

Common Name: **ARSENIC**

Synonyms: Gray Arsenic; Arsen

CAS No: 7440-38-2

Molecular Formula: As

RTK Substance No: 0152

Description: Silver-gray or white metallic, odorless, brittle solid

HAZARD DATA

Hazard Rating	Firefighting	Reactivity
<p>4 - Health</p> <p>0 - Fire</p> <p>0 - Reactivity</p> <p>DOT#: UN 1558</p> <p>ERG Guide #: 152</p> <p>Hazard Class: 6.1 (Poison)</p>	<p>Arsenic is noncombustible, however, <i>Arsenic dust</i> or <i>fine powder</i> can explode when exposed to heat, flame or hot surfaces.</p> <p>Use dry chemical, CO₂, water spray or foam as extinguishing agents.</p> <p>POISONOUS GASES ARE PRODUCED IN FIRE, including <i>Arsenic Oxides</i>.</p> <p>Use water spray to keep fire-exposed containers cool.</p>	<p>Arsenic reacts with OXIDIZING AGENTS (such as PERCHLORATES, PEROXIDES, PERMANGANATES, CHLORATES, NITRATES, CHLORINE, BROMINE and FLUORINE) to cause fires and explosions.</p> <p>Arsenic reacts with ACIDS (such as HYDROCHLORIC, SULFURIC and NITRIC) and HYDROGEN GAS to produce toxic <i>Arsine gas</i>.</p> <p>Arsenic is not compatible with <i>powdered</i> METALS (such as ZINC, LITHIUM, RUBIDIUM and PLATINUM); BROMINE AZIDE; LEAD MONOXIDE; and MERCURY OXIDE.</p>

SPILL/LEAKS

Isolation Distance:

Spills: 25 to 50 meters (75 to 150 feet)

Fire: 800 meters (1/2 mile)

Moisten spilled material first or use a HEPA-filter vacuum for clean-up.

DO NOT wash into sewer.

Toxic to aquatic organisms.

PHYSICAL PROPERTIES

Odor Threshold:	Odorless
Flash Point:	Noncombustible solid
Vapor Pressure:	1 mm Hg at 701°F (372°C)
Specific Gravity:	5.7 (water = 1)
Water Solubility:	Insoluble
Boiling Point:	1,350°F (613°C)
Ionization Potential:	9.87 eV
Molecular Weight:	74.9

EXPOSURE LIMITS

OSHA:	0.01 mg/m ³ , 8-hr TWA
NIOSH:	0.002 mg/m ³ , 15-min Ceiling
ACGIH:	0.01 mg/m ³ , 8-hr TWA
IDLH:	5 mg/m ³

PROTECTIVE EQUIPMENT

Gloves:	Natural Rubber, Nitrile or Silver Shield®
Coveralls:	DuPont Tyvek®
Respirator:	<0.1 mg/m ³ - Full facepiece APR with High efficiency filter <0.5 mg/m ³ -Supplied air

HEALTH EFFECTS

Eyes:	Irritation, burns, red and watery eyes
Skin:	Irritation, burns, itching, rash and loss of pigment
Inhalation:	Nose and throat irritation with coughing, wheezing and hoarseness Weakness, headache, nausea, vomiting, and muscle cramps
Chronic:	Cancer (skin and lung) in humans

FIRST AID AND DECONTAMINATION

Remove the person from exposure.

Flush eyes with large amounts of water for at least 15 minutes. Remove contact lenses if worn. Seek medical attention.

Quickly remove contaminated clothing and wash contaminated skin with large amounts of soap and water.

Begin artificial respiration if breathing has stopped and CPR if necessary.

Transfer to a medical facility.