

## Material Safety Data Sheet

Version 4.0

Revision Date 07/25/2010

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## 1. PRODUCT AND COMPANY IDENTIFICATION

Product name : Methacrylonitrile

Product Number : 195413

Brand : Aldrich

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

Telephone : +18003255832

Fax : +18003255052

Emergency Phone # : (314) 776-6555

## 2. HAZARDS IDENTIFICATION

## Emergency Overview

## OSHA Hazards

Flammable liquid, Highly toxic by inhalation, Toxic by ingestion, Highly toxic by skin absorption, Skin sensitiser

## Other hazards which do not result in classification

Lachrymator.

## GHS Label elements, including precautionary statements

Pictogram



Signal word

Danger

Hazard statement(s)

H225 Highly flammable liquid and vapour.  
H301 + H311 Toxic if swallowed or in contact with skin.  
H317 May cause an allergic skin reaction.  
H330 Fatal if inhaled.

Precautionary statement(s)

P210 Keep away from heat/sparks/open flames/hot surfaces. - No smoking.  
P260 Do not breathe dust/ fume/ gas/ mist/ vapours/ spray.  
P280 Wear protective gloves/ protective clothing.  
P284 Wear respiratory protection.  
P310 Immediately call a POISON CENTER or doctor/ physician.

## HMIS Classification

Health hazard: 4  
Flammability: 3  
Physical hazards: 0

## NFPA Rating

Health hazard: 4  
Fire: 3  
Reactivity Hazard: 0

## Potential Health Effects

**Inhalation** May be fatal if inhaled. May cause respiratory tract irritation.  
**Skin** May be fatal if absorbed through skin. May cause skin irritation.  
**Eyes** May cause eye irritation.

**Ingestion**

Toxic if swallowed.

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### 3. COMPOSITION/INFORMATION ON INGREDIENTS

Formula : C<sub>4</sub>H<sub>5</sub>N  
Molecular Weight : 67.09 g/mol

CAS-No.	EC-No.	Index-No.	Concentration
<b>Methacrylonitrile</b>			
126-98-7	204-817-5	608-010-00-2	-

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### 4. 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**

Flush eyes with water as a precaution.

#### **If swallowed**

Do NOT induce vomiting. Never give anything by mouth to an unconscious person. Rinse mouth with water. Consult a physician.

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### 5. FIRE-FIGHTING MEASURES

#### **Suitable extinguishing media**

For small (incipient) fires, use media such as "alcohol" foam, dry chemical, or carbon dioxide. For large fires, apply water from as far as possible. Use very large quantities (flooding) of water applied as a mist or spray; solid streams of water may be ineffective. Cool all affected containers with flooding quantities of water.

#### **Special protective equipment for fire-fighters**

Wear self contained breathing apparatus for fire fighting if necessary.

#### **Further information**

Use water spray to cool unopened containers.

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### 6. ACCIDENTAL RELEASE MEASURES

#### **Personal precautions**

Wear respiratory protection. Avoid breathing vapors, mist or gas. Ensure adequate ventilation. Remove all sources of ignition. Evacuate personnel to safe areas. Beware of vapours accumulating to form explosive concentrations. Vapours can accumulate in low areas.

#### **Environmental precautions**

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

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

Contain spillage, and then collect with an electrically protected vacuum cleaner or by wet-brushing and place in container for disposal according to local regulations (see section 13).

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### 7. HANDLING AND STORAGE

#### **Precautions for safe handling**

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

Use explosion-proof equipment. Keep away from sources of ignition - No smoking. Take measures to prevent the build up of electrostatic charge.

#### **Conditions for safe storage**

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. Store in cool place.

## 8. EXPOSURE CONTROLS/PERSONAL PROTECTION

### Components with workplace control parameters

Components	CAS-No.	Value	Control parameters	Update	Basis
Methacrylonitrile	126-98-7	TWA	1 ppm	2007-01-01	USA. ACGIH Threshold Limit Values (TLV)
Remarks	Central Nervous System impairment Skin & eye irritation Danger of cutaneous absorption				
		TWA	1 ppm 3 mg/m3	1989-01-19	USA. OSHA - TABLE Z-1 Limits for Air Contaminants - 1910.1000
	Skin notation				

### Personal protective equipment

#### Respiratory protection

Where risk assessment shows air-purifying respirators are appropriate use a full-face respirator with multi-purpose combination (US) or type ABEK (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).

#### Hand 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.

#### Eye 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 and body protection

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

#### Hygiene measures

Avoid contact with skin, eyes and clothing. Wash hands before breaks and immediately after handling the product.

## 9. PHYSICAL AND CHEMICAL PROPERTIES

### Appearance

Form	clear, liquid
Colour	colourless

### Safety data

pH	no data available
Melting point	-35.8 °C (-32.4 °F) - lit.
Boiling point	90 - 92 °C (194 - 198 °F) - lit.
Flash point	12 °C (54 °F) - closed cup
Ignition temperature	no data available
Lower explosion limit	1.7 %(V)
Upper explosion limit	13.2 %(V)
Vapour pressure	85 hPa (64 mmHg) at 20 °C (68 °F) 303 hPa (227 mmHg) at 55 °C (131 °F)
Density	0.8 g/cm3 at 25 °C (77 °F)

Water solubility            no data available  
Partition coefficient:    log Pow: 1.198  
n-octanol/water

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## 10. STABILITY AND REACTIVITY

### Chemical stability

Stable under recommended storage conditions.

