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SECTION 1: IDENTIFICATION

Effective Date: 12/17/96
Product Name: **Bismuth subnitrate;** bismuth oxynitrate; bismuth hydroxide nitrate oxide
Chemical Formula: Bi₅O(OH)₉(NO₃)₄
CAS No.: 1304-85-4

SECTION 2: HAZARDOUS INGREDIENTS:

Very dangerous in case of skin & eye contact (irritant), and of ingestion, of inhalation. Product may irritate eyes and skin upon contact. Inflammation of eye is characterized by itching, scaling, reddening, or, occasionally blistering. Bismuth salts are poorly absorbed. Should absorption occur, symptoms may include loss of appetite, headache, rashes, kidney damage, and rarely mild jaundice. Absorption may occur only minimally through broken skin. Repeated or prolonged ingestion may cause mental deterioration, convulsions, and a bismuth line, black spots on gums, foul breath, and salivation.

SECTION 3: PHYSICAL DATA

Physical Data:

Appearance and Odor:	white solid, no odor
Molecular Weight	1461.99
Specific Gravity (Water = 1):	4.928
Solubility in water:(by weight)	insoluble in cold water
Boiling Point:	decomposes
Melting Point:	105°C, decomposition
Density	approx. 6.04 g/cm ³
Bulk density	approx. 1 g/cm ³

SECTION 4: FIRE AND EXPLOSION DATA

Fire and Explosion Information:

Flash point:	n/a
Flammable limit:	n/a
Extinguishing Media:	non-flammable
Fire Fighting Procedures:	use any suitable means to extinguish surrounding fire; Firefighters should wear respiratory equipment
Unusual Fire and Explosion Hazards:	formation of nitrogen oxides possible

SECTION 5: REACTIVITY DATA

Reactivity Data:

Stable Unstable

Conditions to Avoid & Incompatibilities:

extreme temperatures

Hazardous Polymerization:

no

SECTION 6: HEALTH HAZARD DATA

Threshold Limit Value (TLV):

n/a

Permissible Exposure Limit:

Toxicity: n/a

Oral LD50 (rat):

note: Passes through placental barrier in human. Due to presence of dark line on gums, chronic bismuth toxicity may complicate diagnosis of chronic lead toxicity.

SECTION 7: FIRST AID and SPILLAGE AND DISPOSAL PROCEDURES

First Aid:

Eyes: Check for and remove any contact lenses. Flush with water for 15 minutes. Do not use an eye ointment. Seek medical attention.

Skin: Remove contaminated clothes, protecting own hands and body. Place victim under deluge shower. Wash contaminated skin with running water and non-abrasive soap. Cover irritated skin with emollient. Wash clothing before reusing. Seek medical attention if irritation persists.

Inhalation: Allow victim to rest in well ventilated area. Seek immediate medical attention.

Ingestion: Remove any dentures. Have conscious person drink several glasses of milk or water. Induce vomiting by sticking finger in throat. Never give unconscious person anything to ingest. Seek medical attention.

Spillage: Use appropriate tools to put the spilled solid in convenient waste disposal container. Finish cleaning by spreading water on contaminated surface and dispose of according to local and regional authority requirements. Do not empty into ground water.

Disposal: Recycle to process. Consult local or regional authorities. Pass on to an appropriate incinerating plant.

SECTION 8: PRECAUTION TO BE TAKEN IN HANDLING AND STORING

Other Precautions: Do not ingest. Do not breathe dust. Wear suitable respiratory equipment. Avoid contact with eyes and skin. Store in tightly closed containers.

SECTION 9: SPECIAL PROTECTION INFORMATION

Ventilation: Process enclosures, local exhaust ventilation, or other engineering controls to keep airborne levels below exposure limits. Avoid dust formation (use only in well ventilated areas)

Eye Protection: Splash goggles

Protective Gloves: impervious

Respiratory Protection: dust respirator (MSHA/NIOSH approved) if ventilation insufficient

Other Protective Gear: lab coat

SECTION 10: TRANSPORT INFORMATION

DOT classification: UN1477, Class 5.1 Oxidizer, Nitrate, inorganic, n.o.s., (Bismuth subnitrate), PG II

DOT pictograms: Oxidizer 5.1

SECTION 11: ECOLOGICAL INFORMATION

Slightly toxic to water; product is insoluble in water