# SAFETY DATA SHEET

**Preparation Date:** 12/14/2016 **Revision Date:** 12/14/2016 **Revision Number:** G1

## 1. IDENTIFICATION

**Product identifier**

**Product code:** A1320
**Product Name:** ANTIMONY TRICHLORIDE, REAGENT, ACS

**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:** Martin LaBenz (West Coast)
**Contact Person:** Ibad Tirmiz (East Coast)

## 2. HAZARDS IDENTIFICATION

**Classification**

This chemical is considered hazardous according to 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/fume/gas/mist/vapors/spray
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 doctor/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 doctor/physician.
IF ON SKIN (or hair): Remove/Take off immediately all contaminated clothing. Rinse skin with water/shower
Wash contaminated clothing before reuse
IF INHALED: Remove person to fresh air and keep comfortable for breathing. Immediately call a POISON CENTER or doctor/physician. Call a POISON CENTER or doctor/physician if you feel unwell.
IF SWALLOWED: Call a POISON CENTER or doctor/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/container to an approved waste disposal plant

## 3. COMPOSITION/INFORMATION ON INGREDIENTS

| Components | 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**

| Components | CAS-No. | OSHA | NIOSH | ACGIH | AIHA WHEEL |
|---|---|---|---|---|---|
| Antimony Trichloride | 10025-91-9 | None | None | None | None |

**Canada**

| Components | CAS-No. | Canada - Alberta | Canada - British Columbia | Canada - Ontario | Canada - Quebec |
|---|---|---|---|---|---|
| Antimony Trichloride | 10025-91-9 | None | None | None | None |

**Australia and Mexico**

| Components | 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:**
228.12

**Flammability:**
No information 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 infomation available
**Other LD50 or LC50information =** 574 mg/kg oral LD50 Guinea pig

**Product Information**

**LD50/oral/rat =**
**VALUE- Acute Tox Oral =** 525 mg/kg

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

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

**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 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 and a 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.

| Components | 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:** 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

| Components | 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-No:** | UN1733 |
| **Proper Shipping Name:** | Antimony trichloride |
| **Hazard Class:** | 8 |
| **Packing Group:** | II |
| **Subsidiary Risk:** | No information available |
| **Description:** | UN1733, Antimony trichloride, 8, II, ENVIRONMENTALLY HAZARDOUS |

**IMO / 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-No:** | UN1733 |
| **Proper Shipping Name:** | Antimony trichloride |

**Hazard Class:** 8
**Subsidiary Risk:** No information available
**Packing Group:** II
**Description:** UN1733, Antimony trichloride, 8, II, ENVIRONMENTALLY HAZARDOUS

**ICAO**

**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-No:** UN1733
**Proper Shipping Name:** Antimony trichloride
**Hazard Class:** 8
**Subsidiary Risk:** No information available
**Packing Group:** II
**ERG Code:** 8L
**Special Provisions** No information available
**Description:** UN1733, Antimony trichloride, 8, II

## 15. REGULATORY INFORMATION

### International Inventories

| Components | CAS-No. | U.S. TSCA | KOREA KECL | Philippines (PICCS) | Japan ENCS | CHINA | Australia (AICS) | EINECS-No. |
|---|---|---|---|---|---|---|---|---|
| *Antimony Trichloride* | 10025-91-9 | Present | 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
**Pennsylvania RTK - Special Hazardous Substances** 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)

| Components | 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**

| Components | 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 | = 454 kg final RQ | None | None | None | None |

**U.S. TSCA**

| Components | 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**

**WHMIS hazard class:**
E Corrosive material

| Components | WHIMHAZ |
|---|---|
| **Antimony Trichloride** | E |

**Canada Controlled Products Regulation:**
This product has been classified according to the hazard criteria of the CPR (Controlled Products Regulation) and the MSDS contains all of the information required by the CPR.

| Components | WHMIS Ingredient Disclosure List - |
|---|---|
| Antimony Trichloride | 1 % |

**Inventory**

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

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

**EU Classification**

**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)**

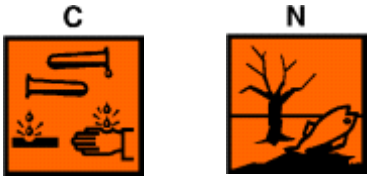
S26 - In case of contact with eyes, rinse immediately with plenty of water and seek medical advice.
S45 - In case of accident or if you feel unwell, seek medical advice immediately (show the label where possible).
S61 - Avoid release to the environment. Refer to special instructions/safety data sheets.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

| Components | CAS-No. | Classification | Concentration Limits: | Safety Phrases |
|---|---|---|---|---|
| Antimony Trichloride | 10025-91-9 | C; R34<br>N; R51-53 | 10%<=C: C; R34<br>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:** 12/14/2016
**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**