ANTIMONY TRIOXIDE

Section 1 - CHEMICAL PRODUCT AND COMPANY IDENTIFICATION

PRODUCT NAME
ANTIMONY TRIOXIDE

OTHER NAMES

O3-Sb2, Sb2O3, "C.I. 77052", C.I.77052, "CI 77052", "C.I. Pigment White 11", "diantimony trioxide", "flowers of antimony", "antimony (III) oxide", "antimony (III) oxide", "antimonous oxide"

PRODUCT USE
As a mordant in flameproofing of textiles, paper, canvas and plastic;
a paint pigment, colour stabiliser or mixer for other pigments; in the refining and colouring of glass; and in semi conducting ceramics and glazes.
As a reactant: esterification catalyst, an intermediate in staining iron and copper, in bonding glass to glass and glass to metal, and it is synergistic with molybdenum disulfide for solid film lubricants.
Used as a paper coating in X-ray luminescence and in the manufacture of tartar emetic.
Ingredient of welding fluxes.

SUPPLIER
Company: S D FINE- CHEM LIMITED
Address:
315- 317, T.V. INDUSTRIAL ESTATE,
248, WORLI,
MUMBAI- 400030.INDIA.
technical@sdfine.com
Telephone: 91- 22- 24959898
Telephone: 91- 22- 24959899
Fax: 91- 22- 24937232

HAZARD RATINGS

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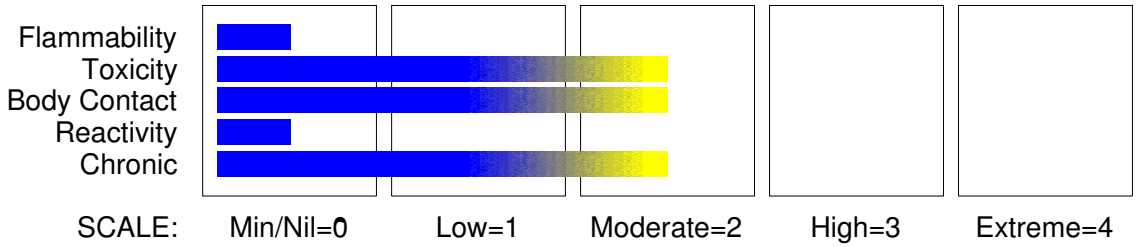

Section 2 - HAZARDS IDENTIFICATION

GHS Classification

Acute Toxicity (Inhalation) Category 4
Acute Toxicity (Oral) Category 4
Carcinogen Category 2
Eye Irritation Category 2B

EMERGENCY OVERVIEW

HAZARD

WARNING
Determined by using GHS criteria:
H332 H302 H320 H351
Harmful if inhaled
Harmful if swallowed
Causes eye irritation
Suspected of causing cancer

PRECAUTIONARY STATEMENTS

Prevention

Avoid breathing dust/fume/gas/mist/vapours/spray.
Use only outdoors or in a well ventilated area.
Obtain special instructions before use.
Use personal protective equipment as required.
Do not handle until all safety precautions have been read and understood.
Wash hands thoroughly after handling.
Do not eat, drink or smoke when using this product.

Response

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 exposed or concerned: Get medical attention advice.

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Specific treatment: refer to Label or MSDS.
IF INHALED: Remove to fresh air and keep at rest in a position comfortable for breathing.
Call a POISON CENTER or doctor/physician if you feel unwell.

Storage

Store locked up.

Disposal

Dispose of contents and container in accordance with relevant legislation.

