

BARIUM NITRATE**1480**
April 2004CAS No: 10022-31-8
RTECS No: CQ9625000
UN No: 1446
EC No: 056-002-00-7Nitric acid, barium salt
Barium dinitrate
BaN₂O₆ / Ba(NO₃)₂
Molecular mass: 261.4

TYPES OF HAZARD/ EXPOSURE	ACUTE HAZARDS/SYMPTOMS	PREVENTION	FIRST AID/FIRE FIGHTING
FIRE	Not combustible but enhances combustion of other substances.	NO contact with flammable substances.	In case of fire in the surroundings: water in large amounts. NO carbon dioxide.
EXPLOSION	Risk of fire and explosion on contact with combustible substances and reducing agents.		

EXPOSURE		PREVENT DISPERSION OF DUST! STRICT HYGIENE!	
Inhalation	Cough. Shortness of breath. Sore throat. see Ingestion.	Local exhaust or breathing protection.	Fresh air, rest. Refer for medical attention.
Skin	Redness. Pain.	Protective gloves.	First rinse with plenty of water, then remove contaminated clothes and rinse again.
Eyes	Redness. Pain.	Safety goggles.	First rinse with plenty of water for several minutes (remove contact lenses if easily possible), then take to a doctor.
Ingestion	Salivation. Abdominal cramps. Abdominal pain. Diarrhoea. Nausea. Vomiting. Shortness of breath. Weakness.	Do not eat, drink, or smoke during work.	Induce vomiting (ONLY IN CONSCIOUS PERSONS!). See Notes. Refer for medical attention.

SPILLAGE DISPOSAL	PACKAGING & LABELLING
Sweep spilled substance into containers; if appropriate, moisten first to prevent dusting. Then wash away with plenty of water. Do NOT let this chemical enter the environment. Personal protection: P2 filter respirator for harmful particles.	Xn Symbol R: 20/22 S: (2-)28 UN Hazard Class: 5.1 UN Subsidiary Risks: 6.1 UN Pack Group: II Do not transport with food and feedstuffs. Marine pollutant.

EMERGENCY RESPONSE	STORAGE
Transport Emergency Card: TEC (R)-51GOT2-I+II+III.	Separated from combustible and reducing substances, powdered metals and food and feedstuffs.

IMPORTANT DATA

Physical State; Appearance

COLOURLESS TO WHITE CRYSTALS OR CRYSTALLINE POWDER.

Chemical dangers

The substance decomposes on heating producing nitrogen oxides. The substance is a strong oxidant and reacts with combustible and reducing materials. Reacts with powdered metals causing fire and explosion hazard.

Occupational exposure limits

TLV: (Barium, soluble) 0.5 mg/m³ as TWA; A4; (ACGIH 2004).
MAK: (inhalable fraction) 0.5 mg/m³; Peak limitation category: II(2); (DFG 2003).

Routes of exposure

The substance can be absorbed into the body by inhalation and by ingestion.

Inhalation risk

Evaporation at 20°C is negligible; a harmful concentration of airborne particles can, however, be reached quickly when dispersed, especially if powdered.

Effects of short-term exposure

The substance is irritating to the eyes, the skin and the respiratory tract. Exposure could cause hypokalaemia, resulting in cardiac disorders and muscular disorders. Exposure may result in death.

PHYSICAL PROPERTIES

Decomposes below boiling point
Melting point: 590°C

Density: 3.24 g/cm³
Solubility in water, g/100 ml at 20°C: 8.7 moderate

ENVIRONMENTAL DATA

The substance is harmful to aquatic organisms.

NOTES

Temperature of decomposition unknown in literature.
Rinse contaminated clothes (fire hazard) with plenty of water.
Will turn shock-sensitive if contaminated with magnesium-aluminium alloys, sulfur powder or light metal powder.
Specific treatment is necessary in case of poisoning with this substance; the appropriate means with instructions must be available.

ADDITIONAL INFORMATION

LEGAL NOTICE

Neither the EC nor the IPCS nor any person acting on behalf of the EC or the IPCS is responsible