SAFETY DATA SHEET

Preparation Date: 12/14/2016 **Revision date** 7/11/2019 **Revision Number:** G2

1. IDENTIFICATION

Product identifier

Product code: A1321
Product Name: ANTIMONY TRICHLORIDE, CRYSTAL, REAGENT

Other means of identification
Synonyms: Antimoine (trichlorure d') (French)
Antimonio (tricloruro di) (Italian)
Antimonous chloride
Chlorure antimonieux (French)
Stibine, trichloro-
Trichlorostibine
Trichlorure d'antimoine (French)
CAS #: 10025-91-9
RTECS # CC4900000
CI#: Not available

Recommended use of the chemical and restrictions on use
Recommended use: Catalyst. Reagent.
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)

Acute toxicity - Oral	Category 4
Skin corrosion/irritation	Category 1 Sub-category B
Serious eye damage/eye irritation	Category 1
Specific target organ toxicity (single exposure)	Category 3
Corrosive to metals	Category 1

Label elements

Danger

Hazard statements
Harmful if swallowed
Causes severe skin burns and eye damage
May cause respiratory irritation
May be corrosive to metals

Hazards not otherwise classified (HNOC)
Not Applicable

Other hazards
Toxic to aquatic life with long lasting effects

Precautionary Statements - Prevention
Wash face, hands and any exposed skin thoroughly after handling
Do not eat, drink or smoke when using this product
Do not breathe dust
Wear protective gloves/protective clothing/eye protection/face protection
Use only outdoors or in a well-ventilated area
Keep only in original container

Precautionary Statements - Response
Immediately call a POISON CENTER or physician
Absorb spillage to prevent material damage
IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. Immediately call a POISON CENTER or physician.
IF ON SKIN (or hair): Remove/Take off immediately all contaminated clothing. Rinse skin with water
Wash contaminated clothing before reuse
IF INHALED: Remove person to fresh air and keep comfortable for breathing. Immediately call a POISON CENTER or physician.
Call a POISON CENTER or physician if you feel unwell.
IF SWALLOWED: Call a POISON CENTER or physician if you feel unwell
Rinse mouth
Do NOT induce vomiting

Precautionary Statements - Storage
Store locked up
Store in a well-ventilated place. Keep container tightly closed
Store in corrosive resistant/ .? container with a resistant inner liner

Precautionary Statements - Disposal
Dispose of contents and container to an approved waste disposal plant in accordance with local, regional, national and international regulations as applicable

3. COMPOSITION/INFORMATION ON INGREDIENTS

Component	CAS No	Weight-%
Antimony Trichloride	10025-91-9	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. Continue flushing with plenty of water for at least 15 minutes. Remove all contaminated clothes and shoes. Immediate medical attention is required. Call a physician or Poison Control Centre immediately.

Eye Contact: Flush eyes with water for 15 minutes. Immediate medical attention is required. Call a physician immediately.

Inhalation: Move to fresh air. If not breathing, give artificial respiration. If breathing is difficult, give oxygen. WARNING! It may be hazardous to the person providing aid to give mouth-to-mouth resuscitation when the inhaled or ingested material is toxic, infectious or corrosive. Do not use mouth-to-mouth resuscitation if victim ingested or inhaled the substance; induce artificial respiration with the aid of a pocket mask equipped with a one-way valve or other proper respiratory medical device. Immediate medical attention is required.

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

Most important symptoms and effects, both acute and delayed

Symptoms

Severe skin and eye irritation or burns
Causes eye damage
May cause metallic taste
May cause gastrointestinal (digestive) tract burns
May cause abdominal pain, nausea, vomiting, diarrhea
Diarrhea may be watery or bloody
Irritating to respiratory system
Chest tightness or pain
Coughing and wheezing
Dyspnea (Shortness of breath and difficulty breathing)
May cause bronchitis
May cause pulmonary edema
May affect the cardiovascular system

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 If it is involved in a fire the following can be released:. hydrogen chloride gas. Antimony/Antimony oxides.

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: Keep people away from and upwind of spill/leak. Ensure adequate ventilation. Use personal protective equipment. Avoid contact with skin, eyes and clothing. Do not touch damaged containers or spilled material unless wearing appropriate protective clothing. Do not expose spill to water. Do not get water inside containers.

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. Do not allow contact with water.

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. Hygroscopic. Moisture sensitive. May corrode metallic surfaces. Do not store in uncoated metallic containers.

Incompatible Materials:

Water
Strong bases
Strong acids
Metals

8. EXPOSURE CONTROLS/PERSONAL PROTECTION

Control parameters

National occupational exposure limits

United States

Component	CAS No	OSHA	NIOSH	ACGIH	AIHA WEEL
Antimony Trichloride	10025-91-9	None	None	None	None

Canada

Component	CAS No	Canada - Alberta	Canada - British Columbia	Canada - Ontario	Canada - Quebec
Antimony Trichloride	10025-91-9	None	None	None	None

Australia and Mexico

Component	CAS No	Australia	Mexico
Antimony Trichloride	10025-91-9	None	None

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

Skin and body protection: Chemical resistant apron
Long sleeved clothing
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. Wash hands before breaks and immediately after handling the product When using, do not eat, drink or smoke.

