

Issue Date 10-Apr-2015

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Version 1

1. IDENTIFICATION

Product identifier

Product Name Cupric Bromide Solution 50%

Other means of identification

Product Code 1400
UN/ID no. UN1760
Synonyms Copper Bromide Solution

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

Acute toxicity - Oral	Category 4
Acute toxicity - Dermal	Category 1
Serious eye damage/eye irritation	Category 1

Label elements

Emergency Overview

Danger

Hazard statements

Harmful if swallowed
 Causes severe skin burns and eye damage
 Causes serious eye damage



Note to physicians Activated charcoal slurry may be administered. To prepare active charcoal slurry, suspend 50 gms activated charcoal slurry in 400 ml water and mix thoroughly. Administer 5ml/kg, or 350 ml for average adult dose.

5. FIRE-FIGHTING MEASURES

Suitable extinguishing media

Use extinguishing measures that are appropriate to local circumstances and the surrounding environment. Use alcohol foam, carbon dioxide or water spray.

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

Specific hazards arising from the chemical

Fire or excessive heat may produce hazardous decomposition products.

Hazardous combustion products Copper compounds, hydrogen bromide.

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 Avoid creating dust. Ventilate area of leak or spill. Keep unnecessary and unprotected people away from area of spill. Wear appropriate personal equipment.

Other Information Neutralize with an alkaline material.

Environmental precautions

Environmental precautions See Section 12 for additional ecological information.

Methods and material for containment and cleaning up

Methods for containment Prevent further leakage or spillage if safe to do so.

Methods for cleaning up Dike with suitable absorbent material like granulated clay. Gather and store in a sealed container pending a waste disposal evaluation. Vacuum or sweep up the material and place in a disposal container. Avoid runoff into storm sewers and ditches that lead to waterways.

7. HANDLING AND STORAGE

Precautions for safe handling

Advice on safe handling Do not breathe dust. Wash thoroughly after handling. When using do not eat, drink or smoke. Wear protective gloves/ protective clothing/ eye protection/ face protection. Keep container tightly closed in a cool, well-ventilated place. After contact with skin, take off immediately all contaminated clothing, and wash immediately with plenty of water. Avoid contact with skin and eyes. Do not breathe dust. Use only in well-ventilated areas.

Conditions for safe storage, including any incompatibilities

Storage Conditions Keep containers tightly closed in a cool, well-ventilated place. Store locked up.

Incompatible materials Oxidizing agents. Alkali metals.

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 Showers
 Eyewash stations
 Ventilation systems.

Individual protection measures, such as personal protective equipment

Eye/face protection Wear chemical splash goggles when handling this product. Have an eye wash station available.

Skin and body protection Wear protective gloves and protective clothing. Wear protective Neoprene™ gloves. Wear protective butyl rubber gloves.

Respiratory protection If exposure limits are exceeded or irritation is experienced, NIOSH/MSHA approved respiratory protection should be worn. Positive-pressure supplied air respirators may be required for high airborne contaminant concentrations. Respiratory protection must be provided in accordance with current local regulations. Dust/ acid mist respirator when ventilation is inadequate.

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	liquid	Odor	None to slight bromine.
Appearance	Black liquid	Odor threshold	No information available
Color	black		

<u>Property</u>	<u>Values</u>	<u>Remarks • Method</u>
pH	No information available	
Melting point / freezing point	No information available	
Boiling point / boiling range	100	
Flash point	No information available	
Evaporation rate	1(H ₂ O=1.0)	
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	No information available	
Water solubility	Soluable	100 WT. %
Solubility in other solvents	No information available	
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	

Other Information

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 Hazardous polymerization does not occur.

Conditions to avoid

Extremes of temperature and direct sunlight.

Incompatible materials

Oxidizing agents. Alkali metals.

Hazardous Decomposition Products

Decomposes with heat. Hazardous gases/ vapors produced are copper and bromide fumes.; hydrogen bromide gas.

11. TOXICOLOGICAL INFORMATION

Information on likely routes of exposure

Chemical Name	Oral LD50	Dermal LD50	Inhalation LC50
Water 7732-18-5	> 90 mL/kg (Rat)	-	-

Information on toxicological effects

Symptoms No information available.

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

Carcinogenicity

Target Organ Effects liver, lungs.

Numerical measures of toxicity - Product Information

12. ECOLOGICAL INFORMATION

Ecotoxicity

50% of the mixture consists of components(s) of unknown hazards to the aquatic environment

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	Regulated
UN/ID no.	UN1760
Proper shipping name	Corrosive liquid, N.O.S. (Cupric Bromide Solution 50%)
Hazard Class	8
Packing Group	III
TDG	Regulated
UN/ID no.	UN1760
Proper shipping name	Corrosive liquid, N.O.S. (Cupric Bromide Solution 50%)
Hazard Class	8
Packing Group	III
MEX	Regulated
UN/ID no.	UN1760
Proper shipping name	Corrosive liquid, N.O.S. (Cupric Bromide Solution 50%)
Hazard Class	8
Packing Group	III
ICAO (air)	Regulated
UN/ID no.	UN1760
Proper shipping name	Corrosive liquid, N.O.S. (Cupric Bromide Solution 50%)
Hazard Class	8
Packing Group	III
IATA	Regulated
UN/ID no.	UN1760
Proper shipping name	Corrosive liquid, N.O.S. (Cupric Bromide Solution 50%)
Hazard Class	8
Packing Group	III
IMDG	Regulated
UN/ID no.	1760
Proper shipping name	Corrosive liquid, N.O.S. (Cupric Bromide Solution 50%)
Hazard Class	8
Packing Group	III
RID	Regulated
UN/ID no.	UN1760
Proper shipping name	Corrosive liquid, N.O.S. (Cupric Bromide Solution 50%)
Hazard Class	8
Packing Group	III
ADR	Regulated
UN/ID no.	UN1760
Proper shipping name	Corrosive liquid, N.O.S. (Cupric Bromide Solution 50%)
Hazard Class	8
Packing Group	III
ADN	Regulated
UN Number	UN1760
Proper shipping name	Corrosive liquid, N.O.S. (Cupric Bromide Solution 50%)
Hazard Class	8

Packing Group

III

15. REGULATORY INFORMATION**International Inventories**

TSCA	Complies
DSL/NDSL	Complies
EINECS/ELINCS	Complies
ENCS	Does not comply
IECSC	Complies
KECL	Complies
PICCS	Complies
AICS	Complies

Legend:

TSCA - United States Toxic Substances Control Act Section 8(b) Inventory
DSL/NDSL - 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	No
Chronic Health Hazard	No
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

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

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Revision Note

No information available

Disclaimer

The information provided in this Safety Data Sheet is correct to the best of our knowledge, information and belief at the date of its publication. The information given is designed only as a guidance for safe handling, use, processing, storage, transportation, disposal and release and is not to be considered a warranty or quality specification. The information relates only to the specific material designated and may not be valid for such material used in combination with any other materials or in any process, unless specified in the text.

End of Safety Data Sheet