MATERIAL SAFETY DATA SHEET
OSHA HAZARD COMMUNICATION RULE

CHEMICAL IDENTITY

LABEL IDENTITY
CHEMICAL NAME/SYNONYMS
FORMULA
CHEMICAL FAMILY
CAS REGISTRY NUMBER
HAZARDOUS INGREDIENTS

ANTIMONY
ANTIMONY
Sb
METAL
7440-36-0
ANTIMONY

% 100
TLV: 0.5mg/m³
OSHA PEL: 500mg/m³

PHYSICAL AND CHEMICAL PROPERTIES

COLOR, FORM AND ODOR
BOILING POINT (C°)
DENSITY (gm/cc)
VAPOR PRESSURE @ 20°
% VOLATILE BY VOLUME (%)
REACTION WITH WATER
EVAPORATION RATE (H2O=1)
SOLUBILITY IN WATER
MELTING POINT (C°)
OTHER

Silver/gray lustrous metal. Odorless.
1635 also reported 1440
6.684 at 25
1mm @ 886
NA
NA
Insoluble
630
ND

FIRE AND EXPLOSION HAZARD DATA

FLASH POINT
AUTOIGNITION TEMPERATURE (°C)
FLAMMABILITY
EXTINGUISHING MEDIA

NA
ND
Flammability hazard as a fine powder
Do not use water on metal fires, use dry-chemical, CO₂, sand graphite.

SPECIAL FIRE FIGHTING PROCEDURES

Wear self-contained breathing apparatus and full protective clothing to prevent contact with skin and eyes.

UNUSUAL FIRE & EXPLOSION HAZARDS

Material may emit toxic fumes if involved in a fire. Moderate flammability hazard in the forms of dust and vapor, when exposed to heat or flame. Moderate explosion hazard in form of dust when exposed to flame. Emits toxic fumes of SbH₃ acids.
HEALTH HAZARD INFORMATION

TOXICITY DATA:
- unk-man LDLO: 15mg/kg
- orl-rat LDSO: 7mg/kg
- ipr-rat LDLO: 100mg/kg
- ipr-mus LDSO: 90mg/kg
- ipr-gpg LDLO: 150mg/kg

HMIS HAZARD RATING
- HEALTH: 3
- FLAMMABILITY: 2
- REACTIVITY: 1
- PERSONAL PROTECTION: J

ROUTES OF ENTRY:
- INHALATION: Yes
- INGESTION: Yes
- SKIN: Yes

MEDICAL CONDITIONS AGGRAVATED BY OVEREXPOSURE:
Previous disorders of the skin, eyes and respiratory system.

EFFECTS OF OVEREXPOSURE (acute and chronic):
- INHALATION: Respiratory irritant. Irritation, sneezing, chest pain, difficulty breathing, salivation, ulceration of respiratory membranes, headache, fatigue bronchitis, nausea, pulmonary fibrosis and pulmonary edema possible.
- DERMAL/EYE CONTACT: Antimony and its compounds have been reported to cause dermatitis, keratitis, conjunctivitis and nasal septal ulceration by contact, fumes or dust. Irritating to the skin and mucous membranes. Irritation of skin, inflamed membranes of the nose and throat.
- OTHER (specify): Avoid conditions where nascent hydrogen will react with antimony to form SbH3 which is extremely toxic (nausea, vomiting, headache, abdominal pain, death) may cause metallic taste and stomach ache, gastrointestinal upset, with vomiting and diarrhea, irritability, sleeplessness, dizziness and muscular/neuralgic pains. Compounds are highly toxic via oral and inter-peritoneum routes.

CARCINOGENICITY: None

EMERGENCY FIRST AID PROCEDURES:
- INGESTION:
  - Give 2 glasses of Milk or water and induce vomiting.
- INHALATION:
  - Remove victim to fresh air, administer oxygen.
- SKIN CONTACT:
  - Brush material off skin. Wash affected area with soap and water.
- EYE CONTACT:
  - Flush eyes with lukewarm water for 15 minutes

SEEK MEDICAL ATTENTION FOR ALL SITUATIONS MENTIONED ABOVE

REACTIVITY DATA

STABILITY: Unstable
CONDITIONS CONTRIBUTING: Heat and flame
CONDITIONS CONTRIBUTING TO AVOID: H2SO4, H2, alkali nitrates, aluminum, halogens, oxidants and disulfur dibromide.

HAZARDOUS DECOMPOSITION PRODUCTS:
- SbH3, Sb2O3

HAZARDOUS POLYMERIZATION:
Will Not Occur

CONDITIONS TO AVOID:
- Heat, flame and incompatibility materials
SAFE HANDLING AND USE

STEPS TO BE TAKEN IN CASE MATERIAL IS RELEASED OR SPILLED:
Wear a self-contained breathing apparatus and full protective clothing. Isolate area where the spill occurred and ensure that proper ventilation is available. Vacuum up the spill using a high efficiency unit and place in a container for proper disposal. Take care not to raise dust.

WASTE DISPOSAL METHOD: In accordance with applicable Local, State and Federal regulations.

SPECIAL PROTECTIVE INFORMATION

RESPIRATORY PROTECTION (specify) Wear NIOSH-approved dust-mist-fume cartridge respirator
LOCAL EXHAUST Maintain exposure below TLV
MECHANICAL (general) Not Recommended
SPECIAL Handle in a controlled atmosphere
OTHER PROTECTIVE EQUIPMENT Wear protective clothing to prevent contamination of skin and clothes.
PROTECTIVE GLOVES Neoprene
EYE PROTECTION Safety glasses

SPECIAL PRECAUTIONS

PRECAUTIONS TO BE TAKEN IN HANDLING/STORAGE:
Store in tightly closed containers in a cool, dry place. Wash hands and face thoroughly after handling and before eating.

TRANSPORTATION REQUIREMENTS

DOT CLASS: Not classified
UN NUMBER: 1549
IMCO CLASS: 6.1
OTHER: ND

PRECAUTIONARY LABELING NONE

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NA = NOT APPLICABLE
ND = NO DATA FOUND

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