### Possibility of hazardous reactions

Vapours may form explosive mixture with air.

### Conditions to avoid

Heat, flames and sparks. Extremes of temperature and direct sunlight.

### Materials to avoid

Strong oxidizing agents Strong acids, Strong bases, Strong oxidizing agents, Strong reducing agents

### Hazardous decomposition products

Hazardous decomposition products formed under fire conditions. - Carbon oxides, nitrogen oxides (NOx), Hydrogen cyanide (hydrocyanic acid)

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## 11. TOXICOLOGICAL INFORMATION

### Acute toxicity

LD50 Oral - rat - 120 mg/kg

LC50 Inhalation - guinea pig - 4 h - 88 ppm

Remarks: Behavioral: Convulsions or effect on seizure threshold.

### Skin corrosion/irritation

Skin - rabbit -

Skin - rabbit -

### Serious eye damage/eye irritation

Eyes - rabbit -

### Respiratory or skin sensitization

May cause allergic skin reaction.

### Germ cell mutagenicity

no data available

### Carcinogenicity

IARC:            No component of this product present at levels greater than or equal to 0.1% is identified as probable, possible or confirmed human carcinogen by IARC.

ACGIH:        No component of this product present at levels greater than or equal to 0.1% is identified as a carcinogen or potential carcinogen by ACGIH.

NTP:            No component of this product present at levels greater than or equal to 0.1% is identified as a known or anticipated carcinogen by NTP.

OSHA:        No component of this product present at levels greater than or equal to 0.1% is identified as a carcinogen or potential carcinogen by OSHA.

### Reproductive toxicity

no data available

### Specific target organ toxicity - single exposure (Globally Harmonized System)

no data available

### Specific target organ toxicity - repeated exposure (Globally Harmonized System)

no data available

### Aspiration hazard

no data available

### Potential health effects

<b>Inhalation</b>	May be fatal if inhaled. May cause respiratory tract irritation.
<b>Ingestion</b>	Toxic if swallowed.
<b>Skin</b>	May be fatal if absorbed through skin. May cause skin irritation.
<b>Eyes</b>	May cause eye irritation.

#### Signs and Symptoms of Exposure

May cause cyanosis.

#### Additional Information

RTECS: UD1400000

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## 12. ECOLOGICAL INFORMATION

#### Toxicity

no data available

#### Persistence and degradability

no data available

#### Bioaccumulative potential

no data available

#### Mobility in soil

no data available

#### PBT and vPvB assessment

no data available

#### Other adverse effects

no data available

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## 13. DISPOSAL CONSIDERATIONS

#### Product

Burn in a chemical incinerator equipped with an afterburner and scrubber but exert extra care in igniting as this material is highly flammable. Offer surplus and non-recyclable solutions to a licensed disposal company. Contact a licensed professional waste disposal service to dispose of this material.

#### Contaminated packaging

Dispose of as unused product.

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## 14. TRANSPORT INFORMATION

#### DOT (US)

UN-Number: 3079 Class: 3 (6.1) Packing group: I

Proper shipping name: Methacrylonitrile, stabilized

Reportable Quantity (RQ): 1000 lbs

Marine pollutant: No

Poison Inhalation Hazard: Hazard zone B

#### IMDG

UN-Number: 3079 Class: 3 (6.1) Packing group: I

EMS-No: F-E, S-D

Proper shipping name: METHACRYLONITRILE, STABILIZED

Marine pollutant: No

#### IATA

UN-Number: 3079 Class: 3 (6.1)

Proper shipping name: Methacrylonitrile, stabilized

IATA Passenger: Not permitted for transport

IATA Cargo: Not permitted for transport

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## 15. REGULATORY INFORMATION

#### OSHA Hazards

Flammable liquid, Highly toxic by inhalation, Toxic by ingestion, Highly toxic by skin absorption, Skin sensitiser

**DSL Status**

This product contains the following components listed on the Canadian NDSL list. All other components are on the Canadian DSL list.

Methacrylonitrile

CAS-No.  
126-98-7

**SARA 302 Components**

Methacrylonitrile

CAS-No.  
126-98-7

Revision Date  
2007-07-01

**SARA 313 Components**

Methacrylonitrile

CAS-No.  
126-98-7

Revision Date  
2007-07-01

**SARA 311/312 Hazards**

Fire Hazard, Acute Health Hazard

**Massachusetts Right To Know Components**

Methacrylonitrile

CAS-No.  
126-98-7

Revision Date  
2007-07-01

**Pennsylvania Right To Know Components**

Methacrylonitrile

CAS-No.  
126-98-7

Revision Date  
2007-07-01

**New Jersey Right To Know Components**

Methacrylonitrile

CAS-No.  
126-98-7

Revision Date  
2007-07-01

**California Prop. 65 Components**

This product does not contain any chemicals known to State of California to cause cancer, birth defects, or any other reproductive harm.

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**16. OTHER INFORMATION****Further information**

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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 Co., 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.

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