

PRMI

MATERIAL SAFETY DATA SHEET

24 HR. EMERGENCY PHONE # CHEM-TREC 1-800-424-9300

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SECTION 1 Product Identification

CHEMICAL NAME: Copper (I) Selenide
CAS #: 20405-64-5
FORMULA: Cu₂Se

SECTION 2 Composition and Information on Ingredients

INGREDIENT:	CAS #	%	ACGIH (TWA)	OSHA (PEL)
Title Compound	20405-64-5	100	0.2mg/m ³	0.2mg/m ³

SECTION 3 Hazards Identification

EMERGENCY OVERVIEW: DANGER-TOXIC Harmful if inhaled. Harmful if swallowed. Eye irritant. Causes irritation to skin. Causes irritation to upper respiratory tract.

PRIMARY ROUTES OF EXPOSURE: Inhalation, Ingestion, Skin absorption.

EYE CONTACT: Causes irritation of the eyes.

SKIN CONTACT: Causes irritation to skin.

INHALATION: Causes irritation to respiratory tract and acute selenium poisoning.

INGESTION: Poison Harmful if swallowed. May cause gastrointestinal disturbances and selenium and copper toxicity.

CHRONIC HEALTH EFFECTS: Eyes-No chronic health effects recorded. Ingestion-May cause damage to the nervous system, kidneys, and enlarge the liver. Inhalation-May cause ulceration, perforation of the nasal septum and pharyngeal congestion, chronic selenium poisoning. Skin-May cause dermatitis.

ACUTE HEALTH EFFECTS: Toxic by inhalation, ingestion, skin absorption. Eye irritant. Irritating to skin. upper respiratory tract.

SECTION 4 First Aid Measures

EYE EXPOSURE: Immediately flush the eyes with copious amounts of water for at least 15 minutes. Assure flushing under eyelids. A victim may need assistance in keeping their eyelids open. Get immediate competent medical attention.

SKIN EXPOSURE: Wash affected area with water. Remove contaminated clothes if necessary. Seek medical assistance if irritation persists.

INHALATION: Remove the victim to fresh air. Closely monitor the victim for signs of respiratory problems, such as difficulty in breathing, coughing, wheezing, or pain. In such cases seek immediate medical assistance.

INGESTION: Seek medical assistance immediately. Keep the victim calm. Give the victim water (only if conscious). Induce vomiting only if directed by medical personnel.

SECTION 5 Firefighting Measures

FLASH POINT: not applicable

AUTO IGNITION TEMPERATURE: no data

EXPLOSION LIMITS: no data

EXTINGUISHING MEDIUM: Use suitable extinguishing media for surrounding materials and type of fire.

SPECIAL FIREFIGHTING PROCEDURES: If involved in a fire, fire fighters should be equipped with a NIOSH approved positive pressure self-contained breathing apparatus and full protective clothing.

HAZARDOUS COMBUSTION AND DECOMPOSITION PRODUCTS: If involved in a fire this material may emit toxic gases of Selenium by thermal decomposition.

UNUSUAL FIRE OR EXPLOSION HAZARDS: No unusual fire or explosion hazards.

SECTION 6 Accidental Release Measures

SPILL AND LEAK PROCEDURES: Isolate spillage. Use adequate protection when handling which includes high efficiency dust respirator, safety goggles, rubber boots and rubber gloves. Sweep up, avoiding raising dust. then place in applicable chemical waste container. This material should be prevented from contaminating soil or from sewer and drainage systems and bodies of water.

SECTION 7 Handling and Storage

HANDLING AND STORAGE: Store material in a tightly sealed container in a cool, dry place.

SECTION 8 Exposure Controls and Personal Protection

EYE PROTECTION: Always wear approved safety glasses w/side shields, or safety goggles, face shield when handling a chemical substance in the laboratory.

SKIN PROTECTION: Chemical-resistant.

VENTILATION: If possible, handle the material in an efficient fume hood.

RESPIRATOR: If in form of fine dust and ventilation is not available a respirator should be worn. The use of respirators requires a Respirator Protection Program to be in compliance with 29 CFR 19-10.134.

SECTION 9 Physical and Chemical Properties

COLOR AND FORM: Black solid

MOLECULAR WEIGHT: 206.05

MELTING POINT (DEG. C.): 1113°C

BOILING POINT: no data

VAPOR PRESSURE: not applicable

SPECIFIC GRAVITY: no data

SOLUBILITY IN WATER: Insoluble

SECTION 10 Stability and Reactivity

STABILITY: Stable

HAZARDOUS POLYMERIZATION: will not occur
CONDITIONS TO AVOID: none known
INCOMPATIBILITY: none known
DECOMPOSITION PRODUCTS: Toxic metal oxide fumes

SECTION 11 Toxicological Information

MUTAGENIC EFFECTS: no data
TETRATOGENIC EFFECTS: no data
CARCINOGENIC EFFECTS: no data
To the best of our knowledge the toxicological effects of this compound have not been fully investigated.

SECTION 12 Ecological Information

ECOLOGICAL INFORMATION: No information available

SECTION 13 Disposal Considerations

DISPOSAL: Dispose of in according to local state and federal regulations.

SECTION 14 Transportation Information

Selenium compound, n.o.s., Copper (I) Selenide, Class 6.1, UN 3283, PG II

SECTION 15 Regulatory Information

TSCA: no data
SARA (TITLE 313): none

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 PREPARED: 4/06