Section 3 - COMPOSITION / INFORMATION ON INGREDIENTS

NAME	CAS RN	%
antimony trioxide	1309-64-4	99
impurities typically include		
arsenic	7440-38-2	< 0.2 ^
lead	7439-92-1	0.1 ^
iron	7439-89-6	0.01 ^

Section 4 - FIRST AID MEASURES

SWALLOWED

· IF SWALLOWED, REFER FOR MEDICAL ATTENTION, WHERE POSSIBLE, WITHOUT DELAY.
· For advice, contact a Poisons Information Centre or a doctor.
· Urgent hospital treatment is likely to be needed.
· In the mean time, qualified first-aid personnel should treat the patient following observation and employing supportive measures as indicated by the patient's condition.
· If the services of a medical officer or medical doctor are readily available, the patient should be placed in his/her care and a copy of the MSDS should be provided. Further action will be the responsibility of the medical specialist.
· If medical attention is not available on the worksite or surroundings send the patient to a hospital together with a copy of the MSDS.
· Where medical attention is not immediately available or where the patient is more than 15 minutes from a hospital or unless instructed otherwise:
· INDUCE vomiting with fingers down the back of the throat, ONLY IF CONSCIOUS. Lean patient forward or place on left side (head-down position, if possible) to maintain open airway and prevent aspiration.
NOTE: Wear a protective glove when inducing vomiting by mechanical means.

EYE

If this product comes in contact with the eyes:
· Wash out immediately with fresh running water.
· Ensure complete irrigation of the eye by keeping eyelids apart and away from eye and moving the eyelids by occasionally lifting the upper and lower lids.
· If pain persists or recurs seek medical attention.
· Removal of contact lenses after an eye injury should only be undertaken by skilled personnel.

SKIN

If skin contact occurs:
· Immediately remove all contaminated clothing, including footwear.

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· Flush skin and hair with running water (and soap if available).
· Seek medical attention in event of irritation.

INHALED

· If fumes or combustion products are inhaled remove from contaminated area.
· Lay patient down. Keep warm and rested.
· Prostheses such as false teeth, which may block airway, should be removed, where possible, prior to initiating first aid procedures.
· Apply artificial respiration if not breathing, preferably with a demand valve resuscitator, bag-valve mask device, or pocket mask as trained. Perform CPR if necessary.
· Transport to hospital, or doctor.

NOTES TO PHYSICIAN

· Chelation with British Anti-Lewisite (BAL) for serious antimony exposures should be employed.
· Dialyse as needed. The role of exchange diffusion is not clear.
· Be sure to monitor for dysrhythmias.
[Ellenhorn and Barceloux: Medical Toxicology].

Section 5 - FIRE FIGHTING MEASURES

EXTINGUISHING MEDIA

· There is no restriction on the type of extinguisher which may be used.
· Use extinguishing media suitable for surrounding area.

FIRE FIGHTING

· Alert Fire Brigade and tell them location and nature of hazard.
· Wear breathing apparatus plus protective gloves for fire only.
· Prevent, by any means available, spillage from entering drains or water courses.
· Use fire fighting procedures suitable for surrounding area.
· DO NOT approach containers suspected to be hot.
· Cool fire exposed containers with water spray from a protected location.
· If safe to do so, remove containers from path of fire.
· Equipment should be thoroughly decontaminated after use.

FIRE/EXPLOSION HAZARD

· Non combustible.
· Not considered a significant fire risk, however containers may burn.
Decomposition may produce toxic fumes of: metal oxides.
May emit poisonous fumes.
May emit corrosive fumes.

FIRE INCOMPATIBILITY

None known.

Personal Protective Equipment

Breathing apparatus.
Chemical splash suit.

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Section 6 - ACCIDENTAL RELEASE MEASURES

EMERGENCY PROCEDURES

MINOR SPILLS

· Clean up waste regularly and abnormal spills immediately.
· Avoid breathing dust and contact with skin and eyes.
· Wear protective clothing, gloves, safety glasses and dust respirator.
· Use dry clean up procedures and avoid generating dust.
· Vacuum up or sweep up. NOTE: Vacuum cleaner must be fitted with an exhaust micro filter (HEPA type) (consider explosion-proof machines designed to be grounded during storage and use).
· Dampen with water to prevent dusting before sweeping.
· Place in suitable containers for disposal.

