

**SAFETY DATA SHEET
FOR
THORN SMITH LABORATORIES**

SECTION 1 - IDENTIFICATION

Trade Name: **Antimony Ore** for Sb
Catalog Number: 80-1045 (Vials) / 80-1046 (100g)
Product Description: Analyzed Quantitative Unknowns

Manufacturer: Auric Enterprises, Inc.
d/b/a Thorn Smith Laboratories
Address: 7755 Narrow Gauge Road
Beulah, MI 49617
Phone Number: 231-882-4672
SDS Number: TSL-014

SECTION 2 – HAZARDS IDENTIFICATION

Classification of Substance or Mixture: Not a hazardous substance or mixture as packaged in 10g student vials or 100g containers.

GHS Label Elements, including precautionary statements: Not a hazardous substance or mixture as packaged in 10g student vials or 100g containers.

Hazards not otherwise classified (HNOC) or not covered by GHS: None

General: May be hazardous to aquatic life with long term effects.

SECTION 3 – COMPOSITION AND INFORMATION ON INGREDIENTS

Antimony Trisulfide

Formula: S_3Sb_2
CAS No.: 1345-04-6
% by Weight: < 22

Sodium Sulfate Anhydrous

Formula: Na_2SO_4
CAS No.: 7757-82-6
% by Weight: > 78

Toxicological Data on Ingredients: Antimony Trisulfide: ORAL LD50: Acute: 7000 mg/kg (Rat)
Sodium Sulfate Anhydrous : ORAL LD50 Acute: 5989 mg/k (Mouse)

SECTION 4 – FIRST AID MEASURES

Eye Contact: Immediately flush with plenty of water for at least 15 minutes, lifting upper and lower eyelids occasionally.

Skin Contact: Remove any contaminated clothing. Wipe off excess from skin.

Immediately wash skin with soap and water for at least 15 minutes. Get medical attention if irritation develops or persists.

Inhalation: If a person breathes in large amounts, move the exposed person to fresh air. If not breathing, give artificial respiration. If breathing is difficult, give oxygen. Get medical attention.

Ingestion: Get medical attention immediately

SECTION 5 – FIRE FIGHTING MEASURES

Flammability: Non-Flammable

Flash Points: Not Applicable

Auto-Ignition: Not Applicable

Flammable Limits: Not Applicable

Extinguishing Media: Use extinguishing media appropriate to the surrounding fire.

Fire Fighting Procedure: Firefighters should use self-contained breathing apparatus and protective clothing to prevent contact with skin and eyes.

Fire/Explosion Hazards: Spontaneously flammable when exposed to strong oxidizers. Flammable when exposed to heat or flame. Moderately explosive by spontaneous reaction to chlorates, perchlorates, ClO, thallic oxide (S₃Sb₂). Toxic gases produced: Highly toxic fumes of Antimony and tellurium (S₃Sb₂); Sulfur dioxide (Na₂SO₄).

SECTION 6 – ACCIDENTAL RELEASE MEASURES

Spill or Leak Procedures: Wear self-contained breathing apparatus and full protective clothing. With clean shovel, carefully place material into clean, dry container and cover; remove from area. Flush spill area with water.

SECTION 7 – HANDLING AND STORAGE

Storage Temperatures: Store at ambient temperatures.

Shelf Life: Unlimited in tightly closed container.

Special Sensitivity: Keep product out of light. Sodium Sulfate is hygroscopic.

Precautions to be taken in handling and storage: Isolate from incompatible materials. Protect against physical damage. Store in accordance with all local, state, and federal environmental regulations.

SECTION 8 – EXPOSURE CONTROLS/PERSONAL PROTECTION

Respiratory Protection (Specify Type): NIOSH/MSHA approved dust/mist respirator should be used to avoid excessive inhalation of particulates when exposure exceeds TLV's. At concentrations above this level, a self-contained breathing apparatus is advised (S₃Sb₂); None required where adequate ventilation exists. If airborne concentration is high, use appropriate respirator or dust mask (Na₂SO₄).

Protective Gloves: Wear protective gloves.

Eye Protection: Wear chemical safety glasses.

Ventilation To Be Used: Use adequate general or local exhaust ventilation to keep fume or dust levels as low as possible.