9. PHYSICAL AND CHEMICAL PROPERTIES

Physical state:
Solid

Appearance:
Crystals.

Color:
White to yellowish.

Odor:
Sharp. Unpleasant.

Taste
No information available.

Formula
SbCl3

Molecular/Formula weight (g/mole):
228.12

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):
73.4°C/164.12°F

Decomposition temperature(°C/°F):
No information available

Boiling point/range(°C/°F):
223.5 °C/434.3 °F

Bulk density:
No information available

Density (g/cm3):
No information available

Specific gravity:
3.14

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:
Soluble in Acetone
Soluble in Chloroform
Soluble in Alcohol
Soluble in Benzene
Soluble in Carbon tetrachloride
Soluble in Carbon Disulfide

10. STABILITY AND REACTIVITY

Reactivity
Reactive with metals
Reacts with water to produce Hydrogen chloride
Reactive with oxidizing agents

Chemical stability

Stability: Hygroscopic. Moisture Sensitive. Stable under recommended storage conditions.

Possibility of Hazardous Reactions: Hazardous polymerization does not occur

Conditions to avoid: Heat. Ignition sources. Incompatible materials. Exposure to moisture.

Incompatible Materials:
Water
Strong bases
Strong acids
Metals

Hazardous decomposition products: When heated to decomposition it emits very toxic fumes. Chlorine. Antimony.

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:
Eyes. Ingestion. Inhalation.

Acute Toxicity

Component Information

Antimony Trichloride	
CAS No	10025-91-9

LD50/oral/rat = 525 mg/kg Oral LD50 Rat
LD50/oral/mouse = No information available
LD50/dermal/rabbit = No information available
LD50/dermal/rat = No information available
LC50/inhalation/rat = No information available
LC50/inhalation/mouse = No information available
Other LD50 or LC50information = 574 mg/kg oral LD50 Guinea pig

Product Information

LD50/oral/rat =
Value - Acute Toxicity = 525 mg/kg

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

LD50/dermal/rabbit
Value - Acute Toxicity = No information available

LD50/dermal/rat
VALUE - Acute Tox = 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 severe irritation and burns.

Eye Contact: Causes severe eye irritation and possible burns. Causes conjunctivitis. May cause

permanent eye damage.

Inhalation Causes respiratory tract (nose, throat, lungs), and mucous membrane irritation. Symptoms may include sore throat, shortness of breath, coughing, wheezing, inflammation of the nasal passages. May cause nausea. May cause anorexia. May cause metallic taste. May cause bronchitis. It may cause pulmonary edema. May cause dizziness and headache. May cause tight feeling in chest and difficulty breathing.

Ingestion Harmful if swallowed. Causes digestive or gastrointestinal tract burns. May cause abdominal pain, nausea, vomiting, diarrhea. Diarrhea may be watery or bloody. May cause thirst. May cause metallic taste. May affect the cardiovascular system.

Aspiration hazard No information available.

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

Chronic Toxicity Ingestion/Inhalation: Repeated exposure may cause headache, poor appetite, dry throat, lack of sleep. It may also damage the liver, heart, especially with frequent or higher exposures. Other signs and symptoms of chronic exposure may include ECG changes, laryngitis, tracheitis, bronchitis, pneumonitis, pneumoconiosis, ulceration of the nasal septum, and larynx. Prolonged or repeated ingestion may also affect the blood (pigmented or nucleated red blood cells, changes in cell count, changes in serum composition). Skin: Repeated or prolonged skin contact may contact allergy. It may also cause papules, and pustules around sweat and sebaceous glands.

Sensitization: No information available.

Mutagenic Effects: No information available

Carcinogenic effects: Not considered carcinogenic.

Component	CAS No	IARC	ACGIH - Carcinogens	NTP	OSHA HCS - Carcinogens	Australia - Notifiable Carcinogenic Substances	Australia - Prohibited Carcinogenic Substances
Antimony Trichloride	10025-91-9	Not listed	Not listed	Not listed	Not listed	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: No information available
Developmental Effects: No information available
Teratogenic Effects: No information available

Specific Target Organ Toxicity

STOT - single exposure respiratory system.
STOT - repeated exposure No information available.
Target Organs: Skin.

12. ECOLOGICAL INFORMATION

Ecotoxicity

Ecotoxicity effects: No data available.