MAJOR SPILLS

Moderate hazard.
· CAUTION: Advise personnel in area.
· Alert Emergency Services and tell them location and nature of hazard.
· Control personal contact by wearing protective clothing.
· Prevent, by any means available, spillage from entering drains or water courses.
· Recover product wherever possible.
· IF DRY: Use dry clean up procedures and avoid generating dust. Collect residues and place in sealed plastic bags or other containers for disposal. IF WET: Vacuum/shovel up and place in labelled containers for disposal.
· ALWAYS: Wash area down with large amounts of water and prevent runoff into drains.
· If contamination of drains or waterways occurs, advise Emergency Services.

EMERGENCY RESPONSE PLANNING GUIDELINES (ERPG)

The maximum airborne concentration below which it is believed that nearly all individuals could be exposed for up to one hour WITHOUT experiencing or developing

life-threatening health effects is:
antimony trioxide 60 mg/m³

irreversible or other serious effects or symptoms which could impair an individual's ability to take protective action is:
antimony trioxide 3 mg/m³

other than mild, transient adverse effects without perceiving a clearly defined odour is:
antimony trioxide 1.5 mg/m³

The threshold concentration below which most people will experience no appreciable risk of health effects:
antimony trioxide 0.6 mg/m³

American Industrial Hygiene Association (AIHA)

Ingredients considered according to the following cutoffs

Very Toxic (T+)	>= 0.1%	Toxic (T)	>= 3.0%
R50	>= 0.25%	Corrosive (C)	>= 5.0%
R51	>= 2.5%		
else	>= 10%		

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where percentage is percentage of ingredient found in the mixture

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SAFE STORAGE WITH OTHER CLASSIFIED CHEMICALS

+	X	+	X	0	+

+: May be stored together
O: May be stored together with specific preventions
X: Must not be stored together

Personal Protective Equipment advice is contained in Section 8 of the MSDS.

Section 7 - HANDLING AND STORAGE

PROCEDURE FOR HANDLING

· Avoid all personal contact, including inhalation.
· Wear protective clothing when risk of exposure occurs.
· Use in a well-ventilated area.
· Prevent concentration in hollows and sumps.
· DO NOT enter confined spaces until atmosphere has been checked.
· DO NOT allow material to contact humans, exposed food or food utensils.
· Avoid contact with incompatible materials.
· When handling, DO NOT eat, drink or smoke.
· Keep containers securely sealed when not in use.
· Avoid physical damage to containers.
· Always wash hands with soap and water after handling.
· Work clothes should be laundered separately. Launder contaminated clothing before re -use.
· Use good occupational work practice.
· Observe manufacturer's storing and handling recommendations.
· Atmosphere should be regularly checked against established exposure standards to ensure safe working conditions are maintained.

SUITABLE CONTAINER

Glass container.
· Polyethylene or polypropylene container.
· Check all containers are clearly labelled and free from leaks.

STORAGE INCOMPATIBILITY

Metals and their oxides or salts may react violently with chlorine trifluoride. Chlorine trifluoride is a hypergolic oxidiser. It ignites on contact (without external source of heat or ignition) with recognised fuels - contact with these materials, following an ambient or slightly elevated temperature, is often violent and may produce ignition. The state of subdivision may affect the results.
Avoid strong acids.
Avoid contact with chlorinated rubber.
Segregate from alcohols, glycols, polyhydroxy compounds, phenols and bromine trifluoride.

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STORAGE REQUIREMENTS

Store in an upright position.
Observe manufacturer's storing and handling recommendations.

