

MATERIAL SAFETY DATA SHEET

Date Printed: 02/28/2008

Date Updated: 02/04/2006

Version 1.5

Section 1 - Product and Company Information

Product Name POTASSIUM ANTIMONY(III) TARTRATE
HYDRATE, 99.95%
Product Number 230057
Brand ALDRICH
Company Sigma-Aldrich
Address 3050 Spruce Street
SAINT LOUIS MO 63103 US
Technical Phone: 800-325-5832
Fax: 800-325-5052
Emergency Phone: 314-776-6555

Section 2 - Composition/Information on Ingredient

| Substance Name | CAS # | SARA 313 |
|---|-------------|----------|
| POTASSIUM ANTIMONY(III) TARTRATE HYDRATE | 331753-56-1 | Yes |

Formula C8H4K2O12Sb2.xH2O
Synonyms Antimonate(2)-, bis(mu-tartrato(4-))di-,
dipotassium, trihydrate * Emetique (French) * ENT
50,434 * Potassium antimonyl tartrate trihydrate
* Tartar emetic * Tartaric acid, antimony
potassium salt, trihydrat * Tartarized antimony *
Tartox * Tartrate antimonio-potassique (French) *
Tartrated antimony
RTECS Number: CC6825000

Section 3 - Hazards Identification

EMERGENCY OVERVIEW

Toxic. Dangerous for the environment.
Harmful by inhalation. Toxic if swallowed. Toxic to aquatic
organisms, may cause long-term adverse effects in the aquatic
environment.
Target organ(s): Liver. Kidneys.

HMIS RATING

HEALTH: 2*
FLAMMABILITY: 0
REACTIVITY: 0

NFPA RATING

HEALTH: 2
FLAMMABILITY: 0
REACTIVITY: 0

*additional chronic hazards present.

For additional information on toxicity, please refer to Section 11.

Section 4 - First Aid Measures

ORAL EXPOSURE

If swallowed, wash out mouth with water provided person is conscious. Call a physician immediately.

INHALATION EXPOSURE

If inhaled, remove to fresh air. If not breathing give artificial respiration. If breathing is difficult, give oxygen.

DERMAL EXPOSURE

In case of skin contact, flush with copious amounts of water for at least 15 minutes. Remove contaminated clothing and shoes. Call a physician.

EYE EXPOSURE

In case of contact with eyes, flush with copious amounts of water for at least 15 minutes. Assure adequate flushing by separating the eyelids with fingers. Call a physician.

Section 5 - Fire Fighting Measures

FLASH POINT

N/A

AUTOIGNITION TEMP

N/A

FLAMMABILITY

N/A

EXTINGUISHING MEDIA

Suitable: Water spray. Carbon dioxide, dry chemical powder, or appropriate foam.

FIREFIGHTING

Protective Equipment: Wear self-contained breathing apparatus and protective clothing to prevent contact with skin and eyes.
Specific Hazard(s): Emits toxic fumes under fire conditions.

Section 6 - Accidental Release Measures

PROCEDURE TO BE FOLLOWED IN CASE OF LEAK OR SPILL

Evacuate area.

PROCEDURE(S) OF PERSONAL PRECAUTION(S)

Wear self-contained breathing apparatus, rubber boots, and heavy rubber gloves.

METHODS FOR CLEANING UP

Sweep up, place in a bag and hold for waste disposal. Avoid raising dust. Ventilate area and wash spill site after material pickup is complete.

Section 7 - Handling and Storage

HANDLING

User Exposure: Do not breathe dust. Do not get in eyes, on skin, on clothing. Avoid prolonged or repeated exposure.

STORAGE

Suitable: Keep tightly closed.

Section 8 - Exposure Controls / PPE

ENGINEERING CONTROLS

Use only in a chemical fume hood. Safety shower and eye bath.

