


[Holmium\(III\) Bromide Hydrate](#)

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Signal Word	Warning
Hazard Statements	H315-H319-H335
Hazard Codes	Xi
Precautionary Statements	P261-P264-P271-P280-P302+P352-P304+P340-P305+P351+P338-P312-P332+P313-P362-P501
Risk Codes	36/37/38
Safety Statements	26-36
RTECS Number	N/A
Transport Information	NONH for all modes of transport
WGK Germany	3
GHS Pictograms	GHS07 Exclamation Point 

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SAFETY DATA SHEET

Date Accessed: 05/01/2024

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SECTION 1. IDENTIFICATION

Product Identifiers: All applicable American Elements product codes for CAS #223911-98-6

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 of the substance or mixture
GHS Classification in accordance with 29 CFR 1910 (OSHA HCS)
Skin irritation (Category 2), H315
Eye irritation (Category 2A), H319

Specific target organ toxicity - single exposure
(Category 3), Respiratory system, H335
For the full text of the H-Statements mentioned in this
Section, see Section 16.
GHS Label elements, including precautionary
statements
Pictogram



Signal word Warning
Hazard statement(s)
H315 Causes skin irritation.
H319 Causes serious eye irritation.
H335 May cause respiratory irritation.
Precautionary statement(s)
P261 Avoid breathing dust/ fume/ gas/ mist/ vapors/
spray.
P264 Wash skin thoroughly after handling.
P271 Use only outdoors or in a well-ventilated area.
P280 Wear protective gloves/ eye protection/ face
protection.
P302 + P352 IF ON SKIN: Wash with plenty of soap
and water.
P304 + P340 IF INHALED: Remove victim to fresh air
and keep at rest in a position comfortable for
breathing.
P305 + P351 + P338 IF IN EYES: Rinse cautiously
with water for several minutes.
Remove contact lenses, if present and easy to do.
Continue rinsing.
P312 Call a POISON CENTER/ doctor if you feel
unwell.
P321 Specific treatment (see supplemental first aid
instructions on this label).
P332 + P313 If skin irritation occurs: Get medical
advice/ attention.
P337 + P313 If eye irritation persists: Get medical
advice/ attention.
P362 Take off contaminated clothing and wash before
reuse.
P403 + P233 Store in a well-ventilated place. Keep
container tightly closed.
P405 Store locked up.
P501 Dispose of contents/ container to an approved
waste disposal plant.
Hazards not otherwise classified (HNOC) or not
covered by GHS - none

SECTION 3. COMPOSITION/INFORMATION

ON INGREDIENTS

Substances

Formula : $\text{Br}_3\text{Ho} \cdot x\text{H}_2\text{O}$

Molecular weight : 404.64 g/mol

CAS-No. : 223911-98-6

EC-No. : 237-524-6

SECTION 4. FIRST AID MEASURES

Description of first-aid measures

General advice

Consult a physician. Show this material safety data sheet to the doctor in attendance. Move out of dangerous area.

If inhaled

If breathed in, move person into fresh air. If not breathing, give artificial respiration.

Consult a physician.

In case of skin contact

Wash off with soap and plenty of water. Consult a physician.

In case of eye contact

Rinse thoroughly with plenty of water for at least 15 minutes and consult a physician.

If swallowed

Never give anything by mouth to an unconscious person. Rinse mouth with water. Consult a physician.

Most important symptoms and effects, both acute and delayed

The most important known symptoms and effects are described in the labelling (see section 2.2) and/or in section 11

Indication of any immediate medical attention and special treatment needed

No data available

SECTION 5. FIREFIGHTING MEASURES

Extinguishing media

Suitable extinguishing media

Use water spray, alcohol-resistant foam, dry chemical or carbon dioxide.

Special hazards arising from the substance or mixture

Hydrogen bromide gas

holmium oxides

Advice for firefighters

Wear self-contained breathing apparatus for firefighting if necessary.

Further information

No data available

SECTION 6. ACCIDENTAL RELEASE MEASURES

Personal precautions, protective equipment and emergency procedures

Use personal protective equipment. Avoid dust formation. Avoid breathing vapors, mist or gas. Ensure adequate ventilation. Evacuate personnel to safe areas. Avoid breathing dust.

For personal protection see section 8.

Environmental precautions

Do not let product enter drains.

Methods and materials for containment and cleaning up

Pick up and arrange disposal without creating dust.

Sweep up and shovel. Keep in suitable, closed containers for disposal.

Reference to other sections

For disposal see section 13.

SECTION 7. HANDLING AND STORAGE

Precautions for safe handling

Advice on safe handling

Avoid contact with skin and eyes. Avoid formation of dust and aerosols.

Advice on protection against fire and explosion

Provide appropriate exhaust ventilation at places where dust is formed.

Hygiene measures

Handle in accordance with good industrial hygiene and safety practice. Wash hands before breaks and at the end of workday.

For precautions see section 2.2.

Conditions for safe storage, including any incompatibilities

Storage conditions

Keep container tightly closed in a dry and well-ventilated place.

Handle and store under inert gas. Hygroscopic. Keep in a dry place.

Storage class (TRGS 510): 13: Non Combustible Solids

Specific end use(s)

Apart from the uses mentioned in section 1.2 no other specific uses are stipulated

SECTION 8. EXPOSURE

CONTROLS/PERSONAL PROTECTION

Control parameters

Ingredients with workplace control parameters

Contains no substances with occupational exposure limit values.

