Material Safety Data Sheet
Antimony pentafluoride, 99.5+%

ACC# 87570

Section 1 - Chemical Product and Company Identification

MSDS Name: Antimony pentafluoride, 99.5+%
Catalog Numbers: AC174430000, AC174430250, AC174431000
Synonyms: Antimony (V) fluoride; Pentafluoroantimony
Company Identification:

Acros Organics N.V.
One Reagent Lane
Fair Lawn, NJ 07410

For information in North America, call: 800-ACROS-01
For emergencies in the US, call CHEMTREC: 800-424-9300

Section 2 - Composition, Information on Ingredients

CAS#	Chemical Name	Percent	EINECS/ELINCS
7783-70-2	Antimony pentafluoride	99.5+%	232-021-8

Section 3 - Hazards Identification

EMERGENCY OVERVIEW

Appearance: clear, colorless liquid.
Danger! Water-reactive. Reacts violently and/or explosively with water, steam or moisture. Corrosive. Causes burns by all exposure routes. May ignite or explode on contact with moist air. May be harmful if swallowed or inhaled. Moisture sensitive.
Target Organs: Respiratory system, eyes, skin.

Potential Health Effects
Eye: Contact with liquid is corrosive to the eyes and causes severe burns.
Skin: Contact with liquid is corrosive and causes severe burns and ulceration.
Ingestion: Harmful if swallowed. Causes gastrointestinal tract burns.
Inhalation: Harmful if inhaled. Causes chemical burns to the respiratory tract. Inhalation may be fatal as a result of spasm, inflammation, edema of the larynx and bronchi, chemical pneumonitis and pulmonary edema.
Chronic: Chronic inhalation and ingestion may cause chronic fluoride poisoning (fluorosis) characterized by weight loss, weakness, anemia, brittle bones, and stiff joints. Antimony pentafluoride may damage the liver, kidneys and heart. Repeated exposure may affect the lungs and cause an abnormal chest x-ray to

Section 4 - First Aid Measures

Eyes: Get medical aid immediately. Do NOT allow victim to rub eyes or keep eyes closed. Extensive irrigation with water is required (at least 30 minutes).
Skin: Get medical aid immediately. Immediately flush skin with plenty of water for at least 15 minutes while removing contaminated clothing and shoes. If water-reactive products are embedded in the skin, no water should be applied. The embedded products should be covered with a light oil.
Ingestion: Do not induce vomiting. If victim is conscious and alert, give 2-4 cupfuls of milk or water. Get medical aid immediately.
Inhalation: Remove from exposure and move to fresh air immediately. If breathing is difficult, give oxygen. Get medical aid. Do NOT use mouth-to-mouth resuscitation. If breathing has ceased apply artificial respiration using oxygen and a suitable mechanical device such as a bag and a mask.
Notes to Physician: Treat symptomatically and supportively.

Section 5 - Fire Fighting Measures

General Information: As in any fire, wear a self-contained breathing apparatus in pressure-demand, MSHA/NIOSH (approved or equivalent), and full protective gear. During a fire, irritating and highly toxic gases may be generated by thermal decomposition or combustion. Water reactive. Material will react with water and may release a flammable and/or toxic gas. May ignite or explode on contact with steam or moist air. May re-ignite after fire is extinguished.
Extinguishing Media: Use dry sand or earth to smother fire. Substance is noncombustible; use agent most appropriate to extinguish surrounding fire. DO NOT USE WATER! Do NOT get water inside containers. Contact professional fire-fighters immediately. Cool containers with flooding quantities of water until well after fire is out.
Flash Point: Not available.
Autoignition Temperature: Not available.
Explosion Limits, Lower: Not available.
Upper: Not available.
NFPA Rating: (estimated) Health: 3; Flammability: 0; Instability: 2; Special Hazard: -W-

Section 6 - Accidental Release Measures

General Information: Use proper personal protective equipment as indicated in Section 8.
Spills/Leaks: Absorb spill with inert material (e.g. vermiculite, sand or earth), then place in suitable container. Avoid runoff into storm sewers and ditches which lead to waterways. Clean up spills immediately, observing precautions in the Protective Equipment section. Provide ventilation. Do not expose spill to water.

