

SAFETY DATA SHEET

Preparation Date: 10/23/2017

Revision date 12/14/2018

Revision Number: G2

1. Identification

Product identifier

Product code: A1330
Product Name: ANTIMONY TRIOXIDE, REAGENT

Other means of identification

Synonyms: Antimony(3+) oxide
 Diantimony trioxide

CAS #: 1309-64-4
RTECS # CC5650000
CI#: Not available

Recommended use of the chemical and restrictions on use

Recommended use: Flame retardant in textiles and plastics. As a mordant. In enamels and glasses.
Uses advised against No information available

Supplier: Spectrum Chemical Mfg. Corp
 14422 South San Pedro St.
 Gardena, CA 90248
 (310) 516-8000

Order Online At: <https://www.spectrumchemical.com>
Emergency telephone number Chemtrec 1-800-424-9300
Contact Person: Tom Tyner (USA - West Coast)
Contact Person: Ibad Tirmiz (USA - East Coast)

2. HAZARDS IDENTIFICATION

Classification

This chemical is considered hazardous by the 2012 OSHA Hazard Communication Standard (29 CFR 1910.1200)

Considered a dangerous substance or mixture according to the Globally Harmonized System (GHS)

Skin corrosion/irritation	Category 2
Serious eye damage/eye irritation	Category 2B
Carcinogenicity	Category 2
Specific target organ toxicity (single exposure)	Category 3

Label elements

Warning

Hazard statements

Causes skin irritation
 Causes eye irritation
 Suspected of causing cancer

May cause respiratory irritation



Hazards not otherwise classified (HNOC)

Not Applicable

Other hazards

Very toxic to aquatic life with long lasting effects

Precautionary Statements - Prevention

Obtain special instructions before use
Do not handle until all safety precautions have been read and understood
Wear protective gloves/protective clothing/eye protection/face protection
Wash face, hands and any exposed skin thoroughly after handling
Avoid breathing dust/fume/gas/mist/vapors/spray
Use only outdoors or in a well-ventilated area

Precautionary Statements - Response

Call a *POISON CENTER* or doctor/physician if you feel unwell
IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. If eye irritation persists: Get medical advice/attention.
IF ON SKIN: Wash with plenty of water
If skin irritation occurs: Get medical advice/attention
Take off contaminated clothing and wash it before reuse
IF INHALED: Remove person to fresh air and keep comfortable for breathing.

Precautionary Statements - Storage

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

Precautionary Statements - Disposal

Dispose of contents/container to an approved waste disposal plant

3. COMPOSITION/INFORMATION ON INGREDIENTS

Component	CAS No	Weight-%
Antimony Trioxide	1309-64-4	100

4. FIRST AID MEASURES

First aid measures

General Advice: National Capital Poison Center in the United States can provide assistance if you have a poison emergency and need to talk to a poison specialist. Call 1-800-222-1222.

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

Eye Contact: Flush eyes with water for 15 minutes. Get medical attention. If symptoms persist, call a physician.

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.

Most important symptoms and effects, both acute and delayed

Symptoms May cause abdominal pain, nausea, vomiting, diarrhea
May cause loss of appetite
Dryness of mouth
May cause cardiovascular effects
May cause hypotension
Bradycardia
May cause headache
Convulsions
Insomnia
Causes skin irritation
Causes eye irritation
Mild eye irritation
Irritating to respiratory system
May cause metallic taste
Nosebleeds
Perforation of the nasal septum if inhaled in excessive quantities
Dyspnea (Difficulty breathing and shortness of breath)
Coughing and wheezing
May cause "antimony spots" or "antimony measles." These spots are a rash consisting of itchy papules and pustules surrounding the sweat and sebaceous glands

Indication of any immediate medical attention and special treatment needed

Notes to Physician: Treat symptomatically.

Protection of first-aiders

First-Aid Providers: Avoid exposure to blood or body fluids. Wear gloves and other necessary protective clothing. Dispose of contaminated clothing and equipment as bio-hazardous waste.

