

### SECTION 1: Identification

#### 1.1. Identification

|              |                                      |
|--------------|--------------------------------------|
| Product form | : Mixture                            |
| Trade name   | : OSTEO-BED RESIN SOLUTION (DS #355) |
| Product code | : 17734A                             |
| Formula      | : no data                            |

#### 1.2. Recommended use and restrictions on use

|                 |  |
|-----------------|--|
| Recommended use | : Use as laboratory reagent, Manufacture of substances |
|-----------------|--|

#### 1.3. Supplier

##### Supplier

Polysciences  
400 Valley Road  
Warrington, PA 18976 - United States  
T +1 215 343 6484 - F +1 215 343 0214  
[info@polysciences.com](mailto:info@polysciences.com) - [www.polysciences.com](http://www.polysciences.com)

#### 1.4. Emergency telephone number

|                  |   |
|------------------|---|
| Emergency number | : 24-hour emergency phone number ChemTel 1-800-255-3924 |
|------------------|---|

### SECTION 2: Hazard(s) identification


#### 2.1. Classification of the substance or mixture

##### GHS US classification

|   |                                     |
|---|-------------------------------------|
| Flammable liquids Category 3                  | Flammable liquid and vapor          |
| Acute toxicity (inhalation) Category 4        | Harmful if inhaled                  |
| Skin corrosion/irritation Category 2          | Causes skin irritation              |
| Serious eye damage/eye irritation Category 2B | Causes eye irritation               |
| Skin sensitization, category 1B               | May cause an allergic skin reaction |

#### 2.2. GHS Label elements, including precautionary statements

##### GHS US labeling

|                                   |  |
|-----------------------------------|--|
| Hazard pictograms (GHS US)        | :   |
| Signal word (GHS US)              | : Warning  |
| Hazard statements (GHS US)        | : Flammable liquid and vapor<br>Causes skin irritation<br>May cause an allergic skin reaction<br>Causes eye irritation<br>Harmful if inhaled   |
| Precautionary statements (GHS US) | : Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking<br>Keep container tightly closed.<br>Ground/Bond container and receiving equipment.<br>Use explosion-proof electrical/ventilating/lighting equipment.<br>Use only non-sparking tools.<br>Take precautionary measures against static discharge. |

#### 2.3. Other hazards which do not result in classification

No additional information available

#### 2.4. Unknown acute toxicity (GHS US)

Not applicable

### SECTION 3: Composition/Information on ingredients

#### 3.1. Substances

Not applicable

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### 3.2. Mixtures

| Name                | Product identifier | %       | GHS US classification  |
|---------------------|--------------------|---------|--|
| Methyl Methacrylate | (CAS-No.) 80-62-6  | 71 – 80 | Flam. Liq. 2, H225<br>Skin Irrit. 2, H315<br>Skin Sens. 1, H317<br>STOT SE 3, H335 |

Full text of hazard classes and H-statements : see section 16

## SECTION 4: First-aid measures

### 4.1. Description of first aid measures

- First-aid measures general : Call a poison center/doctor/physician if you feel unwell.
- First-aid measures after inhalation : Remove person to fresh air and keep comfortable for breathing. Call a poison center/doctor/physician if you feel unwell.
- First-aid measures after skin contact : Rinse skin with water/shower. Remove/Take off immediately all contaminated clothing. If skin irritation or rash occurs: Get medical advice/attention.
- First-aid measures after eye contact : 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.
- First-aid measures after ingestion : Call a poison center/doctor/physician if you feel unwell.

### 4.2. Most important symptoms and effects (acute and delayed)

- Symptoms/effects after skin contact : Irritation. May cause an allergic skin reaction.
- Symptoms/effects after eye contact : Mild eye irritation.

### 4.3. Immediate medical attention and special treatment, if necessary

Treat symptomatically.

## SECTION 5: Fire-fighting measures

### 5.1. Suitable (and unsuitable) extinguishing media

- Suitable extinguishing media : Water spray. Dry powder. Foam. Carbon dioxide.

