



SIGMA-ALDRICH

Material Safety Data Sheet

Date Printed: 03/03/2005
 Date Updated: 05/28/2004
 Version 1.50

Section 1 - Product and Company Information

Product Name Diisopropyl azodicarboxylate, 95%
Product Number 225541
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 #	OSHA	SARA 313	EC no	Annex I Index Number
DIISOPROPYL AZODICARBOXYLATE	2446-83-5	Yes	Yes	219-502-8	

Ingredient Name	CAS #	Percent	OSHA	SARA 313
The following substances are present as residual components of production. DICHLOROMETHANE	75-09-2	<= 2.000 %	Yes	Yes

Formula C8H14N2O4
Synonyms

Section 3 - Hazards Identification

Emergency Overview

Toxic (USA) Harmful (EU).
 May cause cancer. Irritating to eyes, respiratory system and skin. Harmful: danger of serious damage to health by prolonged exposure through inhalation and if swallowed.
 OSHA carcinogen. Target organ(s): Cardiovascular system.

The hazards identified with this product are those associated with the residual solvents that are used in the manufacturing process.

HMIS Rating
 Health: 2* Flammability: 0 Reactivity: 0

NFPA Rating
 Health: 2 Flammability: 0 Reactivity: 0

*additional chronic hazards present.

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.

Inhalation Exposure

If inhaled, remove to fresh air. If breathing becomes difficult, call a physician.

Dermal Exposure

In case of contact, immediately wash skin with soap and copious amounts of water.

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

Flash Point: 222.8 °F 106 °C

Autoignition Temp: N/A

Extinguishing Media

Suitable

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)

Emits toxic fumes under fire conditions.

Section 6 - Accidental Release Measures

Procedure to be Followed in Case of Leak or Spill

Evacuate area.

Procedure(s) of Personal Precaution(s)

Wear self-contained breathing apparatus, rubber boots, and heavy rubber gloves. Wear disposable coveralls and discard them after use.

Methods for Cleaning Up

Absorb on sand or vermiculite and place in closed containers for disposal. Ventilate area and wash spill site after material pickup is complete.

Section 7 - Handling and Storage

Handling

User Exposure

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

Storage**Suitable**

Keep tightly closed. Store at 2-8°C

Special Requirements

Vent periodically. May develop pressure. Open carefully.

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

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

Work Practices

It is advisable to use appropriate shielding when working with azodicarboxylates because of their potential to vigorously decompose at elevated temperatures.

Personal Protective Equipment**Respiratory**

Government approved respirator in nonventilated areas and/or for exposure above the TLV or PEL.

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
Physical State	Orange
Clear liquid	

Molecular Weight: 202.21 AMU

pH	N/A
BP/BP Range	
MP/MP Range	3 - 5 °C
Freezing Point	N/A
Vapor Pressure	N/A
Vapor Density	N/A
Saturated Vapor Conc.	N/A
SG/Density	1.044 g/cm3
Bulk Density	N/A
Odor Threshold	N/A
Volatile%	N/A
VOC Content	N/A
Water Content	N/A
Solvent Content	N/A
Evaporation Rate	N/A
Viscosity	N/A
Partition Coefficient	N/A
Decomposition Temp.	227 °C

Flash Point °F	222.8 °F
Flash Point °C	106 °C
Explosion Limits	N/A

Flammability	N/A
Autoignition Temp	N/A
Refractive Index	1.42

Heat of Decomposition:

215 J/g
Method: closed cup
Method: closed cup

Solubility

Solubility in Water: Insoluble.

N/A = not available

Section 10 - Stability and Reactivity**Stability**

Stable

Stable

Conditions of Instability

May discolor on exposure to light.

Conditions to Avoid

Caution: decomposes vigorously above 100°C

Materials to Avoid

Strong oxidizing agents, Strong bases, Alcohols.

Hazardous Decomposition Products**Hazardous Decomposition Products**

Carbon monoxide, Carbon dioxide, Nitrogen oxides.

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

May be harmful if inhaled. Material is irritating to mucous membranes and upper respiratory tract.

Ingestion

May be harmful if swallowed.

Target Organ(s) or System(s)

Cardiovascular system. Heart. Central nervous system. Blood. Liver. Kidneys.

RTECS Number: N/A

Chronic Exposure - Carcinogen

Result: This product is or contains a component that has been reported to be probably carcinogenic based on its IARC, OSHA, ACGIH, NTP, or EPA classification. The National Cancer Institute (NCI) has found clear evidence for carcinogenicity.

Chronic Exposure - Mutagen

Result: Laboratory experiments have shown mutagenic effects.

Section 12 - Ecological Information**Acute Ecotoxicity Tests****Test Type**

LC50 Fish

Species

Cyprinus carpio

Time:

96.0 h

Value:

13.4 mg/l

Test Type
EC50 Daphnia
Species
Daphnia magna
Time: 48.0 h
Value: 42 mg/l
Test Type
EC50 Algae
Species
Selenastrum capricornutum resp.
Time: 72.0 h
Value: 6.8 mg/l

Elimination

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: Environmentally hazardous substances, liquid, n.o.s.
UN#: 3082
Class: 9
Packing Group: Packing Group III
Hazard Label: Class 9
PIH: Not PIH

IATA

Proper Shipping Name: Environmentally hazardous substance, liquid, n.o.s.
IATA UN Number: 3082
Hazard Class: 9
Packing Group: III

Section 15 - Regulatory Information

EU Additional Classification

Symbol of Danger: Xn

Indication of Danger

Harmful.

Risk Statements R: 36/37/38 40 48/20/22

Irritating to eyes, respiratory system and skin. Limited evidence of a carcinogenic effect. Harmful: danger of serious damage to health by prolonged exposure through inhalation and if swallowed.

Safety Statements S: 36

Wear suitable protective clothing.

US Classification and Label Text

Indication of Danger

Toxic (USA) Harmful (EU).

Risk Statements

May cause cancer. Irritating to eyes, respiratory system and skin. Harmful: danger of serious damage to health by prolonged exposure through inhalation and if swallowed.

Safety Statements

Wear suitable protective clothing. In case of accident or if you feel unwell, seek medical advice immediately (show the label where possible).

US Statements

OSHA carcinogen. Target organ(s): Cardiovascular system.

United States Regulatory Information

SARA Listed: Yes

Notes: This product is or contains a component that is subject to SARA313 reporting requirements.

United States - State Regulatory Information

California Prop - 65

This product is or contains chemical(s) known to the state of California to cause cancer.

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: No

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 2005 Sigma-Aldrich Co. License granted to make unlimited paper copies for internal use only.

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