5. FIRE-FIGHTING MEASURES

Extinguishing Media

Suitable Extinguishing Media: The product is not flammable. If it is involved in a fire, extinguish the fire using an agent suitable for the type of surrounding fire.

Unsuitable Extinguishing Media: No information available.

Specific hazards arising from the chemical

Hazardous combustion products No information available.

Specific hazards No information available.

Special Protective Actions for Firefighters

Specific Methods: No information available

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

6. ACCIDENTAL RELEASE MEASURES

Personal precautions, protective equipment and emergency procedures

Personal Precautions: Ensure adequate ventilation. Use personal protective equipment. Avoid contact with skin, eyes and clothing. Keep people away from and upwind of spill/leak. Do not touch damaged containers or spilled material unless wearing appropriate protective clothing. Remove all sources of ignition.

Environmental precautions Prevent further leakage or spillage if safe to do so. Prevent product from entering drains. Prevent entry into waterways, sewers, basements or confined areas.

Methods and material for containment and cleaning up

Methods for containment Stop leak if you can do it without risk. Cover with plastic sheet to prevent spreading.

Methods for cleaning up Sweep up and shovel into suitable containers for disposal. Clean contaminated surface thoroughly.

7. HANDLING AND STORAGE

Precautions for safe handling

Technical Measures/Precautions:

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

Safe Handling Advice

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

Conditions for safe storage, including any incompatibilities

Technical Measures/Storage Conditions:

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

Incompatible Materials:

Acids
Strong oxidizing agents
Halogenated acids

8. EXPOSURE CONTROLS/PERSONAL PROTECTION

Control parameters

National occupational exposure limits

United States

Component	CAS No	OSHA	NIOSH	ACGIH	AIHA WEEL
Antimony Trioxide	1309-64-4	0.5 mg/mg (as Sb)	0.5 mg/mg (as Sb)	0.5 mg/mg (as Sb)	None

Canada

Component	CAS No	Canada - Alberta	Canada - British Columbia	Canada - Ontario	Canada - Quebec
Antimony Trioxide	1309-64-4	0.5 mg/mg (as Sb)	0.5 mg/mg (as Sb)	None	None

Australia and Mexico

Component	CAS No	Australia	Mexico
Antimony Trioxide	1309-64-4	0.5 mg/mg (as Sb)	0.5 mg/m ³ TWA 1 mg/m ³ TWA

Appropriate engineering controls

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.

Individual protection measures, such as personal protective equipment

Personal Protective Equipment

- Eye protection:** Goggles or Safety glasses with side-shields.
- Skin and body protection:** Long sleeved clothing
Chemical resistant apron
Gloves
- Respiratory protection:** Effective dust mask. Use a dust respirator under conditions where exposure to the substance is apparent (e.g. generation of high concentration of dust (dust clouds) , inadequate ventilation, development of respiratory tract irritation), and engineering controls are not feasible. Be sure to use an approved/certified respirator or equivalent.
- Hygiene measures:** Avoid contact with skin, eyes and clothing. When using, do not eat, drink or smoke. Wash hands before breaks and immediately after handling the product

9. PHYSICAL AND CHEMICAL PROPERTIES

Physical state: Solid	Appearance: Crystals. Crystalline powder.	Color: White.
Odor: Odorless.	Taste No information available.	Formula Sb ₂ O ₃
Molecular/Formula weight (g/mole): 291.52	Flammability (solid, gas) no data available	Flashpoint (°C/°F): No information available
Flash Point Tested according to: Not available	Autoignition Temperature (°C/°F): No information available	Lower Explosion Limit (%): No information available
Upper Explosion Limit (%): No information available	Melting point/range(°C/°F): 655 °C/1211 °F	Decomposition temperature(°C/°F): No information available
Boiling point/range(°C/°F): 1425 °C/2597 °F	Bulk density: No information available	Density (g/cm³): No information available
Specific gravity: 5.67	pH No information available	Vapor pressure @ 20°C (kPa): No information available

