

Issue Date 04-Nov-2015

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Version 2

1. IDENTIFICATION

Product identifier

Product Name Cuprous Bromide

Other means of identification

Product Code 1800
Synonyms Copper (I) bromide

Recommended use of the chemical and restrictions on use

Recommended Use Laboratory chemicals.
Uses advised against No information available

Details of the supplier of the safety data sheet

Manufacturer Address

Harrell Industries, Inc.
 2495 Commerce Drive
 Rock Hill, SC 29730

www.harrellindustries.com

Emergency telephone number

Company Phone Number 803-327-6335
Fax Number 803-327-7808
24 Hour Emergency Phone Number 800-633-8253 (PERS)

2. HAZARDS IDENTIFICATION

Classification

OSHA Regulatory Status

This chemical is not considered hazardous by the 2012 OSHA Hazard Communication Standard (29 CFR 1910.1200)

Skin corrosion/irritation	Category 2
Serious eye damage/eye irritation	Category 2A

Label elements

Emergency Overview

Warning

Hazard statements

Causes skin irritation
 Causes serious eye irritation
 May cause respiratory irritation



Appearance off-white powder

Physical state powder

Odor slight odor of bromine

Precautionary Statements - Prevention

Avoid breathing dust/fume/gas/mist/vapors/spray
 Wash skin thoroughly after handling
 Use only outdoors or in a well-ventilated area
 Wear eye/face protection
 Wear protective gloves

Precautionary Statements - Response

IF ON SKIN: Wash with plenty of soap and water
 IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing.
 Immediately call a POISON CENTER or doctor
 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
 If skin irritation occurs. Get medical advice/attention.
 If eye irritation persists: Get medical advice/attention
 Take off contaminated clothing and wash before reuse.
 If eye irritation persists: Get medical advice/attention
 If skin irritation occurs: Get medical advice/attention
 IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing
 IF SWALLOWED: Immediately call a POISON CENTER or doctor/physician
 Use water spray, alcohol-resistant foam, dry chemical or carbon dioxide
 Pick up and arrange disposal without creating dust. Sweep up and shovel. Keep in suitable, closed containers for disposal.

Precautionary Statements - Storage

Store in a well-ventilated place. Keep container tightly closed
 Store locked up

Precautionary Statements - Disposal

Dispose of contents/container to an approved waste disposal plant

Hazards not otherwise classified (HNOC)

Not applicable

Other Information

Not applicable

3. COMPOSITION/INFORMATION ON INGREDIENTS

Substance**Synonyms**

Copper (I) bromide.

Formula

CuBr

Chemical Name	CAS No.	Weight-%
Cupric Bromide	7789-45-9	99

4. FIRST AID MEASURES

Description of first aid measures**General advice**

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

Eye contact

Copper salts may produce conjunctivitis or even ulceration of the cornea. Rinse immediately with plenty of water, also under the eyelids, for at least 15 minutes. Consult a doctor.

Skin contact

May act as irritants, producing itching eczema, redness and pain. Wash off immediately with soap and plenty of water. Consult a physician.

Inhalation

Causes irritation to respiratory tract, symptoms may include coughing, sore throat, and

shortness of breath. May result in ulceration and perforation of respiratory tract. When heated, this compound may give off copper fume, which can cause symptoms similar to the common cold, including chills and stuffiness of the head. If breathing is irregular or stopped, administer artificial respiration. Consult a physician.

Ingestion

Never give anything by mouth to an unconscious person. Rinse mouth with water. Consult a physician. Single dose of bromide or copper salts can cause burning pain in the mouth, pain, metallic taste, and diarrhea may occur. If vomiting does not occur immediately, systemic poisoning can occur. For copper salts symptoms may include capillary damage, headache, cold sweat, weak pulse, kidney and liver damage, central nervous system excitation followed by depression blood effects, jaundice, paralysis and coma. Death may occur from shock or renal failure. Form bromide salts, symptoms of systemic poisoning may include drowsiness, irritability, dizziness, confusion, skin rash, blurred vision and other eye effects, mania and coma.

