

MATERIAL SAFETY DATA SHEET (MSDS)

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EM Science
M A T E R I A L S A F E T Y D A T A S H E E T

Section I Product Identification and Use

Manufacturer: EM SCIENCE A Division of EM Industries P.O. Box 70 480 Democrat Road Gibbstown, N.J. 08027	For More Information Call 856-423-6300 Technical Service Monday - Friday; 8:00 AM to 5:00 PM In Case of Emergency Call 800-424-9300 CHEMTREC (USA) 416-201-6383 CANUTEC (Canada) 24 Hours/Day: 7 Days/Week
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Product Name: Antimony metal powder
Product Code(s): B27248, 7831
Chemical Name/Other Name: Antimony; Stibium; C.I.77050
Chemical Formula: Sb
Chemical Family: Metallic element
TDG Shipping Name/UN: Antimony powder UN 2871
TDG Classification/Packing group: 6.1 PG III
Use: Laboratory reagent, industrial processes

Section II Hazardous Ingredients

Chemical name	CAS No.	%
Antimony	7440-36-0	100

Section III Physical Data

Physical State: Solid
Appearance and Odour: Grey powder
Odour Threshold: Not available
Specific Gravity: 6.684
Vapour Pressure: 1 mmHg at 886°C
Vapour Density: 4.2 (air=1)
Evaporation Rate: Not applicable
Boiling Point: 1635°C
Freezing Point: 630°C
pH: Not available
Coefficient of water/oil distribution: Not available

Section IV Fire or Explosion Hazard

Conditions of Flammability: Noncombustible. Dust presents a potential explosion hazard in the presence of an ignition source. Mixtures with alkali nitrates detonate on heating, also explodes if mixed with iodine.
Extinguishing Media: Dry chemical powder. Do not use water. Firefighters should use self-contained breathing apparatus.
Flash point / method: Not applicable
UEL: Not applicable
LEL: Not applicable
Autoignition Temperature: Not applicable
Hazardous Combustion Products: SbH₃, Sb₂O₃
Explosion data - sensitivity to mechanical impact: No

- **sensitivity to static discharge:** May be ignited by static discharge

Section V Reactivity Data

Conditions of instability: Normally stable

Incompatibilities: Nitric acid, ammonium nitrate, halogens, oxidizers, acids

Conditions of reactivity: Normally stable

Hazardous decomposition products: (SbH₃) Toxic fumes of stibine

Section VI Toxicological Properties / Health Hazard Data

Route of entry:

-**skin contact:** Irritates

-**skin absorption:** No information available

-**eye contact:** Irritates

-**inhalation:** Irritates

-**ingestion:** Harmful

LC₅₀: Not applicable

LD₅₀: 7000 mg/kg (oral-rat)

Exposure Limits: TLV : 0.5 mg(Sb)/m³

Effects of Acute Exposure: Symptoms of acute oral poisoning include violent irritation of the nose, mouth, stomach and intestines, vomiting, bloody stools, slow shallow respiration, pulmonary congestion, coma and sometimes death due to circulatory or respiratory failure.

Effects of Chronic Exposure: Chronic oral poisoning presents symptoms of dry throat, nausea, headache, sleeplessness, loss of appetite and dizziness. May lead to kidney and liver damage.

Irritancy: No experimental information available

Sensitization to Product: No information available

Carcinogenicity: No information available

Reproductive Toxicity: No information available

Teratogenicity: No information available

Mutagenicity: No information available

Toxicologically Synergistic Products: None found

Section VII First aid measures

Skin: Flush the contact area with lukewarm running water for at least 15 minutes. Remove contaminated clothing, taking care not to spread the chemical. If contamination is extensive, remove clothing under running water. Discard or decontaminate clothing under running water. Discard or decontaminate clothing before use. Unless contact has been slight, seek medical attention. Seek medical attention if irritation persists.

Eye: Flush the contaminated eye(s) for at least 15 minutes with lukewarm running water, holding the eyelids open. Take care not to rinse contaminated water into the non-affected eye. Always seek medical attention for accidents involving the eyes.

Inhalation: Take proper precautions to ensure your own safety before attempting rescue. Remove source of contamination or move victim to fresh air. If breathing has stopped, trained personnel should begin artificial respiration, or if the heart has stopped, cardiopulmonary resuscitation (CPR) immediately. Seek medical attention.

Ingestion: Never give anything by mouth if victim is rapidly losing consciousness, or is unconscious or convulsing. Rinse mouth thoroughly with water. If conscious, induce vomiting. Have victim drink 200-400 ml of water to dilute. If breathing has stopped, trained personnel should begin artificial respiration, or if the heart has stopped, cardiopulmonary resuscitation (CPR) immediately. Seek medical attention.

Section VIII Preventive Measures

Engineering Controls: Engineering control methods to reduce hazardous exposures are preferred. Methods include mechanical ventilation (dilution and local exhaust), process or personnel enclosure, control of process conditions, and process modification. Administrative controls and personal protective equipment may also be required.

Personal protective equipment:

- gloves: Neoprene, PVC or equivalent
- respiratory protection: Dust mask, approved respirator as appropriate
- eye protection: Chemical safety goggles
- clothing: Plastic apron, sleeves and boots as appropriate

Storage Requirements: Store in suitable labelled containers. Keep containers tightly closed when not in use and when empty. Protect from damage. Store in a cool, dry, well-ventilated area, out of direct sunlight. Store away from incompatible materials.

Handling Procedures and Equipment: Follow routine safe handling procedures. Avoid generating dust.

Leak or Spill Clean-up: Before dealing with spillages take necessary protective measures, inform others to keep at a safe distance and, for flammable materials, shut off all possible sources of ignition. Transfer carefully into container and arrange removal by disposal company. Wash site of spillage thoroughly with water and detergent.

Disposal: Follow all federal, provincial and local regulations for disposal. Use only licensed disposal and waste hauling companies. Disposal of small amounts of spilled material may be handled as described under "Leak or Spill Cleanup". Large spills must be dealt with separately and must be handled by qualified disposal companies.

Special Shipping Information: Follow all TDG regulations and see classification in Section I

Section IX Preparation Information

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