

1. DESCRIPTION

Potassium nitrate is a chemical compound with the chemical formula KNO_3 . It is an ionic salt of potassium ions K^+ and nitrate ions NO_3^- , and is therefore an alkali metal nitrate. It occurs in nature as a mineral, niter. It is a source of nitrogen, and nitrogen was named after niter. Potassium nitrate is one of several nitrogen-containing compounds collectively referred to as saltpetre.

They are naturally found on the rocks in a white crusty form.

Potassium nitrate is produced by a chemical process at the Solufert Chemicals Factory.

2. PROPERTIES

Color: White crystal

Fragrance: Not available

NO₃-N (Nitrate Nitrogen): Min: 13,0 % Max: 13,7 %

K₂O (Potassium Oxide) : Min: 45,5 % Max: 46,4 %

Humidity: Max. 0.2%

Solubility: Soluble in water. 312 g/L (20°C)

Amount of insoluble matter in water: Max: 0,03 %

Moisture absorption: Hygroscopic

Packaging Type: 50 kg bag, 25 kg bag or Bigbag

Storage: Store in a dry and cool place.

3. USES

- Oxidizer

The most famous use of potassium nitrate is probably as the oxidizer in blackpowder. From the most ancient times until the late 1880s, blackpowder provided the explosive power for all the world's firearms. After that time, small arms and large artillery increasingly began to depend on cordite, a smokeless powder. Blackpowder remains in use today in black powder rocket motors, but also in combination with other fuels like sugars in "rocket candy". It is also used in fireworks such as smoke bombs. It is also added to cigarettes to maintain an even burn of the tobacco and is used to ensure complete combustion of paper cartridges for cap and ball revolvers. It can also be heated to several hundred degrees to be used for niter bluing, which is less durable than other forms of protective oxidation, but allows for specific

and often beautiful coloration of steel parts, such as screws, pins, and other small parts of firearms

- Fertilizer

Potassium nitrate is often used in fertilizers suitable for plants as a source of nitrogen and potassium, two of the macronutrients. When used as a pure fertilizer alone, the NPK ratio is 13-0-46.

4. CAUTION

- Harmful if swallowed.
- Do not approach with fire.
- Do not eat, drink or smoke in the environment where the substance is present.
- Causes eye irritation. In case of contact with eyes, rinse carefully with water for a few minutes. Contact lenses, if present, should be removed.
- If the person in the same environment with the substance becomes ill due to inhalation, they should be immediately removed to fresh air.
- Appropriate protective clothing should be worn to prevent skin contact.
- Be careful not to mix the substance into the sewer. Close the drains in case it goes into the sewers. Collect spills and divert them away from drains.
- Store in a dry and cool warehouse.
- Wash your hands and wash contaminated areas before leaving the workplace.

5. CONTACT US

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POTASSIUM NITRATE TECHNICAL DATA SHEET

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