Bismuth Nitrate, 0.005M

Safety Data Sheet

Section 1 Product Description

Product Name:	Bismuth Nitrate, 0.005M
Manufacturer number	BN6891-B
Distributor:	Best Sanitizers, Inc. PO Box 1360 Penn Valley, CA 95946
Chemical Information Emergency: Aquaphoenix Scientific	1.800.255.3924

Section 2 Hazard Identification

Classification of the substance or mixture:

Skin Corrosion.	Category 1B

Danger

Appearance—Aqueous solution
Physicalstate—Liquid
Odor— Odorless

Hazard Statements

Causes severe skin burns and eye damage.

Precautionary Statements
If medical advice is needed, have product container or label at hand.
Keep out of reach of children.
Read label before use.
Do not eat, drink or smoke when using this product.
Do not breathe dust/fume/gas/mist/vapors/spray.
Wash skin thoroughly after handling.
Wear protective gloves/protective clothing/eye protection/face protection.
IF SWALLOWED: Rinse mouth. Do NOT induce vomiting. Wash contaminated clothing before reuse.
IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing. Immediately call a POISON CENTER or doctor.
IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses if present and easy to do. Continue rinsing.
Keep only in original container. Store locked up.
Dispose of contents and container as instructed in Section 13.

Section 3 Composition/Information on Ingredients

Chemical Name	CAS No.	Weight-%
Bismuth Nitrate Pentahydrate	10035-06-0	0.34
Nitric Acid	7697-37-2	6.04
Purified water	7732-18-5	93.62

Section 4 First Aid Measures

First Aid Measures

Eye Contact Hold eye(s)open and rinse slowly and gently with water for 30 minutes. Remove contact lenses, if present, after first 5 minutes, then continue rinsing eye(s). Seek medical advice/attention.

Skin Contact Wash affected area with soap and water. Rinse/flush exposed skin gently using water for at least 30 minutes. Seek immediate medical attention.

Inhalation Remove to fresh air. Seek immediate medical attention if discomfort or irritation persists.

Ingestion Rinse mouth thoroughly. Do NOT induce vomiting.
Drink sips of water.
Seek medical attention if irritation, discomfort or vomiting persists.

Most important symptoms and effects, both acute and delayed

Irritation/burns. Headache. Shortness of breath. May cause severe burns, blindness and/or permanent damage. May cause burns, deep penetrating ulcerations of the skin, delayed tissue destruction, redness, pain. May cause gastrointestinal irritation with nausea, vomiting and diarrhea.

Indication of any immediate medical attention and special treatment needed

If seeking medical attention, provide SDS document to physician.

Section 5 Fire-Fighting Measures

Suitable Extinguishing Media

If in laboratory setting, follow laboratory fire suppression procedures. Use appropriate suppression agents for adjacent combustible materials or sources ignition.

Unsuitable Extinguishing Media

None.

Specific hazards arising from the chemical

Combustion products may include carbon oxides or other toxic vapors.

Protective Equipment and Precautions for Firefighters

As in any fire, wear self-contained breathing apparatus pressure-demand ,MSHA/NIOSH (approved or equivalent) and full protective gear.

Section 6 Accidental Release Measures

Personal Precautions, Protective Equipment and Emergency Procedures

Personal Precautions	Use personal protection recommended in Section 8. Ensure adequate ventilation, especially in confined areas. Keep unprotected persons away. Keep away from ignition sources. Protect from heat. Stop the spill if possible. Contain spilled material by diking or using inert absorbent.

Environment Precautions

Environmental Precautions	Prevent entry into waterways, sewers, basements or confined areas. See Section 12 for additional ecological information.

Methods and material for containment and cleaning up

Methods for containment	If in a laboratory settings, follow Chemical Hygiene Plan procedures. Always obey local regulations. Place into properly labeled containers for recovery or disposal. If necessary, use trained response staff/contractor.
Methods for cleaning up	Collet liquids using vacuum or by use of absorbents. Neutralize with calcium carbonate and soda ash. Add water to slurry.

Section 7 Handling and Storage

Precautions for Safe Handling

Advice on Safe Handling	Prevent formation of aerosols. Follow good hygiene procedures when handling chemical materials. Do not eat, drink or smoke or use personal products when using this product. Do not handle with incompatibles. Avoid splashes or spray in enclosed areas.

Conditions for safe storage, including any incompatibilities

Storage Conditions/ Incompatible materials	Keep Containers tightly closed in a dry, cool and well-ventilated place. Avoid storage near extreme heat, ignition sources or open flame. Keep away from foodstuffs. Store with like hazards. Protect from freezing. Store away from oxidizing agents.

Section 8 Protection Information

Control Parameters:

7697-37-2 Nitric Acid, ACGIH TLV-STEL: 4 ppm STEL.
7697-37-2 Nitric Acid, ACGIH TLV-TWA: 2 ppm TWA.
7697-37-2 Nitric Acid, NIOSH-STEL 4 ppm; 10 mg/m^3.
7697-37-2 Nitric Acid, NIOSH-TWA 2 ppm; 5 mg/m^3.
7697-37-2 Nitric Acid, OSHA-Final PELS- 2 ppm; 5 mg/m^3.

