Printing date 07/30/2016

CHEMICALS.

Reviewed on 07/30/2016

# **1** Identification

- · Product name
- · Trade name: Antimony(III) telluride (99.96%-Sb)
- Item number: 51-1430
- · CAS Number:
- 1327-50-0 • **EC number:**
- 215-480-9
- Index number: 051-003-00-9
- Details of the supplier of the safety data sheet
  Manufacturer/Supplier: Strem Chemicals, Inc.
  7 Mulliken Way
- NEWBURYPORT, MA 01950 USA info@strem.com
- · Information department: Technical Department
- Emergency telephone number: EMERGENCY: CHEMTREC: + 1 (800) 424-9300 During normal opening times: +1 (978) 499-1600

### 2 Hazard(s) identification

· Classification of the substance or mixture

Acute Tox. 4 H302 Harmful if swallowed. Acute Tox. 4 H332 Harmful if inhaled.

· Label elements

```
· GHS label elements
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*The substance is classified and labeled according to the Globally Harmonized System (GHS).* • *Hazard pictograms* 



· Signal word Warning

· Hazard-detern	iining components of labeling:
diantimony trit	elluride
Hazard statem	ents
H302+H332 H	larmful if swallowed or if inhaled.
Precautionary	statements
P280	Wear protective gloves/protective clothing/eye protection/face protection.
P261	Avoid breathing dust/fume/gas/mist/vapors/spray
P305+P351+P	P338 If in eyes: Rinse cautiously with water for several minutes. Remove contact lenses, if present
	and easy to do. Continue rinsing.
P301+P312	IF SWALLOWED: Call a POISON CENTER/doctor if you feel unwell.
	(Contd on page 2)

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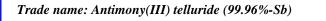
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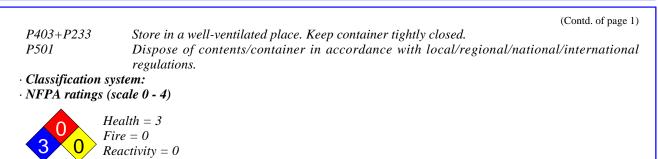
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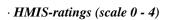
# Safety Data Sheet according to OSHA HCS

Printing date 07/30/2016

Reviewed on 07/30/2016









· Other hazards

- · Results of PBT and vPvB assessment
- · **PBT:** Not applicable.
- **vPvB:** Not applicable.

## **3** Composition/information on ingredients

- Chemical characterization: Substances
- · CAS No. Description
- 1327-50-0 diantimony tritelluride
- Identification number(s)
- EC number: 215-480-9
- Index number: 051-003-00-9

# 4 First-aid measures

- · Description of first aid measures
- General information:

Symptoms of poisoning may even occur after several hours; therefore medical observation for at least 48 hours after the accident.

- After inhalation:
- Supply fresh air. If required, provide artificial respiration. Keep patient warm. Consult doctor if symptoms persist.
- In case of unconsciousness place patient stably in side position for transportation.
- After skin contact: Immediately rinse with water.
- · After eye contact: Rinse opened eye for several minutes under running water. Then consult a doctor.
- · After swallowing: Immediately call a doctor.
- Information for doctor:
- Most important symptoms and effects, both acute and delayed No further relevant information available.
- · Indication of any immediate medical attention and special treatment needed
- No further relevant information available.

(Contd. on page 3)

Printing date 07/30/2016

Reviewed on 07/30/2016

Trade name: Antimony(III) telluride (99.96%-Sb)

(Contd. of page 2)

#### **5** Fire-fighting measures

- · Extinguishing media
- Suitable extinguishing agents:
- CO2, extinguishing powder or water spray. Fight larger fires with water spray or alcohol resistant foam.
- Special hazards arising from the substance or mixture No further relevant information available.
- · Advice for firefighters
- · Protective equipment: Mouth respiratory protective device.

#### **6** Accidental release measures

- · Personal precautions, protective equipment and emergency procedures Not required.
- Environmental precautions: Do not allow product to reach sewage system or any water course. Inform respective authorities in case of seepage into water course or sewage system.
- *Methods and material for containment and cleaning up: Dispose contaminated material as waste according to item 13. Ensure adequate ventilation.*
- **Reference to other sections** See Section 7 for information on safe handling. See Section 8 for information on personal protection equipment. See Section 13 for disposal information.

#### 7 Handling and storage

- · Handling:
- · Precautions for safe handling

Thorough dedusting.

Ensure good ventilation/exhaustion at the workplace.

- · Information about protection against explosions and fires: No special measures required.
- · Conditions for safe storage, including any incompatibilities

· Storage:

- Requirements to be met by storerooms and receptacles: No special requirements.
- · Information about storage in one common storage facility: Not required.
- Further information about storage conditions: Keep receptacle tightly sealed.
- · Specific end use(s) No further relevant information available.

