

SAFETY DATA SHEET

Revision date 2019-Apr-29

Revision number 1.02

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

1.1 Product identifier

Product name BISOMER[®] PEG 200 DMA SP
Product code 745812
Synonyms Polyethylene 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

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

This substance is not classified as dangerous according to regulation (EC) 1272/2008 [GHS].

2.2 Label elements

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

Signal word Not classified

Hazard statements
None

Precautionary statements

None

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) Regulation (EC 1907/2006) |
|--|----------------|----------|---|-----------------------------------|
| Methacrylic acid, diester with EO 25852-47-5 | Not applicable | > 94 | Not Classified as Hazardous | 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

Firefighters should wear self-contained breathing apparatus and full firefighting turnout gear.

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 |
|---|----------------|----------------|-------|---------|
| Methacrylic acid, diester with EO 25852-47-5 | NAV | NAV | NAV | NAV |

Biological limit values

| Component | European Union | United Kingdom | Spain | Germany |
|---|----------------|----------------|-------|---------|
| Methacrylic acid, diester with EO 25852-47-5 | NAV | NAV | NAV | NAV |

Legend

NAV - Not available

8.2 Exposure controls**Personal Protective Equipment****Eye/face Protection**

Tight sealing safety 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

Use only in well-ventilated areas. 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 | colorless |
| Appearance | clear |
| Odor | little intrinsic odor |
| Odor threshold | No information available |

| Property | Values | Remarks |
|----------|--------------------------|--------------------------|
| pH | No information available | No information available |

| | | |
|---|----------------------------------|--------------------------|
| Melting / freezing point | No information available | No information available |
| Boiling point / boiling range | > 200.0 °C / > 392.0 °F | PH. EUR. IV 2.2.12 |
| Flash point | > 130.0 °C / > 266.0 °F | ASTM D 92-97 |
| 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 | 6.00 mm ² /s @ 25 °C | ASTM D 445-97 |
| Dynamic viscosity | No information available | No information available |
| Density | 1.0850 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 | 338 g/mol |
| Volatile Organic Compound (VOC) content, wt.% | 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****Eye contact**

May cause slight irritation.

Skin contact

This product is not considered to be a skin irritant.

Ingestion

Low toxicity by this route.

Inhalation

None known.

Acute toxicity

| | |
|------------------------|--------------------------|
| Oral LD50 | > 2,000 mg/kg |
| Dermal LD50 | No information available |
| Inhalation LC50 | No information available |

Skin corrosion/irritation

Not irritating

Method: OECD Test No. 404: Acute Dermal Irritation/Corrosion

Serious eye damage/eye irritation

Not irritating

Method: OECD Test No. 405: Acute Eye Irritation/Corrosion

Sensitization

Dermal sensitization: non-sensitizing

Method: OECD Test No. 406: Skin Sensitization

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 | LC50 > 10 - <= 100 mg/L |
| Crustacea | No information available |
| Bacteria toxicity | EC0 > 10 - <= 100 mg/l. |
| Algae/aquatic plants | No information available |

12.2 Persistence and degradability

Persistence and degradability

No information available

Ultimate biodegradation

The total of the organic components contained in the product achieve > 60% BOD/COD or CO₂ liberation, or > 70% DOC reduction in tests for ease of degradability - threshold values for 'readily degradable' (e.g. to OECD method 301) are reached.

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

US DOT Not regulated**14.1. UN number****14.2. UN proper shipping name****14.3. Transport hazard class(es)****14.4. Packing group****14.5. Environmental hazards****14.6. Special precautions for user****Land transport (ADR/RID)** Not regulated**14.1. UN number****14.2. UN proper shipping name****14.3. Transport hazard class(es)****14.4. Packing group****14.5. Environmental hazards****14.6. Special precautions for user****Air transport (ICAO-TI / IATA-DGR)** Not regulated**14.1. UN number****14.2. UN proper shipping name****14.3. Transport hazard class(es)****14.4. Packing group****14.5. Environmental hazards****14.6. Special precautions for user****Sea transport (IMDG)** Not regulated**14.1. UN number****14.2. UN proper shipping name****14.3. Transport hazard class(es)****14.4. Packing group****14.5. Environmental hazards****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

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

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 745812

Revision date 2019-Apr-29

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

None

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.