Evaporation rate:
No information available

Vapor density:
No information available

VOC content (g/L):
No information available

Odor threshold (ppm):
No information available

**Partition coefficient
(n-octanol/water):**
No information available

Viscosity:
No information available

Miscibility:
No information available

Solubility:
Slightly soluble in water
Slightly soluble in dilute Nitric Acid
Slightly soluble in dilute sulfuric acid

10. STABILITY AND REACTIVITY

Reactivity

Reactive with acids
Reactive with oxidizing agents
Bromine produces a violent reaction with antimony trioxide

Chemical stability

Stability: Stable under recommended storage conditions.

Possibility of Hazardous Reactions: Hazardous polymerization does not occur

Conditions to avoid: Incompatible materials. Excess Heat.

Incompatible Materials: Acids
Strong oxidizing agents
Halogenated acids

Hazardous decomposition products: No information available.

Other Information

Corrosivity: No information available

Special Remarks on Corrosivity: No information available

11. TOXICOLOGICAL INFORMATION

Information on likely routes of exposure

Principal Routes of Exposure:
Ingestion. Inhalation. Skin.

Acute Toxicity

The following values are calculated based on chapter 3.1 of the GHS document
Component Information

Antimony Trioxide	
CAS No	1309-64-4

LD50/oral/rat = > 34600 mg/kg Oral LD50 Rat
LD50/oral/mouse = No information available
LD50/dermal/rabbit = > 2000 mg/kg Dermal LD50 Rabbit
LD50/dermal/rat = No information available

LC50/inhalation/rat = No information available
LC50/inhalation/mouse = No information available
Other LD50 or LC50 information = No information available

Product Information

LD50/oral/rat =
Value - Acute Tox = > 34600 mg/kg

LD50/oral/mouse =
Value - Acute Tox Oral = No information available

LD50/dermal/rabbit
Value - Acute Tox = > 2000 mg/kg

LD50/dermal/rat
VALUE - Acute Tox Dermal = No information available

LC50/inhalation/rat
VALUE-Vapor = No information available
VALUE-Gas = No information available
VALUE-Dust/Mist = No information available

LC50/Inhalation/mouse
VALUE-Vapor = No information available
VALUE - Gas = No information available
VALUE - Dust/Mist = No information available

Symptoms

Skin Contact: Causes skin irritation. Moderately irritating to the skin. May cause "antimony spots" or "antimony measles." These spots are a rash consisting of itchy papules and pustules surrounding the sweat and sebaceous glands. They are primarily found on the forearms, thighs, and in areas where clothing is tight. It is more common in hot weather.

Eye Contact: Causes eye irritation. Mild eye irritation. May cause conjunctivitis.

Inhalation Irritating to respiratory system. Symptoms may include coughing and wheezing. May cause dyspnea (difficulty breathing or shortness of breath). May cause chemical pneumonitis. May cause rhinitis. Perforation of the nasal septum may occur. Nosebleeds may occur following large exposures. May cause metallic taste. May cause laryngitis and bronchitis.

Ingestion May cause abdominal pain, nausea, vomiting, diarrhea. May cause purging. May cause loss of appetite. May affect behavior/central nervous system (convulsions/seizures). May cause headache. May affect the cardiovascular system (slow heart rate (bradycardia)). May affect the cardiovascular system (hypotension).

Aspiration hazard No information available.

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

Chronic Toxicity Inhalation: Prolonged or repeated inhalation can cause sores in the nose. Although rare, it is possible that chronic inhalation of antimony trioxide may result in heart disease due to effects on the heart muscle (heart damage). Antimoniosis

, a pneumonconiosis seen after chronic inhalation of antimony trioxide, may occur. Ingestion: Prolonged or repeated ingestion may affect the spleen, liver (fatty liver degeneration), blood(leukopenia, anemia), kidneys. Chronic intensive skin contact 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.

Sensitization: No information available.