## 8 Exposure controls/personal protection

· Additional information about design of technical systems: No further data; see item 7.

· Control parameters

 $\cdot$  Components with limit values that require monitoring at the workplace:

1327-50-0 diantimony tritelluride

PEL Long-term value: 0.5 mg/m<sup>3</sup>

- as Sb
- REL Long-term value: 0.5 mg/m<sup>3</sup> as Sb

(Contd. on page 4)

Printing date 07/30/2016

CHEMICALS.

Reviewed on 07/30/2016

(Contd. of page 3)

Trade name: Antimony(III) telluride (99.96%-Sb)

TLV Long-term value: 0.5 mg/m<sup>3</sup>

as Sb

· Additional information: The lists that were valid during the creation were used as basis.

· Exposure controls

- · Personal protective equipment:
- · General protective and hygienic measures: Wash hands before breaks and at the end of work.
- · Breathing equipment:

In case of brief exposure or low pollution use respiratory filter device. In case of intensive or longer exposure use respiratory protective device that is independent of circulating air.

· Protection of hands:



Protective gloves

The glove material has to be impermeable and resistant to the product/ the substance/ the preparation. Due to missing tests no recommendation to the glove material can be given for the product/ the preparation/ the chemical mixture.

Selection of the glove material on consideration of the penetration times, rates of diffusion and the degradation • Material of gloves

The selection of the suitable gloves does not only depend on the material, but also on further marks of quality and varies from manufacturer to manufacturer.

· Penetration time of glove material

The exact break through time has to be found out by the manufacturer of the protective gloves and has to be observed.

• Eye protection: Safety glasses

# 9 Physical and chemical properties

Information on basic physical and	chemical properties	
General Information		
Appearance:		
Form:	Powder	
Color:	Black	
Odor:	Odorless	
Odor threshold:	Not determined.	
pH-value:	Not applicable.	
Change in condition		
Melting point/Melting range:	629 °C (1164 °F)	
Boiling point/Boiling range:	Undetermined.	
Flash point:	Not applicable.	
Flammability (solid, gaseous):	Not determined.	
Ignition temperature:		
Decomposition temperature:	Not determined.	
Auto igniting:	Not determined.	
Danger of explosion:	Product does not present an explosion hazard.	

(Contd. on page 5)

US

Printing date 07/30/2016

Reviewed on 07/30/2016

Trade name: Antimony(III) telluride (99.96%-Sb)

		(Contd. of page
Explosion limits:		
Lower:	Not determined.	
Upper:	Not determined.	
Vapor pressure:	Not applicable.	
Density at 20 °C (68 °F):	6.5 b. 13 °C g/cm <sup>3</sup> (54.243 b. 108.48 lbs/gal)	
Relative density	Not determined.	
Vapor density	Not applicable.	
Evaporation rate	Not applicable.	
Solubility in / Miscibility with		
Water:	Insoluble.	
Partition coefficient (n-octanol/	vater): Not determined.	
Viscosity:		
Dynamic:	Not applicable.	
Kinematic:	Not applicable.	
Solvent content:		
Organic solvents:	0.0 %	
VOC content:	0.0 g/l / 0.00 lb/gl	
Solids content:	100.0 %	
Other information	No further relevant information available.	

# **10 Stability and reactivity**

- · Reactivity No further relevant information available.
- · Chemical stability
- Thermal decomposition / conditions to be avoided: No decomposition if used according to specifications.
- · Possibility of hazardous reactions No dangerous reactions known.
- · Conditions to avoid No further relevant information available.
- · Incompatible materials: No further relevant information available.
- · Hazardous decomposition products: No dangerous decomposition products known.

## **11 Toxicological information**

- · Information on toxicological effects
- · Acute toxicity:
- · Primary irritant effect:
- on the skin: No irritant effect.
- on the eye: No irritating effect.
- Sensitization: No sensitizing effects known.
- · Additional toxicological information:

· Carcinogenic categories

· IARC (International Agency for Research on Cancer)

Substance is not listed.

· NTP (National Toxicology Program)

Substance is not listed.

(Contd. on page 6)



US

Printing date 07/30/2016

CHEMICALS, INC

Reviewed on 07/30/2016

Trade name: Antimony(III) telluride (99.96%-Sb)

(Contd. of page 5)

· OSHA-Ca (Occupational Safety & Health Administration)

Substance is not listed.

### **12 Ecological information**

- · Toxicity
- Aquatic toxicity: No further relevant information available.
- *Persistence and degradability* No further relevant information available.
- · Behavior in environmental systems:
- · Bioaccumulative potential No further relevant information available.
- *Mobility in soil* No further relevant information available.
- · Additional ecological information:
- General notes: Not known to be hazardous to water.
- · Results of PBT and vPvB assessment
- **PBT:** Not applicable.
- **vPvB:** Not applicable.
- · Other adverse effects No further relevant information available.

