

## Arsenic Trioxide

### SECTION 1. IDENTIFICATION

<b>Product Identifier</b>	Arsenic Trioxide
<b>Other Means of Identification</b>	Diarsenic trioxide, arsenic trioxide, Arsenic (III) oxide
<b>Product Code(s)</b>	AR7210, AR7220
<b>Product Family</b>	Inorganic Solid
<b>Recommended Use</b>	Laboratory and industrial use.
<b>Restrictions on Use</b>	None known.
<b>Supplier Identifier</b>	Alphachem Limited, 2485 Milltower Court, Mississauga, Ontario, L5N 5Z6, (905) 821-2995
<b>Emergency Phone No.</b>	CANUTEC CANADA, 613-996-6666, 24 Hours
<b>SDS No.</b>	0601

### SECTION 2. HAZARD IDENTIFICATION

Classified according to Canada's Hazardous Products Regulations (WHMIS 2015) and the US Hazard Communication Standard (HCS 2012).

#### Classification

Acute toxicity (Oral) - Category 2; Skin corrosion - Category 1; Serious eye damage - Category 1; Carcinogenicity - Category 1A

#### Label Elements



Signal Word:  
Danger

#### Hazard Statement(s):

Fatal if swallowed.  
Causes severe skin burns and eye damage.  
May cause cancer.

#### Precautionary Statement(s):

Obtain special instructions before use.  
Do not handle until all safety precautions have been read and understood.  
Do not breathe dust/fume/gas/mist/vapours/spray.  
Wash hands and skin thoroughly after handling.  
Use only outdoors or in a well-ventilated area.  
Avoid release to the environment.  
Wear protective gloves/protective clothing.  
Wear eye protection/face protection.

Response:

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IF SWALLOWED: Rinse mouth. Do NOT induce vomiting.

IF ON SKIN: Wash with plenty of water.

IF INHALED: Remove person to fresh air and keep comfortable for breathing.

IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.

IF exposed or concerned: Get medical advice/attention.

Immediately call a POISON CENTRE or doctor.

Storage:

Store locked up.

Disposal:

Dispose of contents and container in accordance with local, regional, national and international regulations.

#### **Other Hazards**

None known.

### **SECTION 3. COMPOSITION/INFORMATION ON INGREDIENTS**

Substance:

Chemical Name	CAS No.	%	Other Identifiers
ARSENIC TRIOXIDE	1327-53-3	> 99	Diarsenic trioxide, arsenic trioxide

### **SECTION 4. FIRST-AID MEASURES**

#### **First-aid Measures**

##### **Inhalation**

Remove source of exposure or move to fresh air. Keep at rest in a position comfortable for breathing. Get medical advice or attention if you feel unwell.

##### **Skin Contact**

Immediately rinse with lukewarm, gently flowing water for 15-20 minutes.

##### **Eye Contact**

Immediately rinse the contaminated eye(s) with lukewarm, gently flowing water for 15-20 minutes, while holding the eyelid(s) open. Immediately call a Poison Centre or doctor.

##### **Ingestion**

Rinse mouth with water. Do not induce vomiting. Immediately call a Poison Centre or doctor.

##### **First-aid Comments**

Some of the first-aid procedures recommended here require advanced first-aid training. If exposed or concerned, get medical advice or attention.

#### **Most Important Symptoms and Effects, Acute and Delayed**

If on skin: contact can cause pain, redness, burns, and blistering. Permanent scarring can result. If in eyes: contact causes severe burns with redness, swelling, pain and blurred vision. Permanent damage including blindness can result.

#### **Immediate Medical Attention and Special Treatment**

##### **Special Instructions**

General advice

Consult a physician. Show this safety data sheet to the doctor in attendance. Move out of dangerous area.

### **SECTION 5. FIRE-FIGHTING MEASURES**

#### **Extinguishing Media**

##### **Suitable Extinguishing Media**

Carbon dioxide, dry chemical powder, appropriate foam, water spray or fog. Use water to keep non-leaking, fire-exposed containers cool.

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### Unsuitable Extinguishing Media

None known.