Mutagenic Effects: No information available

Carcinogenic effects: Suspected of causing cancer. Possibly carcinogenic to humans.

Component	CAS No	IARC	ACGIH - Carcinogens	NTP	OSHA HCS - Carcinogens	Australia - Notifiable Carcinogenic Substances	Australia - Prohibited Carcinogenic Substances
Antimony Trioxide	1309-64-4	Monograph 47 [1989]	A2 Suspected Human Carcinogen	Not listed	Present	Not listed	Not listed

ACGIH (American Conference of Governmental Industrial Hygienists)

IARC (International Agency for Research on Cancer)

NTP (National Toxicology Program)

OSHA (Occupational Safety and Health Administration of the US Department of Labor)

Reproductive toxicity No data is available

Reproductive Effects: May cause adverse reproductive effects based on animal data

Developmental Effects: No information available

Teratogenic Effects: No information available

Specific Target Organ Toxicity

STOT - single exposure No information available.

STOT - repeated exposure No information available.

Target Organs: No information available.

12. ECOLOGICAL INFORMATION

Ecotoxicity

Ecotoxicity effects: Aquatic environment.

Antimony Trioxide - 1309-64-4

Algae/aquatic plants

EC50: 0.63 - 0.8mg/L (72h, Pseudokirchneriella subcapitata) EC50: 0.65 - 0.81mg/L (96h, Pseudokirchneriella subcapitata)

Fish

LC50: >80mg/L (96h, Pimephales promelas) LC50: >1000mg/L (96h, Brachydanio rerio)

Crustacea

EC50: >1000mg/L (48h, Daphnia magna) EC50: 361.5 - 496.0mg/L (48h, Daphnia magna)

Persistence and degradability: No information available

Bioaccumulative potential: No information available.

Mobility in soil No information available
Other adverse effects No information available.

13. DISPOSAL CONSIDERATIONS

Disposal Methods

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

Component	CAS No	RCRA - F Series Wastes	RCRA - K Series Wastes	RCRA - P Series Wastes	RCRA - U Series Wastes
Antimony Trioxide	1309-64-4	None	None	None	None

14. TRANSPORT INFORMATION

DOT

UN-No: Not Regulated
Proper Shipping Name: No information available
Hazard Class: No information available
Subsidiary Class: No information available
Packing group: No information available
Emergency Response Guide Number: No information available
Marine Pollutant: No data available
DOT RQ (lbs): No information available
Special Provisions: No Information available
Symbol(s): No information available
Description: No information available

TDG (Canada)

UN-No: Not Regulated
Proper Shipping Name: No information available
Hazard Class: No information available
Subsidiary Risk: No information available
Packing Group: No information available
Marine Pollutant: No Information available
Description: No information available

ADR

UN Number: Not regulated
Proper Shipping Name: No information available
Transport hazard class(es): No information available
Packing group: No information available
Subsidiary Risk: No information available

IMDG

UN-No: Not Regulated
Proper Shipping Name: No information available
Hazard Class: No information available
Subsidiary Risk: No information available
Packing Group: No information available
Marine Pollutant: No information available

RID

UN Number Not Regulated
Proper Shipping Name: No information available
Transport hazard class(es) No information available
Subsidiary Risk: No information available
Packing group No information available

ICAO (air)

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

IATA

UN Number Not Regulated
Proper Shipping Name: No information available
Transport hazard class(es) No information available
Subsidiary Risk: No information available
Packing group No information available
Precautionary Statements - Response IF exposed or concerned
Special Provisions No information available

15. REGULATORY INFORMATION


International Inventories

Component	CAS No	U.S. TSCA	KOREA KECL	Philippines (PICCS)	Japan ENCS	China IECSC	Australia AICS	EINECS-No.
<i>Antimony Trioxide</i>	1309-64-4	PresentACTIVE	Present KE-09846	Present	Present (1)-543	Present	Present	Present 215-175-0

