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MERCURIC BROMIDE

1. Product Identification
Synonyms: Mercury (II) bromide (1:2)
CAS No.: 7789-47-1
Molecular Weight: 360.44
Chemical Formula: $HgBr_2$
Product Codes: 38319

2. Composition/Information on Ingredients

Ingredient	CAS No	Percent
Mercuric Bromide	7789-47-1	90 - 100%

3. Hazards Identification
Potential Health Effects

Inhalation: Causes irritation to the respiratory tract. Symptoms include sore throat, coughing, pain, tightness in chest, breathing difficulties, shortness of breath and headache. Pneumonitis may develop. Can be absorbed through inhalation with symptoms to parallel ingestion.
Ingestion: Highly Toxic. May cause burning of the mouth and pharynx, abdominal pain, vomiting, corrosive ulceration, bloody diarrhea. May be followed by a rapid and weak pulse, shallow breathing, paleness, exhaustion, central nervous system problems, tremors and collapse.
Skin Contact: Causes irritaton and burns to skin. Symptoms include redness and pain. May cause skin allergy and sensitization. Can be absorbed through the skin with symptoms to parallel ingestion.
Eye Contact: Causes irritation and burns to eyes. Symptoms include redness, pain, blurred vision; may cause serious and permanent eye damage.
Chronic Exposure: Chronic exposure through any route can produce central nervous system damage. May cause muscle tremors, personality and behavior changes, memory loss, metallic taste, loosening of the teeth, digestive disorders, skin rashes, brain damage and kidney damage. Can cause skin allergies and accumulate in the body. Repeated skin contact can cause the skin to turn gray in color.
Aggravation of Pre-existing Conditions: Persons with nervous disorders, or impaired kidney or respiratory function, or a history of allergies or a known sensitization to mercury may be more susceptible to the effects of the substance.

4. First Aid Measures
Inhalation: Remove to fresh air. If not breathing, give artificial respiration. If breathing is difficult, give oxygen. Get medical attention immediately.
Ingestion: Induce vomiting immediately as directed by medical personnel. Never give anything by mouth to an unconscious person. Get medical attention immediately.
Skin Contact: Immediately flush skin with plenty of water for at least 15 minutes while removing contaminated clothing and shoes. Get medical attention immediately. Wash clothing before reuse. Thoroughly clean shoes before reuse.
Eye Contact: Immediately flush eyes with plenty of water for at least 15 minutes, lifting lower and upper eyelids occasionally. Get medical attention immediately.

5. Fire Fighting Measures
Fire: Not considered to be a fire hazard.
Explosion: Not considered to be an explosion hazard. Sealed containers may rupture when heated.
Fire Extinguishing Media: Use any means suitable for extinguishing surrounding fire. Do not allow water runoff to enter sewers or waterways.
Special Information: In the event of a fire, wear full protective clothing and NIOSH-approved self-contained breathing apparatus with full facepiece operated in the pressure demand or other positive pressure mode.

6. Accidental Release Measures
Ventilate area of leak or spill. Clean-up personnel require protective clothing and respiratory protection from dust.
Spills: Pick up and place in a suitable container for reclamation or disposal in a method that does not generate dust. Sprinkle area with sulfur or calcium polysulfide to suppress mercury.

7. Handling and Storage
Keep in a tightly closed container, stored in a cool, dry, ventilated area. Protect from physical damage and direct sunlight. Follow strict hygiene practices. Containers of this material may be hazardous when empty since they retain product residues (dust, solids); observe all warnings and precautions listed for the product.