Section 8 - EXPOSURE CONTROLS / PERSONAL PROTECTION

EXPOSURE CONTROLS

The following materials had no OELs on our records

• antimony trioxide: CAS:1309- 64- 4 CAS:178989- 93- 0 CAS:12423- 58- 4 CAS:154396- 41- 5 CAS:10042- 99- 6 CAS:97048- 23- 2 CAS:212793- 41- 4 CAS:97048- 22- 1

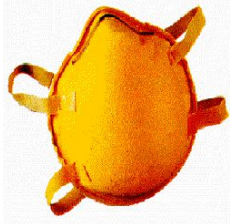
EMERGENCY EXPOSURE LIMITS

Material	Revised IDLH Value (mg/m3)	Revised IDLH Value (ppm)
antimony trioxide	50	

MATERIAL DATA

Not available. Refer to individual constituents.

PERSONAL PROTECTION

EYE

· Safety glasses with side shields.
· Chemical goggles.
· Contact lenses may pose a special hazard; soft contact lenses may absorb and concentrate irritants. A written policy document, describing the wearing of lens or restrictions on use, should be created for each workplace or task. This should include a review of lens absorption and adsorption for the class of chemicals in use and an account of injury experience. Medical and first-aid personnel should be trained in their removal and suitable equipment should be readily available. In the event of chemical exposure, begin eye irrigation immediately and remove contact lens as soon as practicable. Lens should be removed at the first signs of eye redness or irritation - lens should be removed in a clean environment only after workers have washed hands thoroughly. [CDC NIOSH Current Intelligence Bulletin 59].

HANDS/FEET

Suitability and durability of glove type is dependent on usage. Factors such as:
· frequency and duration of contact,
· chemical resistance of glove material,
· glove thickness and
· dexterity,
are important in the selection of gloves.
Experience indicates that the following polymers are suitable as glove materials for

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protection against undissolved, dry solids.
· polychloroprene
· nitrile rubber
· butyl rubber
· fluorocaoutchouc
· polyvinyl chloride
Gloves should be examined for wear and/ or degradation constantly.

OTHER
· Overalls.
· P.V.C. apron.
· Barrier cream.
· Skin cleansing cream.
· Eye wash unit.

RESPIRATOR

Protection Factor	Half- Face Respirator	Full- Face Respirator	Powered Air Respirator
10 x ES	P1 Air- line*	- -	PAPR- P1 -
50 x ES	Air- line**	P2	PAPR- P2
100 x ES	-	P3	-
		Air- line*	-
100+ x ES	-	Air- line**	PAPR- P3

* - Negative pressure demand ** - Continuous flow.

The local concentration of material, quantity and conditions of use determine the type of personal protective equipment required.
For further information consult
your
Occupational Health and Safety Advisor.

ENGINEERING CONTROLS

Local exhaust ventilation usually required. If risk of overexposure exists, wear approved respirator. Correct fit is essential to obtain adequate protection. Supplied-air type respirator may be required in special circumstances. Correct fit is essential to ensure adequate protection.
An approved self contained breathing apparatus (SCBA) may be required in some situations.
Provide adequate ventilation in warehouse or closed storage area. Air contaminants generated in the workplace possess varying "escape" velocities which, in turn, determine the "capture velocities" of fresh circulating air required to effectively remove the contaminant.

Type of Contaminant:	Air Speed:
solvent, vapours, degreasing etc., evaporating from tank (in still air).	0.25- 0.5 m/s (50- 100 f/min.)
aerosols, fumes from pouring operations, intermittent container filling, low speed conveyer transfers, welding, spray drift, plating acid fumes, pickling (released at low velocity into zone of active generation)	0.5- 1 m/s (100- 200 f/min.)
direct spray, spray painting in shallow booths, drum filling, conveyer loading, crusher dusts, gas discharge (active generation into zone of rapid air motion)	1- 2.5 m/s (200- 500 f/min.)
grinding, abrasive blasting, tumbling, high	2.5- 10 m/s (500- 2000 f/min.)

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speed wheel generated dusts (released at high initial velocity into zone of very high rapid air motion).