### Specific Hazards Arising from the Product

Does not burn. Heating increases the release of toxic vapour. Closed containers may rupture violently when heated releasing contents.

In a fire, the following hazardous materials may be generated: Arsenic and its oxides.

### Special Protective Equipment and Precautions for Fire-fighters

Use extreme caution. Evacuate area. Approach fire from upwind to avoid hazardous vapours or gases. Fight fire from a protected, explosion-resistant location or maximum distance possible. Knock down vapours or gases with water fog or fine water spray. Before entry, especially into confined areas, use an appropriate monitor to check for: toxic gases or vapours, sufficient oxygen.

Chemical protective clothing (e.g. chemical splash suit) and positive pressure SCBA may be necessary.

## SECTION 6. ACCIDENTAL RELEASE MEASURES

### Personal Precautions, Protective Equipment, and Emergency Procedures

Emergency responders: evacuate the area immediately. Isolate the hazard area. Keep out unnecessary and unprotected personnel. Evacuate downwind locations. Use the personal protective equipment recommended in Section 8 of this safety data sheet. Increase ventilation to area or move leaking container to a well-ventilated and secure area. Remove or isolate incompatible materials as well as other hazardous materials.

### Environmental Precautions

Do not allow into any sewer, on the ground or into any waterway.

### Methods and Materials for Containment and Cleaning Up

Avoid generating dust. Collect using shovel/scoop or approved HEPA vacuum and place in a suitable container for disposal.

## SECTION 7. HANDLING AND STORAGE

### Precautions for Safe Handling

Wear personal protective equipment to avoid direct contact with this chemical. Obtain special instructions before use. Do not breathe in this product. Prevent accidental contact with incompatible chemicals. Keep containers tightly closed when not in use or empty.

### Conditions for Safe Storage

Product (diluted as directed): store in an area that is: secure and separate from work areas. Protect from conditions listed in Conditions to Avoid in Section 10 (Stability and Reactivity). Comply with all applicable health and safety regulations, fire and building codes. Keep container tightly closed in a dry and well-ventilated place. Containers which are opened must be carefully resealed and kept upright to prevent leakage.

Handle and store under inert gas. hygroscopic comply with all applicable health and safety regulations, fire and building codes.

## SECTION 8. EXPOSURE CONTROLS/PERSONAL PROTECTION

### Control Parameters

Chemical Name	ACGIH TLV®		OSHA PEL		AIHA WEEL	
	TWA	STEL	TWA	Ceiling	8-hr TWA	TWA
ARSENIC TRIOXIDE	0.01 mg/m <sup>3</sup>		0.01 mg/m <sup>3</sup>			

### Appropriate Engineering Controls

Use local exhaust ventilation and enclosure, if necessary, to control amount in the air. Provide eyewash and safety shower if contact or splash hazard exists.

### Individual Protection Measures

#### Eye/Face Protection

Wear chemical safety goggles and face shield when contact is possible.

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### **Skin Protection**

Wear chemical protective clothing e.g. gloves, aprons, boots.

### **Respiratory Protection**

Wear a NIOSH approved air-purifying respirator with an appropriate cartridge.

## **SECTION 9. PHYSICAL AND CHEMICAL PROPERTIES**

### **Basic Physical and Chemical Properties**

<b>Appearance</b>	White powder.
<b>Odour</b>	Odourless
<b>Odour Threshold</b>	Not available
<b>pH</b>	Not available
<b>Melting Point/Freezing Point</b>	312 °C (594 °F) (melting); 312 °C (594 °F) (freezing)
<b>Initial Boiling Point/Range</b>	465 °C (869 °F)
<b>Flash Point</b>	Not available
<b>Evaporation Rate</b>	Not available
<b>Flammability (solid, gas)</b>	Not applicable
<b>Upper/Lower Flammability or Explosive Limit</b>	Not available (upper); Not available (lower)
<b>Vapour Pressure</b>	Not available
<b>Vapour Density (air = 1)</b>	Not available
<b>Relative Density (water = 1)</b>	3.8 at 20 °C
<b>Solubility</b>	Not available in water; Not available (in other liquids)
<b>Partition Coefficient, n-Octanol/Water (Log Kow)</b>	Not available
<b>Auto-ignition Temperature</b>	Not available
<b>Decomposition Temperature</b>	Not available
<b>Viscosity</b>	Not available (kinematic); Not available (dynamic)
<b>Other Information</b>	
<b>Physical State</b>	Solid

## **SECTION 10. STABILITY AND REACTIVITY**

### **Reactivity**

Not reactive under normal conditions of use.

