

Safety Data Sheet

Product No. 29-51 Antimony, Sb, Purity 99.999%, 1-3mm random sized pieces

Issue Date (08-18-15)

Review Date (08-31-17)

Section 1: Product and Company Identification

Product Name: Antimony, Sb, Purity 99.999%, 1-3mm random sized pieces

Synonym: Stibium

Company Name

Ted Pella, Inc., P.O. Box 492477, Redding, CA 96049-2477

Inside USA and Canada 1-800-237-3526 (Mon-Thu. 6:00AM to 4:30PM PST; Fri 6:00AM to 4:00PM PST)

Outside USA and Canada 1-530-243-2200 (Mon-Thu. 6:00AM to 4:30PM PST; Fri 6:00AM to 4:00PM PST)

CHEMTREC USA and Canada Emergency Contact Number 1-800-424-9300 24 hours a day

CHEMTREC Outside USA and Canada Emergency Contact Number +1-703-741-5970 24 hours a day

Section 2: Hazard Identification

2.1 Classification of the substance or mixture

Classification: The material form contained in this product is not classified as hazardous under Globally Harmonized System of Classification and Labeling and the US OSHA Hazard Communication Standard.

GHS Pictograms: NA

GHS Categories: NA

2.2 Label elements

Signal word, symbols, hazard and precautionary statements: Not applicable/void, due to non-hazardous classification.

2.3 Other hazards

Changing the form of this material into powder changes the classification.

Antimony Powder is hazardous. UN2871, 6.1 PG III

GHS Pictograms: Antimony Powder only.



GHS08 GHS07

GHS Categories

STOT SE 3 (Respiratory System)

STOT SE 2 (Liver, kidney, CVS)

H335: May cause respiratory irritation.

H373: May cause damage to organs through prolonged or repeated exposure.

H351: Suspected of causing cancer.

Carcinogenicity 2

Antimony Powder **only**:

Signal Word: Warning

Hazard Statements

H335 May cause respiratory irritation.

H373 May cause damage to liver, kidneys, and/or cardiovascular system through prolonged or repeated exposure.

H351 Suspected of causing cancer.

Precautionary Statements

Obtain special instructions before use.

Do not handle until all safety precautions have been read and understood.

Use personal protective equipment as required.

Do not breathe dust/fumes/gas/mist/vapors/spray.

Use only outdoors in a well-ventilated area.

If exposed or concerned: Get medical attention/advice.

IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing.

Store locked up.

Store in a well-ventilated place. Keep container tightly closed.

Dispose of contents/container to an approved waste disposal plant.

Health Effects: Antimony Powder **only**.

NFPA Hazard Rating: Health: 2; Fire: 1; Reactivity: 0

HMIS® Hazard Rating: ND

(0=least, 1=Slight, 2=Moderate, 3=High, 4=Extreme)

Results of PBT and vPvB assessment: ND

Emergency overview:

Appearance: Silver grey solid, gray powder. (29-51 is in 1-3 mm random sized pieces).

Immediate effects: To the best of our knowledge the chemical, physical and toxicological properties of antimony have not been thoroughly investigated and recorded. Antimony and its compounds are irritating to the skin and mucous membranes and are systemic poisons. Effects are reported to include a metallic taste in the mouth, vomiting, colic, loss of appetite and weight, and diarrhea. In addition, dermatitis may result that starts as an inflammation of the hair follicles and can progress through pus formation and sloughing to leave a contracted scar.

Potential health effects

Primary Routes of entry: ND

Signs and Symptoms of Overexposure: See Chronic Exposure.

Eyes: May cause severe eye irritation.

Skin: Dermatitis may result from repeated skin contact with antimony compounds.

Ingestion: May cause severe irritation of lining of stomach and intestines.

Inhalation: Inhalation may cause upper respiratory tract irritation and systemic poisoning with symptoms including abdominal pain, nausea, dizziness and dry throat.

Chronic Exposure: Liver and kidney abnormalities or pneumonitis may result from chronic antimony exposure. Some animal studies indicate that inhalation of antimony trioxide may pose an increased risk of lung cancer. Chronic inhalation of antimony trioxide is reported to produce a reduction in white blood cells and damage to the liver.

Chemical Listed as Carcinogen r Potential Carcinogen: No

See Toxicological Information (Section 11)

Potential environmental effects

See Ecological Information (Section 12)

Section 3: Composition / Information on Ingredients

Principle Hazardous Component(s) (chemical and common name(s)) (Cas. No)	%	OSHA PEL mg/m ³	ACGIH TLV mg/m ³	NTP Carcinogen	IARC Carcinogen	OSHA regulated Carcinogen
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Antimony, 1-3 mm pieces (7440-36-0)	99.99	0.5	0.5	No	No	No
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Section 4: First Aid Measures

If accidental overexposure is suspected

Eye(s) Contact:	Flush eyes with lukewarm water, lifting upper and lower lids, for at least 15 minutes.
Skin Contact:	Wash off immediately with soap and plenty of water while removing contaminated clothing and shoes. Obtain medical attention.
Inhalation:	Remove victim to fresh air; have victim lie down and remain quiet. Give oxygen if breathing is difficult. If not breathing, give artificial respiration. Obtain medical attention.
Ingestion:	Do not induce vomiting. Get medical attention.

Section 5: Fire Fighting Measures

Flash Point: ND

Flammable Limits: ND

Auto-ignition point: 300 °C

Fire Extinguishing Media: Dry chemical extinguisher.