U.S. Regulations*Antimony Trioxide*

Massachusetts RTK: Present
New Jersey RTK Hazardous Substance List: sn 0149
New Jersey (EHS) List: SN 2223 500 lb. TPQ (antimony compounds)
New Jersey - Discharge Prevention - List of Hazardous Substances: Present
Pennsylvania RTK: Environmental hazard
Pennsylvania RTK - Environmental Hazard List Present
Minnesota - Hazardous Substance List: Present
New York Release Reporting - List of Hazardous Substances:
 1000 lb RQ
 100 lb RQ
Louisiana Reportable Quantity List for Pollutants: 1000lbfinal RQ
 454kgfinal RQ
California Directors List of Hazardous Substances: 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 can expose you to chemicals including (see table below) which is (are) known to the State of California to cause cancer. For more information go to www.p65warnings.ca.gov.

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)

Component	CAS No	Carcinogen	Developmental Toxicity	Male	Female
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Product code: A1330**Product name:** ANTIMONY
TRIOXIDE, REAGENT**Page**

				Reproductive Toxicity	Reproductive Toxicity:
Antimony Trioxide	1309-64-4	carcinogen	Not Listed	Not Listed	Not Listed

CERCLA/SARA

Component	CAS No	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 de minimis
Antimony Trioxide	1309-64-4	1000 lb final RQ 454 kg final RQ	None	None	None	None

U.S. TSCA

Component	CAS No	TSCA Section 5(a)2 - Chemicals With Significant New Use Rules (SNURS)	TSCA 8(d) -Health and Safety Reporting
Antimony Trioxide	1309-64-4	Not Applicable	Not Applicable

Canada

WHMIS 2015 - GHS Classifications

WHMIS 2015 Hazard Classification Information:

Component
Antimony Trioxide
1309-64-4 (100)

WHMIS 2015 Hazard Classification
Carcinogenicity - Category 2: H351 Suspected of causing cancer.;
Combustible Dust - Category 1: May form combustible dust concentrations in air (factors such as combustibility and explosiveness of dusts including composition and shape and size of particles could cause substance to belong to 'Combustible dust' hazard class)

Canada Hazardous Products Regulation This product has been classified according to the hazard criteria of the HPR (Hazardous Products Regulation) and the SDS contains all of the information required by the HPR

Component	WHMIS Ingredient Disclosure List -
Antimony Trioxide	1 %

DSL/NDSL

Component	CAS No	Canada (DSL)	Canada (NDSL)
Antimony Trioxide	1309-64-4	Present	Not Listed

Component	CAS No	CEPA Schedule I - Toxic Substances
Antimony Trioxide	1309-64-4	Not listed
Component	CAS No	CEPA - 2010 Greenhouse Gases Subject to Mandatory Reporting
Antimony Trioxide	1309-64-4	Not listed

EU Classification

EU GHS - SV - CLP 1272/2008

Component	CAS No	EU GHS - SV - CLP (1272/2008)
Antimony Trioxide	1309-64-4	Carcinogenicity - Carc. 2: H351 Suspected of causing

EU - CLP (1272/2008)

R-phrase(s)

R40 - Limited evidence of a carcinogenic effect

S -phrase(s)

S 2 - Keep out of the reach of children.

S22 - Do not breathe dust

S36/37 - Wear suitable protective clothing and gloves

Component	CAS No	Classification	Concentration Limits:	Safety Phrases
Antimony Trioxide	1309-64-4	Carc.Cat.3; R40	No information	S2 S22 S36/37

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

Indication of danger:

None

16. OTHER INFORMATION

Preparation Date: 10/23/2017
Revision date 12/14/2018
Prepared by: Sonia Owen

Disclaimer:

All chemicals may pose unknown hazards and should be used with caution. This Safety Data Sheet (SDS) 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 SDS. The physical properties reported in this SDS 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 SDS is based on technical data judged to be reliable, Spectrum assumes no responsibility for the completeness or accuracy of the information contained herein.

End of Safety Data Sheet