Within each range the appropriate value depends on:

Lower end of the range	Upper end of the range
1: Room air currents minimal or favourable to capture	1: Disturbing room air currents
2: Contaminants of low toxicity or of nuisance value only.	2: Contaminants of high toxicity
3: Intermittent, low production.	3: High production, heavy use
4: Large hood or large air mass in motion	4: Small hood- local control only

Simple theory shows that air velocity falls rapidly with distance away from the opening of a simple extraction pipe. Velocity generally decreases with the square of distance from the extraction point (in simple cases). Therefore the air speed at the extraction point should be adjusted, accordingly, after reference to distance from the contaminating source. The air velocity at the extraction fan, for example, should be a minimum of 1-2 m/s (200-400 f/min) for extraction of solvents generated in a tank 2 meters distant from the extraction point. Other mechanical considerations, producing performance deficits within the extraction apparatus, make it essential that theoretical air velocities are multiplied by factors of 10 or more when extraction systems are installed or used.

Section 9 - PHYSICAL AND CHEMICAL PROPERTIES

APPEARANCE

White polymorphic crystalline powder. (Specific gravity values depend on which crystalline forms are present and in what proportion. The cubic form has a specific gravity of 5.2 and is usually 5% of the mix.)
Slightly soluble in water, but is soluble in water at 100 deg. C. Soluble in concentrated hydrochloric and sulfuric acids, strong alkalis, alkaline hydroxides, sulfides, warm tartaric acid, potassium hydroxide, and bitartrates.
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Slightly soluble in dilute sulfuric acid, nitric acid, and hydrochloric acid.
It is amphoteric and the crystals sink in water.

PHYSICAL PROPERTIES

Solid.
Does not mix with water.
Sinks in water.

Molecular Weight: 291.50	Boiling Range (°C): 1425 (sublimes)
Melting Range (°C): 656	Specific Gravity (water=1): 5.67 (rhombic)
Solubility in water (g/L): Partly miscible	pH (as supplied): Not applicable
pH (1% solution): 3- 7 (10% soln)	Vapour Pressure (kPa): 0.13 @ 574 deg.
Volatile Component (%vol): Not applicable.	Evaporation Rate: Not applicable
Relative Vapour Density (air=1): Not available.	Flash Point (°C): Not applicable
Lower Explosive Limit (%): Not applicable	Upper Explosive Limit (%): Not applicable
Autoignition Temp (°C): >360 (powder)	Decomposition Temp (°C): Not available.
State: Divided solid	Viscosity: Not Applicable

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Section 9 - PHYSICAL AND CHEMICAL PROPERTIES

Section 10 - CHEMICAL STABILITY AND REACTIVITY INFORMATION

CONDITIONS CONTRIBUTING TO INSTABILITY

- Presence of incompatible materials.
- Product is considered stable.
- Hazardous polymerisation will not occur.

Section 11 - TOXICOLOGICAL INFORMATION

POTENTIAL HEALTH EFFECTS

ACUTE HEALTH EFFECTS

SWALLOWED

Accidental ingestion of the material may be harmful; animal experiments indicate that ingestion of less than 150 gram may be fatal or may produce serious damage to the health of the individual.

Antimony poisoning closely parallels arsenic poisoning although vomiting is probably more prominent as absorption from the gastrointestinal tract is generally lower. Temporary changes in heart rhythm occurs amongst humans while poisoned animals exhibit severe heart damage. Trivalent compounds are generally more lethal than pentavalent derivatives. The insoluble salts however are less likely to produce significant toxic effects.

