

MATERIAL SAFETY DATA SHEET**Product Name:** Potassium nitrate**CAS No.:** 7757-79-1**Version:** 0**1. Identification**

Product Code : 90219, 90512
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2. Composition/Information on Ingredients

Ingredient	CAS No	Percent
POTASSIUM NITRATE	7757-79-1	99- 100%

3. Hazards Identification**Hazard classification****Physical hazards**

Oxidizing solids : Category 3

Environmental hazard

Acute hazards to the aquatic environment : Category 3

Labels elements**Hazard symbol****Signal word** : Warning.**Hazard statement** : May intensify fire; oxidizer.
Harmful to aquatic life.**Precautionary statement****Prevention** : Keep away from heat. - No smoking. Keep/Store away from clothing and other combustible materials. Take any precaution to avoid mixing with combustibles. Wear protective gloves/protective clothing/eye protection/face protection. Avoid release to the environment.**Response** : In case of fire: Use water for extinction. Call a POISON CENTER or doctor/physician if you feel unwell .**Disposal** : Dispose of contents/container to an appropriate treatment and disposal facility in accordance with applicable laws and regulations, and product characteristics at time of disposal.

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Other hazards which do not result in GHS classification : None.

4. First Aid Measures

- General information** : Get medical advice/attention if you feel unwell. If medical advice is needed, have product container or label at hand. Show this safety data sheet to the doctor in attendance.
- Ingestion** : Rinse mouth thoroughly. Call a POISON CENTER or doctor/physician if you feel unwell.
- Inhalation** : Move to fresh air. Get medical attention if symptoms persist.
- Skin contact** : Wash skin thoroughly with soap and water. Get medical attention if irritation persists after washing.
- Eye contact** : Flush thoroughly with water. If irritation occurs, get medical assistance.
- Most important symptoms/effects, acute and delayed** : May cause irritation to skin, eyes, and respiratory tract.
- Indication of immediate medical attention and special treatment needed** : Treat symptomatically. Symptoms may be delayed.

5. Fire fighting measures

- General fire hazards** : In case of fire and/or explosion do not breathe fumes .
- Suitable (and unsuitable) extinguishing media**
- Suitable extinguishing media** : The product is non-combustible. Use fire-extinguishing media appropriate for surrounding materials.
- Unsuitable extinguishing media** : None known.
- Specific hazards arising from the chemical** : Strong oxidizer. Contact with combustible material may cause fire. Fire or high temperatures may cause explosive decomposition, especially if confined. Fire may produce irritating, corrosive and/or toxic gases.
- Special protective equipment and precautions for firefighters**
- Special fire fighting procedures** : Use water spray to keep fire-exposed containers cool. Move containers from fire area if you can do so without risk. Withdraw immediately in case of rising sound from venting safety device or any discoloration of tanks due to fire. Cool containers exposed to flames with water until well after the fire is out.
- Special protective equipment for fire-fighters** : Firefighters must use standard protective equipment including flame retardant coat, helmet with face shield, gloves, rubber boots, and in enclosed spaces, SCBA. Self-contained breathing apparatus and full

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protective clothing must be worn in case of fire.

6. Accidental Release Measures

- Personal precautions, protective equipment and emergency procedures** : ELIMINATE all ignition sources (no smoking, flares, sparks or flames in immediate area). Keep unauthorized personnel away. Use personal protective equipment. Ventilate closed spaces before entering them. Do not touch damaged containers or spilled material unless wearing appropriate protective clothing.
- Methods and material for containment and cleaning up** : Keep combustibles (wood, paper, oil, etc.) away from spilled material. Avoid dust formation. Sweep up and place in a clearly labeled container for chemical waste. Collect in a non-combustible container for prompt disposal. Clean surface thoroughly to remove residual contamination.
- Notification Procedures** : Dike for later disposal. Prevent entry into waterways, sewer, basements or confined areas. Stop the flow of material, if this is without risk. Inform authorities if large amounts are involved.
- Environmental precautions** : Prevent further leakage or spillage if safe to do so. Avoid discharge into drains, water courses or onto the ground. Do not contaminate water sources or sewer.

7. Handling and Storage

- Precautions for safe handling** : DO NOT handle, store or open near an open flame, sources of heat or sources of ignition. Protect material from direct sunlight. Keep away from combustible material. Use personal protective equipment as required. Avoid contact with eyes, skin, and clothing. Do not breathe dust. Use only with adequate ventilation. Wash hands thoroughly after handling. Do not handle until all safety precautions have been read and understood. Obtain special instructions before use.
- Conditions for safe storage, including any incompatibilities** : Keep material from heat, light, sparks and flame. Oxidizing material - Keep away from flammable and combustible materials. Store away from incompatible materials. Keep container tightly closed. Store in a dry place. Store in a well-ventilated place.

