

DISODIUM ARSENATE HEPTAHYDRATE

0326

October 2005

CAS No: 10048-95-0
 RTECS No: CG0900000
 UN No: 1685
 EC No: 033-005-00-1

Arsenic acid, disodium salt, heptahydrate
 Sodium arsenate heptahydrate
 Sodium arsenate, dibasic, heptahydrate
 $\text{Na}_2\text{HAsO}_4 \cdot 7\text{H}_2\text{O}$
 Molecular mass: 312.0

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	Risk of fire and explosion on contact with some metals, see Chemical Dangers.		

EXPOSURE		PREVENT DISPERSION OF DUST! AVOID ALL CONTACT! AVOID EXPOSURE OF (PREGNANT) WOMEN!	IN ALL CASES CONSULT A DOCTOR!
Inhalation	Cough. Headache. Sore throat Weakness. Further see Ingestion.	Closed system and ventilation.	Fresh air, rest. Refer for medical attention.
Skin	Redness. Pain.	Protective gloves. Protective clothing.	Remove contaminated clothes. Rinse and then wash skin with water and soap.
Eyes	Redness. Pain.	Face shield 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	Abdominal pain. Burning sensation. Diarrhoea. Vomiting. Shock or collapse.	Do not eat, drink, or smoke during work. Wash hands before eating.	Rinse mouth. Give a slurry of activated charcoal in water to drink. Refer for medical attention.

SPILLAGE DISPOSAL	PACKAGING & LABELLING
Chemical protection suit including self-contained breathing apparatus. Do NOT let this chemical enter the environment. Sweep spilled substance into containers; if appropriate, moisten first to prevent dusting. Carefully collect remainder, then remove to safe place.	<p>EU classification T Symbol N Symbol R: 45-23/25-50/53 S: 53-45-60-61 Note: A; E</p> <p>UN classification UN Hazard Class: 6.1 UN Pack Group: II</p> <p>Unbreakable packaging; put breakable packaging into closed unbreakable container. Do not transport with food and feedstuffs. Marine pollutant.</p>

EMERGENCY RESPONSE	SAFE STORAGE
Transport Emergency Card: TEC (R)-61GT5-II	Store in an area without drain or sewer access. Well closed. Separated from acids, food and feedstuffs.

IMPORTANT DATA

Physical State; Appearance

COLOURLESS CRYSTALS

Chemical dangers

Upon heating, toxic fumes are formed. Reacts with acids to produce toxic arsine gas (see ICSC 0222). Attacks many metals in presence of water such as iron, aluminium and zinc, releasing toxic fumes of arsenic and arsine.

Occupational exposure limits

TLV: (as As) 0.01 mg/m³ as TWA; A1 (confirmed human carcinogen); BEI issued; (ACGIH 2005).

MAK: Carcinogen category: 1; Germ cell mutagen group: 3A; (DFG 2005).

Routes of exposure

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

Inhalation risk

A harmful concentration of airborne particles can be reached quickly when dispersed.

Effects of short-term exposure

The substance is irritating to the eyes, the skin and the respiratory tract. The substance may cause effects on the cardiovascular system, central nervous system, gastrointestinal tract, kidneys, resulting in cardiac disorders, severe gastroenteritis, loss of fluids and electrolytes, kidney impairment, collapse, shock. Exposure far above the OEL may result in death. The effects may be delayed. 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 peripheral nervous system, mucous membranes, skin, cardiovascular system, bone marrow, kidneys and liver, resulting in neuropathy, pigmentation disorders, perforation of nasal septum, lesions of blood cells, kidney impairment and cirrhosis. This substance is carcinogenic to humans. Animal tests show that this substance possibly causes toxicity to human reproduction or development.

PHYSICAL PROPERTIES

Boiling point (decomposes): 180/C
Melting point: 130/C

Density: 1.9 g/cm³
Solubility in water, g/100 ml at 21/C: 39

ENVIRONMENTAL DATA

This substance may be hazardous to the environment; special attention should be given to ground water contamination, aquatic organisms and soil organisms. This substance does enter the environment under normal use. Great care, however, should be given to avoid any additional release, e.g. through inappropriate disposal.

NOTES

The apparent melting point caused by loss of crystal water is given.
Depending on the degree of exposure, periodic medical examination is suggested.
Do NOT take working clothes home.
Card has been partially updated in January 2008: see Ingestion First Aid.

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