SAFETY DATA SHEET
FOR
THORN SMITH LABORATORIES

SECTION 1 - IDENTIFICATION

Trade Name:	**Soluble Antimony (Tartar Emetic)** for Sb
Catalog Number:	80-1545 (Vials) / 80-1546 (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-001

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

In severe case of larger quantities:

Antimony Potassium Tartrate: The substance is toxic to lungs and mucous membranes. Repeated or prolonged exposure to the substance can produce target organ damage. Highly toxic material may produce general deterioration of health by an accumulation in one or many human organs.

Potential Acute Health Effects:

Irritating to skin and eyes on contact. Inhalation irritant; 80 mg (Sb)/m3 immediately dangerous to life or health. Inhalation may cause mucous membrane irritation with sore throat, coughing and dyspnea ($K(SbO)C_4H_4)_6.1/2H_2O$); May cause irritation to upper respiratory tract (Na_2SO_4). Ingestion may cause irritation to the nose, mouth, stomach and intestines, nausea, vomiting, severe diarrhea with mucous and blood and abdominal cramps, slow and shallow respiration, pulmonary congestions, muscular pain, shock, collapse and coma may occur. Death may occur due to circulatory and respiratory failure a few hours following ingestion. Human pathologic findings may include ulcerations of the esophagus and stomach. In cases of fatty degeneration of the liver, kidney, and heart may be present ($K(SbO)C_4H_4)_6.1/2H_2O$); May cause gastrointestinal irritation (Na_2SO_4). Skin contact may cause irritation with redness and pain. Keratitis and ulceration have been reported from exposure to antimony compounds ($K(SbO)C_4H_4)_6.1/2H_2O$).

Potential Chronic Health Effects:

Repeated or prolonged ingestion of antimony compounds may cause nausea, anorexia, headache, sleeplessness, dizziness and lower body temperature. Liver and kidney degenerative changes including hemorrhagic nephritis and hepatitis with jaundice are late manifestations. Chronic incorporation of antimony potassium tartrate at 5 ppm into drinking water increased mortality rate and decreased serum glucose levels in rats. Repeated or prolonged contact with antimony

compounds may cause dermatitis and papules, pustules or lesions on exposed moist areas of the body, rarely including the facial region. Repeated or prolonged contact with irritants may cause conjunctivitis.

Medical Conditions Generally Aggravated by Exposure: Hepatic Disease

SECTION 3 – COMPOSITION AND INFORMATION ON INGREDIENTS

Antimony Potassium Tartrate

Formula:	$K(SbO)C_4H_4)_6 \bullet 1/2H_2O$
Formula Weight:	324.93
CAS No.:	28300-74-5
Common Synonyms:	Potassium Antimony Tartrate, Tartar Emetic, Tartrated Antimony, Tartox, Tartaric Acid, Antimony Potassium Salt, Antimony Potassium Tartrate Solid, Potassium Antimonyl Tartrate, Potassium Antimonyl D-Tartrate.
Chemical Family:	Organometallic

Sodium Sulfate Anhydrous

Formula:	Na_2SO_4
CAS No.:	7757-82-6
Common Synonyms:	Sulfuric Acid, Disodium Salt, Disodium Sulfate
Chemical Family:	Inorganic Sodium Compounds

SECTION 4 – FIRST AID MEASURES

Eye Contact: Immediately flush with plenty of water for at least 15 minutes, lifting upper and lower eyelids occasionally. Continue irrigation with normal saline until the pH has returned to normal (30-60 mins). Cover with sterile bandages. Get medical attention immediately.

Skin Contact: Remove any contaminated clothing. Wipe off excess from skin. Immediately wash skin with soap and water for at least 15 minutes. In case of chemical burns, cover ara with sterile, dry dressing, bandage securely, but not too tightly. Get medical attention immediately.

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 immediately.

Ingestion: Induce vomiting if victim is conscious. Get medical attention immediately. TREATMENT SHOULD BE PERFORMED BY QUALIFIED MEDICAL PERSONNEL ONLY. **$K(SbO)C_4H_4)_6 \bullet 1/2H_2O$ ANTIDOTE:** The following antidote is recommended. (However, the decision as to whether the severity of poisoning requires administration should be made by qualified medical personnel). Administer DIMERCAPROL, 3 mg/kg every 4 hours for a total of 10 days. Dimercaprol is available as a 10% solution in oil for intramuscular administration.

SECTION 5 – FIRE FIGHTING MEASURES

Flammability: Non-Flammable
Flash Points: Not Applicable
Auto-Iginition: Not Applicable
Flammable Limits: Not Applicable
Extinguishing Media: Dry chemical, carbon dioxide, water spray or regular foam.
Fire Fighting Procedure: Move container from fire area if you can do so without risk. Firefighters should use self-contained breathing apparatus and protective clothing to prevent contact with skin and eyes.
Fire/Explosion Hazards: Toxic Gases Produced: Sulfur dioxide (Na_2SO_4).