Exposure controls

Appropriate engineering controls

Handle in accordance with good industrial hygiene and safety practice. Wash hands before breaks and at the end of workday.

Personal protective equipment

Eye/face protection

Safety glasses with side-shields conforming to EN166

Use equipment for eye

protection tested and approved under appropriate government standards such as

NIOSH (US) or EN 166(EU).

Skin protection

Handle with gloves. Gloves must be inspected prior to use. Use proper glove

removal technique (without touching glove's outer surface) to avoid skin contact

with this product. Dispose of contaminated gloves after use in accordance with

applicable laws and good laboratory practices. Wash and dry hands.

Body Protection

Impervious clothing, The type of protective equipment must be selected according

to the concentration and amount of the dangerous substance at the specific

workplace.

Respiratory protection

For nuisance exposures use type P95 (US) or type P1 (EU EN 143) particle

respirator. For higher level protection use type

OV/AG/P99 (US) or type ABEK-P2 (EUEN 143)

respirator cartridges. Use respirators and components tested and approved

under appropriate government standards such as NIOSH (US) or CEN (EU).

Control of environmental exposure

Do not let product enter drains.

SECTION 9. PHYSICAL AND CHEMICAL PROPERTIES

Information on basic physical and chemical properties

a) Appearance Form: Powder with lumps

b) Odor No data available

c) Odor Threshold No data available

d) pH No data available

e) Melting point/freezing point
No data available
f) Initial boiling point and boiling range
No data available
g) Flash point ()Not applicable
h) Evaporation rate No data available
i) Flammability (solid, gas)
No data available j) Upper/lower
flammability or explosive limits
No data available
k) Vapor pressure No data available
l) Vapor density No data available
m) Relative density No data available
n) Water solubility No data available
o) Partition coefficient:
n-octanol/water
No data available
p) Autoignition temperature
No data available
q) Decomposition temperature
No data available
r) Viscosity No data available
s) Explosive properties No data available
t) Oxidizing properties No data available
Other safety information
No data available

SECTION 10. STABILITY AND REACTIVITY

Reactivity
No data available
Chemical stability
Stable under recommended storage conditions.
Possibility of hazardous reactions
No data available
Conditions to avoid
Avoid moisture.
Incompatible materials
Strong oxidizing agents
Hazardous decomposition products
In the event of fire: see section 5

SECTION 11. TOXICOLOGICAL INFORMATION

Information on toxicological effects
Acute toxicity
No data available
Dermal: No data available
No data available
Skin corrosion/irritation

No data available
Serious eye damage/eye irritation
No data available
Respiratory or skin sensitization
No data available
Germ cell mutagenicity
No data available
Carcinogenicity
IARC: No ingredient of this product present at levels greater than or equal to 0.1% is identified as probable, possible or confirmed human carcinogen by IARC.
ACGIH: No ingredient of this product present at levels greater than or equal to 0.1% is identified as a carcinogen or potential carcinogen by ACGIH.
NTP: No ingredient of this product present at levels greater than or equal to 0.1% is identified as a known or anticipated carcinogen by NTP.
OSHA: No component of this product present at levels greater than or equal to 0.1% is on OSHA's list of regulated carcinogens.
Reproductive toxicity
No data available
No data available
Specific target organ toxicity - single exposure
Inhalation - May cause respiratory irritation.
Specific target organ toxicity - repeated exposure
No data available
Aspiration hazard
No data available
Additional Information
RTECS: Not available
To the best of our knowledge, the chemical, physical, and toxicological properties have not been thoroughly investigated.

SECTION 12. ECOLOGICAL INFORMATION

Toxicity
No data available
Persistence and degradability
No data available
Bioaccumulative potential
No data available
Mobility in soil
No data available
Results of PBT and vPvB assessment
PBT/vPvB assessment not available as chemical safety assessment not required/not conducted
Other adverse effects

No data available

SECTION 13. DISPOSAL CONSIDERATIONS

Waste treatment methods

Product

Offer surplus and non-recyclable solutions to a licensed disposal company. Contact a licensed professional waste disposal service to dispose of this material.

Contaminated packaging

Dispose of as unused product.

SECTION 14. TRANSPORT INFORMATION

DOT (US)

Not dangerous goods

IMDG

Not dangerous goods

IATA

Not dangerous goods

Further information

Not classified as dangerous in the meaning of transport regulations.

SECTION 15. REGULATORY INFORMATION

SARA 302 Components

No chemicals in this material are subject to the reporting requirements of SARA Title III, Section 302.

SARA 313 Components

This material does not contain any chemical components with known CAS numbers that exceed the threshold (De Minimis) reporting levels established by SARA Title III, Section 313.

SARA 311/312 Hazards

Acute Health Hazard

Massachusetts Right To Know Components

No components are subject to the Massachusetts Right to Know Act.

Pennsylvania Right To Know Components

Holmium tribromide hydrate CAS-No.

223911-98-6

Revision Date

New Jersey Right To Know Components

Holmium tribromide hydrate CAS-No.

223911-98-6

Revision Date

California Prop. 65 Components

This product does not contain any chemicals known to the State of California to cause cancer, birth, or any other reproductive defects.

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.
