

SAFETY DATA SHEET

Revision date 2017-04-10

Revision number 1

1. IDENTIFICATION

Product identifier

Product name BISOMER[®] BZMA

Other means of identification

Product code 5007932
Synonyms Benzyl methacrylate

Recommended use of the chemical and restrictions on use

Recommended use [RU] Monomer for special polymers
Uses advised against No information available

Details of the supplier of the safety data sheet

Supplier GEO Specialty Chemicals UK Ltd
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2. HAZARDS IDENTIFICATION

Classification

Canadian HPR Regulatory Status

This chemical is considered hazardous by the Hazardous Products Regulation (WHMIS 2015)

Skin corrosion/irritation	Category 2
Serious eye damage/eye irritation	Category 2
Skin sensitization	Category 1
Specific target organ toxicity (single exposure)	Category 3 - (H335)

GHS Label elements, including precautionary statements

EMERGENCY OVERVIEW

Physical state liquid	Color colorless	Appearance clear	Odor characteristic
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**WARNING****Hazard statements**

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

Precautionary Statements - Prevention

Wash face, hands and any exposed skin thoroughly after handling
 Wear protective gloves/protective clothing/eye protection/face protection
 Avoid breathing dust/fume/gas/mist/vapors/spray
 Contaminated work clothing should not be allowed out of the workplace
 Use only outdoors or in a well-ventilated area

Precautionary Statements - Response

IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing
 If eye irritation persists: Get medical advice/attention
 IF ON SKIN: Wash with plenty of soap and water
 Take off contaminated clothing and wash before reuse
 If skin irritation or rash occurs: Get medical advice/attention
 IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing
 Call a POISON CENTER or doctor/physician if you feel unwell

Precautionary Statements - Storage

Store in a well-ventilated place. Keep container tightly closed
 Store locked up

Precautionary Statements - Disposal

Dispose of contents/container to an approved waste disposal plant

Other information

- Not applicable

3. COMPOSITION/INFORMATION ON INGREDIENTS

Hazardous ingredients

Component	Common name	CAS-No	weight-%
Benzyl methacrylate	Benzyl methacrylate	2495-37-6	> 98

4. FIRST AID MEASURES

First Aid Measures**General advice**

In case of adverse health effects seek medical advice.

Eye contact

Rinse immediately with plenty of running water (for 10 minutes). Seek medical attention if necessary.

Skin contact

Rinse with running water and soap. Remove contaminated clothing and shoes.

Ingestion

Rinse mouth with water, then drink one or two glasses of water.

Inhalation

Remove to fresh air. If not breathing, give artificial respiration. If breathing is difficult, give oxygen. Call a physician immediately.

Most important symptoms and effects, both acute and delayed**Acute effects**

None known.

Chronic effects

None known.

Indication of any immediate medical attention and special treatment needed**Note to physicians**

Treat symptomatically.

5. FIRE-FIGHTING MEASURES

Extinguishing media**Suitable extinguishing media**

Water spray jet, Alcohol-resistant foam, Extinguishing powder, Carbon dioxide.

Extinguishing media which must not be used for safety reasons

High pressure waterjet.

Special hazards arising from the substance or mixture**Special Hazard**

Formation of toxic gases is possible during heating or in fires. The product may undergo spontaneous polymerization at high temperatures. Polymerization is exothermic and may cause damage to the container and/or release of thermal decomposition products.

Advice for firefighters**Firefighting measures**

Cool exposed containers with water spray after extinguishing fire.

Special protective equipment for firefighters

Full protective clothing and approved self-contained breathing apparatus required for firefighting personnel.

Explosion data**Sensitivity to Mechanical Impact**

None.

Sensitivity to Static Discharge

None.

6. ACCIDENTAL RELEASE MEASURES

Personal precautions, protective equipment and emergency procedures**Personal precautions**

Wear suitable protective clothing and gloves.

Environmental precautions

Environmental precautions

Do not empty into drains/surface water/ground water. Inform authorities in the event of product spillage to water courses or sewage systems.

Methods and material for containment and cleaning up

Methods for containment

Prevent further leakage or spillage if safe to do so.

Methods for cleaning up

Remove with liquid-absorbing material (sand, peat, sawdust). Dispose of contaminated material as waste according to Section 13.

7. HANDLING AND STORAGE

Precautions for safe handling

Advice on safe handling

Avoid contact with eyes, skin and clothing

Avoid breathing vapor or mist

Use only in well-ventilated areas

Personal protective equipment comprising: suitable protective gloves, safety goggles and protective clothing.

