

SAFETY DATA SHEET

Revision date 2015-10-08

Revision number 1.02

1. IDENTIFICATION OF THE SUBSTANCE/MIXTURE AND OF THE COMPANY/UNDERTAKING

1.1 Product identifier

Product name BISOMER[®] DEGDMA HI
Product code 745790
Synonyms Diethylene glycol dimethacrylate

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

Recommended use [RU] Monomer for special polymers
Uses advised against None known

1.3 Details of the supplier of the safety data sheet

Supplier
GEO Specialty Chemicals UK Ltd
Charleston Road, Hardley, Hythe
Southampton, Hampshire SO45 3ZG
United Kingdom
Phone: +44 (0)23 80894666
Fax No: +44 (0)23 80243113

Responsibility Statement For further information, please contact safety-data-sheet-fp@geosc.com

1.4 Emergency telephone number

Emergency telephone 24 Hour Emergency Phone Number
GEO Specialty Chemicals UK Ltd
+44 (0)23 80891806

2. HAZARDS IDENTIFICATION

2.1 Classification of the substance or mixture

REGULATION (EC) No 1272/2008

Serious eye damage/eye irritation	Category 2
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2.2 Label elements

Classification according to Regulation (EC) No. 1272/2008 [CLP]



Signal word WARNING

Hazard statements

H319 - Causes serious eye irritation

Precautionary statements

P262 - Do not get in eyes, on skin, or on clothing

P280 - Wear eye protection/ face protection

P305 + P351 + P338 - IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing

2.3 Other information

None known

3. COMPOSITION/INFORMATION ON INGREDIENTS

3.1 Substances

Component	EU EINECS	weight-%	Classification according to Regulation (EC) No. 1272/2008 [CLP]	REACH Regulations
2-Propenoic acid, 2-methyl-, oxydi-2,1-ethanediyl ester 2358-84-1	219-099-9	>= 94%	Eye Irrit. 2 (H319)	In compliance

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

3.2 Mixtures

Not applicable

4. FIRST AID MEASURES

4.1 Description of 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. If skin irritation occurs: Get medical advice/attention.

Ingestion

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

Inhalation

Remove to fresh air.

4.2 Most important symptoms and effects, both acute and delayed

Most important symptoms and effects

None known.

4.3 Indication of any immediate medical attention and special treatment needed

Note to physicians

Treat symptomatically.

5. FIRE-FIGHTING MEASURES

5.1 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

5.2 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.

5.3 Advice for firefighters

Special protective equipment for firefighters

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

Firefighting measures

Cool exposed containers with water spray after extinguishing fire.

6. ACCIDENTAL RELEASE MEASURES

6.1 Personal precautions, protective equipment and emergency procedures

Personal precautions

Wear suitable protective clothing and gloves.

6.2 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.

6.3 Methods and material for containment and cleaning up

Methods for cleaning up

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

6.4 Reference to other sections

See Section 12 for additional Ecological Information

7. HANDLING AND STORAGE

7.1 Precautions for safe handling

Advice on safe handling

Use only in well-ventilated areas

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

7.2 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 oxidants.

Do not store together with reductants.

7.3 Specific end use(s)

Specific use(s)

Not applicable

8. EXPOSURE CONTROLS/PERSONAL PROTECTION

8.1 Control parameters

Occupational exposure limit value

Component	European Union	United Kingdom	Spain	Germany
2-Propenoic acid, 2-methyl-, oxydi-2,1-ethanediyl ester 2358-84-1	NAV	NAV	NAV	NAV

Biological limit values

Component	European Union	United Kingdom	Spain	Germany
2-Propenoic acid, 2-methyl-, oxydi-2,1-ethanediyl ester 2358-84-1	NAV	NAV	NAV	NAV

Legend

NAV - Not available

8.2 Exposure controls

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.

Environmental exposure controls

No information available.

9. PHYSICAL AND CHEMICAL PROPERTIES

9.1 Information on basic physical and chemical properties

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

<u>Property</u>	<u>Values</u>	<u>Remarks</u>
pH	No information available	No information available
Melting / freezing point	No information available	No information available
Boiling point / boiling range	No information available	No information available
Flash point	148.0 °C / 298.4 °F	CC (closed cup)
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	5.00 mm ² /s @ 25 °C	ASTM D 445-97
Dynamic viscosity	No information available	No information available
Density	1.0610 g/cm ³ @ 20 °C	ASTM D 1298-99

9.2 Other information

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	242 g/mol
Volatile organic compounds (VOCs) content	No information available
Percent Volatile, wt.%	No information available

10. STABILITY AND REACTIVITY

10.1 Reactivity

Reactivity

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

10.2 Chemical stability

Chemical stability

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

10.3 Possibility of hazardous reactions

Hazardous polymerization

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

10.4 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.

