

## SAFETY DATA SHEET

Version 5.6  
Revision Date 01/05/2015  
Print Date 09/22/2015

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**1. PRODUCT AND COMPANY IDENTIFICATION****1.1 Product identifiers**

Product name : Benzyl azide solution

Product Number : 742430  
Brand : Aldrich

**1.2 Relevant identified uses of the substance or mixture and uses advised against**

Identified uses : Laboratory chemicals, Manufacture of substances

**1.3 Details of the supplier of the safety data sheet**

Company : Sigma-Aldrich  
3050 Spruce Street  
SAINT LOUIS MO 63103  
USA

Telephone : +1 800-325-5832  
Fax : +1 800-325-5052

**1.4 Emergency telephone number**

Emergency Phone # : (314) 776-6555

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**2. HAZARDS IDENTIFICATION****2.1 Classification of the substance or mixture****GHS Classification in accordance with 29 CFR 1910 (OSHA HCS)**

Acute toxicity, Oral (Category 4), H302  
Skin irritation (Category 2), H315  
Eye irritation (Category 2A), H319  
Carcinogenicity (Category 2), H351

For the full text of the H-Statements mentioned in this Section, see Section 16.

**2.2 GHS Label elements, including precautionary statements**

Pictogram



Signal word

Warning

Hazard statement(s)

H302 Harmful if swallowed.  
H315 Causes skin irritation.  
H319 Causes serious eye irritation.  
H351 Suspected of causing cancer.

Precautionary statement(s)

P201 Obtain special instructions before use.  
P202 Do not handle until all safety precautions have been read and understood.  
P264 Wash skin thoroughly after handling.  
P270 Do not eat, drink or smoke when using this product.  
P280 Wear protective gloves/ eye protection/ face protection.  
P301 + P312 IF SWALLOWED: Call a POISON CENTER or doctor/ physician if you

P302 + P352  
 P305 + P351 + P338  
 P308 + P313  
 P321  
 P330  
 P332 + P313  
 P337 + P313  
 P362  
 P405  
 P501

feel unwell.  
 IF ON SKIN: Wash with plenty of soap and water.  
 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.  
 IF exposed or concerned: Get medical advice/ attention.  
 Specific treatment (see supplemental first aid instructions on this label).  
 Rinse mouth.  
 If skin irritation occurs: Get medical advice/ attention.  
 If eye irritation persists: Get medical advice/ attention.  
 Take off contaminated clothing and wash before reuse.  
 Store locked up.  
 Dispose of contents/ container to an approved waste disposal plant.

### 2.3 Hazards not otherwise classified (HNOC) or not covered by GHS - none

## 3. COMPOSITION/INFORMATION ON INGREDIENTS

### 3.2 Mixtures

Synonyms : (Azidomethyl)benzene solution  
 α-Azidotoluene solution

Molecular weight : 133.15 g/mol

#### Hazardous components

Component	Classification	Concentration
<b>Methylene chloride</b>		
CAS-No. 75-09-2	Skin Irrit. 2; Eye Irrit. 2A; Carc. 2; STOT SE 3; STOT RE 2; H315, H319, H335, H336, H351, H373, H373	<= 100 %
EC-No. 200-838-9		
Index-No. 602-004-00-3		
<b>Benzyl azide</b>		
CAS-No. 622-79-7	Flam. Liq. 3; Self-react. B; Skin Irrit. 2; Eye Irrit. 2A; STOT RE 1; H226, H241, H315, H319, H372	>= 5 - < 10 %

For the full text of the H-Statements mentioned in this Section, see Section 16.

## 4. FIRST AID MEASURES

### 4.1 Description of first aid measures

#### General advice

Consult a physician. Show this safety data sheet to the doctor in attendance. Move out of dangerous area.

#### If inhaled

If breathed in, move person into fresh air. If not breathing, give artificial respiration. Consult a physician.

#### In case of skin contact

Wash off with soap and plenty of water. Take victim immediately to hospital. Consult a physician.

#### In case of eye contact

Rinse thoroughly with plenty of water for at least 15 minutes and consult a physician.

#### If swallowed

Never give anything by mouth to an unconscious person. Rinse mouth with water. Consult a physician.

### 4.2 Most important symptoms and effects, both acute and delayed

The most important known symptoms and effects are described in the labelling (see section 2.2) and/or in section 11

### 4.3 Indication of any immediate medical attention and special treatment needed

No data available

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## 5. FIREFIGHTING MEASURES

### 5.1 Extinguishing media

#### Suitable extinguishing media

Use water spray, alcohol-resistant foam, dry chemical or carbon dioxide.

### 5.2 Special hazards arising from the substance or mixture

Carbon oxides, Nitrogen oxides (NO<sub>x</sub>), Hydrogen chloride gas

### 5.3 Advice for firefighters

Wear self-contained breathing apparatus for firefighting if necessary.