Wash thoroughly after handling

Ensure that eyewash stations and safety showers are close to the workstation location

Conditions for safe storage, including any incompatibilities

Technical measures and storage conditions

The product is stabilized against spontaneous polymerization before delivery. However, if the permissible storage time or storage temperature are greatly exceeded the product may polymerize.

Keep only in the original container in a cool, well-ventilated place

Store at temperatures not exceeding 25 °C/ 77 °F

Store in a dry place

Store away from direct heat or sunlight.

Tanks should preferably contain no dead spaces where the product can be trapped and polymerize. Internal structural members should therefore be kept to a minimum and tanks should be welded.

Storage tank vents, especially those fitted with flame arrestors, should be inspected regularly for polymer fouling which can arise from vapor phase polymerization.

Do not store together with reductants.

Do not store together with oxidants.

Incompatible products

Reaction with oxidants. Reaction with reducing agents.

8. EXPOSURE CONTROLS/PERSONAL PROTECTION

Control parameters

Exposure Guidelines

This product, as supplied, does not contain any hazardous materials with occupational exposure limits established by the region specific regulatory bodies

Appropriate engineering controls

Engineering controls

Local exhaust ventilation as necessary to maintain exposures to within applicable limits. Please refer to the ACGIH document, "Industrial Ventilation, A Manual of Recommended Practices", most recent edition, for details. If there are no applicable or

established exposure limit requirements or guidelines, general ventilation should be sufficient.

Individual protection measures, such as personal protective equipment

Eye/face Protection

If splashes are likely to occur: Chemical Goggles.

Hand Protection

Polychloroprene gloves. Coating thickness 1.1 mm. Level 5 > 240 min breakthrough time.

Skin and body protection

Wear suitable protective clothing.

Respiratory protection

Filter A2 is recommended in cases of prolonged exposure.

Other personal protection data

Eyewash fountains and safety showers must be easily accessible.

Hygiene measures

Handle in accordance with good industrial hygiene and safety practice.

9. PHYSICAL AND CHEMICAL PROPERTIES

Information on basic physical and chemical properties

Physical state	liquid
Color	colorless
Appearance	clear
Odor	characteristic
Odor threshold	No information available

<u>Property</u>	<u>Values</u>	<u>Remarks / Method</u>
pH	No information available	No information available
Melting / freezing point	No information available	No information available
Boiling point / boiling range	> 230 °C / > 446 °F @ 1013 mbar	No information available
Flash point	> 100 °C / > 212 °F	DIN 51758
Evaporation rate	No information available	No information available
Flammability (solid, gas)	No information available	No information available
Flammability Limit in Air		
Upper flammability limit	No information available	No information available
Lower flammability limit	No information available	No information available
Vapor pressure	No information available	No information available
Vapor density	No information available	No information available
Specific gravity	No information available	No information available
Solubility (water)	insoluble	No information available
Solubility in other solvents	No information available	No information available
Partition coefficient: n-octanol/water	No information available	No information available

Autoignition temperature	No information available	No information available
Decomposition temperature	No information available	No information available
Kinematic viscosity	No information available	No information available
Dynamic viscosity	4 mPa s @ 20 °C	No information available

Other information

Density	1.04 g/cm ³ @ 20 °C - ASTM D 1298-99
Bulk Density	No information available
Explosive properties	Can polymerize violently
Oxidizing properties	The substance or mixture is not classified as oxidizing
Softening point	No information available
Molecular weight	176 g/mol
Volatile Organic Compound (VOC) content, wt.%	No information available
Percent Volatile, wt.%	No information available

10. STABILITY AND REACTIVITY**Reactivity****Reactivity**

Polymerizes readily unless inhibited. Polymerization is highly exothermic and, if not controlled, may be violent.

Chemical stability**Chemical stability**

Stable under normal conditions of handling, use and transportation. Periodic air sparging in storage will assist long term stability.

Possibility of hazardous reactions**Possibility of hazardous reactions**

None under normal processing.

Hazardous polymerization

May occur if inhibitor is depleted or if exposed to high temperature.

Conditions to avoid**Conditions to avoid**

This product contains a peroxidation inhibitor. To maintain inhibitor activity, oxygen must not be eliminated from the atmosphere above the product. Avoid radical forming substances (metal-ions, peroxides). Avoid heating. If prolonged excursions above the recommended storage temperature occur, then the rate of inhibitor depletion could accelerate, leading to an increased risk of polymerization. In these circumstances it is recommended that the inhibitor level be checked periodically using ASTM procedure D 3125, and more inhibitor added if depletion is observed.

