



Registered Off. : 101-A, Deep Enclave, Pocket 'D', Ashok Vihar, Phase-III, Delhi-110 052 (India)  
Corporate Off. : 152, Vardhman City Centre, Near Shakti Nagar Underbridge, Delhi-110052 (India)  
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## ARSENIC TRIOXIDE

### 1. Product Identification

Synonyms: Arsenic (III) oxide; arsenic sesquioxide; arsenous trioxide, white arsenic

CAS No.: 1327-53-3

Molecular Weight: 197.84

Chemical Formula:  $As_2O_3$

Product Codes: 38153

### 2. Composition/Information on Ingredients

Ingredient	CAS No	Percent
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Arsenic Trioxide	1327-53-3	98 - 100%

### 3. Hazards Identification

Potential Health Effects

Inhalation: Arsenic may cause inflammation of the mucous membranes with cough and foamy sputum, restlessness, dyspnea, cyanosis, and rales. Symptoms like those from ingestion exposure may follow.

May cause pulmonary edema

Ingestion: Arsenic is highly toxic! May cause burning in esophagus, vomiting, and bloody diarrhea.

Symptoms of cold and clammy skin, low blood pressure, weakness, headache, cramps, convulsions, and coma may follow. May cause damage to liver and kidneys. A suspected fetal toxin.

Skin Contact: May cause irritation, symptoms including redness, itching, and pain.

Eye Contact: May cause irritation with itching, burning, watering of eyes; may cause conjunctiva damage.

Chronic Exposure: Arsenic on repeated or prolonged skin contact may cause bronzing of the skin, edema, dermatitis, and lesions. Repeated or prolonged inhalation of dust may cause damage to the nasal septum.

Chronic exposure from inhalation or ingestion may cause hair and weight loss, a garlic odor to the breath and perspiration, excessive salivation and perspiration, central nervous system damage, hepatitis, gastrointestinal disturbances, cardiovascular damage, and kidney and liver damage. Arsenic compounds are known human carcinogens and may be teratogenic based on effects in laboratory animals.

Aggravation of Pre-existing Conditions: No information found.

### 4. First Aid Measures

Inhalation: Remove to fresh air. If not breathing, give artificial respiration. If breathing is difficult, give oxygen. Get medical attention.

Ingestion: Induce vomiting immediately as directed by medical personnel. Never give anything by mouth to an unconscious person. Get medical attention immediately.

Skin Contact: Immediately flush skin with plenty of water for at least 15 minutes while removing contaminated clothing and shoes. Get medical attention immediately. Wash clothing before reuse.

Thoroughly clean shoes before reuse. Contaminated work clothes should be laundered by individuals who have been informed of the hazards of exposure to this substance.

Eye Contact: Immediately flush eyes with plenty of water for at least 15 minutes, lifting lower and upper eyelids occasionally. Get medical attention immediately.



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#### 5. Fire Fighting Measures

Fire: Not considered to be a fire hazard. Toxic fumes of arsenic trioxide and arsine may be formed in fire situations.

Explosion: Not considered to be an explosion hazard.

Fire Extinguishing Media: Use any means suitable for extinguishing surrounding fire.

Special Information: In the event of a fire, wear full protective clothing and NIOSH-approved self-contained breathing apparatus with full face piece operated in the pressure demand or other positive pressure mode.

#### 6. Accidental Release Measures

Ventilate area of leak or spill. Wear appropriate personal protective equipment as specified in Section 8.

Spills: Sweep up and containerize for reclamation or disposal. Vacuuming or wet sweeping may be used to avoid dust dispersal.

#### 7. Handling and Storage

Keep in a tightly closed container, stored in a cool, dry, ventilated area. Protect against physical damage. Isolate from incompatible substances. Wear special protective equipment (Sec. 8) for maintenance break-in or where exposures may exceed established exposure levels. Wash hands, face, forearms and neck when exiting restricted areas. Shower, dispose of outer clothing, change to clean garments at the end of the day. Avoid cross-contamination of street clothes. Wash hands before eating and do not eat, drink, or smoke in workplace. Containers of this material may be hazardous when empty since they retain product residues (dust, solids); observe all warnings and precautions listed for the product.

#### 8. Exposure Controls/Personal Protection

Airborne Exposure Limits:

-OSHA Permissible Exposure Limit (PEL): 10 ug(As)/m<sup>3</sup> ppm (TWA)

-ACGIH Threshold Limit Value (TLV): 0.01 mg(As)/m<sup>3</sup> (TWA),

listed as A1, confirmed human carcinogen.