Appropriate Engineering Controls

EngineeringControls

Use in chemical hood only. Emergency eyewash fountains and safety showers should be available in the immediate vicinity of use/handling. Provide exhaust ventilation or other engineering controls to keep the airborne concentrations of vapor or dusts below the applicable workplace exposure limits. Occupational exposure limits indicated above. Use under a fume hood. It is recommended that all dust control equipment such as local exhaust ventilation and material transport systems involved in handling of this product contain explosion relief vents or an explosion suppression system or an oxygen deficient environment. Ensure that dust-handling systems (such as exhaust ducts, dust collectors, vessels and processing equipment) are designed in a manner to prevent the escape of dust into the work area, no leakage from equipment.

Individual Protection Measures, such as personal protective equipment

Eye/Face protection	Wear safety glasses with side shields(or goggles).
Skin and body protection	Wear impermeable and resistant to the product/ substance/preparation protective gloves. Selection of glove material on consideration of the penetration times, rates of diffusion and degradation.
Respiratory protection	Not required under normal conditions of use. If exposure limits are exceeded or irritation is experienced, NIOSH/MSHA approved respiratory protection should be worn. Positive-pressure supplied air respirators may be required for high airborne contaminant concentrations. Respiratory protection must be provided in accordance with current local regulations.
General Hygiene	The usual precautionary measures are to be adhered to when handling chemicals. Keep away from food, beverages and feed sources. Immediately remove al soiled and contaminated clothing. Wash face, hands and any exposed skin thoroughly after handling. Wash contaminated clothing and shoes before reuse. Do not Eat, Drink or Smoke when using this product. Do not inhale gases/fumes/dust/mist/vapors/aerosols. Avoid contact with the eyes and skin.

Section 9 Physical and Chemical Properties

Information on basic physical and chemical properties

Formula:	See Section 3	Physical State:	Liquid
Odor:	Odorless	Appearance:	Aqueous solution
Odor Threshold:	Not Determined	Color:	Clear

Property	**Values**
pH	7
Meting Point/Freezing Point	0°C
Boiling Point/Boiling Range	100°C
Flash Point	Not Applicable.
Evaporation rate	Not Determined.
Flammability (solid, gas)	Not Applicable.
Flammability Limit in Air	
Upper flammability limit:	0 Vol %
Lower flammability limit:	0 Vol %
Vapor pressure:	2.3 kPa @ 20 ° C
Vapor density:	0.62
Specific Gravity	1
Solubility	None.
Partition coefficient	No Determined.
Autoignition temperature	Not Determined.
Decomposition temperature	Not Determined.
Kinematic viscosity	No information available.
Dynamic viscosity	0.952 mPas @ 20 ° C

Section 10 Stability and Reactivity Data

Reactivity	None.
Chemical Stability	No decomposition if used and stored according to specifications.
Possibility of Hazardous Reactions	None.
Conditions to avoid	Store away from oxiding agents, strong acids or bases.
Incompatible materials	Strong bases. Metallic powder.
Hazardous Decomposition Products	Nitrogen oxides. Hydrogen nitrate.

Section 11 Toxicity Data

Acute Toxicity:

Oral:	7697-37-2	LD50 Rat: 430 mg/kg
	10035-06-0	LD50 Rat: 5 g/kg (Bismuth)
Inhalation:	7697-37-2	LC50 Rat: 67 ppm 4h

Sensitization	No Information Available
Germ cell mutagenicity	No Information Available
Carcinogenicity	No Information Available
Reproductive toxicity	No Information Available
STOT single exposure	No Information Available

Section 12 Ecological Data

Ecotoxicity

No Information Available

Persistence and degradability

Readily degradable in the environment.

Bioaccumulation

Not Bioaccumulative.

Mobility in soil

Aqueous solution has high mobility in soil.

Other adverse effects

No additional information.

Section 13 Disposal Information

Waste treatment methods

Disposal of wastes	Disposal should be in accordance with applicable regional, national and local laws and regulations. Do not dispose together with household garbage. Do not allow product to reach sewage system or open water.

Section 14 Transport Information

DOT

UN Number	3264	Class 8 Corrosive Liquid, Acidic, Inorganic, N.O.S. Packing Group II

Section 15 Regulatory Information

International Inventories

TSCA	**Complies**
DSL/NDSL	**Complies**

Legend:

TSCA—United States Toxic Substances Control Act Section 8(b) Inventory

DSL/NDSL— Canadian Domestic Substances List/Non-Domestic Substances List

US Federal Regulations

SARA 313

Section 313 of Title III of the Superfund Amendments and Reauthorization of 1986 (SARA). 7697-37-2 Nitric acid 1.0% de minimis concentration.

SARA 311/312

Reactive, Acute.

CERCLA

7697-37-3 Nitric acid 1000 lbs.

US State Regulations

California Proposition 65

None of the ingredients are listed.

Section 16 Additional Information

NFPA	**Health Hazards**	**Flammability**	**Instability**	**Physical and Chemical Properties**
	2	0	0	0
HMIS	**Health Hazards**	**Flammability**	**Physical Hazards**	**Personal protection**
	2	0	0	X

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End of Safety Data Sheet