☒ Local Exhaust ☒ Mechanical (General) ☐ Special
☐ Other (Specify)

Other Protective Clothing and Equipment: Wear clean body-covering clothing.

Hygienic Work Practices: Avoid contact with eyes, skin, and clothing. Avoid breathing dust. Keep container closed when not in use. Use with adequate ventilation. Keep away from incompatibles. Wash thoroughly after handling.

SECTION 9 – PHYSICAL AND CHEMICAL PROPERTIES

Physical Form: Crystals to powder
Color: Red to black crystals (S₃Sb₂); White crystals (Na₂SO₄).
Odor: Odorless
Molecular Weight: N/A
Boiling Point: 1150°C (S₃Sb₂)
Melting Point: 546°C (S₃Sb₂); 884°C (Na₂SO₄)
Solubility in Water: 0.002/100 @ 20° (S₃Sb₂); Appreciable (>10%) (Na₂SO₄)
Water Reactive: Yes to produce toxic and flammable vapors (S₃Sb₂)
Vapor Density (Air=1): 4.64 (S₃Sb₂)
Evaporation Rate (-1): N/A

SECTION 10 – STABILITY AND REACTIVITY

STABILITY: ☒ Stable ☐ Unstable
Conditions to Avoid: Heat, light (S₃Sb₂); moisture (Na₂SO₄)
Incompatibility (Materials to avoid): Strong oxidizing agents, strong acids, halogen acids, chlorine, fluorine (S₃Sb₂); aluminum, magnesium, mineral acids, strong acids, strong bases (Na₂SO₄)
Hazardous Decomposition Products: Oxides of sulfur and antimony (S₃Sb₂); Oxides of sulfur (Na₂SO₄)
HAZARDOUS POLYMERIZATION: ☐ May Occur ☒ Will Not Occur
Conditions to Avoid: Heat, light (S₃Sb₂); moisture (Na₂SO₄)

SECTION 11 – TOXICOLOGICAL INFORMATION

Routes of Exposure: Eye Contact. Ingestion. Inhalation. Skin contact.
Toxicity Data: Antimony Trisulfide: No information found. Sodium Sulfate: LD50 (oral-mouse) 5989 mg/kg.
Chronic Toxic Effects: (S₃Sb₂) Kidney damage, liver damage (Na₂SO₄) No information found.
Acute Toxic Effects: Inhalation: Harmful may be fatal (S₃Sb₂); May cause irritation to upper respiratory tract (Na₂SO₄).
Ingestion: May cause gastrointestinal irritation (Na₂SO₄).
Skin Contact: May cause dermatitis (S₃Sb₂); May cause irritation (Na₂SO₄).
Eye Contact: May cause irritation.
SARA 313 Toxic Chemicals: No (S₃Sb₂); Yes (Na₂SO₄). Contains Sodium sulfate.
General class removed from CFR 7-9-91
TSCA Inventory: Yes

SECTION 12 – ECOLOGICAL INFORMATION

Toxicity of the Products of Biodegradation: The products of degradation are more toxic (S₃Sb₂); The product itself and its products of degradation are not toxic. (Na₂SO₄)

SECTION 13 – DISPOSAL CONSIDERATIONS

Dispose of in accordance with all applicable local, state and federal environmental regulations.

SECTION 14 – TRANSPORTATION INFORMATION

Domestic (D.O.T.)

Proper Shipping Name: Chemicals, n.o.s.

International (T.M.O.)

Proper Shipping Name: Chemicals, n.o.s.

Air (I.C.A.O.)

Proper Shipping Name: Chemicals, n.o.s.

SECTION 15 – REGULATORY INFORMATION

HMIS (U.S.A.) No information Available

National Fire Protection Association (NFPA) (U.S.A.)

Health: 2

Flammability: 0

Reactivity: 0

SARA TITLE III HAZARD CATEGORIES AND LISTS

Acute: Yes Chronic: Yes Flammability: No Pressure: No

Reactivity: No

Extremely Hazardous Substance: No

CERCLA Hazardous Substance: No

TSCA Inventory: Yes

SECTION 16 – OTHER INFORMATION

Date Prepared: August 1, 1984

Date of Last Revision: November 11, 2020

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