Section 7 - Handling and Storage

Handling: Wash thoroughly after handling. Do not allow water to get into the container because of violent reaction. Avoid contact with eyes, skin, and clothing. Avoid ingestion and inhalation. Do not allow contact with water. Use only in a chemical fume hood. Keep from contact with moist air and steam.
Storage: Store in a cool, dry place. Store in a tightly closed container. Keep under a nitrogen blanket. Keep away from water.

Section 8 - Exposure Controls, Personal Protection

Engineering Controls: Use explosion-proof ventilation equipment. Facilities storing or utilizing this material should be equipped with an eyewash facility and a safety shower. Use only under a chemical fume hood.
Exposure Limits

Chemical Name	ACGIH	NIOSH	OSHA - Final PELs
Antimony pentafluoride	0.5 mg/m3 TWA (listed under Antimony).	0.5 mg/m3 TWA (listed under Antimony).2.5 mg/m3 TWA (inorganic solids, as F) (listed under Fluorides, inorganic).0.5 mg/m3 TWA (as Sb) (listed under Antimony compounds).50 mg/m3 IDLH (listed under Antimony).	0.5 mg/m3 TWA (listed under Antimony).2.5 mg/m3 TWA (as F) (listed under Fluorides).2.5 mg/m3 TWA (as F) (listed under Fluorides).0.5 mg/m3 TWA (as Sb) (listed under Antimony compounds).

OSHA Vacated PELs: Antimony pentafluoride: No OSHA Vacated PELs are listed for this chemical.
Personal Protective Equipment
Eyes: Wear appropriate protective eyeglasses or chemical safety goggles as described by OSHA's eye and face protection regulations in 29 CFR 1910.133 or European Standard EN166.
Skin: Wear appropriate protective gloves to prevent skin exposure.
Clothing: Wear appropriate protective clothing to prevent skin exposure.
Respirators: Follow the OSHA respirator regulations found in 29 CFR 1910.134 or European Standard EN 149. Use a NIOSH/MSHA or European Standard EN 149 approved respirator if exposure limits are exceeded or if irritation or other symptoms are experienced.

Section 9 - Physical and Chemical Properties

Physical State: Liquid
Appearance: clear, colorless
Odor: Not available.
pH: Not available.
Vapor Pressure: 753 mbar @ 142 deg
Vapor Density: 2.2 (air=1)
Evaporation Rate: Not available.
Viscosity: Not available.
Boiling Point: 149.4 deg C @ 760.00mm Hg
Freezing/Melting Point:7 deg C
Decomposition Temperature: Not available.
Solubility: reacts with water
Specific Gravity/Density:2.9930g/cm3
Molecular Formula:F5Sb
Molecular Weight:216.74

Section 10 - Stability and Reactivity

Chemical Stability: Stable under normal temperatures and pressures. Reacts vigorously with water to form toxic hydrogen fluoride (hydrofluoric acid). If confined and wet, explosions can result.
Conditions to Avoid: Incompatible materials, excess heat, exposure to moist air or water.
Incompatibilities with Other Materials: Water, Slowly corrodes glass, copper and lead. When moisture is present, causes severe corrosion of metals (except steel) and glass..
Hazardous Decomposition Products: Hydrogen fluoride gas, antimony/antimony oxides.
Hazardous Polymerization: Has not been reported

Section 11 - Toxicological Information

RTECS#:
CAS# 7783-70-2: CC5800000
LD50/LC50:
CAS# 7783-70-2:
Inhalation, mouse: LC50 = 270 mg/m3;
.

Carcinogenicity:
CAS# 7783-70-2: Not listed by ACGIH, IARC, NTP, or CA Prop 65.

Epidemiology: No information found
Teratogenicity: No information found
Reproductive Effects: No information found
Mutagenicity: No information found
Neurotoxicity: No information found
Other Studies:

Section 12 - Ecological Information

No information available.

