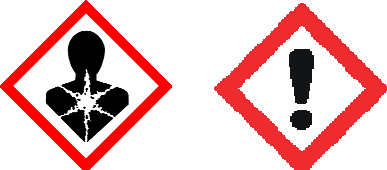


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SAFETY DATA SHEET

Section 1- IDENTIFICATION		
COMPOSITION Sb		PRODUCT NAME Antimony
SUPPLIER: Plasmaterials, Inc. 2268 Research Drive Livermore, CA 94550 Ph: 925-447-4030	RECOMMENDED USE: Laboratory Chemicals Scientific Research	EMERGENCY TELEPHONE NUMBERS US: 001-800-424-9300 Europe: 001-703-527-3887

Section 2- HAZARD(S) IDENTIFICATION	
Classification: This chemical is considered hazardous by the 2012 OSHA Hazard Communication Standard (29 CFR 1910.1200)	
Carcinogenicity: Category 2 Specific Target Organ Toxicity (Single Exposure): Category 3 Target Organs – Respiratory System Specific Target Organ Toxicity (Single Exposure): Category 2 Target Organs – Liver, Kidney, Cardiovascular System	
LABEL ELEMENTS: Signal Word: Warning	Hazard Statements: May cause respiratory irritation. Suspected of causing cancer. May cause damage to organs through prolonged or repeated exposure.
	
<u>PRECAUTIONARY STATEMENTS</u>	
Prevention: -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/fume/gas/mist/vapors/spray -Use only outdoors or in a well-ventilated area	
Response: -IF exposed or concerned: Get medical attention/advice.	
Inhalation: -IF inhaled: Remove victim to fresh air and keep at rest in a position comfortable for breathing.	
Storage: -Store locked up. -Store in a well-ventilated place. Keep container tightly closed	
Disposal: -Dispose of contents/container to an approved waste disposal plant.	
Hazards not otherwise classified (HNOC): -None identified.	

Section 3- COMPOSITION/INFORMATION ON INGREDIANTS

COMPONENT	CAS-No	Weight%
Antimony	7440-36-0	>95

Section 4- FIRST AID MEASURES

GENERAL ADVICE: If symptoms persist, call a physician.

INHALATION: Remove victim from exposure to fresh air; lie down and keep warm and quiet. Give oxygen if breathing is difficult. If not breathing, give artificial respiration. Obtain medical attention.

SKIN CONTACT: Wash off immediately with soap and plenty of water while removing all contaminated clothes and shoes. Obtain medical attention.

EYE CONTACT: Flush eyes with lukewarm water, lifting upper and lower lids, for at least 15 minutes. Obtain medical attention.

INGESTION: DO NOT INDUCE VOMITING. Get medical attention.

MOST IMPORTANT SYMPTOMS/EFFECTS: No information available

NOTES TO PHYSICIAN: Treat symptomatically

Section 5- FIREFIGHTING MEASURES

Suitable Extinguishing Media:

Dry Chemical

Unsuitable Extinguishing Media:

No Information Available

Flash Point: No Information Available

Method: No Information Available

Auto Ignition Temperature: 330°C / 626°F

Explosion Limits:

Upper: No Data Available

Lower: No Data Available

Sensitivity to Mechanical Impact: No Information Available

Sensitivity to Static Discharge: No Information Available

Specific Hazards Arising from the Chemical:

Keep product and empty container away from heat and sources of ignition.

Hazardous Combustion Products:

Antimony Oxide

Protective Equipment & Precautions for Firefighters:

As in any fire, Firefighters must wear full face, self-contained breathing apparatus pressure-demand, MSHA/NIOSH (approved or equivalent) and full protective clothing to prevent contact with skin and eyes.

NFPA:

Health	Flammability	Instability	Physical Hazards
2	1	0	N/A

Section 6- ACCIDENTAL RELEASE MEASURES

Personal Precautions: Ensure adequate ventilation. Use personal protective equipment. Avoid dust formation.

Environmental Precautions: Should not be released into the environment. See Section 12 for additional ecological information.

Methods for Containment & Clean Up: Sweep up or vacuum up spillage and collect in suitable container for disposal. Keep in suitable, closed containers for disposal.

Section 7- HANDLING AND STORAGE

Handling: 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.

