



Material Safety Data Sheet
 Arsenic(III) sulfide, 99.99%

MSDS# 84980

Section 1 - Chemical Product and Company Identification

MSDS Name: Arsenic(III) sulfide, 99.99%
 Catalog Numbers: AC192510000, AC192510250, AC192511000
 Synonyms: Arsenic sesquisulfide; Arsenic trisulfide.

Company Identification: Acros Organics BVBA
 Janssen Pharmaceuticaaan 3a
 2440 Geel, Belgium

Company Identification: (USA) Acros Organics
 One Reagent Lane
 Fair Lawn, NJ 07410

For information in the US, call: 800-ACROS-01
 For information in Europe, call: +32 14 57 52 11
 Emergency Number, Europe: +32 14 57 52 99
 Emergency Number US: 201-796-7100
 CHEMTREC Phone Number, US: 800-424-9300
 CHEMTREC Phone Number, Europe: 703-527-3887

Section 2 - Composition, Information on Ingredients

 CAS#: 1303-33-9
 Chemical Name: Arsenic(III) sulfide
 %: 99.99
 EINECS#: 215-117-4

Hazard Symbols:

T N



Risk Phrases:

23/25 50/53

Section 3 - Hazards Identification

EMERGENCY OVERVIEW

Danger! Harmful if inhaled. May cause central nervous system depression. Harmful if swallowed. May cause liver and kidney damage. Cancer hazard. Contains inorganic arsenic. May cause bone marrow damage. Causes eye, skin, and respiratory tract irritation. Target Organs: Kidneys, central nervous system, liver, lungs, bone marrow, skin.

Potential Health Effects

Eye: Causes eye irritation. May cause conjunctivitis.

Skin: Causes skin irritation. Exposure to arsenic compounds may produce hyperpigmentation of the skin and hyperkeratoses of plantar and palmar surfaces as well as both primary irritation and sensitization types. Harmful if swallowed. Causes gastrointestinal irritation with nausea, vomiting and diarrhea. Ingestion of large amounts may cause CNS depression. Ingestion of arsenical compounds may cause burning of the lips, throat

Ingestion: constriction, swallowing difficulties, severe abdominal pain, severe nausea, projectile vomiting, and profuse diarrhea. May cause garlic smell on the breath and body. Ingestion of arsenic compounds can produce convulsions, coma, and possibly death within 24 hours.

Inhalation: Causes respiratory tract irritation. Exposure produces central nervous system depression. Inhalation of arsenic compounds may lead to irritation of the respiratory tract and to possible nasal perforation. Long-term exposure to arsenic compounds may produce impairment of peripheral circulation.

Chronic: Arsenic trioxide can cause cancer in humans. Other long term effects include: anemia, liver and kidney damage. Chronic exposure to arsenical dust may cause shortness of breath, nausea, chest pains, and garlic odor.

Section 4 - First Aid Measures

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

Skin: Get medical aid. Flush skin with plenty of water for at least 15 minutes while removing contaminated clothing and shoes. Wash clothing before reuse.

Ingestion: Never give anything by mouth to an unconscious person. Get medical aid. Do NOT induce vomiting. If conscious and alert, rinse mouth and drink 2-4 cupfuls of milk or water.

Inhalation: Remove from exposure and move to fresh air immediately. If not breathing, give artificial respiration. If breathing is difficult, give oxygen. Get medical aid. Do NOT use mouth-to-mouth resuscitation.

Notes to Physician: Treat symptomatically and supportively.

Section 5 - Fire Fighting Measures

General Information: As in any fire, wear a self-contained breathing apparatus in pressure-demand, MSHA/NIOSH (approved or equivalent), and full protective gear. During a fire, irritating and highly toxic gases may be generated by thermal decomposition or combustion. Use water spray to keep fire-exposed containers cool. Containers may explode when heated.

Extinguishing Media: Do NOT get water inside containers. Do NOT use straight streams of water. For small fires, use dry chemical, carbon dioxide, or water spray. Cool containers with flooding quantities of water until well after fire is out. For large fires, use water spray, fog or regular foam.

Autoignition Temperature: Not available

Flash Point: Not available

Explosion Limits: Lower: Not available

Explosion Limits: Upper: Not available

NFPA Rating: health: 3; flammability: 1; instability: 0;

Section 6 - Accidental Release Measures

General Information: Use proper personal protective equipment as indicated in Section 8.

Spills/Leaks: Vacuum or sweep up material and place into a suitable disposal container. Avoid runoff into storm sewers and ditches which lead to waterways. Clean up spills immediately, observing precautions in the Protective Equipment section. Avoid generating dusty conditions. Provide ventilation. Do not get water inside containers.

Section 7 - Handling and Storage

Handling: Wash thoroughly after handling. Avoid contact with eyes, skin, and clothing. Keep container tightly closed. Avoid ingestion and inhalation. Use with adequate ventilation. Wash clothing before reuse. Use only with adequate ventilation or respiratory protection.

Storage: Store in a tightly closed container. Store in a cool, dry, well-ventilated area away from incompatible substances. Poison room locked.

