

# Material Safety Data Sheet

## (n-Butyl Methacrylate)



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### SECTION 1 – PRODUCT AND COMPANY INFORMATION

**PRODUCT NAME** n-Butyl Methacrylate  
**SYNONYM** Butyl methacrylate  
**FORMULA** C<sub>8</sub>H<sub>14</sub>O<sub>2</sub>  
**CAS NUMBER** 97-88-1

### SECTION 2 – COMPOSITON/INFORMATION ON INGREDIENTS

PRODUCT NAME	CAS NUMBER	PURITY
n-Butyl Methacrylate	97-88-1	100%

### SECTION 3- HAZARDS IDENTIFICATION

#### Emergency Overview

##### OSHA Hazards

Combustible Liquid, Target Organ Effect, Skin sensitizer, Irritant

##### Target Organs

Nerves.

#### HMIS Classification

**Health Hazard:** 2  
**Chronic Health Hazard:** \*  
**Flammability:** 2  
**Physical hazards:** 0

#### NFPA Rating

**Health Hazard:** 2  
**Fire:** 2  
**Reactivity Hazard:** 0

#### Potential Health Effects

**Inhalation** May be harmful if inhaled. Causes respiratory tract irritation.  
**Skin** May be harmful if absorbed through skin. Causes skin irritation.  
**Eyes** Causes eye irritation.  
**Ingestion** May be harmful if swallowed.

### SECTION 4 – FIRST AID MEASURES

#### General advice

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

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### **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. 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**

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

## SECTION 5 – FIRE FIGHTING MEASURES

### **Flammable properties**

Flash point	54 °C (129 °F) - closed cup
Ignition temperature	294 °C (561 °F)

### **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.

## SECTION 6 – ACCIDENTAL RELEASE MEASURES

### **Personal precautions**

Use personal protective equipment. Avoid breathing vapors, mist or gas. Ensure adequate ventilation. Remove all sources of ignition. Beware of vapours accumulating to form explosive concentrations. Vapours can accumulate in low areas.

### **Environmental precautions**

Do not let product enter drains.

### **Methods for cleaning up**

Contain spillage, and then collect with non-combustible absorbent material, (e.g. sand, earth, diatomaceous earth, vermiculite) and place in container for disposal according to local / national regulations (see section 13). Keep in suitable, closed containers for disposal.

## SECTION 7- HANDLING AND STORAGE

### **Handling**

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

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

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### Storage

Keep container tightly closed in a dry and well-ventilated place. Store in cool place.  
Recommended storage temperature: 2 - 8 °C

## SECTION 8 - EXPOSURE CONTROLS/ PERSONAL PROTECTION

Contains no substances with occupational exposure limit values.

### 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.

#### Eye protection

Safety glasses

#### Skin and body protection

Choose body protection according to the amount and concentration of the dangerous substance at the work place.

#### Hygiene measures

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

## SECTION 9 – PHYSICAL AND CHEMICAL PROPERTIES

### Appearance

Form liquid

### Safety data

pH	no data available
Melting point	-75 °C (-103 °F)
Boiling point	162 - 165 °C (324 - 329 °F)
Flash point	54 °C (129 °F) - closed cup
Ignition temperature	294 °C (561 °F)
Lower explosion limit	2 %(V)
Upper explosion limit	8 %(V)
Vapour pressure	3 hPa (2 mmHg) at 20 °C (68 °F)
Density	0.894 g/mL at 25 °C (77 °F)
Water solubility	ca.0.2 g/l
Partition coefficient: n-octanol/water	log Pow: 3.01
Relative vapour density	4.91 - (Air = 1.0)

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### SECTION 10 – STABILITY AND REACTIVITY DATA

**Storage stability**

Stable under recommended storage conditions.

**Conditions to avoid**

Heat, flames and sparks.

**Materials to avoid**

Strong oxidizing agents

**Hazardous decomposition products**

Hazardous decomposition products formed under fire conditions. - Carbon oxides

**Hazardous reactions**

Vapours may form explosive mixture with air.

### SECTION 11 – TOXICOLOGICAL INFORMATION

**Acute toxicity**

LD50 Oral - rat - 16,000 mg/kg

LD50 Dermal - rabbit - 10,125 mg/kg

**Irritation and corrosion**

Skin - rabbit - Mild skin irritation

**Sensitisation**

May cause allergic skin reaction.

**Chronic exposure**

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.

Developmental Toxicity - rat - Intraperitoneal

Effects on Embryo or Fetus: Fetotoxicity (except death, e.g., stunted fetus). Specific Developmental Abnormalities:

Other developmental abnormalities.

Reproductive toxicity - rat - Intraperitoneal

Effects on Fertility: Post-implantation mortality (e.g., dead and/or resorbed implants per total number of implants).

**Signs and Symptoms of Exposure**

To the best of our knowledge, the chemical, physical, and toxicological properties have not been thoroughly investigated.

**Potential Health Effects**

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<b>Inhalation</b>	May be harmful if inhaled. Causes respiratory tract irritation.
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<b>Ingestion</b>	May be harmful if swallowed.
<b>Target Organs</b>	Nerves.,

### SECTION 12 – ECOLOGICAL INFORMATION

#### Elimination information (persistence and degradability)

no data available

#### Ecotoxicity effects

Toxicity to fish LC50 - Pimephales promelas (fathead minnow) - 11 mg/l - 96 h

Toxicity to daphnia and other aquatic invertebrates. EC50 - Daphnia magna (Water flea) - 32 mg/l - 48 h

Toxicity to algae EC50 - Pseudokirchneriella subcapitata (green algae) - 57 mg/l - 96 h

#### Further information on ecology

Avoid release to the environment.

### SECTION 13 – DISPOSAL CONSIDERATION

#### Product

This combustible material may be burned in a chemical incinerator equipped with an afterburner and scrubber. Observe all federal, state, and local environmental regulations. Contact a licensed professional waste disposal service to dispose of this material.

#### Contaminated packaging

Dispose of as unused product.

### SECTION 14 - TRANSPORTATION DATA

#### DOT (US)

UN-Number: 2227 Class: 3 Packing group: III

Proper shipping name: n-Butyl methacrylate, stabilized

Marine pollutant: No

Poison Inhalation Hazard: No

#### MDG

UN-Number: 2227 Class: 3 Packing group: III EMS-No: F-E, S-D

Proper shipping name: BUTYL METHACRYLATE, STABILIZED

Marine pollutant: No

#### ATA

UN-Number: 2227 Class: 3 Packing group: III

Proper shipping name: n-Butyl methacrylate, stabilized

### SECTION 15 – REGULATORY INFORMATION

#### OSHA Hazards

Combustible Liquid, Target Organ Effect, Skin sensitizer, Irritant

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### DSL Status

All components of this product are on the Canadian DSL list.

### SARA 302 Components

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

### SARA 313 Components

SARA 313: 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

Fire Hazard, Acute Health Hazard, Chronic Health Hazard

### Massachusetts Right To Know Components

Butyl methacrylate      CAS-No. 97-88-1      Revision Date 1991-07-01

### Pennsylvania Right To Know Components

Butyl methacrylate      CAS-No. 97-88-1      Revision Date 1991-07-01

### New Jersey Right To Know Components

Butyl methacrylate      CAS-No. 97-88-1      Revision Date 1991-07-01

### California Prop. 65 Components

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

## SECTION 16 – OTHER INFORMATION

### Disclaimer

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.