Most important symptoms and effects, both acute and delayed

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

Indication of any immediate medical attention and special treatment needed

Note to physicians Treat symptomatically.

5. FIRE-FIGHTING MEASURES

Suitable extinguishing media

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

Small Fire Alcohol foam, dry chemical, or carbon dioxide.

Unsuitable extinguishing media Caution: Use of water spray when fighting fire may be inefficient.

Specific hazards arising from the chemical

No information available.

Hazardous combustion products Hydrogen bromide gas, Copper oxides.

Explosion data

Sensitivity to Mechanical Impact None.

Sensitivity to Static Discharge None.

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.

6. ACCIDENTAL RELEASE MEASURES

Personal precautions, protective equipment and emergency procedures

Personal precautions Use personal protective equipment. Avoid dust formation. Avoid breathing vapors, mist, or gas. Ensure adequate ventilation. Evacuate personnel to safe areas. Avoid breathing dust. Use personal protection recommended in Section 8.

Environmental precautions

Environmental precautions Do not let product enter drain.

Methods and material for containment and cleaning up

Methods for containment Pick up and arrange disposal without creating dust. Sweep up and shovel. Keep in suitable, closed containers for disposal.

Methods for cleaning up Pick up and transfer to properly labeled containers.

7. HANDLING AND STORAGE

Precautions for safe handling

Advice on safe handling Avoid contact with skin and eyes. Avoid formation of dust and aerosols. Further processing of solid materials may result in the formation of combustible dusts. The potential for combustible dust formation should be taken into consideration before additional processing occurs. Provide appropriate exhaust ventilations at places where dust is formed. 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. Keep tightly closed in a dry and cool place.

Incompatible materials Strong oxidizing agents. Bases. Acetylene. Sodium Hypobromite. Nitromethane.

8. EXPOSURE CONTROLS/PERSONAL PROTECTION

Control parameters

Exposure Guidelines

Chemical Name	ACGIH TLV	OSHA PEL	NIOSH IDLH
Cupric Bromide 7789-45-9	TWA: 1 mg/m ³ Cu dust and mist	-	IDLH: 100 mg/m ³ Cu dust and mist TWA: 1 mg/m ³ Cu dust and mist

Appropriate engineering controls

Engineering Controls Handle in accordance with good industrial hygiene and safety practice. Wash hands before breaks and at the end of the work day.

Individual protection measures, such as personal protective equipment

Eye/face protection Use chemical safety goggles. Maintain eye wash fountain and quick-drench facilities in work area.

Skin and body protection Wear protective gloves and clean body-covering clothing.

Respiratory protection 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. Please refer to the ACGIH document, Industrial Ventilation, A Manual of Recommended Practices, most recent edition, for details. If exposure limit is exceeded, a half-face dust/mist respirator 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 dust/mist respirator 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. For emergencies or instances where the exposure levels are not known, use a full-face piece positive-pressure, air-supplied respirator. **WARNING:** Air-purifying respirators do not protect workers in oxygen deficient atmospheres.

General Hygiene Considerations Handle in accordance with good industrial hygiene and safety practice.

9. PHYSICAL AND CHEMICAL PROPERTIES

Information on basic physical and chemical properties

Physical state powder

Appearance	off-white powder	Odor	slight odor of bromine
Color	Off-white	Odor threshold	No information available
Property	Values	Remarks • Method	
pH	(of 5% solution): 2.5 - 4.5		
Melting point / freezing point	498 °C / 92.8 °F		
Boiling point / boiling range	900 °C / 1652 °F		
Flash point	No information available		
Evaporation rate	No information available		
Flammability (solid, gas)	No information available		
Flammability Limit in Air			
Upper flammability limit:	No information available		
Lower flammability limit:	No information available		
Vapor pressure	No information available		
Vapor density	No information available		
Relative density	4.71		
Water solubility	Soluble in water		
Solubility in other solvents	(126 parts/100 parts water), alcohol, acetone, ammonia, insoluble in benzene.		
Partition coefficient	No information available		
Autoignition temperature	No information available		
Decomposition temperature	No information available		
Kinematic viscosity	No information available		
Dynamic viscosity	No information available		
Explosive properties	No information available		
Oxidizing properties	No information available		
<u>Other Information</u>			
Softening point	No information available		
Molecular weight	No information available		
VOC Content (%)	No information available		
Density	No information available		
Bulk density	No information available		

10. STABILITY AND REACTIVITY

Reactivity

No data available

Chemical stability

Stable under recommended storage conditions.