### 5.4 Further information

No data available

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## 6. ACCIDENTAL RELEASE MEASURES

### 6.1 Personal precautions, protective equipment and emergency procedures

Use personal protective equipment. Avoid breathing vapours, mist or gas. Ensure adequate ventilation. Evacuate personnel to safe areas.

For personal protection see section 8.

### 6.2 Environmental precautions

Prevent further leakage or spillage if safe to do so. Do not let product enter drains.

### 6.3 Methods and materials for containment and cleaning up

Soak up with inert absorbent material and dispose of as hazardous waste. Keep in suitable, closed containers for disposal.

### 6.4 Reference to other sections

For disposal see section 13.

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## 7. HANDLING AND STORAGE

### 7.1 Precautions for safe handling

Avoid contact with skin and eyes. Avoid inhalation of vapour or mist.

For precautions see section 2.2.

### 7.2 Conditions for safe storage, including any incompatibilities

Keep container tightly closed in a dry and well-ventilated place. Containers which are opened must be carefully resealed and kept upright to prevent leakage.

Recommended storage temperature 2 - 8 °C

Light sensitive. Over time, pressure may increase causing containers to burst

### 7.3 Specific end use(s)

Apart from the uses mentioned in section 1.2 no other specific uses are stipulated

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## 8. EXPOSURE CONTROLS/PERSONAL PROTECTION

### 8.1 Control parameters

#### Components with workplace control parameters

Component	CAS-No.	Value	Control parameters	Basis
	Remarks	Potential Occupational Carcinogen See Appendix A		
Methylene chloride	75-09-2	TWA	50.000000 ppm	USA. ACGIH Threshold Limit Values (TLV)
		Central Nervous System impairment Carboxyhemoglobinemia Substances for which there is a Biological Exposure Index or Indices (see BEI® section) Confirmed animal carcinogen with unknown relevance to humans		

		TWA	50 ppm	USA. ACGIH Threshold Limit Values (TLV)
		Central Nervous System impairment Carboxyhemoglobinemia Substances for which there is a Biological Exposure Index or Indices (see BEI® section) Confirmed animal carcinogen with unknown relevance to humans		
		Substance listed; for more information see OSHA document 1910.1052		
		Substance listed; for more information see OSHA document 1910.1052		
		See Table Z-2		
		PEL	25.000000 ppm	OSHA Specifically Regulated Chemicals/Carcinogens
		1910.1052 This section applies to all occupational exposures to methylene chloride (MC), Chemical Abstracts Service Registry Number 75-09-2, in general industry, construction and shipyard employment. Methylene chloride (MC) means an organic compound with chemical formula, CH <sub>2</sub> Cl <sub>2</sub> . Its Chemical Abstracts Service Registry Number is 75-09-2. Its molecular weight is 84.9 g/mole OSHA specifically regulated carcinogen		
		STEL	125.000000 ppm	OSHA Specifically Regulated Chemicals/Carcinogens
		1910.1052 This section applies to all occupational exposures to methylene chloride (MC), Chemical Abstracts Service Registry Number 75-09-2, in general industry, construction and shipyard employment. Methylene chloride (MC) means an organic compound with chemical formula, CH <sub>2</sub> Cl <sub>2</sub> . Its Chemical Abstracts Service Registry Number is 75-09-2. Its molecular weight is 84.9 g/mole OSHA specifically regulated carcinogen		

#### Biological occupational exposure limits

Component	CAS-No.	Parameters	Value	Biological specimen	Basis
Methylene chloride	75-09-2	Dichloromethane	0.3000 mg/l	Urine	ACGIH - Biological Exposure Indices (BEI)
	Remarks	End of shift (As soon as possible after exposure ceases)			

## 8.2 Exposure controls

### Appropriate engineering controls

Handle in accordance with good industrial hygiene and safety practice. Wash hands before breaks and at the end of workday.

### Personal protective equipment

#### Eye/face protection

Face shield and safety glasses Use equipment for eye protection tested and approved under appropriate government standards such as NIOSH (US) or EN 166(EU).

#### Skin protection

Handle with gloves. Gloves must be inspected prior to use. Use proper glove removal technique (without touching glove's outer surface) to avoid skin contact with this product. Dispose of contaminated gloves after use in accordance with applicable laws and good laboratory practices. Wash and dry hands.

#### Body Protection

Complete suit protecting against chemicals, The type of protective equipment must be selected according to the concentration and amount of the dangerous substance at the specific workplace.

### Respiratory protection

Where risk assessment shows air-purifying respirators are appropriate use a full-face respirator with multi-purpose combination (US) or type AXBEK (EN 14387) respirator cartridges as a backup to engineering controls. If the respirator is the sole means of protection, use a full-face supplied air respirator. Use respirators and components tested and approved under appropriate government standards such as NIOSH (US) or CEN (EU).

