

MATERIAL SAFETY DATA SHEET

NFPA	HMIS	Personal Protective Equipment						
	<table border="1" style="margin: auto;"> <tr><td style="background-color: #0056b3; color: white;">Health Hazard</td><td style="text-align: center;">2</td></tr> <tr><td style="background-color: #ff0000; color: white;">Fire Hazard</td><td style="text-align: center;">1</td></tr> <tr><td style="background-color: #ffff00; color: black;">Reactivity</td><td style="text-align: center;">0</td></tr> </table>	Health Hazard	2	Fire Hazard	1	Reactivity	0	
Health Hazard	2							
Fire Hazard	1							
Reactivity	0							
See Section 8.								

1. CHEMICAL PRODUCT AND COMPANY IDENTIFICATION

Product code:	A1305
Product Name:	ANTIMONY METAL, 1 IN. AND FINER, LUMP
Chemical Name:	Antimony
Synonyms:	Stibium
Recommended use:	In manufacture of alloys In manufacture of semiconductor devices In fireworks For thermoelectric piles
CAS #:	7440-36-0
Formula:	Sb
RTECS #	CC4025000
CI#:	Not available
Supplier:	Spectrum Chemicals and Laboratory Products, Inc. 14422 South San Pedro St. Gardena, CA 90248 (310) 516-8000
Emergency Telephone Number:	CHEMTREC: 1-800-424-9300
Contact Person:	Martin LaBenz (West Coast)
Contact Person:	Chris Terpak (East Coast)

2. HAZARDS IDENTIFICATION

EMERGENCY OVERVIEW			
WARNING! IRRITANT. Irritating to skin. Irritating to eyes. Irritating to respiratory system.			
Odor: None.	Physical state: Solid. Metal.	Appearance: Lump.	Color: Silver-white. Dark grey.

OSHA Regulatory Status This material is considered hazardous by the OSHA Hazard Communication Standard (29 CFR 1910.1200)

2. HAZARDS IDENTIFICATION

POTENTIAL HEALTH EFFECTS

Principal Routes of Exposure:

Ingestion. Inhalation.

Acute Potential Health Effects:**Skin Contact:**

Contact causes skin irritation. May cause allergic skin reaction.

Eye Contact:

Irritating, but will not permanently injure eye tissue.

Inhalation:

Dust is irritating to respiratory tract. Can cause lung irritation and cough. Exposure to the dust and fumes may cause gingivitis, rhinitis, chest tightness, shortness of breath, bronchitis, pulmonary edema, headache, and dizziness

Ingestion:

Harmful if swallowed. Causes digestive (gastrointestinal) tract irritation. May cause abdominal pain, nausea, vomiting, diarrhea. Diarrhea may be watery or bloody. May cause metallic taste.

Chronic Potential Health Effects:

Target Organs: Kidney. Liver. Heart. Skin. Lungs.

Carcinogen Status: No information available

Mutagenic Effects: No information available

Teratogenic Effects: No information available

Aggravated Medical Conditions: No information available

See Section 11 for additional Toxicological Information

POTENTIAL ENVIRONMENTAL EFFECTS

No information available

3. COMPOSITION/INFORMATION ON INGREDIENTS

Components	CAS-No.	Weight %
Antimony Metal, lump	7440-36-0	100

4. FIRST AID MEASURES

General Advice: Poison information centres in each State capital city can provide additional assistance for scheduled poisons (13 1126)

Skin Contact: Wash off immediately with soap and plenty of water removing all contaminated clothes and shoes. Get medical attention. If skin irritation persists, call a physician.

Eye Contact: Flush eye with water for 15 minutes. Get medical attention.

Inhalation: Move to fresh air. If not breathing, give artificial respiration. If breathing is difficult, give oxygen. Get medical attention.

Ingestion: Do not induce vomiting without medical advice. Never give anything by mouth to an unconscious person. Obtain medical attention.

Notes to Physician: Treat symptomatically

5. FIRE-FIGHTING MEASURES

Flammable Properties

Flashpoint (°C/°F):	Not applicable.
Lower Explosion Limit (%):	No information available
Upper Explosion Limit (%):	No information available
Autoignition Temperature (°C/°F):	No information available

Suitable Extinguishing Media: Dry sand. Dry sodium chloride. Graphite powder.

Unsuitable Extinguishing Media: Water. Foam. CO₂. Do not use water, CO₂, or foam directly on fire itself.

