

<a href="#">Phosphorus Oxybromide</a>		<a href="#">Pricing &gt;</a>
<b>Linear Formula</b>	PBrO <sub>3</sub>	
<b>Pubchem CID</b>	24613	
<b>MDL Number</b>	MFCD00036298	
<b>EC No.</b>	232-177-7	
<b>IUPAC Name</b>	phosphoryl tribromide	
<b>SMILES</b>	O=P(Br)(Br)Br	
<b>Inchl Identifier</b>	InChI=1S/Br3OP/c1-5(2,3)4	
<b>Inchl Key</b>	UXCDUFKZSUBXGM-UHFFFAOYSA-N	
<b>Signal Word</b>	Danger	
<b>Hazard Statements</b>	H314	
<b>Hazard Codes</b>	C	
<b>Risk Codes</b>	N/A	
<b>Safety Statements</b>	N/A	
<b>Transport Information</b>	UN 1939 8 / PGII	
<b>WGK Germany</b>	3	

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## SAFETY DATA SHEET

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### SECTION 1. IDENTIFICATION

**Product Identifiers:** All applicable American Elements product codes for CAS #7789-59-5

**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

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## SECTION 2. HAZARDS IDENTIFICATION

Classification of the substance or mixture

GHS05 Corrosion

Skin Corr. 1B H314 Causes severe skin burns and eye damage.

Eye Dam. 1 H318 Causes serious eye damage.

GHS label elements

The substance is classified and labeled according to the Globally Harmonized System (GHS).



Hazard pictograms

GHS05

Signal word Danger

Hazard-determining components of labeling:

phosphoryl tribromide

Hazard statements

H314 Causes severe skin burns and eye damage.

Precautionary statements

P231 Handle under inert gas.

P303+P361+P353 If on skin (or hair): Take off immediately all contaminated clothing. Rinse skin with water/shower.

P305+P351+P338 If in eyes: Rinse cautiously with water for several minutes. Remove contact lenses, if present

and easy to do. Continue rinsing.

P403+P233 Store in a well-ventilated place. Keep container tightly closed.

P422 Store contents under inert gas.

P501 Dispose of contents/container in accordance with local/regional/national/international regulations.

Classification system:

NFPA ratings (scale 0 - 4)

4

0

0

Health = 4

Fire = 0

Reactivity = 0  
HMIS-ratings (scale 0 - 4)  
HEALTH  
FIRE  
REACTIVITY  
4  
0  
0  
Health = 4  
Fire = 0  
Reactivity = 0  
Other hazards  
Results of PBT and vPvB assessment  
PBT: N/A  
vPvB: N/A

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### **SECTION 3. COMPOSITION/INFORMATION ON INGREDIENTS**

Substances  
CAS # / Substance Name  
7789-59-5 phosphoryl tribromide  
Identification number(s)  
EC number: 232-177-7

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### **SECTION 4. FIRST AID MEASURES**

Description of first aid measures  
General information: Immediately remove any clothing soiled by the product.  
If inhaled: In case of unconsciousness place patient stably in side position for transportation.  
In case of skin contact: Immediately wash with soap and water; rinse thoroughly.  
In case of eye contact: Rinse opened eye for several minutes under running water. Consult a physician.  
If swallowed: Drink copious amounts of water and provide fresh air. Immediately call a doctor.  
Information for doctor:  
Most important symptoms and effects, both acute and delayed:  
No data available  
Indication of any immediate medical attention and special treatment needed  
No data available

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### **SECTION 5. FIREFIGHTING MEASURES**

Extinguishing media  
Suitable extinguishing agents:

CO<sub>2</sub>, extinguishing powder or water spray. Fight larger fires with water spray or alcohol resistant foam. Special hazards arising from the substance or mixture During heating or in case of fire poisonous gases are produced.  
Advice for firefighters  
Protective equipment: Mouth respiratory protective device.

