

ARSENIC TRIOXIDE**0378**
April 1997CAS No: 1327-53-3
RTECS No: CG3325000
UN No: 1561
EC No: 033-003-00-0Arsenic(III)oxide
Arsenous oxide anhydride
White arsenic
Arsenous acid anhydride
As₂O₃
Molecular mass: 197.8

TYPES OF HAZARD/ EXPOSURE	ACUTE HAZARDS/SYMPTOMS	PREVENTION	FIRST AID/FIRE FIGHTING
FIRE	Not combustible. Gives off irritating or toxic fumes (or gases) in a fire.		In case of fire in the surroundings: use appropriate extinguishing media.
EXPLOSION			
EXPOSURE		PREVENT DISPERSION OF DUST! AVOID ALL CONTACT! AVOID EXPOSURE OF (PREGNANT) WOMEN!	IN ALL CASES CONSULT A DOCTOR!
Inhalation	Burning sensation. Cough. Shortness of breath. Chest pain. Headache. Sore throat. Dizziness. Weakness. (See Ingestion). Symptoms may be delayed (see Notes).	Local exhaust or breathing protection.	Fresh air, rest. Refer for medical attention.
Skin	Dry skin. Redness. Skin burns. Pain. Blisters.	Protective gloves. Protective clothing.	Remove contaminated clothes. Rinse and then wash skin with water and soap. Refer for medical attention.
Eyes	Redness. Pain. Severe deep burns. Conjunctivitis.	Safety goggles or eye protection in combination with breathing protection if powder.	First rinse with plenty of water for several minutes (remove contact lenses if easily possible), then take to a doctor.
Ingestion	Burning sensation. Vomiting. Nausea. Abdominal pain. Abdominal cramps. Diarrhoea. Muscular cramps. Shock. Death.	Do not eat, drink, or smoke during work. Wash hands before eating.	Rinse mouth. Induce vomiting (ONLY IN CONSCIOUS PERSONS!). Rest. Refer for medical attention.

SPILLAGE DISPOSAL

Vacuum spilled material. Carefully collect remainder, then remove to safe place. Do NOT let this chemical enter the environment. Personal protection: complete protective clothing including self-contained breathing apparatus.

PACKAGING & LABELLINGT+ Symbol
N Symbol
R: 45-28-34-50/53
S: 53-45-60-61
Note: E
UN Hazard Class: 6.1
UN Pack Group: II

Unbreakable packaging; put breakable packaging into closed unbreakable container. Do not transport with food and feedstuffs. Marine pollutant.

EMERGENCY RESPONSETransport Emergency Card: TEC (R)-61GT5-II
NFPA Code: H3; F0; R2**SAFE STORAGE**

Separated from food and feedstuffs, strong reducing agents.

IPCSInternational
Programme on
Chemical SafetyPrepared in the context of cooperation between the International Programme on Chemical Safety and the European Commission ©
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IMPORTANT DATA

Physical State; Appearance

WHITE OR TRANSPARENT LUMPS OR CRYSTALLINE POWDER.

Chemical dangers

The solution in water is a weak acid which may react with reducing substances producing very toxic gas (arsine - see ICSC 0222).

Occupational exposure limits

TLV: (as As) 0.01 mg/m³ as TWA; A1 (confirmed human carcinogen); BEI issued; (ACGIH 2004).
MAK: Carcinogen category: 1; Germ cell mutagen group: 3A; (DFG 2004).

Routes of exposure

The substance can be absorbed into the body by inhalation of its aerosol and by ingestion.

Inhalation risk

Evaporation at 20°C is negligible; a harmful concentration of airborne particles can, however, be reached quickly.

Effects of short-term exposure

The substance is corrosive to the eyes, the skin and the respiratory tract. The substance may cause effects on the blood, cardiovascular system, nervous system and liver. Exposure may result in death. The effects may be delayed (see Notes). Medical observation is indicated.

Effects of long-term or repeated exposure

Repeated or prolonged contact with skin may cause dermatitis. The substance may have effects on the respiratory tract, skin (hyperkeratosis), bone marrow (hematopoietic changes), cardiovascular system, nervous system and liver, resulting in anaemia and impaired functions. This substance is carcinogenic to humans.

PHYSICAL PROPERTIES

Sublimation point: 193/C
Melting point: 275-313/C

Relative density (water = 1): 3.7-4.2
Solubility in water, g/100 ml at 20°C: 1.2-3.7

ENVIRONMENTAL DATA

The substance is harmful to aquatic organisms. This substance may be hazardous to the environment; special attention should be given to birds, fish and mammals.

NOTES

Physical properties depend on crystalline form of the substance.
Depending on the degree of exposure, periodic medical examination is suggested.
Specific treatment is necessary in case of poisoning with this substance; the appropriate means with instructions must be available.
The symptoms of acute poisoning appear 1/2 to 1 hour after the exposure but may be delayed many hours.
No odour warning if toxic concentrations are present.
Do NOT take working clothes home.
The recommendations on this Card also apply to inorganic trivalent arsenic compounds (arsenites).
Card has been partly updated in October 2005. See sections Occupational Exposure Limits, EU classification, Emergency Response.

ADDITIONAL INFORMATION

LEGAL NOTICE

Neither the EC nor the IPCS nor any person acting on behalf of the EC or the IPCS is responsible for the use which might be made of this information