

# MATERIAL SAFETY DATA SHEET

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

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## SECTION 1 Product Identification

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**CHEMICAL NAME:** Antimony (V) sulfide  
**CAS #:** 1315-04-4  
**FORMULA:** Sb<sub>2</sub>S<sub>5</sub>  
**SYNONYM:** Antimony sulfide, Antimony Red

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## SECTION 2 Composition and Information on Ingredients

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INGREDIENT:	CAS #	%	ACGIH (TWA)	OSHA (PEL)
Title Compound	1315-04-4	100	0.5mg/m <sup>3</sup> (as Sb)	0.5mg/m <sup>3</sup> (as Sb)

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## SECTION 3 Hazards Identification

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**EMERGENCY OVERVIEW:** Harmful by inhalation and if swallowed. Irritating to skin, eyes and respiratory tract. May cause bleeding gums, laryngitis, headache, anemia, skin eruptions, liver and kidney damage.

**PRIMARY ROUTES OF EXPOSURE:** Ingestion, inhalation, skin, eyes

**EYE CONTACT:** Contact with eyes causes irritation, redness, and pain.

**SKIN CONTACT:** Causes irritation to skin. Symptoms include redness, itching, and pain, pimples, boils, hives and blisters.

**INHALATION:** Severely irritating to the nose, mucous membranes and respiratory tract. Harmful through inhalation.

**INGESTION:** Harmful if swallowed. Ingestion may lead to nausea, vomiting, bloody diarrhea, weakness, and convulsions.

**CHRONIC HEALTH EFFECTS:** Prolonged exposure to antimony compounds may cause bleeding gums, laryngitis, headache, anemia, skin eruptions, nervous disorders, liver and kidney damage. Carcinogenic in animal studies by RTECS criteria.

**ACUTE HEALTH EFFECTS:** Harmful by inhalation and if swallowed. Irritating to skin, eyes and respiratory tract. May cause bleeding~ gums, laryngitis, headache, anemia, skin eruptions, liver and kidney damage.

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## SECTION 4 First Aid Measures

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**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.

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## **SECTION 5                      Firefighting Measures**

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**FLASH POINT:** not applicable

**AUTO IGNITION TEMPERATURE:** no data

**EXPLOSION LIMITS:** no data

**EXTINGUISHING MEDIUM:** carbon dioxide or dry powder

**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 irritating fumes of hydrogen sulfide and sulfur dioxide.

**UNUSUAL FIRE OR EXPLOSION HAZARDS:** Dust may form explosive mixtures with air. Contact with acids gives off hydrogen sulfide, a toxic and flammable gas.

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## **SECTION 6                      Accidental Release Measures**

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**SPILL AND LEAK PROCEDURES:** In the case of a spill, the fine powder should be covered with dry sodium carbonate or dolomite in order to reduce the formation of dust. Sweep up the mixture.

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## **SECTION 7                      Handling and Storage**

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**HANDLING AND STORAGE:** Store material in a tightly sealed container . Exposure to the atmosphere may lead to release of toxic hydrogen sulfide gas. Empty containers may retain product residues that evolve toxic gases.

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## **SECTION 8                      Exposure Controls and Personal Protection**

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**EYE PROTECTION:** Always wear approved safety glasses w/side shields, or safety goggles, face shield when handling a chemicals 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.

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## **SECTION 9                      Physical and Chemical Properties**

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**COLOR AND FORM:** orange to red powder

**MOLECULAR WEIGHT:** 403.82

**MELTING POINT (DEG. C.):** not available

**BOILING POINT:** no data

**VAPOR PRESSURE:** no data

**SPECIFIC GRAVITY:** 4.12

**SOLUBILITY IN WATER:** insoluble

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## **SECTION 10      Stability and Reactivity**

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**STABILITY:** air and moisture stable

**HAZARDOUS POLYMERIZATION:** no hazardous polymerization

**CONDITIONS TO AVOID:** Contact of dust cloud with an ignition source.

**INCOMPATIBILITY:** oxidizing agents

**DECOMPOSITION PRODUCTS:** hydrogen sulfide, sulfur dioxide, and metal oxides.

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## **SECTION 11      Toxicological Information**

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**RTECS DATA:** Oral (rat); LD: >10 gm/kg. Intraperitoneal (rat); LD50: 1500 mg/kg. Intraperitoneal (mouse); LD50: 458 mg/kg.

**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.

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## **SECTION 12      Ecological Information**

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**ECOLOGICAL INFORMATION:** No information available

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## **SECTION 13      Disposal Considerations**

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

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## **SECTION 14      Transportation Information**

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Antimony compounds, inorganic solid, n.o.s., Class 6.1, UN1549, PG III

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## **SECTION 15      Regulatory Information**

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**TSCA:** Listed in the TSCA inventory

**SARA (TITLE 313):** Title compound : See category N010 for reporting.

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## **SECTION 16      Other Information**

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