



## MATERIAL SAFETY DATA SHEETS

43

Arsenic pentoxide

### 1. CHEMICAL IDENTITY

**Chemical Name :** Arsenic pentoxide

**Chemical Classification:** Toxic

**Trade Name :** Zotox

**Synonyms:** Arsenic acid anhydride, Arsenic pentaoxide, Diarsenic pentaoxide, Arsenic(V) oxide

**Formula :** AS<sub>2</sub>O<sub>5</sub>

**CAS No:** 1303-28-2

**UN No:** 1559

### Regulated Identification

**Shipping Name :** Arsenic pentoxide

**Hazchem Code :** 2Z

**Codes / Label :** Class 6.1, Toxic

**Hazardous Waste ID No :** 4

HAZARDOUS INGREDIENTS	C.A.S. No.	HAZARDOUS INGREDIENTS	C.A.S. No.
1 Arsenic pentoxide	1303-28-2	3	
2		4	

### 2. PHYSICAL / CHEMICAL DATA

<b>Boiling Pt. °C:</b>		<b>Physical State:</b> Solid		<b>Appearance:</b> White amorphous powder.
<b>Melting Pt °C:</b>	315°C (decompose s)	<b>Vapour Pressure @ 35°C mmHg:</b>		<b>Odour:</b> Odourless.
<b>Vapour Density(Air =1):</b>		<b>Solubility in water at 30°C g/100ml:</b>	658 g/L	<b>Others:</b> Soluble in alcohol.
<b>Specific Gravity (Water =1 ):</b>	4.32 at 25 °C Solid			<b>pH :</b> Acidic

### 3. FIRE / EXPLOSION HAZARD DATA

<b>Flammability :</b> No	<b>LEL:</b>	<b>Flash Point °C in OC:</b>
<b>TDG Flammability:</b>	<b>UEL:</b>	<b>Flash Point °C in CC:</b>

**Autoignition Temperature °C :**

**Explosion sensitivity to impact:** Stable

**Explosion sensitivity to static Electricity:** Stable

**Hazardous Combustion Products :** Reacts with metal and may give off toxic arsine gas.

**Hazardous Polymerization :** Will not occur.

<b>Combustible Liquid:</b> No	<b>Explosive Material:</b> No	<b>Corrosive Material</b> No
<b>Flammable Material:</b> No	<b>Oxidiser :</b> No	<b>Others:</b>
<b>Pyrophoric Material:</b> No	<b>Organic Peroxide :</b> No	

### 4. REACTIVITY DATA

**Chemical Stability :** Stable

**Incompatibility with other material :** Heat, acids, oxidizing agents, halogens, moist air or water.

**Reactivity :** Reacts also with galvanised metals and aluminium.

**Hazardous Reaction Products :** Dissolves in water to give poisonous solution of arsenic acid.

## 5. HEALTH HAZARD DATA

**Routes of entry:** Inhalation, Ingestion, Skin & Eyes.

### Effects of Exposure / Symptoms:

Inhalation: Causes respiratory tract irritation. May cause effects similar to those described for ingestion. Skin: May cause skin irritation. May cause skin sensitization, an allergic reaction, which becomes evident upon re-exposure to this material. Eyes: May cause eye irritation. May result in corneal injury. Ingestion: May cause liver damage. May cause severe digestive tract irritation with abdominal pain, nausea, vomiting and diarrhea. Can cause nervous system damage. May cause bone marrow depression.

### Emergency Treatment :

**Inhalation:** Get medical aid immediately. Remove from exposure to fresh air immediately. If not breathing, give artificial respiration. If breathing is difficult, give oxygen.

**Skin:** Flush skin with plenty of soap and water for at least 15 minutes while removing contaminated clothing and shoes. Get medical aid if irritation develops or persists.

**Eyes:** Flush eyes with plenty of water for at least 15 minutes, occasionally lifting the upper and lower eyelids. Get medical aid immediately.

**Ingestion:** If victim is conscious and alert, give 2-4 cupfuls of milk or water. Get medical aid immediately. Induce vomiting by giving one teaspoon of syrup of Ipecac.

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<b>LD50 (oral-rat) mg/kg:</b>	8 mg/kg	<b>STEL:</b>	
<b>LC50 (rat) mg/kg:</b>		<b>Odour Threshold:</b>	
<b>Permissible Exposure Limit:</b>	0.5 mg/m <sup>3</sup> .	<b>TLV (ACGIH) :</b>	0.01 mg/m <sup>3</sup>

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<b>NFPA Hazard Signals</b>	<b>Health</b>	<b>Flammability</b>	<b>Reactivity</b>	<b>Special</b>
	3	0	0	

## 6. PREVENTIVE MEASURES

**Personal Protective Equipment** : Provide side covered safety goggles, rubber hand gloves and overclothing for the body, dust mask and shoes.

**Handling** : Keep in well ventilated, cool and dry place away from water and metals. Keep the containers tightly closed.

**Storage** : Keep well closed. Store in well ventilated area away from food or food products and combustible materials

**Precautions** : Avoid contact with solid.

## 7. EMERGENCY / FIRST AID MEASURES

### FIRE:

**Fire Extinguishing Media** : Use water in flooding quantities as fog. Use foam, dry chemical, or carbon dioxide.

**Special Procedure** : Keep the containers cool by spraying water, if exposed to flame or heat.

**Unusual Hazards** : Flashback along vapour trail may occur.

### EXPOSURE: First Aid Measures:

**Inhalation:** Get medical aid immediately. Remove from exposure to fresh air immediately. If not breathing, give artificial respiration. If breathing is difficult, give oxygen.

**Skin:** Flush skin with plenty of soap and water for at least 15 minutes while removing contaminated clothing and shoes. Get medical aid if irritation develops or persists.

**Eyes:** Flush eyes with plenty of water for at least 15 minutes, occasionally lifting the upper and lower eyelids. Get medical aid immediately.

**Ingestion:** If victim is conscious and alert, give 2-4 cupfuls of milk or water. Get medical aid

immediately. Induce vomiting by giving one teaspoon of syrup of Ipecac.

### **Antidotes / Dosages:**

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#### **SPILLS :**

**Steps To Be Taken** : Sweep and collect without making dust. Wash the area with water and soap.

**Waste Disposal Method:** Seal all wastes in vapour tight plastic bags for eventual disposal

### **8. ADDITIONAL INFORMATION / REFERENCES**

### **9. MANUFACTURERS / SUPPLIERS DATA**

<b>NAME OF FIRM :</b>	<b>Contact person</b>
<b>MAILING ADDRESS :</b>	<b>in Emergency :</b>
<b>TELEPHONE / TELEX NOS :</b>	<b>Local Bodies involved :</b>
<b>TELEGRAPHIC ADDRESS :</b>	<b>Standard Packing :</b>
<b>OTHERS :</b>	<b>Trem Card Details / Ref :</b>

### **10. DISCLAIMER**

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