### Control of environmental exposure

Prevent further leakage or spillage if safe to do so. Do not let product enter drains.

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## 9. PHYSICAL AND CHEMICAL PROPERTIES

### 9.1 Information on basic physical and chemical properties

- |   |   |
|---|---|
| a) Appearance                                   | Form: clear, liquid<br>Colour: colourless, light yellow |
| b) Odour  | No data available                                       |
| c) Odour Threshold                              | No data available                                       |
| d) pH   | No data available                                       |
| e) Melting point/freezing point                 | No data available                                       |
| f) Initial boiling point and boiling range      | No data available                                       |
| g) Flash point                                  | No data available                                       |
| h) Evaporation rate                             | No data available                                       |
| i) Flammability (solid, gas)                    | No data available                                       |
| j) Upper/lower flammability or explosive limits | No data available                                       |
| k) Vapour pressure                              | No data available                                       |
| l) Vapour density                               | No data available                                       |
| m) Relative density                             | 1.307 g/cm <sup>3</sup> at 20 °C (68 °F)                |
| n) Water solubility                             | No data available                                       |
| o) Partition coefficient: n-octanol/water       | No data available                                       |
| p) Auto-ignition temperature                    | No data available                                       |
| q) Decomposition temperature                    | No data available                                       |
| r) Viscosity                                    | No data available                                       |
| s) Explosive properties                         | No data available                                       |
| t) Oxidizing properties                         | No data available                                       |

### 9.2 Other safety information

No data available

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## 10. STABILITY AND REACTIVITY

### 10.1 Reactivity

No data available

### 10.2 Chemical stability

Stable under recommended storage conditions.

### 10.3 Possibility of hazardous reactions

No data available

### 10.4 Conditions to avoid

Exposure to light.

### 10.5 Incompatible materials

Alkali metals, Strong oxidizing agents, Amines, Magnesium, Strong acids and strong bases, Vinyl compounds

### 10.6 Hazardous decomposition products

Other decomposition products - No data available

In the event of fire: see section 5

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## 11. TOXICOLOGICAL INFORMATION

### 11.1 Information on toxicological effects

#### Acute toxicity

LD50 Oral - Rat - > 2,000 mg/kg (Methylene chloride)

LC50 Inhalation - Rat - 52,000 mg/m<sup>3</sup> (Methylene chloride)

LD50 Dermal - Rat - > 2,000 mg/kg (Methylene chloride)  
(OECD Test Guideline 402)

No data available (Methylene chloride)

#### Skin corrosion/irritation

Skin - Rabbit (Methylene chloride)

Result: Irritating to skin. - 24 h  
(Draize Test)

#### Serious eye damage/eye irritation

Eyes - Rabbit (Methylene chloride)

Result: Irritating to eyes. - 24 h  
(Draize Test)

#### Respiratory or skin sensitisation

No data available (Methylene chloride)

#### Germ cell mutagenicity

(Methylene chloride)

Rat

DNA damage

#### Carcinogenicity

Carcinogenicity - Rat - Inhalation

Tumorigenic: Carcinogenic by RTECS criteria. Endocrine: Tumors. (Methylene chloride)

Limited evidence of carcinogenicity in animal studies (Methylene chloride)

Suspected human carcinogens (Methylene chloride)

IARC: 2B - Group 2B: Possibly carcinogenic to humans (Methylene chloride)

NTP: Reasonably anticipated to be a human carcinogen (Methylene chloride)

OSHA: OSHA specifically regulated carcinogen (Methylene chloride)

#### Reproductive toxicity

No data available (Methylene chloride)

#### Specific target organ toxicity - single exposure

May cause respiratory irritation. (Methylene chloride)

May cause drowsiness or dizziness. (Methylene chloride)

#### Specific target organ toxicity - repeated exposure

Inhalation - May cause damage to organs through prolonged or repeated exposure. - Central nervous system

Oral - May cause damage to organs through prolonged or repeated exposure. - Liver, Blood

**Aspiration hazard**

No data available (Methylene chloride)

**Additional Information**

RTECS: Not available

Dichloromethane is metabolized in the body producing carbon monoxide which increases and sustains carboxyhemoglobin levels in the blood, reducing the oxygen-carrying capacity of the blood.