Hazardous Combustion Products: Stibine (SbH₃) fumes

Specific hazards: May be combustible at high temperatures. Dousing metallic fires with water may generate hydrogen gas, an extremely dangerous explosion hazard, particularly if fire is in a confined environment. When heated, antimony emits toxic fumes of Stibine.

Special Protective Equipment for Firefighters: As in any fire, wear self-contained breathing apparatus pressure-demand, MSHA/NIOSH (approved or equivalent) and full protective gear

Specific Methods: No information available.

6. ACCIDENTAL RELEASE MEASURES

Personal Precautions:

Ensure adequate ventilation. Use personal protective equipment. Avoid contact with skin, eyes and clothing. Avoid dust formation. Remove all sources of ignition.

Environmental Precautions:

No information available..

Methods for Cleaning Up:

Sweep up and shovel into suitable containers for disposal.

7. HANDLING AND STORAGE

Handling

Technical Measures/Precautions:

Provide sufficient air exchange and/or exhaust in work rooms. Avoid dust formation. Keep away from incompatible materials.

Safe Handling Advice:

Wear personal protective equipment. Avoid contact with skin, eyes and clothing. Do not ingest. Do not breathe vapours/dust. Keep away from heat and sources of ignition. Avoid dust formation. Handle in accordance with good industrial hygiene and safety practice.

Storage**Technical Measures/Storage Conditions:**

Keep container tightly closed. Keep in a well-ventilated place. Store at room temperature in the original container. Store away from incompatible materials.

Incompatible Products:

Oxidizing agents. Do not store together with acids and ammonium salts. Halogenated compounds. Halogenated acids.

8. EXPOSURE CONTROLS / PERSONAL PROTECTION

Engineering measures to reduce exposure:

Ensure adequate ventilation. Use process enclosures, local exhaust ventilation, or other engineering controls to keep airborne levels below recommended exposure limits. If user operations generate dust, fume or mist, use ventilation to keep exposure to airborne contaminants below the exposure limit.

Personal Protective Equipment

Eye protection: Safety glasses.

Skin and body protection: Long sleeved clothing. Chemical resistant apron. Gloves.

Respiratory protection: Effective dust mask. Wear respirator with dust filter..

Hygiene measures: Avoid contact with skin, eyes and clothing. Wash hands before breaks and at the end of workday. When using, do not eat, drink or smoke.

National occupational exposure limits**United States**

Components	OSHA	NIOSH	ACGIH	AIHA WHEEL
Antimony Metal, lump - 7440-36-0	= 0.5 mg/m ³ TWA	= 0.5 mg/m ³ TWA	= 0.5 mg/m ³ TWA	

Canada

Components	Alberta	British Columbia	Quebec	Ontario
Antimony Metal, lump 7440-36-0	= 0.5 mg/m ³ TWA	= 0.5 mg/m ³ TWA	= 0.5 mg/m ³ TWAEV	= 0.5 TWAEV

Australia and Mexico

Components	Australia	Mexico
Antimony Metal, lump 7440-36-0	0.5 mg/m ³ TWA	= 0.5 mg/m ³ TWA

9. PHYSICAL AND CHEMICAL PROPERTIES

9. PHYSICAL AND CHEMICAL PROPERTIES

Physical state: Solid Metal	Appearance: Lump.	Color: Silver-white. Dark grey.
Odor: None.	Taste No information available	Molecular weight: 121.75
Flash point (°C) : Not determined	Lower Explosion Limit (%): No information available	Upper Explosion Limit (%): No information available
Autoignition Temperature (°C/°F): No information available	pH: No information available	Boiling point/range(°C/°F): 1635 °C/2975 °F
Melting point/range(°C/°F): 630 °C/1166 °F	Decomposition temperature(°C/°F): No information available	Specific gravity: 6.684 @ 25 deg. C
Density (g/cm3): No information available	Bulk density: No information available	Vapor pressure @ 20°C (kPa): 0.13 @ 886 deg. C
Vapor density: No information available	Evaporation rate: No information available	VOC content (g/L): No information available
Odor threshold (ppm): No information available	Partition coefficient (n-octanol/water): No information available	Miscibility: No information available
Solubility: Insoluble in water		