Section 13 - Disposal Considerations

Chemical waste generators must determine whether a discarded chemical is classified as a hazardous waste. US EPA guidelines for the classification determination are listed in 40 CFR Parts 261.3. Additionally, waste generators must consult state and local hazardous waste regulations to ensure complete and accurate classification.
RCRA P-Series: None listed.
RCRA U-Series: None listed.

Section 14 - Transport Information

	US DOT	Canada TDG
Shipping Name:	ANTIMONY PENTAFLUORIDE	ANTIMONY PENTAFLUORIDE
Hazard Class:	8	8(6.1)
UN Number:	UN1732	UN1732
Packing Group:	II	II

Section 15 - Regulatory Information

US FEDERAL

TSCA
CAS# 7783-70-2 is listed on the TSCA inventory.
Health & Safety Reporting List
None of the chemicals are on the Health & Safety Reporting List.
Chemical Test Rules
None of the chemicals in this product are under a Chemical Test Rule.
Section 12b
None of the chemicals are listed under TSCA Section 12b.
TSCA Significant New Use Rule
None of the chemicals in this material have a SNUR under TSCA.
CERCLA Hazardous Substances and corresponding RQs
None of the chemicals in this material have an RQ.
SARA Section 302 Extremely Hazardous Substances
CAS# 7783-70-2: 500 lb TPQ
Section 313
This material contains Antimony pentafluoride (listed as Antimony), 99.5+%, (CAS# 7783-70-2) which is subject to the reporting requirements of Section 313 of SARA Title III and 40 CFR Part 373.
Clean Air Act:
CAS# 7783-70-2 (listed as Antimony compounds) is listed as a hazardous air pollutant (HAP).
This material does not contain any Class 1 Ozone depletors.
This material does not contain any Class 2 Ozone depletors.
Clean Water Act:
None of the chemicals in this product are listed as Hazardous Substances under the CWA. CAS# 7783-70-2 is listed as a Priority Pollutant under the Clean Water Act. CAS# 7783-70-2 is listed as a Toxic Pollutant under the Clean Water Act.
OSHA:
None of the chemicals in this product are considered highly hazardous by OSHA.
STATE
CAS# 7783-70-2 can be found on the following state right to know lists: California, (listed as Antimony), California, (listed as Fluorides), California, (listed as Fluorides, inorganic), California, (listed as Antimony compounds), New Jersey, Pennsylvania, Minnesota, (listed as Antimony), Minnesota, (listed as Fluorides), Minnesota, (listed as Fluorides, inorganic), Minnesota, (listed as Antimony compounds), Massachusetts.

California Prop 65

California No Significant Risk Level: None of the chemicals in this product are listed.

European/International Regulations
European Labeling in Accordance with EC Directives
Hazard Symbols:
C N
Risk Phrases:
R 14 Reacts violently with water.
R 20/22 Harmful by inhalation and if swallowed.

R 34 Causes burns.
R 51/53 Toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment.

Safety Phrases:

S 26 In case of contact with eyes, rinse immediately with plenty of water and seek medical advice.
S 36/37 Wear suitable protective clothing and gloves.
S 45 In case of accident or if you feel unwell, seek medical advice immediately (show the label where possible).
S 61 Avoid release to the environment. Refer to special instructions /safety data sheets.

WGK (Water Danger/Protection)

CAS# 7783-70-2: No information available.

Canada - DSL/NDSL

CAS# 7783-70-2 is listed on Canada's DSL List.

Canada - WHMIS

This product has a WHMIS classification of E, F.

This product has been classified in accordance with the hazard criteria of the Controlled Products Regulations and the MSDS contains all of the information required by those regulations.

Canadian Ingredient Disclosure List

CAS# 7783-70-2 is listed on the Canadian Ingredient Disclosure List.

Section 16 - Additional Information

MSDS Creation Date: 9/02/1997
Revision #5 Date: 3/22/2006