

# Material Safety Data Sheet

Isobutyl methacrylate

SDS Record Number: CSSS-TCO-010-113900

Printing date: 18/03/2015

Version 1.3

Revision date: 18/03/2019

## 1 Identification of the substance and of the company/undertaking

### 1.1 Product identifier:

Identification on the label/Trade name: Isobutyl methacrylate  
Additional identification: 2-Propenoic acid, 2-methyl-, 2-methylpropyl ester  
Identification of the product: CAS# 97-86-9; EC# 202-613-0

### 1.2 Relevant identified uses of the substance and uses advised against:

#### 1.2.1 Identified uses:

Use as an organic synthesis monomer for resin, plastic, coating, printing ink, adhesive, lubricant additive, dental materials, fiber processing agent, paper coating agent.

#### 1.2.2 Uses advised against:

Not available.

### 1.3 Details of the supplier of the safety data sheet:

Supplier(Manufacturer): HENAN GP CHEMICALS CO.,LTD.  
Address: RM133A Floor 12 Block 15 Luomanweisen, No. 138 Guoji Road  
Zhengzhou, 450000, China  
Contact person(E-mail): info@gpcchem.com  
Telephone: +86-371-55081107  
Fax: +86-371-86001091

### 1.4 Emergency telephone Number:

+86-371-55081107

Available outside office hours?

YES



NO



## 2 Hazards Identification

### 2.1 Classification of the substance

The substance is classified as following according to GHS:

GHS	
Hazard Class	Category
Flammable liquid	Category 3
skin corrosion/irritation	Category 2
Skin sensitisation	Category 1
Serious eye damage/eye irritation	Category 2
Specific target organ toxicity after single exposure	Category 3
Hazardous to the aquatic environment	Acute hazard category 1

### 2.2 label elements

#### Hazard Pictograms:



#### Signal Word(S):

Warning

#### Hazard Statement:

H226: Flammable liquid and vapour.  
H315: Causes skin irritation.  
H317: May cause an allergic skin reaction.  
H319: Causes serious eye irritation.  
H335: May cause respiratory irritation.  
H400: Very toxic to aquatic life.

#### Precautionary Statement Prevention:

P210: Keep away from heat/sparks/open flames/hot surfaces. — No smoking.  
P233: Keep container tightly closed.

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<b>Precautionary Response:</b>	<b>Statement</b>	P240: Ground/bond container and receiving equipment. P241: Use explosion-proof electrical/ventilating/lighting/equipment. P242: Use only non-sparking tools. P243: Take precautionary measures against static discharge. P261: Avoid breathing dust/fume/gas/mist/vapours/spray. P264: Wash hands thoroughly after handling. P271: Use only outdoors or in a well-ventilated area. P272: Contaminated work clothing should not be allowed out of the workplace. P273: Avoid release to the environment. P280: Wear protective gloves/protective clothing/eye protection/face protection. P302 + P352: IF ON SKIN: wash with plenty of soap and water. P303 + P361 + P353: IF ON SKIN (or hair): remove/take off immediately all contaminated clothing, rinse skin with water/shower. P304 + P340: IF INHALED: remove victim to fresh air and keep at rest in a position comfortable for breathing. P305 + P351 + P338: IF IN EYES: rinse cautiously with water for several minutes, remove contact lenses, if present and easy to do, continue rinsing. P312: Call a POISON CENTER or doctor/physician if you feel unwell. P332 + P313: If skin irritation occurs: get medical advice/attention. P333 + P313: If skin irritation or rash occurs: get medical advice/attention. P337 + P313: If eye irritation persists: get medical advice/attention. P362: Take off contaminated clothing and wash before reuse. P363: Wash contaminated clothing before reuse. P370 + P378: In case of fire: use carbon dioxide, dry extinguishing media, foam for extinction. P391: Collect spillage.
<b>Precautionary Storage:</b>	<b>Statement</b>	P403 + P233: Store in a well-ventilated place, keep container tightly closed. P403 + P235: Store in a well-ventilated place. Keep cool. P405: Store locked up.
<b>Precautionary Disposal:</b>	<b>Statement</b>	P501: Dispose of contents/container in according with local regulation.

### 3 Composition/information on ingredients

**Substance/Mixture:** Substance

**Ingredient(s):**

Chemical Name	CAS No.	EC No.	Concentration
Isobutyl methacrylate	97-86-9	202-613-0	≥99.50% (w/w)

### 4 First aid measures

#### 4.1 Description of first aid measures:

Remove soiled, soaked clothing immediately. Medical treatment is necessary if symptoms occur which are obviously caused by skin or eye contact with the product or by inhalation of its vapours.