Dichloromethane is metabolized in the body producing carbon monoxide which increases and sustains carboxyhemoglobin levels in the blood, reducing the oxygen-carrying capacity of the blood., Acts as a simple asphyxiant by displacing air., anesthetic effects, Difficulty in breathing, Headache, Dizziness, Prolonged or repeated contact with skin may cause:, defatting, Dermatitis, Contact with eyes can cause:, Redness, Blurred vision, Provokes tears., Effects due to ingestion may include:, Gastrointestinal discomfort, Central nervous system depression, Paresthesia., Drowsiness, Convulsions, Conjunctivitis., Pulmonary edema. Effects may be delayed., Irregular breathing., Stomach/intestinal disorders, Nausea, Vomiting, Increased liver enzymes., Weakness, Heavy or prolonged skin exposure may result in the absorption of harmful amounts of material., Abdominal pain (Methylene chloride)

Blood - Irregularities - Based on Human Evidence

Stomach - Irregularities - Based on Human Evidence (Methylene chloride)

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**12. ECOLOGICAL INFORMATION****12.1 Toxicity**

Toxicity to fish	LC50 - Pimephales promelas (fathead minnow) - 193.00 mg/l - 96 h (Methylene chloride)
	NOEC - Cyprinodon variegatus (sheepshead minnow) - 130 mg/l - 96 h (Methylene chloride)
Toxicity to daphnia and other aquatic invertebrates	EC50 - Daphnia magna (Water flea) - 1,682.00 mg/l - 48 h (Methylene chloride)

**12.2 Persistence and degradability**

Biodegradability Result: < 26 % - Not readily biodegradable. (OECD Test Guideline 301C)

**12.3 Bioaccumulative potential**

Does not bioaccumulate.

**12.4 Mobility in soil**

No data available (Methylene chloride)

**12.5 Results of PBT and vPvB assessment**

PBT/vPvB assessment not available as chemical safety assessment not required/not conducted

**12.6 Other adverse effects**

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**13. DISPOSAL CONSIDERATIONS****13.1 Waste treatment methods****Product**

Contact a licensed professional waste disposal service to dispose of this material. Dissolve or mix the material with a combustible solvent and burn in a chemical incinerator equipped with an afterburner and scrubber. Offer surplus and non-recyclable solutions to a licensed disposal company.

**Contaminated packaging**

Dispose of as unused product.

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**14. TRANSPORT INFORMATION****DOT (US)**

UN number: 1593      Class: 6.1      Packing group: III  
Proper shipping name: Dichloromethane, solution  
Reportable Quantity (RQ): 1070 lbs

Poison Inhalation Hazard: No

**IMDG**

UN number: 1593      Class: 6.1      Packing group: III      EMS-No: F-A, S-A  
Proper shipping name: DICHLOROMETHANE, SOLUTION

**IATA**

UN number: 1593      Class: 6.1      Packing group: III  
Proper shipping name: Dichloromethane, solution

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**15. REGULATORY INFORMATION**

**SARA 302 Components**

No chemicals in this material are subject to the reporting requirements of SARA Title III, Section 302.

**SARA 313 Components**

This material does not contain any chemical components with known CAS numbers that exceed the threshold (De Minimis) reporting levels established by SARA Title III, Section 313.

**SARA 311/312 Hazards**

Acute Health Hazard, Chronic Health Hazard

**Massachusetts Right To Know Components**

	CAS-No.	Revision Date
Methylene chloride	75-09-2	2007-07-01

**Pennsylvania Right To Know Components**

	CAS-No.	Revision Date
Methylene chloride	75-09-2	2007-07-01
Benzyl azide	622-79-7	

**New Jersey Right To Know Components**

	CAS-No.	Revision Date
Methylene chloride	75-09-2	2007-07-01
Benzyl azide	622-79-7	

**California Prop. 65 Components**

	CAS-No.	Revision Date
WARNING! This product contains a chemical known to the State of California to cause cancer.	75-09-2	2007-09-28
Methylene chloride		

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**16. OTHER INFORMATION**

**Full text of H-Statements referred to under sections 2 and 3.**

Carc.	Carcinogenicity
Eye Irrit.	Eye irritation
Flam. Liq.	Flammable liquids
H226	Flammable liquid and vapour.
H241	Heating may cause a fire or explosion.
H302	Harmful if swallowed.
H315	Causes skin irritation.
H319	Causes serious eye irritation.
H335	May cause respiratory irritation.
H336	May cause drowsiness or dizziness.
H351	Suspected of causing cancer.
H372	Causes damage to organs through prolonged or repeated exposure.
H373	May cause damage to organs (/*_ORG_REP_INHA*/) through prolonged or repeated exposure if inhaled.
Self-react.	Self-reactive substances and mixtures
Skin Irrit.	Skin irritation
STOT RE	Specific target organ toxicity - repeated exposure



STOT SE                      Specific target organ toxicity - single exposure

**HMIS Rating**

Health hazard:                      2  
Chronic Health Hazard:            \*  
Flammability:                        0  
Physical Hazard                      1

**NFPA Rating**

Health hazard:                      2  
Fire Hazard:                         0  
Reactivity Hazard:                 0

**Further information**

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**Preparation Information**

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Product Safety – Americas Region  
1-800-521-8956

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