### **Chemical Stability**

Normally stable.

### **Possibility of Hazardous Reactions**

Reacts in the presence of increased temperature, sunlight.

### **Conditions to Avoid**

Sunlight. High temperatures. Low temperatures.

### **Incompatible Materials**

Strong oxidizing agents (e.g. perchloric acid), metals (e.g. aluminum).

### **Hazardous Decomposition Products**

Arsenic and its oxides.

## **SECTION 11. TOXICOLOGICAL INFORMATION**

### **Likely Routes of Exposure**

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Inhalation; skin contact; eye contact; ingestion.

#### Acute Toxicity

Chemical Name	LC50	LD50 (oral)	LD50 (dermal)
ARSENIC TRIOXIDE	Not available	14.6 mg/kg (rat)	Not available

#### Skin Corrosion/Irritation

Contact can cause pain, redness, burns, and blistering. Permanent scarring can result.

#### Serious Eye Damage/Irritation

Causes serious eye damage based on skin corrosion information.

#### STOT (Specific Target Organ Toxicity) - Single Exposure

##### Inhalation

May cause severe nose and throat irritation. Symptoms may include coughing, shortness of breath, difficult breathing and tightness in the chest.

##### Ingestion

Toxic, can cause death.

#### Aspiration Hazard

No information was located.

#### STOT (Specific Target Organ Toxicity) - Repeated Exposure

No information was located.

#### Respiratory and/or Skin Sensitization

No information was located.

#### Carcinogenicity

Chemical Name	IARC	ACGIH®	NTP	OSHA
ARSENIC TRIOXIDE	Group 1		Known carcinogen	

Group 1 – Carcinogenic to humans.

#### Reproductive Toxicity

##### Development of Offspring

No information was located.

##### Sexual Function and Fertility

No information was located.

##### Effects on or via Lactation

No information was located.

#### Germ Cell Mutagenicity

No information was located.

#### Interactive Effects

No information was located.

## SECTION 12. ECOLOGICAL INFORMATION

This section is not required by WHMIS. This section is not required by OSHA HCS 2012.

## SECTION 13. DISPOSAL CONSIDERATIONS

#### Disposal Methods

Dispose of contents and container in accordance with local, regional, national and international regulations.

## SECTION 14. TRANSPORT INFORMATION

Regulation	UN No.	Proper Shipping Name	Transport Hazard Class(es)	Packing Group
US DOT	UN1561	Arsenic trioxide	6.1	II
IMO (Marine)	UN1561	Arsenic trioxide	6.1	II
IATA (Air)	UN1561	Arsenic trioxide	6.1	II

**Special Precautions** Not applicable

**Transport in Bulk According to Annex II of MARPOL 73/78 and the IBC Code**

Not applicable

## SECTION 15. REGULATORY INFORMATION

**Safety, Health and Environmental Regulations**

**Canada**

**Domestic Substances List (DSL) / Non-Domestic Substances List (NDSL)**

Listed on the DSL.

**USA**

**Toxic Substances Control Act (TSCA) Section 8(b)**

Listed on the TSCA Inventory.

## SECTION 16. OTHER INFORMATION

**SDS Prepared By** Alphachem Limited

**Phone No.** (905)-821-2995

**Date of Preparation** July 11, 2016

**Date of Last Revision** August 11, 2016

**References** CHEMINFO database. Canadian Centre for Occupational Health and Safety (CCOHS).

**Disclaimer** This document is offered only as a guide in the safe handling of the above product, and has been prepared from the best information currently available. It is not intended to be all-inclusive and the conditions of use may involve other additional considerations. Since Alphachem Limited cannot anticipate or control the conditions under which the product may be used, it will not be liable for any claims, damages or losses which may result from the use or reliance on any information herein.