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## **SECTION 6. ACCIDENTAL RELEASE MEASURES**

Personal precautions, protective equipment and emergency procedures  
Mount respiratory protective device.  
Use personal protective equipment. Keep unprotected persons away.  
Environmental precautions: No special measures required.  
Methods and materials for containment and cleanup:  
Use neutralizing agent.  
Dispose contaminated material as waste according to item 13.  
Ensure adequate ventilation.  
Reference to other sections  
See Section 7 for information on safe handling.  
See Section 8 for information on personal protection equipment.  
See Section 13 for disposal information.

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## **SECTION 7. HANDLING AND STORAGE**

Handling:  
Precautions for safe handling  
Thorough dedusting.  
Ensure good ventilation/exhaustion at the workplace.  
Open and handle receptacle with care.  
Information about protection against explosions and fires: Keep respiratory protective device available.  
Conditions for safe storage, including any incompatibilities:  
Requirements to be met by storerooms and receptacles: No special requirements.  
Information about storage in one common storage facility: Not required.  
Further information about storage conditions:  
Keep receptacle tightly sealed.  
Store in cool, dry conditions in well sealed receptacles.  
Specific end use(s) No data available

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## **SECTION 8. EXPOSURE CONTROLS/PERSONAL PROTECTION**

Additional information about design of technical systems: No further data; see item 7.

Control parameters

Components with limit values that require monitoring at the workplace: Not required.

Additional information: The lists that were valid during the creation were used as basis.

Exposure controls

Personal protective equipment:

General protective and hygienic measures:

Keep away from foodstuffs, beverages and feed.

Immediately remove all soiled and contaminated clothing.

Wash hands before breaks and at the end of work.

Avoid contact with the eyes.

Avoid contact with the eyes and skin.

Breathing equipment:

In case of brief exposure or low pollution use respiratory filter device. In case of intensive or longer exposure use

respiratory protective device that is independent of circulating air.

Protection of hands:

SProtective gloves

The glove material has to be impermeable and resistant to the product/ the substance/ the preparation.

Due to missing tests no recommendation to the glove material can be given for the product/ the preparation/ the

chemical mixture.

Selection of the glove material on consideration of the penetration times, rates of diffusion and the degradation

Material of gloves

The selection of the suitable gloves does not only depend on the material, but also on further marks of quality and

varies from manufacturer to manufacturer.

Penetration time of glove material

The exact break through time has to be found out by the manufacturer of the protective gloves and has to be

observed.

Eye protection:

RTightly sealed goggles

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## SECTION 9. PHYSICAL AND CHEMICAL PROPERTIES

Information on basic physical and chemical properties

Appearance:

Form: Crystalline

Color: Light yellow

Odor: Acidic

Odor threshold: No data available.

pH: N/A

Melting point/Melting range: 56 °C (133 °F)

Boiling point/Boiling range: 193 °C (379 °F)

Flash point: N/A

Flammability (solid, gas): Product is not flammable.

Ignition temperature:

Decomposition temperature: No data available.

Autoignition: No data available.

Danger of explosion: Product does not present an explosion hazard.

Explosion limits:

Lower: No data available.

Upper: No data available.

Vapor pressure: no data hPa

Density at 20 °C (68 °F): 2.822 g/cm<sup>3</sup> (23.55 lbs/gal)

Relative density No data available.

Vapor density N/A

Evaporation rate N/A

Solubility in / Miscibility with

Water: Insoluble.

Partition coefficient (n-octanol/water): No data available.

Viscosity:

Dynamic: N/A

Kinematic: N/A

Solvent content:

Organic solvents: 0.0 %

VOC content: 0.0 g/l / 0.00 lb/gl

Solids content: 100.0 %

Other information No data available

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## SECTION 10. STABILITY AND REACTIVITY

Reactivity No data available

Chemical stability

Thermal decomposition / conditions to be avoided: No decomposition if used according to specifications.

Possibility of hazardous reactions No dangerous reactions known.

Conditions to avoid No data available

Incompatible materials: No data available

Hazardous decomposition products: No dangerous decomposition products known.

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## **SECTION 11. TOXICOLOGICAL INFORMATION**

Information on toxicological effects

Acute toxicity:

Primary irritant effect:

on the skin: Caustic effect on skin and mucous membranes.

on the eye:

Strong caustic effect.