Storage: Keep container tightly closed in a dry, cool and well ventilated place. Keep under nitrogen

Section 8- EXPOSURE CONTROLS/PERSONAL PROTECTION

Exposure Guidelines:

Component	ACGIH TLV	OSHA PEL	NIOSH IDLH
Antimony	TWA: 0.5 mg/m ³	(Vacated) TWA: 0.5 mg/m ³ TWA: 0.5mg/m ³	IDLH: 50mg/m ³ TWA: 0.5mg/m ³

Component	Quebec	Mexico OEL (TWA)	Ontario TWA EV
Antimony	TWA: 0.5 mg/m ³	TWA: 0.5 mg/m ³	TWA: 0.5 mg/m ³

Legend:

ACGIH: American Conference of Governmental Industrial Hygienists

OSHA: Occupational Safety and Health Administration

NIOSH IDLH: The National Institute for Occupational Safety and Health Immediately Dangerous to Life or Health

Engineering Measures:

Use only under a chemical fume hood. Ensure that eyewash stations and safety showers are close to the workstation location.

Personal Protective Equipment:

Eye/Face Protection: Wear appropriate protective eyeglasses or chemical safety goggles as described by OSHA's eye and face protection regulations in 29 CFR 1910.133 or European Standard EN166.

Skin and Body Protection: Wear appropriate protective gloves and clothing to prevent skin exposure.

Respiratory Protection: Follow the OSHA respirator regulations found in 29 CFR 1910.134 or European Standard EN 149. Use a NIOSH/MSHA or European Standard EN 149 approved respirator if exposure limits are exceeded or if irritation or other symptoms are experienced.

Hygiene Measures: Handle in accordance with good industrial hygiene and safety practice.

Section 9- PHYSICAL AND CHEMICAL PROPERTIES

Physical State: Solid
Appearance: Grey
Odor: No information available
Odor Threshold: No information available
pH: No information available
Melting Point/Range: 630°C / 1166°F
Boiling Point/Range: 1635°C / 2975°F @ 760 mmHg
Flash Point: No information available
Evaporation Rate: Not applicable
Flammability (solid,gas): No information available
Flammability or Exposure Limits:
 Upper: No data available
 Lower: No data available
Vapor Pressure: 1 mmHg @ 886°C
Vapor Density: Not applicable
Relative Density: No information available
Solubility: Insoluble in water
Partition coefficient; n-octanol/water: No data available
Auto Ignition Temperature: 300°C / 626°F
Decomposition Temperature: No information available
Viscosity: Not applicable
Molecular Formula: Sb
Molecular Weight: 121.75

Section 10- STABILITY AND REACTIVITY

Reactive Hazard: None known, based on information available.
Stability: Stable under normal conditions. Air sensitive.
Conditions to Avoid: Incompatible products. Excess heat. Avoid dust formation. Exposure to air.
Incompatible Materials: Strong oxidizing agents
Hazardous Decomposition Products: Antimony oxide
Hazardous Polymerization: Hazardous polymerization does not occur
Hazardous Reactions: None under normal processing

Section 11- TOXICOLOGICAL INFORMATION

Acute Toxicity:

Product Information: No acute toxicity information is available for this product.

Component Information:

Component	LD50 Oral	LD50 Dermal	LC50 Inhalation
Antimony	7 g/kg (Rat)	Not Listed	Not Listed

Toxicological Synergistic Products: No information available

Delayed and immediate effects as well as chronic effects from short and long term exposure:

Irritation: No information available

Sensitization: No information available

Carcinogenicity: Limited evidence of a carcinogenic effect. The table below indicates whether each agency has listed any ingredient as a carcinogen.

Component	CAS-No	IARC	NTP	ACGIH	OSHA	Mexico
Antimony	7440-36-0	Not Listed	Not Listed	Not Listed	Not Listed	Not Listed

Mutagenic Effects: No information available
Reproductive Effects: No information available
Development Effects: No information available
Teratogenicity: No information available
STOT – single exposure: Respiratory system
STOT – repeated exposure: Liver, Kidney, Cardiovascular system
Aspiration Hazard: No information available
Symptoms/effects, both acute & delayed: No information available
Endocrine Disruptor: No information available
Other Adverse Effects: See actual entry in RTECS for complete information. The toxicological properties have not been fully investigated.

Section 12- ECOLOGICAL INFORMATION

Ecotoxicity: Do not empty into drains

Component	Freshwater Algae	Freshwater Fish	Microtox	Water Flea
Antimony	Not Listed	Cyprinodon variegates: LC50 = 6.2-8.3 mg/L/96h	Not Listed	Not Listed

Persistence and Degradability: Insoluble in water

Bioaccumulation/Accumulation: No information available

Mobility: Is not likely mobile in the environment due to its low water solubility

Section 13- DISPOSAL CONSIDERATIONS

Waste Disposal Methods: Chemical waste generators must determine whether a discarded chemical is classified as a hazardous waste. Chemical waste generators must also consult local, regional and national hazardous waste regulations to ensure complete and accurate classification.

