

## MATERIAL SAFETY DATA SHEET

### Potassium Nitrate

#### 1.IDENTIFICATION OF THE SUBSTANCE/PREPARATION AND OF THE COMPANY/UNDERTAKING

Product name: Potassium Nitrate

Synonyms: Saltpeter; niter; Nitric acid, potassium salt

CAS No.: 7757-79-1

Molecular Weight: 101.1

Chemical Formula: KNO<sub>3</sub>

UN/NA: 1486

Hazard class: 5.1

Manufacturer: NABTA CO.LTD.

ADD.: 5-4-101,Jingchengxiufu, No.58, FangZhuang NanLu, Beijing, CHINA

Tel.: +86-10-87678103 Fax: +86-10-67656556

E -mail: nabta@nabta.com

Http://www.nabta.com

#### 2. COMPOSITION/INFORMATION ON INGREDIENTS

COMPONENT	CAS #	PERCENT
Potassium Nitrate	7757-79-1	99.50-100
Water	7732-18-5	0.50-0.02

#### 3. HAZARDS IDENTIFICATION

##### EFFECTS OF OVEREXPOSURE

Causes eye and skin burns. May cause severe respiratory tract irritation with possible burns. May cause severe digestive tract irritation with possible burns.

Eye: corrosive to the eyes and causes severe burns.

Skin: corrosive and causes severe burns and ulceration. May cause skin rash (in milder cases), and cold and clammy skin with cyanosis or pale color.

Ingestion: Causes gastrointestinal tract burns.

**Inhalation:** Irritation may lead to chemical pneumonitis and pulmonary edema. Causes severe irritation of upper respiratory tract with coughing, burns, breathing difficulty, and possible coma. Aspiration may lead to pulmonary edema. May cause systemic effects.

**Chronic:** Effects may be delayed. Repeated contact may cause corneal damage.

## 4.FIRST AID MEASURES

**Eyes:** In case of contact, immediately flush eyes with plenty of water for at least 15 minutes. Get medical aid immediately.

**Skin:** In case of contact, immediately flush skin with plenty of water for at least 15 minutes while removing contaminated clothing and shoes. Get medical aid immediately. Wash clothing before reuse.

**Ingestion:** If swallowed, do NOT induce vomiting. Get medical aid immediately. If victim is fully conscious, give a cupful of water. Never give anything by mouth to an unconscious person.

**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:** Treat symptomatically and supportively.

## 5.FIRE-FIGHTING MEASURES

**General Information:** As in any fire, wear a self-contained breathing apparatus in pressure-demand, and full protective gear. During a fire, irritating and highly toxic gases may be generated by thermal decomposition or combustion. Use water spray to keep fire-exposed containers cool. Substance is noncombustible. Contact with metals may evolve flammable hydrogen gas.

**Extinguishing Media:** For small fires, use water spray, dry chemical, carbon dioxide or chemical foam. Do NOT get water inside containers. For large fires, use dry chemical, carbon dioxide, alcohol-resistant foam, or water spray.

**NFPA Rating:** (estimated) Health: 3; Flammability: 0; Instability: 1

## 6.ACCIDENTAL RELEASE MEASURES

**General Information:** Use proper personal protective equipment

**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. Cover with sand, dry lime or soda ash and place in a closed container for disposal. Provide ventilation.

## 7.HANDLING AND STORAGE

**Handling:** Wash thoroughly after handling. Minimize dust generation and accumulation. Do not breathe dust, vapor, mist, or gas. Do not get in eyes, on skin, or on clothing. Keep container tightly closed. Use only in a chemical fume hood. Discard contaminated shoes.

**Storage:** Store in a tightly closed container. Store in a cool, dry, well-ventilated area away from incompatible substances.

## 8.EXPOSURE CONTROLS/PERSONAL PROTECTION

### Skin Protection:

Skin contact should be prevented through use of suitable protective clothing, PVC rubber gloves and footwear, selected with regard for use conditions and exposure potential. Consideration must be given both to durability as well as permeation resistance.

