

# FLINN SCIENTIFIC, INC.

## Material Safety Data Sheet (MSDS)

MSDS #: 81.00

Revision Date: December 8, 2011

### SECTION 1 — CHEMICAL PRODUCT AND COMPANY IDENTIFICATION

#### Arsenic Trioxide

Flinn Scientific, Inc. P.O. Box 219 Batavia, IL 60510 (800) 452-1261

CHEMTREC Emergency Phone Number: (800) 424-9300

### SECTION 2 — COMPOSITION, INFORMATION ON INGREDIENTS

Arsenic trioxide

Synonym: Arsenic(III) oxide

CAS#: 1327-53-3

### SECTION 3 — HAZARDS IDENTIFICATION

White powder. Odorless.

Known human carcinogen (IARC-1).

Poison. Highly toxic. May be fatal if inhaled, swallowed, or absorbed through skin. Powerful allergen.

When heated to decomposition, emits very toxic vapors.

#### FLINN AT-A-GLANCE

Health-3

Flammability-0

Reactivity-1

Exposure-3

Storage-3

0 is low hazard, 3 is high hazard

### SECTION 4 — FIRST AID MEASURES

Call a physician and seek medical attention for further treatment, observation, and support after first aid.

Inhalation: Remove to fresh air at once. If breathing has stopped, give artificial respiration immediately.

Eye or External: Immediately flush with fresh water for at least 15 minutes.

Internal: Rinse mouth. Give large quantities of water for dilution. Call a physician or poison control at once.

### SECTION 5 — FIRE FIGHTING MEASURES

Nonflammable, noncombustible solid.

When heated to decomposition, emits very toxic vapors.

**Fire Fighting Instructions:** Use a fire extinguisher suitable for surrounding fire. Firefighters should wear PPE and SCBA with full facepiece operated in positive pressure mode.

#### NFPA CODE

H-3

F-0

R-0

### SECTION 6 — ACCIDENTAL RELEASE MEASURES

Restrict unprotected personnel from the area and ventilate area. Remove all ignition sources and water. Avoid creating a dust.

Wipe up the spill, place in sealed bag or container, and dispose. Wash spill site after material pickup is complete. See Sections 8 and 13 for further information.

### SECTION 7 — HANDLING AND STORAGE

Flinn Suggested Chemical Storage Pattern: Inorganic #7. Store with arsenates, cyanides, and cyanates.

Store in a locked poisons cabinet or a Flinn Chem-Saf can. Use and dispense in a hood.

### SECTION 8 — EXPOSURE CONTROLS, PERSONAL PROTECTION

Avoid contact with eyes, skin, and clothing. Wear chemical splash goggles, chemical-resistant gloves, and chemical-resistant apron. Use ventilation to keep airborne concentrations below exposure limits. Always wear a NIOSH-approved respirator with proper cartridges or a positive pressure, air-supplied respirator when handling this material in emergency situations (spill or fire).

Exposure guidelines: PEL 0.01 mg/m<sup>3</sup> (as As)(OSHA)

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**SECTION 9 — PHYSICAL AND CHEMICAL PROPERTIES**

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White, odorless powder.  
Solubility: Slightly soluble in water.  
Formula: As<sub>2</sub>O<sub>3</sub>  
Formula weight: 197.84

Boiling point: 465 °C  
Melting point: 312 °C  
Specific gravity: 3.74

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**SECTION 10 — STABILITY AND REACTIVITY**

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May decompose on exposure to moist air or water. Hazardous decomposition product: arsenic oxides. Keep away from heat, acids, oxidizing agents, and halogens.  
Shelf life: Good, if stored properly.

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**SECTION 11 — TOXICOLOGICAL INFORMATION**

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Acute effects: Highly toxic.  
Chronic effects: Carcinogen, mutagen.  
Target organs: Skin, lungs.

ORL-RAT LD<sub>50</sub>: 14.6 mg/kg  
IHL-RAT LC<sub>50</sub>: N.A.  
SKN-RBT LD<sub>50</sub>: N.A.

N.A. = Not available, not all health aspects of this substance have been fully investigated.

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**SECTION 12 — ECOLOGICAL INFORMATION**

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Data not yet available.

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**SECTION 13 — DISPOSAL CONSIDERATIONS**

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Please review all federal, state and local regulations that may apply, before proceeding.  
Flinn Suggested Disposal Method #27d is one option.

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**SECTION 14 — TRANSPORT INFORMATION**

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Shipping name: Arsenic trioxide  
Hazard class: 6.1, Poison  
UN number: UN1561  
N/A = Not applicable

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**SECTION 15 — REGULATORY INFORMATION**

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TSCA-listed, EINECS-listed (215-481-4), RCRA code P012.

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**SECTION 16 — OTHER INFORMATION**

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**Consult your copy of the *Flinn Science Catalog/Reference Manual*  
for additional information about laboratory chemicals.**