



SAFETY DATA SHEET

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SECTION 1 PRODUCT AND COMPANY INFORMATION

PRODUCT NAME: **Copper (I) bromide dimethyl sulfide complex**

PRODUCT NUMBER: 1541

CAS NUMBER: 54678-23-8

SYNONYMS: Cuprous bromide dimethyl sulfide complex

MANUFACTURER:

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SECTION 2 HAZARDS IDENTIFICATION

CLASSIFICATION OF SUBSTANCE OR MIXTURE

Pictogram



Signal Word

Warning

Hazard Statements

H315	Causes skin irritation.
H319	Causes serious eye irritation.
H335	May cause respiratory irritation.

Precautionary Phrases

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/protective clothing/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.
P362	Take off contaminated clothing and wash before reuse.
P403+P233	Store in a well-ventilated place. Keep container tightly closed.

HMIS CLASSIFICATION:

Health: 2 Fire: 0 Reactivity Hazard: 0

NFPA RATING:

Health: 2 Flammability: 0 Reactivity Hazard: 0

SECTION 2 HAZARDS IDENTIFICATION (Cont.)

EYE CONTACT: Causes serious eye irritation.

SKIN CONTACT: Causes skin irritation.

INHALATION: May causes respiratory irritation.

INGESTION: May cause irritation.

SECTION 3 COMPOSITION / INFORMATION ON INGREDIENTS

Formula: $\text{CuBr} \cdot (\text{CH}_3)_2\text{S}$

Molecular Weight: 205.58

CHEMICAL NAME	CAS#	%
Copper (I) bromide dimethyl sulfide complex	54678-23-8	100

SECTION 4 FIRST AID MEASURES

EYE EXPOSURE: In case of eye contact, flush the eye with plenty of water for at least 15 minutes and seek medical attention.

SKIN EXPOSURE: Immediately wash with plenty of water and wash soap for at least 15 minutes while removing contaminated clothing. Get medical attention.

INHALATION: Remove to fresh air and keep at rest. If breathing is difficult, give oxygen. If not breathing, give artificial respiration. Get medical attention.

INGESTION: Do NOT induce vomiting. Never give anything by mouth to an unconscious person. If conscious, wash out mouth with water. Get medical attention.

SECTION 5 FIREFIGHTING MEASURES

FLASH POINT: Not available

AUTO IGNITION TEMPERATURE: Not available

EXPLOSION LIMITS: Product does not present an explosion hazard.

EXTINGUISHING MEDIUM: Use extinguishing powder. Do not use water.

SPECIAL FIRE FIGHTING PROCEDURES: Wear self-contained, approved breathing apparatus and full protective clothing, including eye protection and boots.

HAZARDOUS COMBUSTION AND DECOMPOSITION PRODUCTS: Carbon oxides, hydrogen bromide, sulfur oxides, and copper oxides.

SECTION 6 ACCIDENTAL RELEASE MEASURES

PERSONAL PRECAUTIONS: Wear all appropriate equipment when using this material. Ensure adequate ventilation. Avoid dust formation. Avoid breathing dust.

ENVIRONMENTAL PRECAUTIONS: Prevent spillage from entering drains or allowing to be released into the environment.

METHODS AND MATERIALS FOR CONTAINMENT AND CLEANING UP: Pick up and arrange disposal without creating dust. Sweep up and keep in suitable, closed containers for disposal.

SECTION 7 HANDLING AND STORAGE

PRECAUTIONS FOR SAFE HANDLING: Wear appropriate personal protective equipment. Avoid contact with skin and eyes. Use with adequate ventilation. Normal measures for preventive fire protection.

CONDITIONS FOR SAFE STORAGE: Store in cool, dry, and well-ventilated area. Store under dry inert gas. Store away from oxidizing agents, air, water, and moisture.

