

Azobisisobutyry. (2)



SIGMA-ALDRICH

Material Safety Data Sheet

Date Printed: 03/23/2004
Date Updated: 03/09/2004
Version 1.40

Section 1 - Product and Company Information

Product Name 2,2'-Azobisisobutyronitrile, 98%
Product Number 441090
Brand Aldrich Chemical

Company Sigma-Aldrich
Street Address 3050 Spruce Street
City, State, Zip, Country SAINT LOUIS, MO 63103 US
Technical Phone: 314 771 5765
Fax: 800 325 5052

Emergency Phone: 414 273 3850 Ext. 5996

Section 2 - Composition/Information on Ingredient

Substance Name	CAS #	SARA 313	EC no	Annex I Index Number
2,2'-AZOBIS(2-METHYLPROPIONITRILE)	78-67-1	No	201-132-3	608-019-00-1

Formula C8H12N4
Synonyms Aceto AZIB, AIBN, Azobisisobutyronitrile, Azobisisobutyronitrile, alpha, alpha'-Azobisisobutyronitrile, 2,2'-Azobis(isobutyronitrile), 2,2'-Azobis(2-methylpropionitrile), alpha, alpha'-Azodisobutyronitrile, 2,2'-Azodisobutyronitrile, 2,2'-Dicyano-2,2'-azopropane, Poly-Zole AZDN, Porofor 57, Porophor N, VAZO 64

Section 3 - Hazards Identification

Emergency Overview

Explosive. Toxic.
Risk of explosion by shock, friction, fire, or other sources of ignition. Highly flammable. Toxic if swallowed. Harmful by inhalation. Harmful to aquatic organisms, may cause long-term adverse effects in the aquatic environment.
Target organ(s): Liver. Kidneys.

HMIS Rating

Health: 2 Flammability: 3 Reactivity: 3

NFPA Rating

Health: 2 Flammability: 3 Reactivity: 3

For additional information on toxicity, please refer to Section 11.

Section 4 - First Aid Measures

Oral Exposure

If swallowed, wash out mouth with water provided person is conscious. Call a physician immediately.

Inhalation Exposure

If inhaled, remove to fresh air. If not breathing give artificial respiration. If breathing is difficult, give oxygen.

Dermal Exposure

In case of skin contact, flush with copious amounts of water for at least 15 minutes. Remove contaminated clothing and shoes. Call a physician.

Eye Exposure

In case of contact with eyes, flush with copious amounts of water for at least 15 minutes. Assure adequate flushing by separating the eyelids with fingers. Call a physician.

Section 5 - Fire Fighting Measures

Flammable Hazards: Yes

Explosion Hazards

May explode when heated.
Container explosion may occur under fire conditions.

Explosion Data

Sensitivity to Mechanical Impact

May be shock-sensitive.

Conditions of Flammability

Vigorously supports combustion.

Autoignition Temp: N/A

Flammability: Yes

Extinguishing Media

Suitable

Water spray. Carbon dioxide, dry chemical powder, or appropriate foam.

Firefighting

Protective Equipment

Wear self-contained breathing apparatus and protective clothing to prevent contact with skin and eyes.

Specific Hazard(s)

Flammable solid. Emits toxic fumes under fire conditions.

Specific Method(s) of Fire Fighting

Use water spray to cool fire-exposed containers.

Section 6 - Accidental Release Measures

Procedure to be Followed in Case of Leak or Spill

Evacuate area. Shut off all sources of ignition. Use nonsparking tools.

Procedure(s) of Personal Precaution(s)

Wear self-contained breathing apparatus, rubber boots, and heavy rubber gloves.

Methods for Cleaning Up

Sweep up, place in a bag and hold for waste disposal. Avoid raising dust. Ventilate area and wash spill site after material pickup is complete.

Section 7 - Handling and Storage

Handling

User Exposure

Do not breathe dust. Do not get in eyes, on skin, on clothing. Avoid prolonged or repeated exposure.

Storage

Suitable

Keep tightly closed. Keep away from heat, sparks, and open flame. Store at 2-8°C

Unsuitable

Self-heating runaway reaction may occur above 40°

Special Requirements

Store under inert gas. May develop pressure. Open carefully.

Section 8 - Exposure Controls / PPE**Engineering Controls**

Use only in a chemical fume hood. Safety shower and eye bath. Use nonsparking tools.

Personal Protective Equipment**Respiratory**

Government approved respirator.

Hand

Compatible chemical-resistant gloves.

Eye

Chemical safety goggles.

General Hygiene Measures

Wash contaminated clothing before reuse. Wash thoroughly after handling.