Section 14- TRANSPORT INFORMATION

DOT:

UN-No: UN2871
Proper Shipping Name: ANTIMONY POWDER
Hazard Class: 6.1
Packing Group: III

TDG:

UN-No: UN2871
Proper Shipping Name: ANTIMONY POWDER
Hazard Class: 6.1
Packing Group: III

IATA:

UN-No: UN2871
Proper Shipping Name: ANTIMONY POWDER
Hazard Class: 6.1
Packing Group: III

IMDG/IMO:

UN-No: UN2871
Proper Shipping Name: ANTIMONY POWDER
Hazard Class: 6.1
Packing Group: III

Section 15- REGULATORY INFORMATION

International Inventories:

Component	TSCA	DSL	NDSL	EINECS	ELINCS	NLP	PICCS	ENCS	AICS	IECSC	KECL
Antimony	X	X	-	231-146-5	-		X	-	X	X	X

Legend:

X – Listed

E – Indicates a substance that is subject of a Section 5(e) Consent order under TSCA.

F – Indicates a substance that is subject of a Section 5(f) Rule under TSCA.

N – Indicates a polymeric substance containing no free-radical initiator in its inventory name but is considered to cover the designated polymer made with any free-radical initiator regardless of the amount used.

P – Indicates a commenced PMN substance.

R – Indicates a substance that is the subject of a Section 6 risk management rule under TSCA.

S – Indicates a substance that is identified in a proposed or final Significant New Use Rule.

T – Indicates a substance that is the subject of a Section 4 test rule under TSCA.

XU – Indicates a substance exempt from reporting under the Inventory Update Rule, i.e. Partial Updating of the TSCA Inventory Data Base Production and Site Reports (40 CFR 710(B)).

Y1 – Indicates an exempt polymer that has a number-average molecular weight of 1,000 or greater.

Y2 – Indicates an exempt polymer that is a polyester and is made only from reactants included in a specified list of low concern reactants that comprises one of the eligibility criteria for the exemption rule.

US Federal Regulations:

TSCA 12(b): Not applicable

SARA 313:

Component	CAS-No	Weight %	SARA 313 – Threshold Values %
Antimony	7440-36-0	>95	1.0

SARA 311/312 Hazardous Categorization:

Acute Health Hazard: Yes

Chronic Health Hazard: Yes

Fire Hazard: No

Sudden Release of Pressure Hazard: No

Reactive Hazard: No

Clean Water Act:

Component	CWA – Hazardous Substances	CWA – Reportable Quantities	CWA – Toxic Pollutants	CWA – Priority Pollutants
Antimony	-	-	X	X

Clean Air Act:

Component	HAPS Data	Class 1 Zone Depletors	Class 2 Zone Depletors
Antimony	X		-

OSHA (Occupational Safety and Health Administration): Not applicable

CERCLA: This material, as supplied, contains one or more substances regulated as a hazardous substance under the Comprehensive Environmental Response Compensation & Liability Act (CERCLA) (40 CFR 302)

Component	Hazardous Substances RQs	CERCLA EHS EQs
Antimony	5000 lb 10 lb	-

California Proposition 65: This product does not contain any Proposition 65 chemicals

State Right-to-Know:

Component	Massachusetts	New Jersey	Pennsylvania	Illinois	Rhode Island
Antimony	X	X	X	X	X

US Department of Transportation:

Reportable Quantity (RQ): Y

DOT Marine Pollutant: N

DOT Severe Marine Pollutant: N

US Department of Homeland Security: This product does not contain any DHS chemicals.

Other International Regulations:

Mexico – Grade: No information available

Canada: This product has been classified in accordance with the hazard criteria of the Controlled Products Regulations (CPR) and the MSDS contains all the information required by the CPR

WHMIS Hazard Class: D2A Very Toxic Materials



Section 16- OTHER INFORMATION

The above information is accurate to the best of our knowledge. However, since data, safety standards and government regulations are subject to change, the conditions of handling and use, or misuse are beyond our control, Plasmaterials, Inc. makes no warranty, either expressed or implied, with respect to the completeness or continuing accuracy of the information contained herein and disclaims all liability for reliance thereon. Users should satisfy themselves that they have all current data relevant to their particular use.

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