#### **13 Disposal considerations**

• Waste treatment methods

- *Recommendation: Must not be disposed of together with household garbage. Do not allow product to reach sewage system.*
- · Uncleaned packagings:
- · Recommendation: Disposal must be made according to official regulations.

UN-Number	
DOT, IMDG, IATA	UN1549
UN proper shipping name	
DOT, IATA	Antimony compounds, inorganic, solid, n.o.s.
IMDG	ANTIMONY COMPOUND, INORGANIC, SOLID, N.O.S.
Transport hazard class(es)	
DOT	
TOXIC 6	
Class	6.1 Toxic substances
Label	6.1

Printing date 07/30/2016

CHEMICALS, INC.

Reviewed on 07/30/2016

de name: Antimony(III) telluride (99.96%-Sb)		
	(Contd. of page	
· IMDG, IATA		
· Class	6.1 Toxic substances	
· Label	6.1	
· Packing group		
· DOT, IMDG, IATA	III	
· Environmental hazards:		
• Marine pollutant:	No	
· Special precautions for user	Warning: Toxic substances	
· EMS Number:	F-A,S-A	
· Stowage Category	A	
· Transport in bulk according to Annex	II of	
MARPOL73/78 and the IBC Code	Not applicable.	
· Transport/Additional information:		
· DOT		
· Quantity limitations	On passenger aircraft/rail: 100kg	
2	On cargo aircraft only: 200kg	
· IMDG		
· Limited quantities (LQ)	5kg	
· Excepted quantities $(\widetilde{E}Q)$	Code: El	
	Maximum net quantity per inner packaging: 30 g	
	Maximum net quantity per outer packaging: 1000 g	
· UN ''Model Regulation'':	UN 1549 ANTIMONY COMPOUNDS, INORGANIC, SOLID	
	N.O.S., 6.1, III	

## **15 Regulatory information**

· Safety, health and environmental regulations/legislation specific for the substance or mixture · Sara

· Section 355 (extremely hazardous substances): Substance is not listed. · Section 313 (Specific toxic chemical listings): Substance is listed. · TSCA (Toxic Substances Control Act): Substance is not listed. · Proposition 65 · Chemicals known to cause cancer: Substance is not listed. · Chemicals known to cause reproductive toxicity for females: Substance is not listed.

(Contd. on page 8) US

Printing date 07/30/2016

Reviewed on 07/30/2016

Trade name: Antimony(III) telluride (99.96%-Sb)

(Contd. of page 7)

· Chemicals known to cause reproductive toxicity for males:

Substance is not listed.

· Chemicals known to cause developmental toxicity:

Substance is not listed.

· Carcinogenic categories

· EPA (Environmental Protection Agency)

Substance is not listed.

• TLV (Threshold Limit Value established by ACGIH)

Substance is not listed.

· NIOSH-Ca (National Institute for Occupational Safety and Health)

Substance is not listed.

#### · GHS label elements

- The substance is classified and labeled according to the Globally Harmonized System (GHS).
- Hazard pictograms



- · Signal word Warning
- · Hazard-determining components of labeling:

diantimony tritelluride

· Hazard statements

H302+H332 Harmful if swallowed or if inhaled.

· Precautionary statements

P280 Wear protective gloves/protective clothing/eye protection/face protection.

P261 Avoid breathing dust/fume/gas/mist/vapors/spray

- P305+P351+P338 If in eyes: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
- P301+P312 IF SWALLOWED: Call a POISON CENTER/doctor if you feel unwell.
- P403+P233 Store in a well-ventilated place. Keep container tightly closed.
- *P501 Dispose of contents/container in accordance with local/regional/national/international regulations.*

• Chemical safety assessment: A Chemical Safety Assessment has not been carried out.

## **16 Other information**

This information is based on our present knowledge. However, this shall not constitute a guarantee for any specific product features and shall not establish a legally valid contractual relationship.

· Department issuing SDS: Technical Department.

- · Contact: Technical Director
- · Date of preparation / last revision 07/30/2016 / -
- Abbreviations and acronyms:

ADR: Accord européen sur le transport des marchandises dangereuses par Route (European Agreement concerning the International Carriage of Dangerous Goods by Road)

IMDG: International Maritime Code for Dangerous Goods

- DOT: US Department of Transportation
- IATA: International Air Transport Association

ACGIH: American Conference of Governmental Industrial Hygienists EINECS: European Inventory of Existing Commercial Chemical Substances

(Contd. on page 9)

Printing date 07/30/2016

Reviewed on 07/30/2016

#### Trade name: Antimony(III) telluride (99.96%-Sb)

CAS: Chemical Abstracts Service (division of the American Chemical Society) NFPA: National Fire Protection Association (USA) HMIS: Hazardous Materials Identification System (USA) VOC: Volatile Organic Compounds (USA, EU) PBT: Persistent, Bioaccumulative and Toxic vPvB: very Persistent and very Bioaccumulative NIOSH: National Institute for Occupational Safety OSHA: Occupational Safety & Health TLV: Threshold Limit Value PEL: Permissible Exposure Limit REL: Recommended Exposure Limit Acute Tox. 4: Acute toxicity, Hazard Category 4 (Contd. of page 8)

US