Section 9 - Physical/Chemical Properties

Appearance	Color	Form
	White	Fine crystals

Molecular Weight: 164.21 AMU

pH	N/A
BP/BP Range	N/A
MP/MP Range	102 °C
Freezing Point	N/A
Vapor Pressure	N/A
Vapor Density	N/A
Saturated Vapor Conc.	N/A
SG/Density	N/A
Bulk Density	N/A
Odor Threshold	N/A
Volatle%	N/A
VOC Content	N/A
Water Content	< 2 %
Solvent Content	N/A
Evaporation Rate	N/A
Viscosity	N/A
Partition Coefficient	N/A
Decomposition Temp.	N/A
Flash Point °F	N/A
Flash Point °C	N/A
Explosion Limits	N/A
Flammability	N/A
Autoignition Temp	N/A

Solubility N/A

N/A = not available

Section 10 - Stability and Reactivity**Stability****Conditions of Instability**

May explode when heated.

Conditions to Avoid

Heat.

Materials to Avoid

Aldehydes, Alcohols, Alkali metals, Heptane, Chemical contamination, Acetone.

Hazardous Decomposition Products**Hazardous Decomposition Products**

Carbon monoxide, Carbon dioxide, Tetramethylsuccinonitrile, Hydrogen cyanide.

Hazardous Polymerization**Hazardous Polymerization**

Will not occur.

Section 11 - Toxicological Information**Route of Exposure****Skin Contact**

Causes skin irritation.

Skin Absorption

May be harmful if absorbed through the skin.

Eye Contact

Causes eye irritation.

Inhalation

Harmful if inhaled. Material is irritating to mucous membranes and upper respiratory tract.

Ingestion

Toxic if swallowed.

Target Organ(s) or System(s)

Nerves. Liver. Kidneys.

Signs and Symptoms of Exposure

Exposure can cause: Nausea, dizziness, and headache. Drowsiness. Unconsciousness. To the best of our knowledge, the chemical, physical, and toxicological properties have not been thoroughly investigated.

RTECS Number: UG0800000

Toxicity Data

Oral - Rat: 100 mg/kg (LD50)

Remarks: Behavioral:General anesthetic.

Behavioral:Somnolence (general depressed activity).

Behavioral:Ataxia.

Intraperitoneal - Rat: 25 MG/KG (LD50)

Remarks: Behavioral:General anesthetic.

Behavioral:Somnolence (general depressed activity).

Behavioral:Ataxia.

Oral - Mouse: 700 mg/kg (LD50)

Intraperitoneal - Mouse: 25 MG/KG (LD50)

Section 12 - Ecological Information

No data available.

Handwritten red text: 4:20 p.m. 10/10/00

Section 13 - Disposal Considerations

Appropriate Method of Disposal of Substance or Preparation

Contact a licensed professional waste disposal service to dispose of this material. Observe all federal, state, and local environmental regulations.

Section 14 - Transport Information

DOT

Proper Shipping Name: Self-reactive solid type C, temperature controlled
UN#: 3234
Class: 4.1
Packing Group: Packing Group II
Hazard Label: Flammable solid
PIH: Not PIH

IATA

Proper Shipping Name: SELF-REACTIVE SOLID TYPE C, TEMPERATURE CONTROLLED
IATA UN Number: 3234
Hazard Class: 4.1
Not Allowed - Aircraft: Not permitted for air transport.

Section 15 - Regulatory Information

EU Directives Classification

Symbol of Danger: E Xn

Indication of Danger

Explosive, Harmful.

Risk Statements R: 2 11 20/22 52/53

Risk of explosion by shock, friction, fire, or other sources of ignition. Highly flammable. Harmful by inhalation and if swallowed. Harmful to aquatic organisms, may cause long-term adverse effects in the aquatic environment.

Safety Statements S: 39 41 47 61

Wear eye/face protection. In case of fire and/or explosion do not breathe fumes. Keep at temperature not exceeding...°C Avoid release to the environment. Refer to special instructions/safety data sheets.

US Classification and Label Text

Indication of Danger

Explosive, Toxic.

Risk Statements

Risk of explosion by shock, friction, fire, or other sources of ignition. Highly flammable. Toxic if swallowed. Harmful by inhalation. Harmful to aquatic organisms, may cause long-term adverse effects in the aquatic environment.

Safety Statements

Wear eye/face protection. In case of fire and/or explosion do not breathe fumes. Avoid release to the environment. Refer to special instructions/safety data sheets.

US Statements

Target organ(s): Liver, Kidneys.

United States Regulatory Information

SARA Listed: No

TSCA Inventory Item: Yes

Canada Regulatory Information

WHMIS Classification

This product has been classified in accordance with the hazard criteria of the CPR, and the MSDS contains all the information required by the CPR.

DSL: Yes

NDSL: No

Section 16 - Other Information

Disclaimer

For R&D use only. Not for drug, household or other uses.

Warranty

The above information is believed to be correct but does not purport to be all inclusive and shall be used only as a guide. The information in this document is based on the present state of our knowledge and is applicable to the product with regard to appropriate safety precautions. It does not represent any guarantee of the properties of the product. Sigma-Aldrich Inc., shall not be held liable for any damage resulting from handling or from contact with the above product. See reverse side of invoice or packing slip for additional terms and conditions of sale. Copyright 2004 Sigma-Aldrich Co. License granted to make unlimited paper copies for internal use only.

