

CHEMICAL SAFETY DATA SHEET
ARSENIC TRIOXIDE

PROPER NAME:

ARSENIC TRIOXIDE

1. **PROPERTIES:**

A. Physical Properties of Arsenic Trioxide

Molecular Symbol	As ₂ O ₃
Physical State	odourless powder
Colour	white
Melting point	315°C
Specific Gravity	3.43
Solubility	Soluble in glycerine, acids and alkaline solutions; slightly soluble in water.

Chemical Reactivity	Contact with acids or acid substances in combination with certain metals for example galvanized sheet or light metal, may cause the formation of toxic fumes. Gas is emitted over 220°C when heated
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Flammability

Non-Flammable

2. **HEALTH HAZARDS**

R. Arsenic Trioxide is poisonous if swallowed or by dust inhalation. Dust may cause irritations on the skin and mucous membranes. Arsenic may cause cancer.

Toxicity - 5Mg/Kg body weight

C. Personal Protective Measures:

1. Avoid direct skin contact by wearing goggles, gloves, disposable boots, and disposal coveralls.
2. Avoid inhalation of the dust by dust respirators.
3. Change work clothes often, wash skin regularly, and avoid smoking where there is a risk of contact with arsenic trioxide.

D. First Aid:

1. If Ingested, cause vomiting by using water, milk or milk of magnesia, and take victim to a physician immediately.
2. If Inhaled, remove victim from the contaminated area, keep breathing passages open, keep him warm and take the victim to a physician immediately.
3. Skin Contact, change clothing and wash powder off with soap and large volumes of water as soon as possible.

E. Emergency Procedures:

Leaks -

1. Personnel required to handle arsenic trioxide shall be trained in the proper actions to be taken in the event of a leak or spill. They shall be instructed to use the proper equipment in the event of an emergency.

- E. 2. If a leak occurs on-route personnel shall:
- i. See that persons not required to deal with the problem are kept clear of the area.
 - ii. Put on suitable personal protective equipment.
 - iii. Tape the leak
 - iv. Shovel up the product, putting it into a plastic bag and placing it inside the trailer.
 - v. Remove protective equipment and put it into a plastic bag and place it in the trailer.
 - vi. Report the incident as soon as possible to the Branch and the proper authorities.
 - vii. Wash thoroughly with soap and water.

Spills -

1. See that persons not required to deal with the emergency are kept well clear of the contaminated area and up wind.
2. Contact the nearest police and emergency departments informing them of the problem as outlined of the Emergency Spill Action Plan Report Sheet.
3. Prevent the arsenic trioxide from contaminating waterways.
4. Large spills should be covered and contained until proper cleanup equipment arrives, by building earthen dikes around the spill and covering with a plastic tarp.

E. 5. Do Not leave the area unattended until cleanup is completed.

6. Do Not use water to flush the product.

Fire -

1. Keep containers cool by spraying with water. Efforts should be made to contain the water run-off.

2. Toxic gas is emitted over 200°C. Remain up-wind and wear self contained breathing apparatus.

F. Environmental Concerns:

Even small amounts of arsenic trioxide spilled as a result of a leak must be dealt with immediately, to prevent soil and water contamination. Clean up must be completed by removal of any contaminated soil and the area restored to its original state.

If spilled into a waterway, the authorities must be notified as soon as possible, in order to alert anyone using the water from the source of the impending danger.

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