Special Fire Fighting Procedures: Wear full face, self-contained breathing apparatus in pressure demand mode (MSHA/NIOSH approved or equivalent) and full protective clothing to prevent contact with skin and eyes.

Unusual Fire and Explosion Hazards: In solid form, antimony is not readily flammable. If ground to a powder, or if vapors are produced, it presents a moderate fire and explosion hazard. In case of fire antimony oxide fume may be released.

Hazardous combustion products: Antimony oxide.

DOT Class: Flammable (powder form only)

Section 6: Accidental Release Measures

Steps to be Taken in Case Material is Released or Spilled: In solid form this material poses no special clean-up problems. If this material is in powder or dust form, wear protective respiratory equipment. Caution should be taken to minimize airborne generation of powder or dust and avoid contamination of air and water. Properly label all materials collected in waste container. Recycle material.

Waste Disposal Methods: Dispose of waste according to Federal, State and Local Regulations.

Section 7: Handling and Storage

Precautions to be taken in Handling and Storage: Antimony Powder only: Use only under a chemical fume hood. Wear personal protective equipment. Do not get in eyes, on skin, or on clothing. Avoid ingestion and inhalation. Avoid dust formation. Keep container in a dry, cool place and well-ventilated area. Store under nitrogen. When melted, the temperature should be kept as low as possible. Do not use tobacco or food in work area. Wash thoroughly before eating and smoking. Do not blow dust off clothing or skin with compressed air. Maintain eyewash capable of sustained flushing, safety drench shower and facilities for washing.

Storage temperature: Room temperature.

Storage Pressure: NA

Section 8: Exposure Controls / Personal Protection

Engineering Controls

Ventilation required: Local exhaust - melt metal under hood with inert gas cover.

Mechanical - use filters to trap oxide smoke generated.

Personal Protection Equipment

Respiratory protection: Follow OSHA respirator regulations found in 29 CFR 19140.134 or European Standard EN 149. Use a NIOSH/MSHA or EU Standard EN 149 approved respirator if exposure limits are exceeded or if irritation or other symptoms are experienced.

Protective gloves: Impervious gloves.

Skin protection: Wear protective clothing.

Eye protection: Chemical safety glasses or goggles.

Additional clothing and/or equipment:

Exposure Guidelines

See Composition/Information on Ingredients (Section 3)

Section 9 Physical and Chemical Properties

Appearance and Physical State: Grey solid pieces

Odor (threshold): ND (ND)

Specific Gravity (H₂O=1): 6.684 g/cc @ 25

Vapor Pressure (mm Hg): 1

Vapor Density (air=1): ND

Percent Volatile by volume: ND

Evaporation Rate (butyl acetate=1): ND

Boiling Point: 1635 °C

Melting point: 630 °C

pH: ND

Solubility in Water: Insoluble

Molecular Weight: 121.75

Section 10: Stability and Reactivity

Stability: Stable under normal conditions.

Conditions to Avoid: Incompatible products. Excess heat. **Avoid dust formation.** Exposure to air.

Materials to Avoid (Incompatibility): Strong oxidizing agents.

Hazardous Decomposition Products: Antimony oxide.

Hazardous Polymerization: Will not occur.

Section 11: Toxicological Information

Results of component toxicity test performed: LD50 Oral (Rat): 7g/kg

Human experience: ND

This product **does not** contain any compounds listed by NTP or IARC or regulated by OSHA as a carcinogen.

Section 12: Ecological Information

Ecological Information:

Ecotoxicity, Freshwater fish (Cyprinodon variegates): LC50 (96h) = 6.2-8.3 mg/L\

Not likely to be mobile in the environment due to low water solubility.

Chemical Fate Information: ND

Section 13 Disposal Considerations

RCRA 40 CFR 261 Classification: ND

Federal, State and local laws governing disposal of materials can differ. Ensure proper disposal compliance with proper authorities before disposal.

Section 14: Transportation Information

Solid metal not regulated. The material is only regulated in powder form when particles are <100 microns in size.

US DOT Information: Proper shipping name: ANTIMONY POWDER

Hazard Class: 6.1

Packaging group: III

UN Number: UN2971

IATA: Proper shipping name: ANTIMONY POWDER

Hazard Class: 6.1

Packaging group: III

UN Number: UN2971

IMO: Proper shipping name: ANTIMONY POWDER

Hazard Class: 6.1

Packaging group: III

UN Number: UN2971

Marine Pollutant: No

Canadian TDG: ANTIMONY POWDER

Section 15: Regulatory Information

United States Federal Regulations

SARA 311/312: Acute health hazard, Chronic health hazard

SARA Title III: Section 313: Yes. Threshold value: 1.0 %

RCRA: ND

TSCA: Listed

CERCLA: The Reportable Quantity (RQ) is 5000 LBS (2270Kg)

State Regulations

California Proposition 65: No

International Regulations

Canada WHMIS: D2A: Very toxic materials

Europe EINECS Numbers: ND

Section 16: Other Information

Label Information: See section 2

European Risk and Safety Phrases: ND

European symbols needed: ND

Canadian WHMIS Symbols:

Antimony Powder **only**



Abbreviations used in this document

NE= Not established

NA= Not applicable

NIF= No Information Found

ND= No Data

Disclaimer

Ted Pella, Inc. makes no warranty of any kind regarding the information furnished herein. Users should independently determine the suitability and completeness of information from all sources. While this data is presented in good faith and believed to be accurate, it should be considered only as a supplement to other information gathered by the user. It is the User's responsibility to assure the proper use and disposal of these materials as well as the safety and health of all personnel who may work with or otherwise come in contact with these materials.