10. STABILITY AND REACTIVITY

Stability:	Stable at normal conditions
Conditions to avoid:	Heat.
Materials to avoid:	Acids. Strong oxidising agents. Halogenated acids. Halogenated compounds. Ammonium salts.
Hazardous decomposition products:	Stibine (SbH3).
Possibility of Hazardous Reactions:	Antimony is spontaneously flammable with fluorine, chlorine, or bromine. Antimony with iodine produces heat, which can cause flame or even explosion if quantities are great enough. Finely divided Antimony on contact with acid, emits toxic fumes of Antimony Hydride. Bromoazide explodes on contact with Antimony. Nascent Hydrogen will react with Antimony to form Stibine (SbH3) which is extremely toxic.. Antimony can react violently with NH4NO3, halogens, BrN3, BrF3, HClO3, ClO, ClF3, HNO3, KNO3, KMnO4, NaNO3, Sodium, Sodium peroxide, and oxidants.
Polymerization:	Hazardous polymerisation does not occur
Corrosivity:	No information available
Special Remarks on Corrosivity:	No information available

11. TOXICOLOGICAL INFORMATION

Acute Toxicity

Component Information

Antimony Metal, lump - 7440-36-0

LD50/oral/rat = 7 g/kg Oral LD50 Rat
LD50/oral/mouse = No information available
LD50/dermal/rabbit = Not determined
LD50/dermal/rat = No information available
LC50/inhalation/rat = No information available
LC50/inhalation/mouse = No information available

Product Information

LC50/inhalation/rat = No information available
LC50/Inhalation/mouse = No information available
LD50/dermal/rabbit = No information available
LD50/dermal/rat = No information available
LD50/oral/rat = 7 g/kg
LD50/oral/mouse = No information available

Local Effects

Skin irritation: Causes skin irritation.

Eye irritation: Irritating, but will not permanently injure eye tissue.

Inhalation: Dust is irritating to respiratory tract. Can cause lung irritation and coughing. Exposure to dust and fumes may cause gingivitis rhinitis, chest tightness, shortness of breath, bronchitis, pulmonary edema, headache, dizziness.

Ingestion: Harmful if swallowed. Causes digestive (gastrointestinal) tract irritation. May cause abdominal pain, nausea, vomiting, diarrhea. Diarrhea may be watery or bloody. May cause metallic taste.

Sensitization: No information available

Chronic Toxicity

Chronic Toxicity Chronic exposure may cause dermatitis. The type of dermatitis is called "Antimony Spots." These are pruritic papules and pustules around sweat and sebaceous glands which resemble chicken pox and are transient in nature. Prolonged or repeated exposure may cause injuries to liver, kidneys, lungs, and heart. Chronic inhalation of antimony and its compounds can cause pneumoconiosis, which may lead to obstructive lung disease. Chronic exposure to antimony dust can produce chronic eye irritation, itching, a burning sensation, excessive tearing, rhinitis, nasal septal perforation

Carcinogenic effects: Limited evidence of a carcinogenic effect. It has been shown to cause lung cancer in rats.

Mutagenic Effects: No information available

Reproductive Effects: No information available

Teratogenic Effects: No information available

Target Organs: Kidney. Liver. Heart. Skin. Lungs.

12. ECOLOGICAL INFORMATION

ECOTOXICITY

Toxicity to terrestrial and aquatic plants and animals: No information available

Ecotoxicity effects: No data available

Aquatic toxicity: No information available

Mobility: No information available

Persistence and degradability: No information available

Bioaccumulative potential: No information available

13. DISPOSAL CONSIDERATIONS

Waste from residues / unused products:

Waste must be disposed of in accordance with Federal, State and Local regulation.

Contaminated packaging:

Empty containers should be taken for local recycling, recovery or waste disposal

Components	RCRA - F Series Wastes	RCRA - K Series Wastes	RCRA - P Series Wastes	RCRA - U Series Wastes
Antimony Metal, lump	None	None	None	None

14. TRANSPORT INFORMATION

DOT

UN-No: Not regulated
Proper Shipping Name: No information available
Hazard Class: No information available
Packing Group: None
Subsidiary Risk: Not applicable
Marine Pollutant: No data available
ERG No: No information available
DOT RQ (lbs): No information available

TDG (Canada)

Proper Shipping Name: No information available
UN-No: Not regulated
Hazard Class: No information available
Packing Group: No information available
Subsidiary Risk: No information available
Description: No information available

ADR

Proper Shipping Name: No information available
UN-No: Not regulated
Hazard Class: No information available
Packing Group: No information available
Subsidiary Risk: No information available
Classification Code: No information available
Description: No information available
CEFIC Tremcard No: No information available

IMO / IMDG

Proper Shipping Name: No information available
UN-No: Not regulated
Hazard Class: No information available
Subsidiary Risk: No information available
Packing Group: No information available
Description: No information available
IMDG Page: No information available
Marine Pollutant: No information available
MFAG: No information available
Maximum Quantity: No information available

