9300  
 Gibbstown, N.J. 08027 Hours: 24 hrs a day

Catalog Number(s):

PX1530

Product Name:

Potassium Nitrite

Synonyms:

Nitrous Acid, Potassium Salt

Chemical Family:

Salt

Formula:

KNO2

Molecular Weight.: 85.10

## 2. COMPOSITION / INFORMATION ON INGREDIENTS

| Component         | CAS #     | Appr % |
|-------------------|-----------|--------|
| Potassium Nitrite | 7758-09-0 | 100%   |

## 3. HAZARDS IDENTIFICATION

EMERGENCY OVERVIEW

STRONG OXIDIZER.

CONTACT WITH OTHER MATERIAL MAY CAUSE FIRE.

HARMFUL IF SWALLOWED.

Appearance:

Off-white/yellow crystals

POTENTIAL HEALTH EFFECTS (ACUTE AND CHRONIC)

Symptoms of Exposure:

Harmful if swallowed.

Oral toxicity effects: nausea, cyanosis, collapse, coma.

Medical Cond. Aggravated by Exposure:

Data not available.

Routes of Entry:

Inhalation, ingestion

Carcinogenicity:

The material is not listed (IARC, NTP, OSHA) as cancer causing agent.

## 4. FIRST AID MEASURES

Emergency First Aid:

GET MEDICAL ASSISTANCE FOR ALL CASES OF OVEREXPOSURE.

Skin: Wash thoroughly with soap and water.

Eyes: Immediately flush thoroughly with water for at least 15 minutes.

Inhalation: Remove to fresh air; give artificial respiration if breathing has stopped.

Ingestion: If conscious, drink water and induce vomiting immediately as directed by medical personnel. Never give anything by mouth to an unconscious person.

## 5. FIRE FIGHTING MEASURES

Flash Point (F) . . . : None

Flammable Limits LEL (%): N/A

Flammable Limits UEL (%): N/A

Extinguishing Media . . :

Water

Fire Fighting Procedures:

Wear self-contained breathing apparatus.

Fire & Explosion Hazards:

Explodes at 1000F or when heated with cyanide salts.

6. ACCIDENTAL RELEASE MEASURES

Spill Response:

Evacuate the area of all unnecessary personnel.

Wear suitable protective equipment listed under Exposure / Personal Protection.

Eliminate any ignition sources until the area is determined to be free from explosion or fire hazards.

Contain the release and eliminate its source, if this can be done without risk.

Take up and containerize for proper disposal as described under Disposal.

Comply with Federal, State, and local regulations on reporting releases. Refer to Regulatory Information for reportable quantity and other regulatory data.

7. HANDLING AND STORAGE

Handling & Storage:

Keep container closed when not in use.

Store in a cool place away from cyanides and reducing agents

Do not breathe dust.

Do not get in eyes, on skin, or on clothing.

8. EXPOSURE CONTROLS / PERSONAL PROTECTION

ENGINEERING CONTROLS AND PERSONAL PROTECTIVE EQUIPMENT:

Ventilation, Respiratory Protection, Protective Clothing, Eye Protection:

Material should be handled or transferred in an approved fume hood or with adequate ventilation.

Protective gloves should be worn to prevent skin contact (Neoprene or equivalent)

Safety glasses with side shields should be worn at all times.

Work/Hygenic Practices:

Wash thoroughly after handling.

Do not take internally.

Eye wash and safety equipment should be readily available.

EXPOSURE GUIDELINES

OSHA - PEL:

| Component         | TWA |       | STEL |       | CL  |       | Skin |
|-------------------|-----|-------|------|-------|-----|-------|------|
|                   | PPM | MG/M3 | PPM  | MG/M3 | PPM | MG/M3 |      |
| Potassium Nitrite |     |       |      |       |     |       |      |

ACGIH - TLV

| Component         | TWA |       | STEL |       | CL  |       | Skin |
|-------------------|-----|-------|------|-------|-----|-------|------|
|                   | PPM | MG/M3 | PPM  | MG/M3 | PPM | MG/M3 |      |
| Potassium Nitrite |     |       |      |       |     |       |      |

If there are no exposure limit numbers listed in the Exposure Guidelines chart, this

9. PHYSICAL AND CHEMICAL PROPERTIES

Boiling Point (C 760 mmHg) : N/A

Melting Point (C) . . . . . : 350C Decomposes

Specific Gravity (H2O = 1) : 1.9

Vapor Pressure (mm Hg) . . . : N/A

Percent Volatile by vol (%) : N/A

Vapor Density (Air = 1) . . : N/A

Evaporation Rate (BuAc = 1) : N/A

Solubility in Water (%) . . : Soluble

Appearance . . . . . :

Off-white/yellow crystals

#### 10. STABILITY AND REACTIVITY

Stability: Yes

Hazardous Polymerization:

Does not occur

Hazardous Decomposition:

NOx, K2O

Conditions to Avoid:

Excess heating with cyanide salts.

Contact with acids can liberate poisonous gas.

Violent reaction or ignition with ammonium salts  
(e.g. ammonium sulfate); boron.

Materials To Avoid:

( ) Water

(X) Acids

( ) Bases

( ) Corrosives

( ) Oxidizers

(X) Other: Cyanides, Reducing agents, Ammonium sulfate

#### 11. TOXICOLOGICAL INFORMATION

Toxicity Data

orl-rbt LD50: 200 mg/kg

Toxicological Findings:

Test on laboratory animals indicate material may produce adverse mutagenic and reproductive effects.

Cited in Registry of Toxic Effects of Chemical Substances (RTECS)

#### 12. DISPOSAL CONSIDERATIONS

EPA Waste Numbers: D001

Treatment:

Specified Technology - Contact your local permitted waste disposal site (TSD) for permissible treatment sites.

ALWAYS CONTACT A PERMITTED WASTE DISPOSER (TSD) TO ASSURE COMPLIANCE WITH ALL CURRENT LOCAL, STATE AND FEDERAL REGULATIONS.

#### 13. TRANSPORT INFORMATION

DOT Proper Shipping Name:

Potassium Nitrite

DOT ID Number . . . . . :

UN1488

#### 14. REGULATORY INFORMATION

TSCA Statement:

The CAS number of this product is listed on the TSCA Inventory.

| Component         | SARA<br>EHS<br>(302) | SARA<br>EHS TPQ<br>(lbs) | CERCLA<br>RQ<br>(lbs) |
|-------------------|----------------------|--------------------------|-----------------------|
| Potassium Nitrite |                      |                          |                       |

Potassium Nitrite

| Component         | OSHA<br>Floor List | SARA<br>313 | DeMinimis<br>for SARA 313<br>(%) |
|-------------------|--------------------|-------------|----------------------------------|
| Potassium Nitrite |                    |             |                                  |

Potassium Nitrite

If there is no information listed on the regulatory information chart, this indicate

#### 15. OTHER INFORMATION

Comments:

None

NFPA Hazard Ratings:

Health : 1

Flammability : 0

Reactivity : 0

Special Hazards : OXY

Revision History: 8/1/84 10/27/87 3/1/91

| = Revised Section

N/A = Not Available

N/E = None Established

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