

[Hexadecyltrimethylammonium  
Bromide](#)

[Pricing >](#)

Linear Formula	C <sub>19</sub> H <sub>42</sub> N <sup>+</sup> Br
Pubchem CID	5974
MDL Number	MFCD00011772
EC No.	200-311-3
IUPAC Name	hexadecyl(trimethyl)azanium; bromide
Beilstein/Reaxys No.	3598189
SMILES	CCCCCCCCCCCCCCCC[N+](C)(C)C.[Br-]
InChI Identifier	InChI=1S/C19H42N.BrH/c1-5-6-7-8-9-10-11-12-13-14-15-16-17-18-19-20(2,3)4;/h5-19H2,1-4H3;1H/q+1;/p-1
InChI Key	LZZYPRNAOMGNLH-UHFFFAOYSA-M

Signal Word	Warning
Hazard Statements	H302-H315-H319-H335
Hazard Codes	Xi
Risk Codes	N/A
Safety Statements	N/A
RTECS Number	BQ7875000
Transport Information	UN 3077 9/PG III

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## SAFETY DATA SHEET

Date Accessed: 05/04/2024

Date Revised: 01/15/2022

### SECTION 1. IDENTIFICATION

**Product Identifiers:** All applicable American Elements product codes for CAS #57-09-0

**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

GHS07

Acute Tox. 4 H302 Harmful if swallowed.

Skin Irrit. 2 H315 Causes skin irritation.

Eye Irrit. 2A H319 Causes serious eye irritation.

STOT SE 3 H335 May cause respiratory irritation.

GHS label elements

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

Hazard pictograms



GHS07

Signal word Warning

Hazard-determining components of labeling:

cetrimonium bromide

Hazard statements

H302 Harmful if swallowed.

H315 Causes skin irritation.

H319 Causes serious eye irritation.

H335 May cause respiratory irritation.

Precautionary statements

P280 Wear protective gloves/protective clothing/eye protection/face protection.

P261 Avoid breathing

dust/fume/gas/mist/vapors/spray

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

and easy to do. Continue rinsing.

P304+P340 IF INHALED: Remove person to fresh air and keep comfortable for breathing.

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

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

Classification system:

NFPA ratings (scale 0 - 4)

Health = 2

Fire = 0

Reactivity = 0

HMIS-ratings (scale 0 - 4)

HEALTH

FIRE

REACTIVITY

Health = 2

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  
57-09-0 cetrimonium bromide  
Identification number(s)  
EC number: 20-0

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

Description of first aid measures  
General information:  
Symptoms of poisoning may even occur after several hours; therefore medical observation for at least 48 hours after the accident.  
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. If symptoms persist, consult a doctor.  
If swallowed: 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:  
Sand. Do not use water.  
CO2, sand, extinguishing powder. Do not use water.  
For safety reasons unsuitable extinguishing agents:  
Water  
Special hazards arising from the substance or mixture  
No data available  
Advice for firefighters

Protective equipment: No special measures required.

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

Personal precautions, protective equipment and emergency procedures Not required.

Environmental precautions: No special measures required.

Methods and materials for containment and cleanup:  
Dispose contaminated material as waste according to item 13.

Ensure adequate ventilation.

Do not flush with water or aqueous cleansing agents

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 Ensure good ventilation/exhaustion at the workplace.

Information about protection against explosions and fires: No special measures required.

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.

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 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:  
Protective 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:  
Tightly sealed goggles

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## **SECTION 9. PHYSICAL AND CHEMICAL PROPERTIES**

Information on basic physical and chemical properties  
Appearance:  
Form: Solid  
Color: White  
Odor: Odorless  
Odor threshold: No data available.  
pH: N/A  
Melting point/Melting range: 248-251 °C (478-484 °F)  
Boiling point/Boiling range: no data °C  
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): 0.5 g/cm<sup>3</sup> (4.173 lbs/gal)

Bulk density at 20 °C (68 °F): 390 kg/m<sup>3</sup>

Relative density No data available.

Vapor density N/A

Evaporation rate N/A

Solubility in / Miscibility with

Water at 20 °C (68 °F): 3 g/l

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:

LD/LC50 values that are relevant for classification:

57-09-0 cetrimonium bromide

Oral LD50 410 mg/kg (rat)

Primary irritant effect:

on the skin: Irritant to skin and mucous membranes.

on the eye: Irritating effect.

Sensitization: No sensitizing effects known.

Additional toxicological information:

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: Not known to be  
hazardous to water.  
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 UN3077  
UN proper shipping name  
DOT Environmentally hazardous substances, solid,  
n.o.s.  
IMDG ENVIRONMENTALLY HAZARDOUS  
SUBSTANCE, SOLID, N.O.S.  
IATA Environmentally hazardous substance, solid,  
n.o.s.  
Transport hazard class(es)  
DOT, IMDG, IATA  
Class 9 Miscellaneous dangerous substances and  
articles

Label 9  
Packing group  
DOT, IMDG, IATA III  
Environmental hazards:  
Marine pollutant: No  
Special precautions for user Warning: Miscellaneous  
dangerous substances and articles  
EMS Number: F-A,S-F  
Stowage Category A  
Stowage Code SW23 When transported in BK3 bulk  
container, see 7.6.2.12 and  
7.7.3.9.  
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: No limit  
On cargo aircraft only: No limit  
UN "Model Regulation": UN 3077  
ENVIRONMENTALLY HAZARDOUS SUBSTANCES,  
SOLID, N.O.S., 9, III

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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  
d~?GHS07  
Signal word Warning  
Hazard-determining components of labeling:  
cetrimonium bromide  
Hazard statements  
H302 Harmful if swallowed.  
H315 Causes skin irritation.  
H319 Causes serious eye irritation.  
H335 May cause respiratory irritation.  
Precautionary statements  
P280 Wear protective gloves/protective clothing/eye protection/face protection.  
P261 Avoid breathing  
dust/fume/gas/mist/vapors/spray  
P305+P351+P338 If in eyes: Rinse cautiously with water for several minutes. Remove contact lenses, if present  
and easy to do. Continue rinsing.  
P304+P340 IF INHALED: Remove person to fresh air and keep comfortable for breathing.  
P403+P233 Store in a well-ventilated place. Keep container tightly closed.  
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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