Antimony salts are poorly absorbed from the gastrointestinal tract. Most trivalent compounds of antimony are slowly excreted in the urine and bile. Antimony compounds are used medicinally, but therapeutic dose is close to the toxic dose. Periodic medical examinations covering lungs, skin, nervous system, heart and gastro-intestinal tract are recommended for occupationally exposed workers. [ILO Encyclopedia]

The minimum lethal dose in man, of antimony, is 130 mg (although 15000 mg has been survived). A strong irritant and emetic but the emetic dose (30 mg by mouth) is dangerously high if vomiting fails to occur. Antimony poisoning closely parallels arsenic poisoning, except that vomiting from antimony may be less prominent, because its compounds are

less readily absorbed than arsenicals. Temporary ECG changes have been reported in humans and severe cardiac damage has been observed in animals.Trivalent antimony compound are many times more lethal than their pentavalent equivalent. The trivalent antimony compounds are cardiotoxic. Collapse and sudden death due to anaphylactic-type reactions have occurred. Therapeutic doses given intravenously cause nausea, vomiting, cough and abdominal pain and diarrhoea. Other side-effects include anorexia, chest, muscle and joint pains, pruritus, skin rashes, dizziness and oedema.

The substance may cause cough, salivation, nausea and diarrhoea and may leave a metallic taste. May also cause dizziness, laryngitis, anaemia, muscular and neuralgic pains.

Renal and hepatic damage occur rarelyafter exposure to antimony and its compounds - haemolytic anaemia has been reported. Continuous treatment with small doses of antimony may give rise to subacute poisoning similar to chronic arsenic poisoning.

EYE

Limited evidence or practical experience suggests, that the material may cause eye irritation in a substantial number of individuals. Repeated or prolonged eye contact may cause inflammation characterised by temporary redness (similar to windburn) of the

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conjunctiva (conjunctivitis); temporary impairment of vision and/or other transient eye damage/ulceration may occur.

SKIN
Skin contact with the material may damage the health of the individual; systemic effects may result following absorption.
The material is not thought to be a skin irritant (as classified by EC Directives using animal models). Abrasive damage however, may result from prolonged exposures. Good hygiene practice requires that exposure be kept to a minimum and that suitable gloves be used in an occupational setting.
Entry into the blood-stream, through, for example, cuts, abrasions or lesions, may produce systemic injury with harmful effects. Examine the skin prior to the use of the material and ensure that any external damage is suitably protected.

INHALED
Inhalation of dusts, generated by the material, during the course of normal handling, may be harmful.
The material is not thought to produce respiratory irritation (as classified by EC Directives using animal models). Nevertheless inhalation of dusts, or fumes, especially for prolonged periods, may produce respiratory discomfort and occasionally, distress.
Inhalation of antimony and its compounds may produce respiratory and gastrointestinal tract discomfort with sore throat, shallow respiration, dizziness, weight loss, gingivitis, anaemia, eosinophilia and enzyme inhibition. Pulmonary congestion and oedema may also occur. Death due to circulatory failure has been described, with pathology showing acute congestion of the heart, liver and kidneys.

CHRONIC HEALTH EFFECTS
On the basis, primarily, of animal experiments, concern has been expressed that the material may produce carcinogenic or mutagenic effects; in respect of the available information, however, there presently exists inadequate data for making a satisfactory assessment.
Long term exposure to high dust concentrations may cause changes in lung function (i.e. pneumoconiosis) caused by particles less than 0.5 micron penetrating and remaining in the lung. A prime symptom is breathlessness. Lung shadows show on X-ray.
Limited evidence suggests that repeated or long-term occupational exposure may produce cumulative health effects involving organs or biochemical systems.
Repeated or prolonged exposure to antimony and its compounds may produce stomatitis, dry throat, metallic taste, gingivitis, septal and laryngeal perforation, laryngitis, headache, dyspnea, indigestion, nausea, vomiting, diarrhoea, anorexia, anaemia, weight loss, pain and chest tightness, sleeplessness, muscular pain and weakness, dizziness, pharyngitis, bronchitis and pneumonitis. Degenerative changes of the liver and kidney may occur. Chronic exposure to antimony compounds may result in itchiness, papules and pustules around sweat and sebaceous glands, but rarely around the face, and dermatitis. Smelter workers often show skin rashes on the forearms and thighs resembling chicken pox pustules. Workers exposed to inorganic antimony compounds show a benign pneumoconiosis and obstructive lung disease - these are probably non-specific. Woman appear to more susceptible to systemic effects following exposure. Antimony crosses the placenta, is present in amniotic fluids, and is excreted in breast milk. There are suggestions that exposure may produce an increased incidence of spontaneous late abortions, premature births, and gynecological problems among female antimony smelter workers. An excess of deaths from lung cancer has been reported in smelter workers with more than 7 years exposure to relatively high levels of dust and fume. Animal studies demonstrate that the dust may produce pathological changes in cardiac muscle and may produce an interstitial pneumonitis and endogenous pneumonia. One animal study has also suggested that inhalation of the dust by rats induced a significantly increased incidence of carcinogenic tumours