Possibility of Hazardous Reactions

None under normal processing.

Hazardous polymerization Will not occur.

Conditions to avoid

Incompatible materials.

Incompatible materials

Strong oxidizing agents. Bases. Acetylene. Sodium Hypobromite. Nitromethane.

Hazardous Decomposition Products

Oxides of the contained metal and halogen, possibly also free, or ionic halogen.

11. TOXICOLOGICAL INFORMATION

Information on likely routes of exposure

Information on toxicological effects

Symptoms No information available.

Delayed and immediate effects as well as chronic effects from short and long-term exposure

Carcinogenicity This product does not contain any carcinogens or potential carcinogens as listed by OSHA, IARC or NTP

Numerical measures of toxicity - Product Information

12. ECOLOGICAL INFORMATION

Ecotoxicity

Persistence and degradability

Bioaccumulation

Other adverse effects No information available

13. DISPOSAL CONSIDERATIONS

Waste treatment methods

Disposal of wastes Disposal should be in accordance with applicable regional, national and local laws and regulations.

Contaminated packaging Do not reuse container.

Chemical Name	California Hazardous Waste Status
Cupric Bromide 7789-45-9	Toxic

14. TRANSPORT INFORMATION

DOT Not regulated

TDG Not regulated

ICAO (air) Not regulated

IATA Not regulated

IMDG Not regulated

ADR Not regulated

15. REGULATORY INFORMATION

International Inventories

TSCA	Complies
DSL/NDSL	Complies
EINECS/ELINCS	Complies
ENCS	Complies
IECSC	Complies
KECL	Complies
PICCS	Complies
AICS	Complies

Legend:

TSCA - United States Toxic Substances Control Act Section 8(b) Inventory
 DSL/NDL - Canadian Domestic Substances List/Non-Domestic Substances List
 EINECS/ELINCS - European Inventory of Existing Chemical Substances/European List of Notified Chemical Substances
 ENCS - Japan Existing and New Chemical Substances
 IECSC - China Inventory of Existing Chemical Substances
 KECL - Korean Existing and Evaluated Chemical Substances
 PICCS - Philippines Inventory of Chemicals and Chemical Substances
 AICS - Australian Inventory of Chemical Substances

US Federal Regulations**SARA 313**

Chemical Name	SARA 313 - Threshold Values %
Cupric Bromide - 7789-45-9	1.0

SARA 311/312 Hazard Categories

Acute health hazard	Yes
Chronic Health Hazard	Yes
Fire hazard	No
Sudden release of pressure hazard	No
Reactive Hazard	No

CWA (Clean Water Act)

Chemical Name	CWA - Reportable Quantities	CWA - Toxic Pollutants	CWA - Priority Pollutants	CWA - Hazardous Substances
Cupric Bromide 7789-45-9	-	X	-	-

CERCLA**US State Regulations****California Proposition 65****U.S. State Right-to-Know Regulations**

Chemical Name	New Jersey	Massachusetts	Pennsylvania
Cupric Bromide 7789-45-9	X	-	X

U.S. EPA Label Information

EPA Pesticide Registration Number Not applicable

16. OTHER INFORMATION, INCLUDING DATE OF PREPARATION OF THE LAST REVISION

NFPA	Health hazards 2	Flammability 0	Instability 0	Physical and Chemical Properties -
HMIS	Health hazards 2	Flammability 0	Physical hazards 0	Personal protection X

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Revision Note

No information available

Disclaimer

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End of Safety Data Sheet