# Material Safety Data Sheet

<table>
<thead>
<tr>
<th>NFPA</th>
<th>HMIS</th>
<th>Personal Protective Equipment</th>
</tr>
</thead>
<tbody>
<tr>
<td>3</td>
<td>0</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>See Section 15.</td>
</tr>
</tbody>
</table>

## Section 1. Chemical Product and Company Identification

**Common Name/ Trade Name**

Bismuth AA Standard

**Manufacturer**

SPECTRUM QUALITY PRODUCTS INC.
14422 S. SAN PEDRO STREET
GARDENA, CA 90248

**Commercial Name(s)**

Not available.

**Synonym**

Not available.

**Chemical Name**

Not applicable.

**Chemical Family**

Element. (Inert material.)

**Chemical Formula**

Not applicable.

**Supplier**

SPECTRUM QUALITY PRODUCTS INC.
14422 S. SAN PEDRO STREET
GARDENA, CA 90248

**Catalog Number(s)**

AA130

**CAS#**

Mixture.

**RTECS**

Not applicable.

**TSCA**

TSCA 8(b) inventory: Bismuth; Nitric acid, 70%; Water

**CI#**

Not applicable.

### IN CASE OF EMERGENCY

CHEMTREC (24hr) 800-424-9300

CALL (310) 516-8000

## Section 2. Composition and Information on Ingredients

<table>
<thead>
<tr>
<th>Name</th>
<th>CAS #</th>
<th>TWA (mg/m³)</th>
<th>STEL (mg/m³)</th>
<th>CEIL (mg/m³)</th>
<th>% by Weight</th>
</tr>
</thead>
<tbody>
<tr>
<td>1) Bismuth</td>
<td>7440-69-9</td>
<td></td>
<td></td>
<td></td>
<td>0.1</td>
</tr>
<tr>
<td>2) Water</td>
<td>7732-18-5</td>
<td></td>
<td></td>
<td></td>
<td>92.9</td>
</tr>
<tr>
<td>3) Nitric acid, fuming</td>
<td>7697-37-2</td>
<td></td>
<td>4</td>
<td>7</td>
<td></td>
</tr>
</tbody>
</table>

### Toxicological Data on Ingredients

- **Bismuth**
  - LD50: Not available.
  - LC50: Not available.
- **Nitric acid, fuming**
  - LD50: Not available.
  - LC50: Not available.
### Section 3. Hazards Identification

**Potential Acute Health Effects**

Very hazardous in case of skin contact (corrosive, permeator), of ingestion, of inhalation. Slightly hazardous in case of eye contact (irritant). Liquid or spray mist may produce tissue damage particularly on mucous membranes of eyes, mouth and respiratory tract. Skin contact may produce burns. Inhalation of the spray mist may produce severe irritation of respiratory tract, characterized by coughing, choking, or shortness of breath. Severe over-exposure can result in death.

**Potential Chronic Health Effects**

Very hazardous in case of skin contact (corrosive, irritant, permeator), of eye contact (irritant), of ingestion, of inhalation. Non-sensitizer for skin.  
Carcinogenic Effects: Not available.  
Mutagenic Effects: Not available.  
Teratogenic Effects: Not available.  
Developmental Toxicity: Not available.  
The substance is toxic to lungs, mucous membranes. Repeated or prolonged exposure to the substance can produce target organs damage. Repeated or prolonged contact with spray mist may produce chronic eye irritation and severe skin irritation. Repeated or prolonged exposure to spray mist may produce respiratory tract irritation leading to frequent attacks of bronchial infection. Repeated exposure to a highly toxic material may produce general deterioration of health by an accumulation in one or many human organs. Repeated or prolonged inhalation of vapors may lead to chronic respiratory irritation.

### Section 4. First Aid Measures

**Eye Contact**

Check for and remove any contact lenses. In case of contact, immediately flush eyes with plenty of water for at least 15 minutes. Cold water may be used. Get medical attention immediately.

**Skin Contact**

In case of contact, immediately flush skin with plenty of water for at least 15 minutes while removing contaminated clothing and shoes. Cold water may be used. Wash clothing before reuse. Thoroughly clean shoes before reuse. Get medical attention immediately.

**Serious Skin Contact**

Wash with a disinfectant soap and cover the contaminated skin with an anti-bacterial cream. Seek immediate medical attention.

**Inhalation**

If inhaled, remove to fresh air. If not breathing, give artificial respiration. If breathing is difficult, give oxygen. Get medical attention immediately.