PERSONAL PROTECTIVE EQUIPMENT

Respiratory: Use respirators and components tested and approved under appropriate government standards such as NIOSH (US) or CEN (EU). Where risk assessment shows air-purifying respirators are appropriate use a full-face particle respirator type N99 (US) or type P2 (EN 143) respirator cartridges as a backup to engineering controls. If the respirator is the sole means of protection, use a full-face supplied air respirator.

Hand: Compatible chemical-resistant gloves.

Eye: Chemical safety goggles.

GENERAL HYGIENE MEASURES

Wash contaminated clothing before reuse. Wash thoroughly after handling.

EXPOSURE LIMITS, RTECS

| Country | Source | Type | Value |
|--------------------------|-------------------|------|----------------------|
| USA | ACGIH | TWA | 0.5 MG(SB)/M3 |
| USA | MSHA Standard-air | TWA | 0.5 MG(SB)/M3 |
| USA | OSHA. | PEL | 8H TWA 0.5 MG(SB)/M3 |
| New Zealand | OEL | | |
| Remarks: check ACGIH TLV | | | |
| USA | NIOSH | TWA | 0.5 MG(SB)/M3 |

Section 9 - Physical/Chemical Properties

| | | |
|-----------------------|-----------------------|----------------------------|
| Appearance | Physical State: Solid | |
| | Color: White | |
| | Form: Powder | |
| Property | Value | At Temperature or Pressure |
| Molecular Weight | 613.82 AMU | |
| pH | N/A | |
| BP/BP Range | N/A | |
| MP/MP Range | N/A | |
| Freezing Point | N/A | |
| Vapor Pressure | N/A | |
| Vapor Density | N/A | |
| Saturated Vapor Conc. | N/A | |
| SG/Density | 2.6 g/cm ³ | |
| Bulk Density | N/A | |
| Odor Threshold | N/A | |
| Volatile% | N/A | |
| VOC Content | N/A | |
| Water Content | N/A | |
| Solvent Content | N/A | |
| Evaporation Rate | N/A | |
| Viscosity | N/A | |
| Surface Tension | N/A | |
| Partition Coefficient | N/A | |
| Decomposition Temp. | N/A | |
| Flash Point | N/A | |
| Explosion Limits | N/A | |
| Flammability | N/A | |
| Autoignition Temp | N/A | |

Refractive Index N/A
Optical Rotation Degree of Rotation: 20 °C 20 g/l Solvent: H2O
+140.69°
Miscellaneous Data N/A
Solubility Solubility in Water: Soluble.
Other Solvents: SOLUBLE IN WATER, GLYCEROL

N/A = not available

Section 10 - Stability and Reactivity

STABILITY

Stable: Stable.

Materials to Avoid: Mineral acids, Strong bases, Carbonates, Lead, Silver salts, Strong oxidizing agents.

HAZARDOUS DECOMPOSITION PRODUCTS

Hazardous Decomposition Products: Carbon monoxide, Carbon dioxide, Antimony/antimony oxides, Potassium oxides.

HAZARDOUS POLYMERIZATION

Hazardous Polymerization: Will not occur

Section 11 - Toxicological Information

ROUTE OF EXPOSURE

Skin Contact: May cause skin irritation.

Skin Absorption: May be harmful if absorbed through the skin.

Eye Contact: May cause eye irritation.

Inhalation: Material may be irritating to mucous membranes and upper respiratory tract. May be harmful if inhaled.

Ingestion: Toxic if swallowed.

TARGET ORGAN(S) OR SYSTEM(S)

Liver. Kidneys. Heart.

SIGNS AND SYMPTOMS OF EXPOSURE

Damage to the kidneys. Potassium antimony tartrate is the most potent trivalent antimony compound. Trivalent antimony compounds are more toxic than the pentavalent because they are excreted slowly. The most serious adverse effects are on the heart and liver along with coughing, chest and abdominal pain, vomiting, fainting, and collapse. Less immediate adverse effects include: Gastrointestinal disturbances. Headache. Dizziness. Weakness.

TOXICITY DATA

Oral

Human

2 mg/kg

LDLO

Intravenous

Man

12 MG/KG

LDLO

Remarks: Liver: Other changes. Kidney, Ureter, Bladder: Other changes.