### Respiratory Protection:

When dust standards are exceeded, select NIOSH/MSHA approved equipment based on actual or potential airborne concentrations and in accordance with the latest OSHA standard(29 CFR 1910.134) and/or ANSI Z88.2 recommendations. Always wear NIOSH approved particulate approved respirator.

### Eye Protection:

Eye/face protection requirements vary depending upon work environment conditions and material handling practices. Appropriate ANSI Z87 approve equipment should be used for the particular use intended for this material. Use chemical safety glasses with side shields or splash proof goggles and face shield to prevent eye/face contact. Emergency eye wash must be readily accessible to work area.

### Other Protection:

Product is easily removed with soap and water. Avoid prolonged or repeated breathing of dust and contact with skin. Remove contaminated clothing; launder before reuse. Cleanse skin thoroughly after contact, before meals and end of work period.

### Ventilation Protection:

Where engineering controls are indicated by use conditions or a potential for excessive exposure exists, the following traditional exposure control techniques may be used to effectively minimize employee exposures: local exhaust ventilation at the point of generation.

### Exposure Limits:

No specific recommendations.

### Hygienic Practices:

Minimize breathing dust. Avoid prolonged or repeated breathing of dust and contact with skin. Remove contaminated clothing; launder before reuse, cleans skin thoroughly after contact, before meals and end of work period.

## 9.PHYSICAL AND CHEMICAL PREPERTIES

Physical State: Crystal.

Odor and Appearance: odorless white crystal

Odor Threshold (ppm): N/A

Miscibility with water: Any desired ratio

---

Infinitely soluble in water. Vapor Pressure (mm Hg): N/A

Vapor Density (Air=1): N/A

Evaporation Rate: N/D

pH 1% sol: 7

Boiling Point: 400C (752F)

Melting Point: 333C (631F)

Vapor Density (Air=1): 3.00

Vapor Pressure (mm Hg): Negligible @ 20C

Evaporation Rate (BuAc=1): No information found.

## 10. STABILITY AND REACTIVITY

**Chemical Stability:** Stable at room temperature in closed containers under normal storage and handling conditions. **Hygroscopic:** absorbs moisture or water from the air.

**Conditions to Avoid:** Dust generation, excess heat.

**Incompatibilities with Other Materials:** Water, strong oxidizing agents, strong reducing agents, strong bases.

**Hazardous Polymerization:** Has not been reported.

## 11. TOXICOLOGICAL INFORMATION

**Eye Effects:**

Not irritating (OECD 405).

**Skin Effects:**

Not sensitising (OECD 429, with magnesium nitrate)

**Dermal Toxicity:**

LD<sub>50</sub> > 2000 mg/kg bw (OECD 402)

**Inhalation Effects:**

LC<sub>50</sub> > 527 mg/m<sup>3</sup> (OECD 403).

**Sensitization:**

No data found for product.

**Ingestion Effects:**

No data found for product

Carcinogenicity/Mutagenicity:

Not listed as a carcinogen by NTP, IARC or OSHA.

No information found on Mutagenicity.

Reproductive Effects:

No data found for product.

Neurotoxicity:

No data found for product.

Target Organs:

No data found for product.

Additional Toxicological Information:

No data found for product.

## 12.ECOLOGICAL INFORMATION

No experimental ecological data are available for product.

## 13.DISPOSAL CONSIDERATIONS

Product According to local regulations.

Contaminated packaging No specific recommendations.

## 14.TRANSPORT INFORMATION

**Proper Shipping Name:** POTASSIUM NITRATE

**Hazard Class:** 5.1

**UN/NA:** UN1486

Packing Group: III

## 15.REGULATORY INFORMATION

### Clean Air Act:

This material does not contain any hazardous air pollutants.

### Clean Water Act:

None of the chemicals in this product are listed as Hazardous Substances under the CWA. None of the chemicals in this product are listed as Priority Pollutants under the CWA. None of the chemicals in this product are listed as Toxic Pollutants under the CWA.

## 16.OTHER INFORMATION

This information only concerns the above mentioned product and does not need to be valid if used with other product(s) or in any process. The information is to our best present knowledge correct and complete and is given in good faith but without warranty. It remains the user's own responsibility to make sure that the information is appropriate and complete for his special use of this product.