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 Trichloride	10025-91-9	None	None	None	None

14. TRANSPORT INFORMATION

DOT

UN-No:	UN1733
Proper Shipping Name:	Antimony trichloride, solid
Hazard Class	8
Subsidiary Class	No information available
Packing group:	II
Emergency Response Guide Number	157
Marine Pollutant	No data available
DOT RQ (lbs):	No information available
Special Provisions	IB8, IP2, IP4, T3, TP33
Symbol(s):	No information available
Description:	UN1733, Antimony trichloride, solid, 8, II

TDG (Canada)

UN-No:	UN1733
Proper Shipping Name:	Antimony trichloride, solid
Hazard Class	8
Subsidiary Risk:	No information available
Packing Group:	II
Marine Pollutant	No Information available
Description:	UN1733, Antimony trichloride, solid, 8, II

ADR

UN Number	UN1733

Proper Shipping Name: Antimony trichloride
Transport hazard class(es) 8
Packing group II
Subsidiary Risk: No information available
Description: UN1733, Antimony trichloride, 8, II, ENVIRONMENTALLY HAZARDOUS

IMDG
UN-No: UN1733
Proper Shipping Name: Antimony trichloride, solid
Hazard Class: 8
Subsidiary Risk: No information available
Packing Group: II
Marine Pollutant No information available
EMS: F-A
Description UN1733, Antimony trichloride, 8, II, Marine pollutant

RID
UN Number UN1733
Proper Shipping Name: Antimony trichloride
Transport hazard class(es) 8
Subsidiary Risk: No information available
Packing group II
Description: UN1733, Antimony trichloride, 8, II, ENVIRONMENTALLY HAZARDOUS

ICAO (air)
UN-No: UN1733
Proper Shipping Name: Antimony trichloride
Hazard Class 8
Subsidiary Risk: No information available
Packing Group: II
Description: UN1733, Antimony trichloride, 8, II

IATA
UN Number UN1733
Proper Shipping Name: Antimony trichloride
Transport hazard class(es) 8
Subsidiary Risk: No information available
Packing group II
Precautionary Statements - Response 8L
Special Provisions No information available
Description: UN1733, Antimony trichloride, 8, II

15. REGULATORY INFORMATION

International Inventories

Component	CAS No	U.S. TSCA	KOREA KECL	Philippines (PICCS)	Japan ENCS	China IECSC	Australia (AICS)	EINECS-No.
Antimony Trichloride	10025-91-9	PresentACTIVE	Present KE-01889	Present	Present (1)-256	Present	Present	Present 233-047-2

U.S. Regulations

Antimony Trichloride
Massachusetts RTK: Present
New Jersey RTK Hazardous Substance List: 0147
New Jersey - Discharge Prevention - List of Hazardous Substances: Present

Pennsylvania RTK: Environmental hazard
Pennsylvania RTK - Environmental Hazard List Present
New York Release Reporting - List of Hazardous Substances:
1000 lb RQ
100 lb RQ
Louisana Reportable Quantity List for Pollutants: Listed
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:
This product does not contain a chemical requiring a warning under California Prop. 65. (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)

Component	CAS No	**Carcinogen**	**Developmental Toxicity**	**Male Reproductive Toxicity**	**Female Reproductive Toxicity:**
Antimony Trichloride	10025-91-9	Not Listed	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 Trichloride	10025-91-9	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 Trichloride	10025-91-9	Not Applicable	Not Applicable

Canada

WHIMIS 2015 - GHS Classifications

WHMIS 2015 Hazard Classification Information: The WHMIS 2015 classification of this product has not been validated or reviewed yet.

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

DSL/NDSL

Component	CAS No	Canada (DSL)	Canada (NDSL)
Antimony Trichloride	10025-91-9	Present	Not Listed

Component	CAS No	CEPA Schedule I - Toxic Substances
Antimony Trichloride	10025-91-9	Not listed
Component	CAS No	CEPA - 2010 Greenhouse Gases Subject to Mandatory Reporting
Antimony Trichloride	10025-91-9	Not listed

EU Classification

EU GHS - SV - CLP 1272/2008

Component	CAS No	EU GHS - SV - CLP (1272/2008)
Antimony Trichloride	10025-91-9	Skin corrosion/irritation - Skin Corr. 1B: H314 Causes severe skin burns and eye damage.; Hazardous to aquatic environment - chronic hazard - Aquatic Chronic 2: H411 Toxic to aquatic life with long lasting effects.051-001-00-8 Specific target organ toxicity - Single exposure - STOT SE 3: H335 May cause respiratory irritation. (C >= 5 %)051-001-00-8

EU - CLP (1272/2008)

R-phrase(s)
R34 - Causes burns
R51 - Toxic to aquatic organisms
R53 - May cause long-term adverse effects in the aquatic environment

S -phrase(s)
S26 - In case of contact with eyes, rinse immediately with plenty of water and seek medical advice
S45 - In case of accident or if you feel unwell, seek medical advice immediately (show the label where possible)
S61 - Avoid release to the environment. Refer to special instructions/safety data sheets.
S 1/2 - Keep locked up and out of the reach of children.

Component	CAS No	**Classification**	**Concentration Limits:**	**Safety Phrases**
Antimony Trichloride	10025-91-9	C; R34 N; R51-53	10%<=C C; R34 5%<=C<10% Xi; R36/37/38	S1/2 S26 S45 S61

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

Indication of danger:
C - Corrosive
N - Dangerous for the environment

16. OTHER INFORMATION

Preparation Date: 12/14/2016
Revision date 7/11/2019
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