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of the lungs and thorax.

TOXICITY AND IRRITATION

TOXICITY	IRRITATION
Oral (rat) LD50: >34600 mg/kg	Nil Reported
Intraperitoneal (rat) LD50: 3250 mg/kg	
Inhalation (rat) TCLo: 4.2 mg/m³/52W	

The material may be irritating to the eye, with prolonged contact causing inflammation.
Repeated or prolonged exposure to irritants may produce conjunctivitis.
(intermittent) [CCINFO]

Reproductive effector
WARNING: This substance has been classified by the IARC as Group 2B: Possibly Carcinogenic to Humans.

Section 12 - ECOLOGICAL INFORMATION

Antimony exists in the atmosphere in low concentrations. Urban air contains 0.05 to 0.06 ppm of antimony. There are very low concentrations in water due to minimal solubility Volatilisation from water is not likely. The soil usually contains 0.1 to 10 mg/kg dry weight. Antimony concentrations in freshwater fish are low, approximately 3 mg/kg wet weight. [Schumacher].
DO NOT discharge into sewer or waterways.

Section 13 - DISPOSAL CONSIDERATIONS

· Recycle wherever possible or consult manufacturer for recycling options.
· Consult State Land Waste Management Authority for disposal.
· Bury residue in an authorised landfill.
· Recycle containers if possible, or dispose of in an authorised landfill.
· Containers may still present a chemical hazard/ danger when empty.
· Return to supplier for reuse/ recycling if possible.
Otherwise:
· If container can not be cleaned sufficiently well to ensure that residuals do not remain or if the container cannot be used to store the same product, then puncture containers, to prevent re-use, and bury at an authorised landfill.
· Where possible retain label warnings and MSDS and observe all notices pertaining to the product.

Section 14 - TRANSPORTATION INFORMATION

HAZCHEM: None

NOT REGULATED FOR TRANSPORT OF DANGEROUS GOODS:UN, IATA, IMDG

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Section 15 - REGULATORY INFORMATION

REGULATIONS

antimony trioxide (CAS: 1309-64-4) is found on the following regulatory lists;
International Agency for Research on Cancer (IARC) Carcinogens
OECD Representative List of High Production Volume (HPV) Chemicals

No data available for antimony trioxide as CAS: 178989-93-0, CAS: 12423-58-4, CAS: 154396 -41-5, CAS: 10042-99-6, CAS: 97048-23-2, CAS: 212793-41-4, CAS: 97048-22-1.

Section 16 - OTHER INFORMATION

INGREDIENTS WITH MULTIPLE CAS NUMBERS

Ingredient Name	CAS
antimony trioxide	1309- 64- 4, 178989- 93- 0, 12423- 58- 4, 154396- 41- 5, 10042- 99- 6, 97048- 23- 2, 212793- 41- 4, 97048- 22- 1

The above information is believed to be accurate and represent the best information currently available to us, but does not represent any warranty expressed or implied of the properties of the product. User should make their own investigation to determine the suitability of the information for their particular purpose.

Issue Date: 16-Aug-2017