Section 1 - Product and Company Information

Product Name: BISMUTH(III) NITRATE PENTAHYDRATE, 98%
Product Number: 248592
Brand: Aldrich Chemical
Company: Sigma-Aldrich
Street Address: 9853 Sпрuce Street
City, State, Zip, Country: SAINT LOUIS, MO, 63110, US
Technical Phone: 314 771 5765
Fax: 800 325 5052
Emergency Phone: 414 273 3650 Ext. 5996

Section 2 - Composition/Information on Ingredient

Substance Name: BISMUTH NITRATE PENTAHYDRATE, REAGENT PLUS, 99.999% CAS # 10036-92-0
Synonyms: Bismuth nitrate pentahydrate, Bismuth nitrate trihydrate, Nitric acid, bismuth(3+) salt, pentahydrate

Section 3 - Hazards Identification

Emergency Overview: Corrosive, Harmful. Contact with combustible material may cause fire. Harmful by inhalation, in contact with skin and if swallowed. Irritating to eyes, respiratory system, and skin. Target organ(s): Kidneys.

For additional information on toxicity, please refer to Section 11.

Section 4 - First Aid Measures

Immediate Treatment - Work Site: In case of contact, immediately flush eyes or skin with copious amounts of water for at least 15 minutes while removing contaminated clothing and shoes.

Oral Exposure: If swallowed, wash out mouth with water provided person is conscious. Call a physician.

Inhalation Exposure: If inhaled, remove to fresh air. If not breathing give artificial respiration. If breathing is difficult, give oxygen.

Section 5 - Fire Fighting Measures

Conditions of Flammability: May accelerate combustion.
Autoignition Temp.: N/A
Flammability: N/A

Section 6 - Accidental Release Measures

Extinguishing Media: Water spray.
Firefighting Protective Equipment: Wear self-contained breathing apparatus and protective clothing to prevent contact with skin and eyes.
Specific Hazard(s): Emits toxic fumes under fire conditions. May accelerate combustion. Contact with other material may cause fire.

Section 7 - Handling and Storage

Handling: No special handling precautions needed.
User Exposure: Avoid breathing dust. Do not get in eyes, on skin, or on clothing. Avoid prolonged or repeated exposure.

Storage: Suitable: Keep tightly closed. Keep away from combustible materials, heat, sparks, and open flame. Store in a cool dry place.

Section 8 - Exposure Controls / PPE

Engineering Controls: Use only in a chemical fume hood. Safety shower and eye bath.

Personal Protective Equipment: Other: Wear appropriate NIOSH/MSHA-approved respirator, chemical-resistant gloves, safety goggles, other protective clothing.

General Hygiene Measures: Wash contaminated clothing before reuse. Wash thoroughly after handling.

Section 9 - Physical/Chemical Properties

Appearance: Colorless
Color: Colorless
Form: Crystals

Molecular Weight: 485.07 AMU

Property: Value
At Temperature or Pressure: N/A
pH: 80 °C
BP/VP Range: 760 mmHg

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Section 10 - Stability and Reactivity

Stability

Stable.

Conditions of Instability

Protect from moisture.

Conditions to Avoid

Protect from moisture. 

Materials to Avoid

Strong reducing agents, Organic materials, Strong acids, Fireable powdered metals.

Hazardous Decomposition Products

Carbon monoxide, Carbon dioxide, Nitrogen oxides, Bismuth oxides.

Hazardous Polymerization

Will not occur.

Section 11 - Toxicological Information

Route of Exposure

Inhalation

Material is irritating to mucous membranes and upper respiratory tract.

Multiple Routes

Harmful if swallowed, inhaled, or absorbed through skin. Causes eye and skin irritation.

Target Organ(s) or System(s)

Kidneys.

Signs and Symptoms of Exposure

The signs and symptoms of exposure may include:

- Irritation of the skin, eyes, and respiratory tract.
- Nausea, vomiting, and diarrhea.
- Seizures and convulsions.
- Respiratory distress and hypoxia.

Exposure to high concentrations may cause death.

RTECS Number: EB2984430

Section 12 - Ecological Information

Section 13 - Disposal Considerations

Appropriate Method of Disposal of Substance or Preparation

The material should be disposed of: 1) water, 2) acid solution, or 3) oxidized to a water-soluble state. Precipitate the material as the sulfate, adjust the pH of the solution to 7 to complete precipitation. Filter the insolubles and dispose of them in a hazardous waste site. Destroy any excess sulfate with sodium hypochlorite. Neutralize the solution before flushing down the drain. Observe all federal, state, and local environmental regulations.

Section 14 - Transport Information

DOT

Proper Shipping Name: Nitrates, inorganic, n.o.s.

UN No.: 1477

Class: 5.1

Packing Group: Packing Group II

IATA

Proper Shipping Name: Nitrates, inorganic, n.o.s.

IATA Number: 1477

Hazard Class: 5.1

Packing Group: II

Section 15 - Regulatory Information

US Classification and Label Text

Indication of Danger

Oedematous, Harmful.

Risk Statements

Contact with combustible material may cause fire. Harmful by inhalation, in contact with skin and if swallowed. Irritating to eyes, respiratory system, and skin.

Safety Statements

Keep away from combustible material. In case of contact with eyes, rinse immediately with plenty of water and seek medical advice. Wear suitable protective clothing.

US Statements

Target organ(s): Kidneys.

United States Regulatory Information

SARA 313 Listed: No

Section 16 - Other Information

Warranty

The above information is believed to be correct but does not purport to be all inclusive and shall be used only as a guide. Sigma-Aldrich Inc., shall not be held liable for any damage resulting from handling or from contact with the above product. See reverse side of invoice or packing slip for additional terms and conditions of sale. Copyright 1999 Sigma-Aldrich Co. License granted to make unlimited paper copies for internal use only.