SECTION 6 – ACCIDENTAL RELEASE MEASURES

Spill or Leak Procedures: Wear self-contained breathing apparatus and full protective clothing.
Soil Spill: Dig a holding area such as a pit, pond, or lagoon to contain spilled material. Use protective cover to prevent dissolving in firefighting water or rain. Air Spill: Vapors or dust are irritating or toxic. Water Spill: Neutralize with caustic soda. If material is dissolved, use sodium sulfide solution to precipitate heavy metals. RQ: 100 lbs.

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. Material 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.
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.
__X__ Local Exhaust __X__ 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: White
Odor: Odorless
Molecular Weight: N/A
Boiling Point: N/A
Melting Point: Loses H_2O at 212°F $K(SbO)C_4H_4)_6\bullet 1/2H_2O$; 884°C ($Na_2SO_4$)
Solubility in Water: 8.3% $K(SbO)C_4H_4)_6\bullet 1/2H_2O$; Appreciable (>10%) ($Na_2SO_4$)
Water Reactive: No
Vapor Density (Air=1): N/A

Evaporation Rate (-1): N/A

SECTION 10 – STABILITY AND REACTIVITY

STABILITY: __X__ Stable _____ Unstable
Conditions to Avoid: Humidity
Incompatibility (Materials to avoid): Acacia, acids, alkalies and their carbonates, antipyrine, astringent infusions, Halogenated acids, lead salts, mercury bichloride, oxidizers, tannic acid, trivalent antimony and perchloric acid ($K(SbO)C_4H_4)_6 \bullet 1/2H_2O$); aluminum, magnesium, mineral acids, strong acids, strong bases (Na_2SO_4)
Hazardous Decomposition Products: Oxides of sulfur (Na_2SO_4)
HAZARDOUS POLYMERIZATION: _____ May Occur __X__ Will Not Occur

SECTION 11 – TOXICOLOGICAL INFORMATION

Routes of Exposure: Eye Contact. Ingestion. Inhalation. Skin contact.

Toxicity Data:
Antimony Potassium Tartrate:
2 mg/kg Oral-Human LD50
115 mg/kg Oral-Rat LD50
600 mg/kg Oral-Mouse LDLO
115 mg/kg Oral-Rabbit LD50
55 mg/kg Subcutaneous-Mouse LD50
1392 ug/kg Intravenous-Human TDLO
12 mg/kg/1 week intermittent Intravenous-Human TDLO
249 mg/kg/9 days intermittent Intravenous-Man LD50
45 mg/kg Intravenous-Mouse LD50
12 mg/kg Intravenous-Rabbit LD50
11 mg/kg Intraperitoneal-Rat LD50
33 mg/kg Intraperitoneal-Mouse LD50
15 mg/kg Intraperitoneal-Guinea Pig LD50
33 mg/kg Intramuscular-Rat LDLO
55 mg/kg Intramuscular-Guinea Pig LDLO
Mutagenic data (RTECS)

Sodium Sulfate:
LD50 (oral-mouse) 5989 mg/kg.

Chronic Toxic Effects: ($K(SbO)C_4H_4)_6 \bullet 1/2H_2O$) Causes damage to the following organs: lungs, mucous membranes. (Na_2SO_4) No information found.

Acute Toxic Effects:
Inhalation: Hazardous in cases of inhalation ($K(SbO)C_4H_4)_6 \bullet 1/2H_2O$); May cause irritation to upper respiratory tract (Na_2SO_4).
Ingestion: Very hazardous in case of ingestion($K(SbO)C_4H_4)_6 \bullet 1/2H_2O$); May cause gastrointestinal irritation (Na_2SO_4).
Skin Contact: Slightly hazardous in case of skin contact (permeator) ($K(SbO)C_4H_4)_6 \bullet 1/2H_2O$); May cause irritation (Na_2SO_4).
Eye Contact: May cause irritation.

SECTION 12 – ECOLOGICAL INFORMATION

Toxicity of the Products of Biodegradation: The products of degradation are more toxic ($K(SbO)C_4H_4)_6 \bullet 1/2H_2O$).
Products of Biodegradation: Possibly hazardous short term degradation products not like, however long term degradation products may arise ($K(SbO)C_4H_4)_6 \bullet 1/2H_2O$); The product itself and its products of degradation are not toxic. (Na_2SO_4)

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 313 Toxic Chemicals: Yes ($K(SbO)C_4H_4)_6 \bullet 1/2H_2O$); Yes ($Na_2SO_4$). Contains Sodium sulfate.
General class removed from CFR 7-9-91

Acute: Yes Chronic: Yes Flammability: No Pressure: No Reactivity: Yes ($K(SbO)C_4H_4)_6 \bullet 1/2H_2O$)

TSCA Inventory: Yes
Extremely Hazardous Substance: Yes ($K(SbO)C_4H_4)_6 \bullet 1/2H_2O$)
CERCLA Hazardous Substance: Yes ($K(SbO)C_4H_4)_6 \bullet 1/2H_2O$)

SECTION 16 – OTHER INFORMATION

Date Prepared: July 6, 1989
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