

# Material Safety Data Sheet



## Potassium Nitrate

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**Carolina Biological Supply Company**

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**CAROLINA**  
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### Section 1 - Product Description

**Product Name:** Potassium Nitrate  
**Product Code(s):** 88-3908, 88-3910, 88-3940, 88-3942, 85-0720, 20-7920, 20-7922  
**Size:** Various  
**Chemical Name:** Potassium Nitrate  
**CAS Number:** 7757-79-1  
**Formula:** KNO<sub>3</sub>  
**Synonyms:** Nitrate of Potash, Saltpeter.  
**Distributor:** Carolina Biological Supply Company, 2700 York Road, Burlington, NC 27215  
**Chemical Information:** 800-227-1150 (8am-5pm (ET) M-F) Chemtrec 800-424-9300 (Transportation Spill Response 24 hours)

### Section 2 - Hazard Identification

**Emergency Overview:** Harmful if inhaled or swallowed. May cause fire.

**Potential Health Effects:**

**Eyes:** May cause irritation.

**Skin:** May cause irritation to skin.

**Ingestion:** May cause gastrointestinal discomfort.

**Inhalation:** May cause irritation to respiratory tract.

### Section 3 - Composition / Information on Ingredients

**Principal Hazardous Components:** Potassium Nitrate (CAS# 7757-79-1) 100%  
**TLV units:** N/A  
**PEL units:** N/A

### Section 4 - First Aid Measures

**Emergency and First Aid Procedures:**

**Eyes** - In case of contact with eyes, rinse immediately with plenty of water and seek medical advice.

**Skin** - After contact with skin, wash immediately with plenty of water.

**Ingestion** - If swallowed, do not induce vomiting; seek medical advice immediately and show this container or label.

**Inhalation** - In case of accident by inhalation: remove casualty to fresh air and keep at rest.

### Section 5 - Firefighting Procedures

**Flash Point (Method Used):** N/A

**NFPA Rating:**

**Health:** 2

**Fire:** 0

**Reactivity:** 0

**Extinguisher Media:** Use media suitable to extinguish surrounding fire.

**Flammable Limits in Air % by Volume:** N/A

**Autoignition Temperature:** N/A

**Special Firefighting Procedures:** Firefighters should wear full protective equipment and NIOSH approved self-contained breathing apparatus.

**Unusual Fire and Explosion Hazards:** Thermal decomposition produces highly toxic fumes. Explosive reaction with potassium chlorate or bromine trifluoride. Violent reaction (ignition) with bromine pentafluoride, NH<sub>4</sub>, NO<sub>3</sub>, and IF<sub>7</sub>. Risk of explosion by shock, friction, fire or other sources of ignition.

## Section 6 - Spill or Leak Procedures

**Steps to Take in Case Material Is Released or Spilled:** Ventilate area of spill. Clean-up personnel should wear proper protective equipment. Avoid creating dust. Sweep or scoop up and containerize for disposal.

## Section 7 - Special Precautions

**Precautions to Take in Handling or Storing:** Keep container tightly closed in a cool, well-ventilated place. Avoid creating and inhaling dust.

## Section 8 - Protection Information

**Respiratory Protection (Specify Type):** None needed under normal conditions of use with adequate ventilation. A NIOSH/MSHA chemical cartridge respirator should be worn if PEL or TLV is exceeded.

**Ventilation:**

**Local Exhaust:** Yes

**Mechanical(General):** Yes

**Special:** No

**Other:** No

**Protective Gloves:** Natural rubber, Neoprene, PVC or equivalent.

**Eye Protection:** Splash proof chemical safety goggles should be worn.

**Other Protective Clothing or Equipment:** Lab coat, apron, eye wash, safety shower.

## Section 9 - Physical Data

**Molecular Weight:** 101.11

**Boiling Point:** 400°C

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

**Percent Volatile by Volume:** N/A

**Solubility in Water:** Soluble

**Melting Point:** 333°C

**Vapor Pressure:** N/A

**Specific Gravity (H<sub>2</sub>O=1):** 2.11

**Evaporation Rate (BuAc=1):** N/A

**Appearance and Odor:** White, odorless crystals.

## Section 10 - Reactivity Data

**Stability:** Stable

**Conditions to Avoid:** Heat and sources of ignition.

**Incompatibility (Materials to Avoid):** Reducing agents, Organics,

**Hazardous Decomposition Products:** NO<sub>x</sub>, K<sub>2</sub>O - Potassium Oxide,

**Hazardous Polymerization:** Will not occur

## Section 11 - Toxicity Data

**Toxicity Data:** orl-rat LD50 3015 mg/kg

**Effects of Overexposure:**

**Acute:** See Section 2

**Chronic:** Mutation data cited. Reproductive data cited. Not listed as a carcinogen by IARC, NTP or OSHA.

**Conditions Aggravated by Overexposure:** Impaired Kidney Function Respiratory disorders Cardiovascular system

**Target Organs:** Blood Kidneys Respiratory system

**Primary Route(s) of Entry:** Ingestion.

## Section 12 - Ecological Data

EPA Waste Numbers: D001

### Section 13 - Disposal Information

**Waste Disposal Methods:** Dispose in accordance with all applicable Federal, State and Local regulations. Always contact a permitted waste disposer (TSD) to assure compliance.

### Section 14 - Transport Information

**DOT Proper Shipping Name:** UN1486, Potassium Nitrate, 5.1, III

### Section 15 - Regulatory Information

**EPA TSCA Status:** On TSCA Inventory

**Hazard Category for SARA Section 311/312 Reporting:** Acute

**Name List:**

Potassium Nitrate - No

**Chemical Category:**

Potassium Nitrate - Nitrate cmpd

**CERCLA Section 103 RQ(lb.):** Potassium Nitrate - No

**RCRA Section 261.33:** Potassium Nitrate - No

### Section 16 - Additional Information

The information provided in this Material Safety Data Sheet represents a compilation of data drawn directly from various sources available to us. Carolina Biological Supply makes no representation or guarantee as to the suitability of this information to a particular application of the substance covered in the Material Safety Data Sheet. Any employer must carefully assess the applicability of any information contained herein in regards to the particular use to which the employer puts the material.

Glossary

ACGIH	American Conference of Governmental Industrial Hygienists
CAS Number	Chemical Services Abstract Number
CERCLA	Comprehensive Environmental Response, Compensation, and Liability Act
DOT	U.S. Department of Transportation
IARC	International Agency of Research on Cancer
N/A	Not Available
NTP	National Toxicology Program
OSHA	Occupational Safety and Health Administration
PEL	Permissible Exposure Limit
ppm	Parts per million
RCRA	Resource Conservation and Recovery Act
SARA	Superfund Amendments and Reauthorization Act
TLV	Threshold Limit Value
TSCA	Toxic Substances Control Act