

[Tantalum\(V\) Bromide](#)

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Signal Word	Warning
Hazard Statements	H302+H312+H332-H314-H335
Hazard Codes	C, Xi
Precautionary Statements	P260-P264-P270-P271-P280-P303+P361+P353-P304+P340-P305+P351+P338-P310-P330-P331-P363-P501
Risk Codes	N/A
Safety Statements	N/A
Transport Information	UN 3260 8/PG III
GHS Pictograms	GHS05 Corrosive  GHS07 Exclamation Point 

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SAFETY DATA SHEET

Date Accessed: 05/21/2024

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SECTION 1. IDENTIFICATION

Product Identifiers: All applicable American Elements product codes for CAS #13451-11-1

Relevant identified uses of the substance:
Scientific research and development

Supplier details:
American Elements
10884 Weyburn Ave.
Los Angeles, CA 90024
Tel: +1 310-208-0551
Fax: +1 310-208-0351

Emergency telephone number:
Domestic, North America +1 800-424-9300
International +1 703-527-3887

SECTION 2. HAZARDS IDENTIFICATION

Classification

This chemical is considered hazardous by the 2012 OSHA Hazard Communication Standard (29 CFR 1910.1200)

Acute oral toxicity Category 4

Acute dermal toxicity Category 4

Acute Inhalation Toxicity - Dusts and Mists Category 4
Skin Corrosion/Irritation Category 1 B
Serious Eye Damage/Eye Irritation Category 1
Specific target organ toxicity (single exposure)
Category 3
Target Organs - Respiratory system.
Label Elements
Signal Word
Danger
Hazard Statements
Causes severe skin burns and eye damage
May cause respiratory irritation
Harmful if swallowed, in contact with skin or if inhaled



Precautionary Statements
Prevention
Wash face, hands and any exposed skin thoroughly after handling
Do not eat, drink or smoke when using this product
Wear protective gloves/protective clothing/eye protection/face protection
Use only outdoors or in a well-ventilated area
Do not breathe dust/fume/gas/mist/vapors/spray
Response
Immediately call a POISON CENTER or doctor/physician
Inhalation
IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing
Skin
Wash contaminated clothing before reuse
IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water/shower
Eyes
IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing
Ingestion
Rinse mouth
Do NOT induce vomiting
Storage
Store locked up
Store in a well-ventilated place. Keep container tightly closed
Disposal
Dispose of contents/container to an approved waste disposal plant
Hazards not otherwise classified (HNOC)
None identified

SECTION 3. COMPOSITION/INFORMATION ON INGREDIENTS

Component
Tantalum bromide (TaBr₅)
CAS-No
13451-11-1
Weight %
≤100

SECTION 4. FIRST AID MEASURES

General Advice Show this safety data sheet to the doctor in attendance. Immediate medical attention is required.

Eye Contact Rinse immediately with plenty of water, also under the eyelids, for at least 15 minutes. Immediate medical attention is required. Keep eye wide open while rinsing.

Skin Contact Wash off immediately with soap and plenty of water while removing all contaminated clothes and shoes. Call a physician immediately.

Inhalation Remove to fresh air. If not breathing, give artificial respiration. Call a physician or poison control center immediately. Do not use mouth-to-mouth method if victim ingested or inhaled the substance; give artificial respiration with the aid of a pocket mask equipped with a one-way valve or other proper respiratory medical device.

Ingestion Immediate medical attention is required. Do NOT induce vomiting. Drink plenty of water. Never give anything by mouth to an unconscious person.

Most important symptoms and effects

Causes burns by all exposure routes. Product is a corrosive material. Use of gastric lavage or emesis is contraindicated. Possible perforation of stomach or esophagus should be investigated: Ingestion causes severe swelling, severe damage to the delicate tissue and danger of perforation

Notes to Physician Treat symptomatically

SECTION 5. FIREFIGHTING MEASURES

Suitable Extinguishing Media Not combustible. CO₂, dry chemical, dry sand, alcohol-resistant foam.

Unsuitable Extinguishing Media No information available

Flash Point No information available
Method - No information available
Autoignition Temperature No information available
Explosion Limits
Upper No data available
Lower No data available
Sensitivity to Mechanical Impact No information available
Sensitivity to Static Discharge No information available
Specific Hazards Arising from the Chemical
The product causes burns of eyes, skin and mucous membranes.
Hazardous Combustion Products
Hydrogen bromide. Tantalum oxide.
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.
Thermal decomposition can lead to release of irritating gases and vapors.
NFPA
Health
3
Flammability

Instability

Physical hazards
-

SECTION 6. ACCIDENTAL RELEASE MEASURES

Personal Precautions Use personal protective equipment as required. Evacuate personnel to safe areas. Avoid contact with skin, eyes or clothing.
Environmental Precautions Should not be released into the environment. Do not allow material to contaminate ground water system. See Section 12 for additional Ecological Information. Do not flush into surface water or sanitary sewer system.
Methods for Containment and Clean Up
Sweep up and shovel into suitable containers for disposal. Avoid dust formation.

SECTION 7. HANDLING AND STORAGE

Handling Wear personal protective equipment/face

protection. Do not get in eyes, on skin, or on clothing. Use only under a chemical fume hood. Do not breathe dust. Do not ingest. If swallowed then seek immediate medical assistance. Storage Corrosives area. Keep containers tightly closed in a dry, cool and well-ventilated place.