RID

Proper Shipping Name: No information available
UN-No: Not regulated
Hazard Class: No information available
Packing Group: No information available
Subsidiary Risk: No information available
Classification Code: No information available
Description: No information available

ICAO

UN-No: Not regulated
Hazard Class: No information available
Proper Shipping Name: No information available
Packing Group: No information available
Subsidiary Risk: No information available
Description: No information available

IATA

Proper Shipping Name: No information available
UN-No: Not regulated
Hazard Class: No information available
Packing Group: No information available
Subsidiary Risk: No information available
Description: No information available

15. REGULATORY INFORMATION**International Inventories**

Components	U.S. TSCA	Philippines (PICCS)	KOREA KECL	Japan ENCS	CHINA	Australia (AICS)	EINECS-No.
<i>Antimony Metal, lump</i>	Present	Present	KE-01834	Not present	Present	Present	231-146-5

U.S. Regulations*Antimony Metal, lump*

Massachusetts RTK: Present
New Jersey RTK: Present
New Jersey (EHS) List: Present
Pennsylvania RTK: Environmental hazard
RI RTK - Hazardous Substances List: Present
Minnesota - Hazardous Substance List: Present
New York Release Reporting - List of Hazardous Substances:
 = 100 lb RQ
 = 5000 lb RQ
California Directors List: Present

California Prop. 65: Safe Drinking Water and Toxic Enforcement Act of 1986.

Chemicals Known to the State of California to Cause Cancer:

WARNING: This product contains a chemical known to the State of California to cause cancer. (See table below)

Chemicals Known to the State of California to Cause Reproductive Toxicity:

This product does not contain a chemical requiring a warning under California Prop. 65. (See table below)

Components	Carcinogen	Developmental Toxicity	Male Reproductive Toxicity	Female Reproductive Toxicity:
Antimony Metal, lump	Not Listed	Not Listed	Not Listed	Not Listed

CERCLA/SARA

Components	CERCLA - Hazardous Substances and their Reportable Quantities	Section 302 Extremely Hazardous Substances and TPQs	Section 302 Extremely Hazardous Substances and RQs	Section 313 - Chemical Category	Section 313 - Reporting <i>de minimis</i>
Antimony Metal, lump	= 2270 kg final RQ = 5000 lb final RQ	None	None	None	= 1.0 % de minimis concentration

U.S. TSCA

Components	TSCA Section 5(a)2 - Chemicals With Significant New Use Rules (SNURS)	TSCA 8(d) -Health and Safety Reporting
Antimony Metal, lump	Not Applicable	10/04/1982 10/04/1992

Canada

WHMIS hazard class:

Non-controlled

Antimony Metal, lump

Uncontrolled product according to WHMIS classification criteria
D1B powder

Components	WHMIS Ingredient Disclosure List -
Antimony Metal, lump	1 %

Inventory

Components	Canada (DSL)	Canada (NDSL)
Antimony Metal, lump	Present	Not Listed

EU Classification

R20/22 - Harmful by inhalation and if swallowed.

R51/53 - Toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment.

S -phrase(s)

S61 - Avoid release to the environment. Refer to special instructions/safety data sheets.

The product is classified in accordance with Annex VI to Directive 67/548/EEC

Contains: Antimony

Indication of danger:

Xn - Harmful.

N - Dangerous for the environment.



16. OTHER INFORMATION

The MSDS format complies with ANSI Z400.1-2004 standards.

Revision date: 10-Mar-2010

Reason for revision: Not applicable

Additional advice: Consult your supplier if the material is to be used for special applications such as in the food industry or for hygiene, medical or surgical end-use.

Prepared by: Health & Safety

Literature reference: No information available

All chemicals may pose unknown hazards and should be used with caution. This Material Safety Data Sheet (MSDS) applies only to the material as packaged. If this product is combined with other materials, deteriorates, or becomes contaminated, it may pose hazards not mentioned in this MSDS. The physical properties reported in this MSDS are obtained from the literature and do not constitute product specifications. Information contained herein does not constitute a warranty, whether expressed or implied, as to the safety, merchantability or fitness of the goods for a particular purpose. Spectrum Chemicals & Laboratory Products, Inc. assumes no responsibility for results obtained or for incidental or consequential damages, including lost profits, arising from the use of these data. No warranty against infringement of any patent, copyright or trademark is made or implied. It shall be the user's responsibility to develop proper methods of handling and personal protection based on the actual conditions of use. While this MSDS is based on technical data judged to be reliable, Spectrum assumes no responsibility for the completeness or accuracy of the information contained herein.