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8. Exposure Controls Personal Protection**Control parameters****Occupational exposure limits** : None of the components have assigned exposure limits.**Appropriate engineering controls** : No data available .**Individual protection measures, such as personal protective equipment****General information** : Good general ventilation (typically 10 air changes per hour) should be used. Ventilation rates should be matched to conditions. If applicable, use process enclosures, local exhaust ventilation, or other engineering controls to maintain airborne levels below recommended exposure limits. If exposure limits have not been established, maintain airborne levels to an acceptable level. An eye wash and safety shower must be available in the immediate work area. Use explosion-proof ventilation equipment.**Eye/face protection** : Wear safety glasses with side shields (or goggles).**Hand protection** : Chemical resistant gloves .**Other** : Chemical resistant clothing .**Respiratory protection** : In case of inadequate ventilation use suitable respirator. High-efficiency particulate respirator with full facepiece.**Hygiene measures** : Provide eyewash station and safety shower. Do not eat, drink or smoke when using the product. Always observe good personal hygiene measures, such as washing after handling the material and before eating, drinking, and/or smoking. Routinely wash work clothing and protective equipment to remove contaminants. Wash contaminated clothing before reuse.**9. Physical and Chemical Properties****Appearance** : Solid Crystals white.**Odor** : Odorless**pH** : 7**Melting point/freezing point** : 337 °C**Initial boiling point and boiling range** : 400 °C**Flash Point** : No data available**Vapor pressure** : No data available**Vapor density** : No data available**Relative density** : 2.10 (20 °C)**Solubility in water** : Soluble**Solubility (other)** : No data available.**Formula** : HNO₃.K**Molecular Weight** : 101.1 g/mol

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Reactivity	:	No dangerous reaction known under conditions of normal use .
Chemical stability	:	Stable; however, may decompose if heated.
Possibility of hazardous reactions	:	Hazardous polymerization does not occur .
Conditions to avoid	:	Contact with combustibles. Excessive heat. Contact with incompatible materials.
Incompatible materials	:	Flammable/combustible material. Organic compounds. Strong acids. Metals.
Hazardous decomposition products	:	Nitrogen Oxides .

11. Toxicological Information**Information on likely routes of exposure**

Ingestion	:	May be harmful if swallowed.
Inhalation	:	Dust may irritate throat and respiratory system and cause coughing.
Skin contact	:	May cause irritation.
Eye contact	:	May irritate eyes.

Information on toxicological effects**Acute toxicity (list all possible routes of exposure)**

Oral Product	:	LD 50 (Rat): 3,750 mg/kg .
Dermal Product	:	No data available.
Inhalation Product	:	No data available
Repeated dose toxicity Product	:	No data available.
Skin corrosion/irritation Product	:	May cause skin irritation.
Serious eye damage/eye irritation Product	:	May cause temporary eye irritation .
Respiratory or skin sensitization Product	:	Not a skin sensitizer.
Carcinogenicity Product	:	This substance has no evidence of carcinogenic properties.
IARC Monographs on the Evaluation of Carcinogenic Risks to Humans DIOXANE	:	No carcinogenic components identified.
US. National Toxicology Program (NTP) Report on Carcinogens DIOXANE	:	No carcinogenic components identified.
US. OSHA Specifically Regulated Substances (29 CFR 1910.1001-1050	:	No carcinogenic components identified.
Germ cell mutagenicity	:	

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In vitro Product	:	No mutagenic components identified.
In vivo Product	:	No mutagenic components identified.
Reproductive toxicity Product	:	No components toxic to reproduction .
Specific target organ toxicity - single exposure Product	:	None known
Specific target organ toxicity - repeated exposure Product	:	None known
Aspiration hazard Product	:	Not classified
Other effects	:	None known.

12. Ecological Information**Ecotoxicity****Acute hazards to the aquatic environment :**

Fish Product	:	No data available.
Specified substance(s):		LC 50 (Bluegill (<i>Lepomis macrochirus</i>), 96 h): 420 mg/l Mortality
POTASSIUM NITRATE		LC 50 (Western mosquitofish (<i>Gambusia affinis</i>), 96 h): 62 mg/l Mortality

Aquatic invertebrates Product	:	No data available.
Specified substance(s):	:	LC 50 (Zebra mussel (<i>Dreissena polymorpha</i>), 24 h): 220 - 313 mg/l Mortality
POTASSIUM NITRATE		

Chronic hazards to the aquatic environment :

Fish Product	:	No data available.
Aquatic invertebrates Product	:	No data available.
Toxicity to Aquatic Plants Product:	:	No data available.
Persistence and degradability		
Biodegradation Product	:	There are no data on the degradability of this product .
BOD/COD ratio Product	:	No data available.
Bioaccumulative potential		
Bioconcentration factor (BCF) Product	:	No data available on bioaccumulation.
Partition coefficient n-octanol / water (log Kow) Product	:	No data available.
Mobility in soil	:	The product is water soluble and may spread in water systems.
Other adverse effects	:	Harmful to aquatic organisms .

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13. Disposal consideration

- Disposal instructions** : Discharge, treatment, or disposal may be subject to national, state, or local laws.
- Contaminated packaging** : Since emptied containers retain product residue, follow label warnings even after container is emptied.

14. Transport information

	UN No.	UN proper shipping name	Hazard Class(es)	Packaging group	Marine Pollutant
DOT	UN 1486	Potassium nitrate	5.1	III	No
IMDG	UN 1486	Potassium nitrate	5.1	III	No
IATA	UN 1486	Potassium nitrate	5.1	III	No

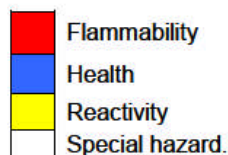
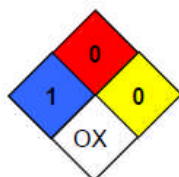
15. Regulatory Information

This safety datasheet complies with the requirements of Regulation (EC) No. 1907/2006.

Safety, health and environmental regulations/legislation specific for the substance or mixture
No Data Available.

16. Other Information

NFPA Hazard ID



Hazard rating: 0 - Minimal; 1 - Slight; 2 - Moderate; 3 - Serious; 4 - Severe ;OX-Oxidizer

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