**Serious Inhalation**

Evacuate the victim to a safe area as soon as possible. Loosen tight clothing such as a collar, tie, belt or waistband. If breathing is difficult, administer oxygen. If the victim is not breathing, perform mouth-to-mouth resuscitation. WARNING: It may be hazardous to the person providing aid to give mouth-to-mouth resuscitation when the inhaled material is toxic, infectious or corrosive. Seek immediate medical attention.

**Ingestion**

Do NOT induce vomiting unless directed to do so by medical personnel. Never give anything by mouth to an unconscious person. If large quantities of this material are swallowed, call a physician immediately. Loosen tight clothing such as a collar, tie, belt or waistband.

**Serious Ingestion**

Not available.

### Section 5. Fire and Explosion Data

- **Flammability of the Product**: Non-flammable.
- **Auto-Ignition Temperature**: Not applicable.
- **Flash Points**: Not applicable.
- **Flammable Limits**: Not applicable.
- **Products of Combustion**: Not available.
- **Fire Hazards in Presence of Various Substances**: Not applicable.
- **Explosion Hazards in Presence of Various Substances**
  - Risks of explosion of the product in presence of mechanical impact: Not available.
  - Risks of explosion of the product in presence of static discharge: Not available.
  - Slightly explosive in presence of reducing materials, of combustible materials, of organic materials.

*Continued on Next Page*
**Section 6. Accidental Release Measures**

Small Spill  
Dilute with water and mop up, or absorb with an inert dry material and place in an appropriate waste disposal container. If necessary: **Neutralize the residue with a dilute solution of sodium carbonate.**

Large Spill  
Corrosive liquid. Poisonous liquid.  
Stop leak if without risk. Absorb with DRY earth, sand or other non-combustible material. Do not get water inside container. Do not touch spilled material. Use water spray curtain to divert vapor drift. Use water spray to reduce vapors. Prevent entry into sewers, basements or confined areas; dike if needed. Call for assistance on disposal. **Neutralize the residue with a dilute solution of sodium carbonate. Be careful that the product is not present at a concentration level above TLV.** Check TLV on the MSDS and with local authorities.

**Section 7. Handling and Storage**

Precautions  
Keep locked up. Keep container dry. Do not ingest. Do not breathe gas/fumes/vapor/spray. Never add water to this product. In case of insufficient ventilation, wear suitable respiratory equipment. If ingested, seek medical advice immediately and show the container or the label. Avoid contact with skin and eyes. Keep away from incompatibles such as alkalis.

Storage  
Keep container tightly closed. Keep container in a cool, well-ventilated area.

**Section 8. Exposure Controls/Personal Protection**

**Engineering Controls**  
Provide exhaust ventilation or other engineering controls to keep the airborne concentrations of vapors below their respective threshold limit value. Ensure that eyewash stations and safety showers are proximal to the work-station location.

**Personal Protection**  

**Personal Protection in Case of a Large Spill**  
Splash goggles. Full suit. Vapor respirator. Boots. Gloves. A self contained breathing apparatus should be used to avoid inhalation of the product. Suggested protective clothing might not be sufficient; consult a specialist BEFORE handling this product.

**Exposure Limits**  
Nitrile acid, fuming  
TWA: 2 CEIL: 4  
TWA: 5 CEIL: 10  
Consult local authorities for acceptable exposure limits.

**Section 9. Physical and Chemical Properties**

<table>
<thead>
<tr>
<th>Property</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Physical state and appearance</td>
<td>Liquid</td>
</tr>
<tr>
<td>Molecular Weight</td>
<td>Not applicable</td>
</tr>
<tr>
<td>pH (1% soln/water)</td>
<td>Acidic.</td>
</tr>
<tr>
<td>Boiling Point</td>
<td>The lowest known value is 82.6 (180.7°F) (Nitric acid, fuming). Weighted average: 98.78°C (209.8°F)</td>
</tr>
<tr>
<td>Melting Point</td>
<td>May start to solidify at -41.6°C (-42.9°F) based on data for: Nitric acid, fuming.</td>
</tr>
<tr>
<td>Critical Temperature</td>
<td>Not available</td>
</tr>
<tr>
<td>Specific Gravity</td>
<td>Weighted average: 1.02 (Water = 1)</td>
</tr>
<tr>
<td>Vapor Pressure</td>
<td>The highest known value is 6 kPa (@ 20°C) (Nitric acid, fuming). Weighted average: 2.56 kPa (@ 20°C)</td>
</tr>
<tr>
<td>Vapor Density</td>
<td>The highest known value is 0.62 (Air = 1) (Water).</td>
</tr>
</tbody>
</table>
### Section 10. Stability and Reactivity Data