Intravenous

Man

249 MG/KG

LD50

Remarks: Gastrointestinal: Nausea or vomiting.
Behavioral: Hallucinations, distorted perceptions. Nutritional
and Gross Metabolic: Changes in: Body temperature increase.

Oral
Rat
115 mg/kg
LD50

Intraperitoneal
Rat
11 MG/KG
LD50

Intraperitoneal
Mouse
33 MG/KG
LD50

Subcutaneous
Mouse
55 MG/KG
LD50
Remarks: Lungs, Thorax, or Respiration: Dyspnea.
Behavioral: Muscle weakness.

Intravenous
Mouse
45 MG/KG
LD50

Oral
Rabbit
115 mg/kg
LD50

Intravenous
Rabbit
12 MG/KG
LD50

Intraperitoneal
Guinea pig
15 MG/KG
LD50

CHRONIC EXPOSURE - MUTAGEN

Species: Human
Dose: 100 UMOL/L
Cell Type: fibroblast
Mutation test: Cytogenetic analysis

Species: Rat
Route: Intraperitoneal
Dose: 2 MG/KG
Mutation test: Cytogenetic analysis

Section 12 - Ecological Information

ACUTE ECOTOXICITY TESTS

Test Type: EC50 Daphnia
Species: Daphnia magna
Time: 48 h
Value: 5 mg/l

Section 13 - Disposal Considerations

APPROPRIATE METHOD OF DISPOSAL OF SUBSTANCE OR PREPARATION

Contact a licensed professional waste disposal service to dispose of this material. Dissolve or mix the material with a combustible solvent and burn in a chemical incinerator equipped with an afterburner and scrubber. Observe all federal, state, and local environmental regulations.

Section 14 - Transport Information

DOT

Proper Shipping Name: Antimony potassium tartrate
UN#: 1551
Class: 6.1
Packing Group: Packing Group III
Hazard Label: Toxic Substance
PIH: Not PIH

IATA

Proper Shipping Name: Antimony potassium tartrate
IATA UN Number: 1551
Hazard Class: 6.1
Packing Group: III

Section 15 - Regulatory Information

EU DIRECTIVES CLASSIFICATION

Symbol of Danger: Xn-N
Indication of Danger: Harmful. Dangerous for the environment.
R: 20/22-51/53
Risk Statements: Harmful by inhalation and if swallowed. Toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment.
S: 61
Safety Statements: Avoid release to the environment. Refer to special instructions/safety data sheets.

US CLASSIFICATION AND LABEL TEXT

Indication of Danger: Toxic. Dangerous for the environment.
Risk Statements: Harmful by inhalation. Toxic if swallowed. Toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment.
Safety Statements: After contact with skin, wash immediately with plenty of water. In case of accident or if you feel unwell, seek medical advice immediately (show the label where possible). Avoid release to the environment. Refer to special instructions/safety data sheets.
US Statements: Target organ(s): Liver. Kidneys.

UNITED STATES REGULATORY INFORMATION

SARA LISTED: Yes
DEMINIMIS: 1 %
NOTES: This product is subject to SARA section 313 reporting requirements - antimony compounds.

CANADA REGULATORY INFORMATION

WHMIS Classification: This product has been classified in accordance with the hazard criteria of the CPR, and the MSDS contains all the information required by the CPR.

DSL: No

NDSL: No

Section 16 - Other Information

DISCLAIMER

For R&D use only. Not for drug, household or other uses.

WARRANTY

The above information is believed to be correct but does not purport to be all inclusive and shall be used only as a guide. The information in this document is based on the present state of our knowledge and is applicable to the product with regard to appropriate safety precautions. It does not represent any guarantee of the properties of the product. Sigma-Aldrich Inc., shall not be held liable for any damage resulting from handling or from contact with the above product. See reverse side of invoice or packing slip for additional terms and conditions of sale. Copyright 2008 Sigma-Aldrich Co. License granted to make unlimited paper copies for internal use only.