8. Exposure Controls/Personal Protection
Airborne Exposure Limits:
- OSHA Acceptable Ceiling Concentration:
mercury and mercury compounds: 0.1 mg/m3 (TWA), skin
- ACGIH Threshold Limit Value (TLV):
inorganic and metallic mercury, as Hg: 0.025 mg/m3 (TWA) skin, A4 Not classifiable as a human carcinogen.
- ACGIH Biological Exposure Indices:
total inorganic mercury in urine (preshift): 35 ug/g creatinine;
total inorganic mercury in blood (end of shift): 15 ug/l.
Ventilation System: A system of local and/or general exhaust is recommended to keep employee exposures below the Airborne Exposure Limits. Local exhaust ventilation is generally preferred because it can control the emissions of the contaminant at its source, preventing dispersion of it into the general work area.
Personal Respirators (NIOSH Approved): If the exposure limit is exceeded and engineering controls are not feasible, a half facepiece particulate respirator (NIOSH type N95 or better filters) may be worn for up to ten times the exposure limit or the maximum use concentration specified by the appropriate regulatory agency or respirator supplier, whichever is lowest.. A full-face piece particulate respirator (NIOSH type N100 filters) may be worn up to 50 times the exposure limit, or the maximum use concentration specified by the appropriate regulatory agency, or respirator supplier, whichever is lowest. If oil particles (e.g. lubricants, cutting fluids, glycerine, etc.) are present, use a NIOSH type R or P filter. For emergencies or instances where the exposure levels are not known, use a full-facepiece positive-pressure, air-supplied respirator.
Wear impervious protective clothing, including boots, gloves, lab coat, apron or coveralls, as appropriate, to prevent skin contact.
Eye Protection:
Use chemical safety goggles and/or full face shield where dusting or splashing of solutions is possible. Maintain eye wash fountain and quick-drench facilities in work area.

9. Physical and Chemical Properties
Appearance: Fine, white crystals.
Odor: Odorless.
Solubility: 0.5 g/100 ml water @ 25C (77F).
Density: 6.05
pH: No information found.
% Volatiles by volume @ 21C (70F): No information found.
Boiling Point: 322C (612F)
Melting Point: 237C (459F)
Vapor Density (Air=1): 12.0
Vapor Pressure (mm Hg): 1 @ 136.5C (277F)
Evaporation Rate (BuAc=1): No information found.

10. Stability and Reactivity
Stability: Stable under ordinary conditions of use and storage.
Hazardous Decomposition Products: Emits toxic fumes of mercury and bromine when heated to decomposition.
Hazardous Polymerization: Will not occur.
Incompatibilities: Sodium, potassium, indium.
Conditions to Avoid: Light and incompatibles.

11. Toxicological Information
Toxicological Data: Oral rat LD50: 40 mg/kg.
Reproductive Toxicity: All forms of mercury can cross the placenta to the fetus, but most of what is known has been learned from experimental animals. See Chronic Health Hazards.
Carcinogenicity: EPA / IRIS classification: Group D1 - Not classifiable as a human carcinogen.

--------\Cancer Lists\----------

	---NTP Carcinogen---		
Ingredient	Known	Anticipated	IARC Category
Mercuric Bromide (7789-47-1)	No	No	3

12. Ecological Information
Environmental Fate:
For mercury: This material has an experimentally-determined bioconcentration factor (BCF) of greater than 100. This material is expected to significantly bioaccumulate.
Environmental Toxicity:
For mercury: This material is expected to be toxic to aquatic life. The LC50/96-hour values for fish are less than 1 mg/l.

13. Disposal Considerations
Dispose of container and unused contents in accordance with federal, state and local requirements.

14. Transport Information

Land

Proper Shipping Name: MERCURY BROMIDE
Hazard Class: 6.1
UN/NA: UN1634
Packing Group: II
Information reported for product/size: 500G
International (Water, I.M.O.)

Proper Shipping Name: MERCURIC BROMIDE
Hazard Class: 6.1
UN/NA: UN1634
Packing Group: II
Information reported for product/size: 500G
International (Air, I.C.A.O.)

Proper Shipping Name: MERCURIC BROMIDE
Hazard Class: 6.1
UN/NA: UN1634
Packing Group: II
Information reported for product/size: 500G

15. Regulatory Information
SARA 311/312: Acute: Yes Chronic: Yes Fire: No Pressure: No
Reactivity: No (Pure / Solid)
Poison Schedule: S7

16. Other Information
Product Use:
Laboratory Reagent.