##### 4.1.1 In case of inhalation:

Move subject to fresh air and keep him calm. See a physician.

##### 4.1.2 In case of skin contact:

If skin irritation occurs consult a physician. Wash off immediately with soap and water.

##### 4.1.3 In case of eyes contact:

Flush eyes thoroughly with a large amount of water and consult a physician.

##### 4.1.4 In case of ingestion:

Do not induce vomiting. Contact a doctor immediately.

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

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Causes skin irritation. May cause an allergic skin reaction. Causes serious eye irritation. May cause respiratory irritation.

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

N/A

## Section 5 Fire-Fighting measures

### 5.1 Extinguishing media:

**Suitable extinguishing media:** carbon dioxide, dry extinguishing media, foam.

**Unsuitable extinguishing media:** water.

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

N/A

### 5.3 Advice for fire-fighters:

Wear self-contained breathing apparatus.

## Section 6 Accidental release measures

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

Take care for adequate ventilation. Use personal protective clothing. Keep away sources of ignition. Use breathing apparatus if exposed to vapours/dust/mist/aerosol.

### 6.2 Environmental Precautions:

Prevent product from getting into drains/surface water/groundwater.

### 6.3 Methods for Containment and Cleaning up:

Larger quantities: Remove mechanically (by pumping). Use explosion-proof equipment!

Smaller quantities and/or residues: Contain with absorbent material (e.g. sand, diatomaceous earth, acid absorbent, universal absorbent or sawdust). Dispose of contaminated material in accordance with regulations.

### 6.4 Additional information:

N/A

## Section 7 Handling and storage

### 7.1 Protective for safe handling:

**Technical measures:** No specific recommendations.

**Local and general ventilation:** Provide adequate ventilation.

**Precautions:** Practice good housekeeping. Avoid breathing excessive vapors. Avoid contact with skin and eyes. Wash thoroughly after handling.

**Safe handling advice:** Do not get this material in contact with eyes. Use personal protection recommended in Section 8 of the SDS.

### 7.2 Storage:

**Technical measures:** No specific recommendations.

**Suitable storage conditions:** Keep only in the original container at a temperature not exceeding 30 °C. Fill the container by approximately 90 % only as oxygen (air) is required for stabilisation. Protect from light. Can polymerize with intense heat release.

**Incompatible materials:** Not available.

**Safe packaging materials:** Not available.

## Section 8 Exposure control/personal protection

### 8.1 Control parameters:

**8.1.1 Occupational exposure limits:** N/A

**8.1.2 Appropriate engineering controls:** Facilities storing or utilizing this material should be equipped with an eyewash facility and a safety shower. Use adequate ventilation to keep airborne concentrations low.

### 8.2 Personal protection :

Eye/face protection                      Tightly fitting goggles.

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Hand protection	Wear suitable gloves. The most appropriate glove will depend on consideration of a number of factors including the physical strength of the glove, the degree of manual dexterity required, the amount of permeation through the glove material and perhaps the cost of the glove. In permeation tests PVA/Polyethylene laminate and supported PVA gloves perform best.
Body protection	On handling of larger quantities: face mask, chemical-resistant boots and apron.
Respiratory protection	Breathing apparatus in case of high concentrations, short term: filter appliance, filter A.

## Section 9 Physical and chemical properties

### 9.1 Information on basic physical and chemical properties

Appearance:	Liquid
Colour:	Colourless
Odour:	Esterlike
Odour threshold:	Not available
pH:	Not available
Melting point/range (°C):	-37°C at 1013 hPa
Boiling point/range (°C) :	155°C at 1013 hPa
Flash point (°C) :	43°C at 1013 hPa
Evaporation rate:	Not available
Flammability (solid, gas);	Not available
Ignition temperature (°C) :	Not available
Upper/lower flammability/explosive limits:	Not available
Vapour pressure:	4mbar at 20°C
Vapour density:	Not available
Relative Density(25°C) :	0.888g/cm <sup>3</sup> at 20°C
Bulk density (kg/m <sup>3</sup> ) :	Not available
Water solubility (g/l) at 20°C:	0.2% at 20°C
n-Octanol/Water (log Po/w) :	2.95 at 20°C
Auto-ignition temperature:	385°C at 1013 hPa
Decomposition temperature:	Not available
Viscosity:	0.9 mPa/sec at 20°C
Explosive properties:	Non explosive
Oxidising properties:	Non oxidising

### 9.2. Other information:

Fat solubility(solvent– oil to be specified) etc:	Not available
Surface tension:	Not available
Dissociation constant in water(pKa):	Not available
Oxidation-reduction Potential:	Not available
Molecular Formula:	C <sub>8</sub> H <sub>14</sub> O <sub>2</sub>
Molecular Weight:	142.2

## Section 10 Stability and reactivity

### 10.1 Reactivity:

Stable under normal temperature conditions.