Strong irritant with the danger of severe eye injury.

Sensitization: No sensitizing effects known.

Additional toxicological information:

Swallowing will lead to a strong caustic effect on mouth and throat and to the danger of perforation of esophagus and stomach.

Carcinogenic categories

IARC (International Agency for Research on Cancer)

Substance is not listed.

NTP (National Toxicology Program)

Substance is not listed.

OSHA-Ca (Occupational Safety & Health Administration)

Substance is not listed.

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## **SECTION 12. ECOLOGICAL INFORMATION**

Toxicity

Aquatic toxicity: No data available

Persistence and degradability No data available

Behavior in environmental systems:

Bioaccumulative potential No data available

Mobility in soil No data available

Additional ecological information: Must not reach bodies of water or drainage ditch undiluted or unneutralized.

Results of PBT and vPvB assessment

PBT: N/A

vPvB: N/A

Other adverse effects No data available

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## **SECTION 13. DISPOSAL CONSIDERATIONS**

Waste treatment methods

Recommendation:

Must not be disposed of together with household garbage. Do not allow product to enter drains, sewage systems, or other water courses system.

Uncleaned packagings:  
Recommendation: Disposal must be made according to official regulations.

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## **SECTION 14. TRANSPORT INFORMATION**

UN-Number  
DOT, IMDG, IATA UN1939  
UN proper shipping name  
DOT, IATA Phosphorus oxybromide  
IMDG PHOSPHORUS OXYBROMIDE, SOLID  
Transport hazard class(es)  
DOT  
Class 8 Corrosive substances  
Label 8  
IMDG, IATA  
Class 8 Corrosive substances  
Label 8  
Packing group  
DOT, IMDG, IATA II  
Environmental hazards:  
Marine pollutant: No  
Special precautions for user Warning: Corrosive substances  
Danger code (Kemler): 80  
EMS Number: F-A,S-B  
Segregation groups Acids  
Stowage Category E  
Stowage Code SW1 Protected from sources of heat.  
SW2 Clear of living quarters.  
Handling Code H2 Keep as cool as reasonably practicable  
Transport in bulk according to Annex II of MARPOL73/78 and the IBC Code N/A  
Transport/Additional information:  
DOT  
Quantity limitations On passenger aircraft/rail: Forbidden  
On cargo aircraft only: 50 kg  
UN "Model Regulation": UN 1939 PHOSPHORUS OXYBROMIDE, 8, II

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## **SECTION 15. REGULATORY INFORMATION**

Safety, health and environmental regulations/legislation specific for the substance or mixture  
Sara  
Section 355 (extremely hazardous substances): Substance is not listed.



Section 313 (Specific toxic chemical listings):  
Substance is not listed.  
TSCA (Toxic Substances Control Act):  
Substance is listed.  
Proposition 65  
Chemicals known to cause cancer:  
Substance is not listed.  
Chemicals known to cause reproductive toxicity for females:  
Substance is not listed.  
Chemicals known to cause reproductive toxicity for males:  
Substance is not listed.  
Chemicals known to cause developmental toxicity:  
Substance is not listed.  
Carcinogenic categories  
EPA (Environmental Protection Agency)  
Substance is not listed.  
TLV (Threshold Limit Value established by ACGIH)  
Substance is not listed.  
NIOSH-Ca (National Institute for Occupational Safety and Health)  
Substance is not listed.  
GHS label elements  
The substance is classified and labeled according to the Globally Harmonized System (GHS).  
Hazard pictograms  
GHS05  
Signal word Danger  
Hazard-determining components of labeling:  
phosphoryl tribromide  
Hazard statements  
H314 Causes severe skin burns and eye damage.  
Precautionary statements  
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shower.  
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and easy to do. Continue rinsing.  
P403+P233 Store in a well-ventilated place. Keep container tightly closed.  
P422 Store contents under inert gas.  
P501 Dispose of contents/container in accordance with local/regional/national/international regulations.  
Chemical safety assessment: A Chemical Safety Assessment has not been carried out.

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## 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.

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