SECTION 8 EXPOSURE CONTROLS AND PERSONAL PROTECTION

EXPOSURE CONTROLS:

Component	Exposure Limits	Basis	Entity
Bromo[thiobis[methane]]copper	1 mg/m ³	REL	NIOSH
	*1 mg/m ³ **0.2 mg/m ³	TLV	ACGIH
	*1 mg/m ³ **0.1 mg/m ³	PEL	OSHA
	*1 mg/m ³ **0.1 mg/m ³	REL	NIOSH
Copper (I) bromide dimethyl sulfide adduct	1 mg/m ³	TWA	NIOSH

*As copper dust, mist

**As copper fume

TLV: Threshold Limit Value over 8 hours of work.

REL: Recommended Exposure Limit

PEL: Permissible Exposure Limit

EYE PROTECTION: Wear chemical safety glasses or goggles and face shield.

SKIN PROTECTION: Wear nitrile or rubber gloves, and a complete suit protecting against chemicals.

VENTILATION: Provide local exhaust, preferably mechanical.

RESPIRATOR: Use an approved respirator.

ADDITIONAL PROTECTION: Provide eyewash stations, quick-drench showers and washing facilities accessible to areas of use and handling.

SECTION 9 PHYSICAL AND CHEMICAL PROPERTIES

COLOR AND FORM: Off-white to light green solid

ODOR: Unpleasant.

MOLECULAR WEIGHT: 205.58

BOILING POINT: No data available

MELTING POINT: 132°C (dec.)

SPECIFIC GRAVITY: No data available

SOLUBILITY IN WATER: No data available

SECTION 10 STABILITY AND REACTIVITY

STABILITY: Stable

HAZARDOUS POLYMERIZATION: Will not occur.

CONDITIONS TO AVOID: Air and moisture sensitive.

INCOMPATIBILITY: Oxidizing agents and acids.

DECOMPOSITION PRODUCTS: Carbon oxides, hydrogen bromide, sulfur oxides, and copper oxides.

SECTION 11 TOXICOLOGICAL DATA

ACUTE TOXICITY: Not available

CARCINOGENIC EFFECTS: No components of this product present at levels greater than or equal to 0.1% is identified a carcinogen.

MUTAGENIC EFFECTS: Not available

TETRAOGENIC EFFECTS: Not available

CHRONIC TOXICITY: Not available

RTECS: No data

Copper compounds may be irritating to the skin eyes, and respiratory tract. They may cause metal fume fever, hemolysis of the red blood cells, and injury to the liver, lungs, kidneys, and pancreas. Ingestion may also cause vomiting, gastric pain, dizziness, anemia, cramps, convulsions, shock, coma, and death. Copper solutions may cause sensitization reactions. Symptoms of systemic copper poisoning may include: capillary damage, headache, cold sweat, weak pulse, kidney and liver damage, central nervous system excitation followed by depression, jaundice, convulsions, paralysis, and coma. Death may occur from shock or renal failure. Chronic copper poisoning is typified by hepatic cirrhosis, brain damage, and demyelination, kidney defect, and copper deposition in the cornea as exemplified by humans with arteriosclerosis. Blood disorders, liver injury, and damage to the lungs may occur.

To the best of our knowledge the toxicological effects of this compound have not been fully investigated.

SECTION 12 ECOLOGICAL DATA

No data available.

SECTION 13 DISPOSAL CONSIDERATIONS

Dispose of in according to local, state, and federal regulations.

SECTION 14 TRANSPORTATION DATA

Not a dangerous good

SECTION 15 REGULATORY INFORMATION

SARA 302/304: Not Listed

SARA (TITLE 313): Copper (I) bromide-dimethyl sulfide complex

CALIFORNIA PROP. 65: Not Listed

MASSACHUSETTS RIGHT TO KNOW COMPONENTS: No components are subject to the Massachusetts Right to Know Act.

PENNSYLVANIA RIGHT TO KNOW COMPONENTS: Bromo[thiobis[methane]]copper

SECTION 16 OTHER INFORMATION

DISCLAIMER: The information herein is believed to be accurate and reliable as of the date compiled. However, ProChem, Inc. makes no representation, warranty, or guarantee of any kind with respect to the information in this document or any use of the product based on the information.

DATE REVISED: 02/24

SDS DEPT.