10.5 Incompatible materials

Materials to avoid

Reaction with oxidants. Reaction with reducing agents.

10.6 Hazardous decomposition products

Hazardous decomposition products

Carbon oxides. Irritating vapors.

11. TOXICOLOGICAL INFORMATION

11.1 Information on toxicological effects

Acute health hazard

Inhalation

Inhalation of vapors in high concentration may cause irritation of respiratory system.

Eye contact

Causes serious eye irritation.

Skin contact

None to only slight irritation expected.

Ingestion

May be harmful if swallowed.

Acute toxicity

Oral LD50 > 2000 mg/kg (analogy)

Dermal LD50 No information available

Inhalation LC50 No information available

Skin corrosion/irritation

Slightly irritating, does not require labeling (analogy)

Serious eye damage/eye irritation

Irritating (analogy)

Sensitization

No information available

Germ cell mutagenicity

No information available

Carcinogenicity

No information available

Reproductive toxicity

No information available

Specific target organ toxicity - Single exposure

No information available

Specific target organ toxicity - Repeated exposure

No information available

Aspiration hazard

No information available

12. ECOLOGICAL INFORMATION

12.1 Toxicity**Acute aquatic toxicity**

Fish No information available

Crustacea No information available

Algae/aquatic plants No information available

12.2 Persistence and degradability**Persistence and degradability**

No information available

12.3 Bioaccumulative potential**Bioaccumulative potential**

No information available

12.4 Mobility in soil

Mobility

No information available.

12.5 Results of PBT and vPvB assessment

PBT and vPvB assessment

No information available

12.6 Other adverse effects

Other information

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

13. DISPOSAL CONSIDERATIONS

13.1 Waste treatment methods

Disposal of wastes

Waste incineration with the approval of the responsible local authority.

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

DOT (US) Not regulated

14.1 UN number

14.2 Proper shipping name

14.3 Hazard class

14.4 Packing group

14.5 Environmental hazard

14.6 Special precautions for user

Land transport (ADR/RID) Not regulated

14.1 UN number

14.2 Proper shipping name

14.3 Hazard class

14.4 Packing group

14.5 Environmental hazard

14.6 Special precautions for user

Inland waterway transport (ADN) Not regulated

14.1 UN number

14.2 Proper shipping name

14.3 Hazard class

14.4 Packing group

14.5 Environmental hazard

14.6 Special precautions for user

Air transport (ICAO-TI / IATA-DGR) Not regulated

14.1 UN number

14.2 Proper shipping name

14.3 Hazard class

14.4 Packing group

14.5 Environmental hazard

14.6 Special precautions for user

Sea transport (IMDG) Not regulated

14.1 UN number

14.2 Proper shipping name

14.3 Hazard class

14.4 Packing group

14.5 Environmental hazard

14.6 Special precautions for user

14.7 Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code

Not applicable

15. REGULATORY INFORMATION

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

International Inventories

Australia (AICS)

All ingredients are on the inventory or exempt from listing

Canada (DSL)

All ingredients are on the inventory or exempt from listing

Canada (NDSL)

None of the ingredients are on the inventory.

China (IECSC)

All ingredients are on the inventory or exempt from listing

EINECS (European Inventory of Existing Chemical Substances)

All ingredients are on the inventory or exempt from listing

ELINCS (European List of Notified Chemical Substances)

None of the ingredients are on the inventory.

ENCS (Japan)

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

TSCA (United States)

All ingredients are on the inventory or exempt from listing

Legend

AICS - Australian Inventory of Chemical Substances

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

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

15.2 Chemical Safety Report

No information available.

16. OTHER INFORMATION

Product code 745790

Revision date 2015-10-08

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

H319 - Causes serious eye irritation

Key or legend to abbreviations and acronyms used in the safety data sheet

NAV - Not available

This safety data sheet complies with the requirements of: Regulation (EC) No. 1907/2006.

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