<table>
<thead>
<tr>
<th>Stability</th>
<th>The product is stable.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Instability Temperature</td>
<td>Not available.</td>
</tr>
<tr>
<td>Conditions of Instability</td>
<td>Not available.</td>
</tr>
<tr>
<td>Incompatibility with various substances</td>
<td>Reactive with alkalis. Slightly reactive to reactive with reducing agents, combustible materials, organic materials, metals, acids.</td>
</tr>
<tr>
<td>Corrosivity</td>
<td>Non-corrosive in presence of glass.</td>
</tr>
</tbody>
</table>

| Special Remarks on Reactivity | Not available. |
| Special Remarks on Corrosivity | Not available. |
| Polymerization | Will not occur. |

### Section 11. Toxicological Information

<table>
<thead>
<tr>
<th>Routes of Entry</th>
<th>Dermal contact. Eye contact. Inhalation. Ingestion.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Toxicity to Animals</td>
<td>LD50: Not available. LC50: Not available.</td>
</tr>
<tr>
<td>Chronic Effects on Humans</td>
<td>Not available.</td>
</tr>
<tr>
<td>Other Toxic Effects on Humans</td>
<td>Very hazardous in case of skin contact (permeator), of ingestion. Hazardous in case of skin contact (corrosive), of eye contact (corrosive), of inhalation (lung corrosive).</td>
</tr>
</tbody>
</table>

| Special Remarks on Toxicity to Animals | Not available. |
| Special Remarks on Chronic Effects on Humans | Due to the presence of dark line on gums, chronic bismuth toxicity may complicate diagnosis of chronic lead toxicity. (Bismuth) |
| Special Remarks on other Toxic Effects on Humans | Not available. |

### Section 12. Ecological Information

| Ecotoxicity | Not available. |
| BOD5 and COD | Not available. |
| Products of Biodegradation | Possibly hazardous short term degradation products are not likely. However, long term degradation products may arise. |
| Toxicity of the Products of Biodegradation | The products of degradation are more toxic. |

| Special Remarks on the Products of Biodegradation | Not available. |
Section 13. Disposal Considerations

Waste Disposal

Section 14. Transport Information

DOT Classification: Class 8: Corrosive material

Identification: Nitric acid, solution (Nitric acid, fuming) UNNA: UN2031 PG: II

Special Provisions for Transport: Marine Pollutant

DOT (Pictograms)

Section 15. Other Regulatory Information and Pictograms

Federal and State Regulations:
- Pennsylvania RTK: Nitric acid, 70%
- Massachusetts RTK: Nitric acid, 70%
- TSCA 8(b) Inventory: Bismuth; Nitric acid, 70%; Water
- SARA 302/304/311/312 extremely hazardous substances: Nitric acid, 70%
- SARA 313 toxic chemical notification and release reporting: Nitric acid, 70% 10%
- CERCLA: Hazardous substances: Nitric acid, 70%

California Proposition 65 Warnings


Other Classifications:

HMIS (U.S.A.)
- Health Hazard: 3
- Fire Hazard: 0
- Reactivity: 0
- Personal Protection

Whmis (Canad (Pictograms)

DSCL (Europe) (Pictograms)

Continued on Next Page
Section 16. Other Information

<table>
<thead>
<tr>
<th>MSDS Code</th>
<th>ABISM</th>
</tr>
</thead>
<tbody>
<tr>
<td>References</td>
<td>Not available</td>
</tr>
<tr>
<td>Other Special Considerations</td>
<td>Not available.</td>
</tr>
</tbody>
</table>


CALL (310) 516-8000

Notice to Reader
All chemicals may pose unknown hazards and should be used with caution. This Material Safety Data Sheet (MSDS) applies only to the material as packaged. If this product is combined with other materials, deteriorates, or becomes contaminated, it may pose hazards not mentioned in this MSDS. It shall be the user's responsibility to develop proper methods of handling and personal protection based on the actual conditions of use. While this MSDS is based on technical data judged to be reliable, Spectrum Quality Products, Inc. assumes no responsibility for the completeness or accuracy of the information contained herein.