SECTION 8. EXPOSURE CONTROLS/PERSONAL PROTECTION

Exposure Guidelines This product does not contain any hazardous materials with occupational exposure limits established by the region specific regulatory bodies.

Engineering Measures None under normal use conditions. Ensure that eyewash stations and safety showers are

close to the workstation location.

Personal Protective Equipment

Eye/face Protection Wear appropriate protective eyeglasses or chemical safety goggles as described by

OSHA's eye and face protection regulations in 29 CFR 1910.133 or European Standard EN166.

Skin and body protection Wear appropriate protective gloves and clothing to prevent skin exposure.

Respiratory Protection No protective equipment is needed under normal use conditions.

Hygiene Measures Handle in accordance with good industrial hygiene and safety practice

SECTION 9. PHYSICAL AND CHEMICAL PROPERTIES

Physical State Solid

Appearance Yellow

Odor pungent

Odor Threshold No information available

pH No information available

Melting Point/Range 265 °C / 509 °F

Boiling Point/Range 348.8 °C / 659.8 °F

Flash Point No information available

Evaporation Rate Not applicable

Flammability (solid,gas) No information available

Flammability or explosive limits

Upper No data available

Lower No data available

Vapor Pressure No information available

Vapor Density Not applicable

Specific Gravity 4.67 g/cm³

Solubility No information available
Partition coefficient; n-octanol/water No data available
Autoignition Temperature No information available
Decomposition Temperature No information available
Viscosity Not applicable
Molecular Formula TaBr₅
Molecular Weight 580.49

SECTION 10. STABILITY AND REACTIVITY

Reactive Hazard None known, based on information available
Stability Moisture sensitive.
Conditions to Avoid Incompatible products.
Incompatible Materials Acids
Hazardous Decomposition Products Hydrogen bromide, Tantalum oxide
Hazardous Polymerization Hazardous polymerization does not occur.
Hazardous Reactions None under normal processing.

SECTION 11. TOXICOLOGICAL INFORMATION

Acute Toxicity
Product Information
Component Information
Toxicologically Synergistic Products
No information available
Delayed and immediate effects as well as chronic effects from short and long-term exposure
Irritation No information available
Sensitization No information available
Carcinogenicity The table below indicates whether each agency has listed any ingredient as a carcinogen.
Mutagenic Effects No information available
Reproductive Effects No information available.
Developmental Effects No information available.
Teratogenicity No information available.
STOT - single exposure Respiratory system
STOT - repeated exposure None known
Aspiration hazard No information available
Symptoms / effects, both acute and delayed
Product is a corrosive material. Use of gastric lavage or emesis is contraindicated.
Possible perforation of stomach or esophagus should be investigated: Ingestion causes severe swelling, severe damage to the delicate tissue

and danger of perforation
Endocrine Disruptor Information No information available
Other Adverse Effects The toxicological properties have not been fully investigated.

SECTION 12. ECOLOGICAL INFORMATION

Ecotoxicity
May cause long-term adverse effects in the environment. Do not allow material to contaminate ground water system.
Persistence and Degradability May persist
Bioaccumulation/ Accumulation No information available.
Mobility No information available.

SECTION 13. DISPOSAL CONSIDERATIONS

Waste Disposal Methods Chemical waste generators must determine whether a discarded chemical is classified as a hazardous waste. Chemical waste generators must also consult local, regional, and national hazardous waste regulations to ensure complete and accurate classification.

SECTION 14. TRANSPORT INFORMATION

DOT
UN-No UN3260
Proper Shipping Name Corrosive solid, acidic, inorganic, n.o.s.
Technical Name (Tantalum(V) bromide)
Hazard Class 8
Packing Group III
TDG
UN-No UN3260
Proper Shipping Name Corrosive solid, acidic, inorganic, n.o.s.
Hazard Class 8
Packing Group III
IATA
UN-No UN3260
Proper Shipping Name Corrosive solid, acidic, inorganic, n.o.s.
Hazard Class 8
Packing Group III
IMDG/IMO

UN-No UN3260
Proper Shipping Name Corrosive solid, acidic,
inorganic, n.o.s.
Hazard Class 8
Packing Group III

SECTION 15. REGULATORY INFORMATION

U.S. Federal Regulations
SARA 313 Not applicable
SARA 311/312 Hazard Categories See section 2 for more information
CWA (Clean Water Act) Not applicable
Clean Air Act Not applicable
OSHA - Occupational Safety and Health Administration
Not applicable
CERCLA Not applicable
California Proposition 65 This product does not contain any Proposition 65 chemicals.
U.S. State Right-to-Know Not applicable
Regulations
U.S. Department of Transportation
Reportable Quantity (RQ): N
DOT Marine Pollutant N
DOT Severe Marine Pollutant N
U.S. Department of Homeland Security
This product does not contain any DHS chemicals.
Other International Regulations
Mexico - Grade No information available

16. OTHER INFORMATION

Safety Data Sheet according to Regulation (EC) No. 1907/2006 (REACH). The above information is believed to be correct but does not purport to be all inclusive and shall be used only as a guide. The information in this document is based on the present state of our knowledge and is applicable to the product with regard to appropriate safety precautions. It does not represent any guarantee of the properties of the product. American Elements 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 1997-2022 AMERICAN ELEMENTS. LICENSED GRANTED TO MAKE UNLIMITED PAPER COPIES FOR INTERNAL USE ONLY.