Section 8 - Exposure Controls, Personal Protection

Chemical Name	ACGIH	NIOSH	OSHA - Final PELs
Arsenic (III) sulfide	0.01 mg/m ³ TWA (as As) (listed under Arsenic, inorganic compounds).	5 mg/m ³ IDLH (as As) (listed under Arsenic, inorganic compounds).	10 µg/m ³ TWA (as As) (listed under Arsenic, inorganic compounds).5

				æg/m3 Action
				Level (as As);
				10 æg/m3 TWA
				(as As, Cancer
				hazard - see 29
				CFR 19 10.1018,
				except Arsine)
				(listed under
				Arsenic,

OSHA Vacated PELs: Arsenic(III) sulfide: None listed

Engineering Controls:

Facilities storing or utilizing this material should be equipped with an eyewash facility and a safety shower. Use adequate general or local exhaust ventilation to keep airborne concentrations below the permissible exposure limits. See 29CFR 1910.1018 for regulatory requirements pertaining to all occupational exposures to inorganic arsenic.

Exposure Limits

Personal Protective Equipment

- Eyes: Wear appropriate protective eyeglasses or chemical safety goggles as described by OSHA's eye and face protection regulations in 29 CFR 1910.133 or European Standard EN166.
- Skin: Wear appropriate gloves to prevent skin exposure.
- Clothing: Wear appropriate clothing to prevent skin exposure.
- Respirators: Wear a NIOSH/MSHA or European Standard EN 149 approved full-facepiece airline respirator in the positive pressure mode with emergency escape provisions.

Section 9 - Physical and Chemical Properties

Physical State: Powder

Color: yellow or orange

Odor: odorless

pH: Not available

Vapor Pressure: Not available

Vapor Density: Not available

Evaporation Rate: Not available

Viscosity: Not available

Boiling Point: 707 deg C @ 760 mm Hg (1,304.60°F)

Freezing/Melting Point: 300 deg C (572.00°F)

Decomposition Temperature: Not available

Solubility in water: Insoluble

Specific Gravity/Density: 3.46 g/cm3

Molecular Formula: As2S3

Molecular Weight: 246.02

Section 10 - Stability and Reactivity

- Chemical Stability: Stable at room temperature in closed containers under normal storage and handling conditions.
- Conditions to Avoid: Incompatible materials, dust generation, excess heat, oxidizers.
- Incompatibilities with Other Materials: Oxidizing agents.
- Hazardous Decomposition Products: Oxides of sulfur, arsenic fumes.
- Hazardous Polymerization: Has not been reported.

Section 11 - Toxicological Information

RTECS#: CAS# 1303-33-9: CG2638000 CG2718000

RTECS:

CAS# 1303-33-9: Oral, mouse: LD50 = 254 mg/kg;
Oral, mouse: LD50 = 254 mg/kg;
Oral, rat: LD50 = 185 mg/kg;
LD50/LC50: Oral, rat: LD50 = 6400 mg/kg;
Oral, rat: LD50 = 185 mg/kg;
Skin, rat: LD50 = 936 mg/kg;

Other:

Carcinogenicity: Arsenic(III) sulfide - California: carcinogen, initial date 2/27/87 (Arsenic, inorganic compounds). NTP:
Known carcinogen (Arsenic, inorganic compounds). IARC: Group 1 carcinogen

Other: See actual entry in RTECS for complete information.

Section 12 - Ecological Information

Other: No information available.

Section 13 - Disposal Considerations

Dispose of in a manner consistent with federal, state, and local regulations.

Section 14 - Transport Information

US DOT

Shipping Name: ARSENIC COMPOUNDS, SOLID, N.O.S.

Hazard Class: 6.1

UN Number: UN1557

Packing Group: III

Canada TDG

Shipping Name: Not available

Hazard Class:

UN Number:

Packing Group:

USA RQ: CAS# 1303-33-9: 1 lb final RQ; 0.454 kg final RQ

Section 15 - Regulatory Information

European/International Regulations

European Labeling in Accordance with EC Directives

Hazard Symbols: T N

Risk Phrases:

R 23/25 Toxic by inhalation and if swallowed.

R 50/53 Very toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment.

Safety Phrases:

S 20/21 When using do not eat, drink or smoke.

S 28A After contact with skin, wash immediately with plenty of water.

S 45 In case of accident or if you feel unwell, seek medical advice immediately (show the label where possible).

S 60 This material and its container must be disposed of as hazardous waste.

S 61 Avoid release to the environment. Refer to special instructions/safety data sheets.

WGK (Water Danger/Protection)

CAS# 1303-33-9: Not available

Canada

CAS# 1303-33-9 is listed on Canada's DSL List

Canadian WHMIS Classifications: Not available

This product has been classified in accordance with the hazard criteria of the Controlled Products Regulations and the MSDS contains all of the information required by those regulations.

CAS# 1303-33-9 is listed on Canada's Ingredient Disclosure List

US Federal

TSCA

CAS# 1303-33-9 is listed on the TSCA
Inventory.

Section 16 - Other Information

MSDS Creation Date: 1/07/1999

Revision #5 Date 7/20/2009

The information above is believed to be accurate and represents the best information currently available to us. However, we make no warranty of merchantability or any other warranty, express or implied, with respect to such information, and we assume no liability resulting from its use. Users should make their own investigations to determine the suitability of the information for their particular purposes. In no event shall the company be liable for any claims, losses, or damages of any third party or for lost profits or any special, indirect, incidental, consequential, or exemplary damages howsoever arising, even if the company has been advised of the possibility of such damages.