Incompatible materials**Materials to avoid**

Reaction with oxidants. Reaction with reducing agents.

Hazardous decomposition products**Hazardous decomposition products**

Carbon oxides. Irritating vapors.

11. TOXICOLOGICAL INFORMATION

Information on likely routes of exposure

Eye contact
Causes eye irritation.

Skin contact
Causes skin irritation. May cause sensitization by skin contact.

Ingestion
May be harmful if swallowed.

Inhalation
May cause respiratory irritation.

Acute toxicity - Product Information

Oral LD50 > 2000 mg/kg (EU classification)

Dermal LD50 No information available

Inhalation LC50 No information available

Information on toxicological effects

Symptoms
No information available.

Delayed and immediate effects as well as chronic effects from short and long-term exposure

Skin corrosion/irritation
Irritating (EU classification)

Serious eye damage/eye irritation
Irritating (EU classification)

Sensitization
May cause sensitization by skin contact

Germ cell mutagenicity
No information available

Carcinogenicity
This product does not contain any components in concentrations greater than or equal to 0.1% that are listed as known or suspected carcinogens by NTP, IARC, ACGIH, or OSHA.

Reproductive toxicity
No information available

Specific target organ toxicity - Single exposure
Irritating to respiratory system.

Specific target organ toxicity - Repeated exposure
No information available

Aspiration hazard
No information available.

Other information

Conclusions are drawn from sources other than direct testing.

12. ECOLOGICAL INFORMATION

Ecotoxicity

Acute aquatic toxicity - Product Information

Fish	No information available
Crustacea	No information available
Algae/aquatic plants	No information available

Persistence and degradability

Persistence and degradability
No information available

Bioaccumulative potential

Bioaccumulative potential
No information available

Mobility

Mobility
No information available

Results of PBT and vPvB assessment

PBT and vPvB assessment
No information available

Other adverse effects

Other information
No other ecological studies have been carried out on this product.

13. DISPOSAL CONSIDERATIONS

Waste treatment methods

Disposal of wastes
Dispose of according to regulations.

Contaminated packaging
Disposal must be made according to official regulations. Packaging that cannot be cleaned are to be disposed of in the same manner as the product.

14. TRANSPORT INFORMATION

TDG Not regulated

DOT Not regulated

ICAO/IATA Not regulated

IMDG Not regulated

15. REGULATORY INFORMATION

National Regulations

Canada (DSL)

All ingredients are on the inventory or exempt from listing

Canada (NDSL)

None of the ingredients are on the inventory.

International Inventories

Australia (AICS)

All ingredients are on the inventory or exempt from listing

China (IECSC)

All ingredients are on the inventory or exempt from listing

European Union (EINECS)

All ingredients are on the inventory or exempt from listing

European Union (ELINCS)

None of the ingredients are on the inventory.

Japan (ENCS)

All ingredients are on the inventory or exempt from listing

South Korea (KECL)

All ingredients are on the inventory or exempt from listing

Philippines (PICCS)

All ingredients are on the inventory or exempt from listing

United States (TSCA)

All ingredients are on the inventory or exempt from listing

Legend

DSL/NDSL - Canadian Domestic Substances List/Non-Domestic Substances List

AICS - Australian Inventory of Chemical Substances

IECSC - China Inventory of Existing Chemical Substances

EINECS/ELINCS - European Inventory of Existing Commercial Chemical Substances/EU List of Notified Chemical Substances

ENCS - Japan Existing and New Chemical Substances

KECL - Korean Existing and Evaluated Chemical Substances

PICCS - Philippines Inventory of Chemicals and Chemical Substances

TSCA - United States Toxic Substances Control Act Section 8(b) Inventory

16. OTHER INFORMATION

Product code 5007932

Revision date 2017-04-10

Revision number 1

Additional information

BISOMER® is a registered trademark of GEO Specialty Chemicals UK Ltd.

Disclaimer

The information provided in this Safety Data Sheet is correct to the best of our knowledge, information and belief at the date of its publication. The information given is designed only as a guidance for safe handling, use, processing, storage, transportation, disposal and release and is not to be considered a warranty or quality specification. The information relates only to the specific material designated and may not be valid for such material used in combination with any other materials or in any process, unless specified in the text.

End of Safety Data Sheet