### 10.2 Possibility of hazardous reactions:

Polymerization with heat evolution may occur in the presence of radical forming substances (e.g. peroxides), reducing substances, and/or heavy metal ions.

### 10.3 Conditions to avoid:

The product is normally supplied in a stabilized form. If the permissible storage period and/or storage temperature is exceeded, the product may polymerize with heat evolution.

### 10.4 Incompatible materials:

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Strong oxidizing agents.

## 10.5 Hazardous decomposition products:

None when used as directed.

## Section11 Toxicological information

### 11.1 Toxicokinetics, metabolism and distribution

**Non-human toxicological data:** Not available

### 11.2 Information on toxicological effects

#### Acute toxicity:

LD50(Oral, Rat):	9590 mg/kg bw
LD50(Dermal, Guinea pig):	>17760 mg/kg bw
LT50(Inhalation, Rat):	29.74 mg/L air

**Skin corrosion/irritation:** Irritating

**Serious eye damage/irritation:** irritating.

**Respiratory or skin sensitization:** Sensitizing.

**Germ cell mutagenicity:** Negative.

**Carcinogenicity:** Negative.

**Reproductive toxicity:** Negative.

**STOT- single exposure:** May cause respiratory irritation.

**STOT-repeated exposure:** Not classified

**Aspiration hazard:** Not classified

## Section12 Ecological information

### Toxicity:

Acute toxicity		Time	Species	Method	Evaluation	Remarks
LC50	20 mg/L	96h	Fish	OECD 203	N/A	N/A
EC50	>29 mg/L	48h	Daphnia	OECD 202	N/A	N/A
EC50	0.29 mg/L	72h	Algae	OECD 201	N/A	N/A

**Persistence and degradability:** Readily biodegradable.

**Bioaccumulative potential:** No bioaccumulation.

**Mobility in soil:** N/A

## Section13 Disposal considerations

### 13.1 Waste treatment methods

Chemical waste generators must determine whether a discarded chemical is classified as a hazardous waste. Additionally, waste generators must consult state and local hazardous waste regulations to ensure complete and accurate classification.

### 13.2 Product / Packaging disposal:

Product

Waste is hazardous. It must be disposed of in accordance with the regulations after consultation of the competent local authorities and the disposal company in a suitable and licensed facility.

Uncleaned packaging

Contaminated packaging should be emptied optimally and after appropriate professional cleansing may be taken for reuse.

Packaging that cannot be cleaned should be disposed of professionally. Uncontaminated packaging may be taken for recycling.

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## Section 14 Transport information

	Land transport (ADR/RID)	Sea transport (IMDG)	Air transport (ICAO/IATA)
<b>UN-Number:</b>	2283	2283	2283
<b>UN Proper shipping name:</b>	ISOBUTYL METHACRYLATE, STABILIZED	ISOBUTYL METHACRYLATE, STABILIZED	ISOBUTYL METHACRYLATE, STABILIZED
<b>Transport hazard Class:</b>	3	3	3
<b>Packaging group:</b>	III	III	III
<b>Environmental hazards:</b>	Yes	Yes	Yes
<b>Special precautions for user:</b>	See section 2.2	See section 2.2	See section 2.2

## Section 15 Regulation information

### 15.1 Safety, health and environmental regulations/legislation specific for the substance or mixture

#### Whether be recorded by other nations chemicals directory :

EINECS: Listed

DSL/NDSL: Listed

TSCA: Listed

KECI: Listed

IECSC: Listed

ENCS: Listed

PICCS: Listed

AICS: Listed

### 15.2 Downstream users precautions:

Disposal must be in accordance with current applicable laws and regulations, and material characteristics at time of disposal.

## 16 Other information

### 16.1 Indication of changes

Version 1.3 Amended by GHS rev 4

### 16.2 Training instructions:

Not applicable.

### 16.3 Further information:

This information is based upon the present state of our knowledge. This MSDS has been compiled and is solely intended for this product.

### 16.4 Notice to reader:

Employers should use this information only as a supplement to other information gathered by them, and should make independent judgment of suitability of this information to ensure proper use and protect the health and safety of employees.

This information is furnished without warranty, and any use of the product not in conformance with this Safety Data Sheet, or in combination with any other product or process, is the responsibility of the user.