Ventilation System: A system of local and/or general exhaust is recommended to keep employee exposures below the Airborne Exposure Limits. Local exhaust ventilation is generally preferred because it can control the emissions of the contaminant at its source, preventing dispersion of it into the general work area.

Personal Respirators (NIOSH Approved): If the exposure limit is exceeded, a half-face high efficiency dust/mist respirator may be worn for up to ten times the exposure limit or the maximum use concentration specified by the appropriate regulatory agency or respirator supplier, whichever is lowest. A full-face piece high efficiency dust/mist respirator may be worn up to 50 times the exposure limit, or the maximum use concentration specified by the appropriate regulatory agency or respirator supplier, whichever is lowest.

Skin Protection: Wear impervious protective clothing, including boots, gloves, lab coat, apron or coveralls, as appropriate, to prevent skin contact.

Eye Protection: Use chemical safety goggles and/or full face shield where dusting or splashing of solutions is possible. Maintain eye wash fountain and quick-drench facilities in work area.

Other Control Measures: Any area where inorganic arsenic is stored, handled, used, etc., must be established as a 'Regulated Area' with controlled access, limited to authorized persons. Containers of inorganic arsenic and Regulated Areas must be labeled to show a cancer suspect agent is present. Eating, drinking, and smoking should not be permitted in areas where solids or liquids containing arsenic or lead compounds are handled, processed, or stored.



### 9. Physical and Chemical Properties

Appearance: Transparent crystals, or white powder.

Odor: Odorless.

Solubility: 3.7 g/100 ml water @ 20C (68F)

Specific Gravity: 3.74

pH: No information found.

% Volatiles by volume @ 21C (70F): 0

Boiling Point: 465C (869F)

Melting Point: 315C (599F)

Vapor Density (Air=1): No information found.

Vapor Pressure (mm Hg): No information found.

Evaporation Rate (BuAc=1): No information found.

### 10. Stability and Reactivity

Stability: Stable under ordinary conditions of use and storage.

Hazardous Decomposition Products: Emits toxic fumes of arsenic when heated to decomposition.

Hazardous Polymerization: Will not occur.

Incompatibilities: Oxidizers, tannic acid, infusion cinchona and other vegetable astringent infusions and decoctions, iron solutions, rubidium carbide, chlorine trifluoride, fluorine, hydrogen fluoride, oxygen difluoride, acids, bases, sodium chlorate, zinc filings, other reactive metals and mercury. Corrosive to metals in the presence of moisture.

Conditions to Avoid: Incompatibles.

### 11. Toxicological Information

Toxicological Data: Oral rat LD50: 14.6 mg/kg; investigated as a mutagen, tumorigen, reproductive effector.

Reproductive Toxicity: Has shown teratogenic effects in laboratory animals.

-----\Cancer Lists\-----

---NTP Carcinogen---

Ingredient	Known	Anticipated	IARC Category
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Arsenic Trioxide (1327-53-3)	Yes	No	1

### 12. Ecological Information

Environmental Fate: When released into the soil, this material may biodegrade to a moderate extent.

When released into water, this material may biodegrade to a moderate extent. This material is not expected to significantly bio accumulate.

Environmental Toxicity: No information found.

### 13. Disposal Considerations

Dispose of container and unused contents in accordance with federal, state and local requirements.

### 14. Transport Information

Land

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Proper Shipping Name: ARSENIC TRIOXIDE

Hazard Class: 6.1

UN/NA: UN1561

Packing Group: II

The information contained herein in good faith but makes no representations as to its comprehensiveness or accuracy. This document is intended only as a guide to the appropriate precautionary handling of the material by a properly trained person using this product. The conditions or methods of handling, storage, use or disposal of the product are beyond our control and may be beyond our knowledge. We do not assume responsibility and expressly disclaim liability for loss, damage or expense arising out of or in any way connected with the handling, storage, use or disposal of the product. Individuals receiving the information must exercise their independent judgment in determining its appropriateness for a particular purpose.



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Information reported for product/size: 500G

International (Water, I.M.O.)

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Proper Shipping Name: ARSENIC TRIOXIDE

Hazard Class: 6.1

UN/NA: UN1561

Packing Group: II

Information reported for product/size: 500G

International (Air, I.C.A.O.)

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Proper Shipping Name: ARSENIC TRIOXIDE

Hazard Class: 6.1

UN/NA: UN1561

Packing Group: II

Information reported for product/size: 500G

#### 15. Regulatory Information

SARA 311/312: Acute: Yes Chronic: Yes Fire: No Pressure: No

Reactivity: No (Pure / Solid)

#### 16. Other Information

Product Use:

Laboratory Reagent.



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