### 5.2. Specific hazards arising from the chemical

- Fire hazard : Flammable liquid and vapor.
- Hazardous decomposition products in case of fire : Toxic fumes may be released.

### 5.3. Special protective equipment and precautions for fire-fighters

- Protection during firefighting : Do not attempt to take action without suitable protective equipment. Self-contained breathing apparatus. Complete protective clothing.

## SECTION 6: Accidental release measures

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

#### 6.1.1. For non-emergency personnel

- Emergency procedures : Ventilate spillage area. No open flames, no sparks, and no smoking. Avoid breathing dust/fume/gas/mist/vapors/spray. Avoid contact with skin and eyes.

#### 6.1.2. For emergency responders

- Protective equipment : Do not attempt to take action without suitable protective equipment. For further information refer to section 8: "Exposure controls/personal protection".

### 6.2. Environmental precautions

Avoid release to the environment.

### 6.3. Methods and material for containment and cleaning up

- Methods for cleaning up : Take up liquid spill into absorbent material. Notify authorities if product enters sewers or public waters.
- Other information : Dispose of materials or solid residues at an authorized site.

### 6.4. Reference to other sections

For further information refer to section 13.

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### SECTION 7: Handling and storage

#### 7.1. Precautions for safe handling

- Precautions for safe handling : Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking. Ground/bond container and receiving equipment. Use only non-sparking tools. Take precautionary measures against static discharge. Flammable vapors may accumulate in the container. Use explosion-proof equipment. Wear personal protective equipment. Use only outdoors or in a well-ventilated area. Avoid breathing dust/fume/gas/mist/vapors/spray. Avoid contact with skin and eyes.
- Hygiene measures : Wash contaminated clothing before reuse. Contaminated work clothing should not be allowed out of the workplace. Do not eat, drink or smoke when using this product. Always wash hands after handling the product.

#### 7.2. Conditions for safe storage, including any incompatibilities

- Technical measures : Ground/bond container and receiving equipment.
- Storage conditions : Store at room temp. Store in a well-ventilated place. Keep cool. Keep container tightly closed.

### SECTION 8: Exposure controls/personal protection

#### 8.1. Control parameters

| OSTEO-BED RESIN SOLUTION (DS #355)         |  |
|--|--|
| No additional information available        |  |
| Methyl Methacrylate (80-62-6)              |  |
| USA - ACGIH - Occupational Exposure Limits |  |
| Local name                                 | Methyl methacrylate  |
| ACGIH TWA (ppm)                            | 50 ppm   |
| ACGIH STEL (ppm)                           | 100 ppm  |
| Remark (ACGIH)                             | TLV® Basis: URT & eye irr; body weight eff; pulm edema. Notations: DSEN; A4 (Not classifiable as a Human Carcinogen) |
| Regulatory reference                       | ACGIH 2020   |
| USA - OSHA - Occupational Exposure Limits  |  |
| Local name                                 | Methyl methacrylate  |
| OSHA PEL (TWA) (mg/m <sup>3</sup> )        | 410 mg/m <sup>3</sup>  |
| OSHA PEL (TWA) (ppm)                       | 100 ppm  |
| Regulatory reference (US-OSHA)             | OSHA Annotated Table Z-1   |

#### 8.2. Appropriate engineering controls

- Appropriate engineering controls : Ensure good ventilation of the work station.
- Environmental exposure controls : Avoid release to the environment.

#### 8.3. Individual protection measures/Personal protective equipment

##### Hand protection:

Protective gloves

##### Eye protection:

Safety glasses

##### Skin and body protection:

Wear suitable protective clothing

##### Respiratory protection:

[In case of inadequate ventilation] wear respiratory protection.

##### Personal protective equipment symbol(s):



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### SECTION 9: Physical and chemical properties

#### 9.1. Information on basic physical and chemical properties

|   |   |
|---|---|
| Physical state                                  | : Liquid  |
| Appearance                                      | : blue colored liquid.  |
| Color   | : Mixture contains one or more component(s) which have the following colour(s):<br>Colorless  |
| Odor  | : There may be no odour warning properties, odour is subjective and inadequate to warn of overexposure.<br>Mixture contains one or more component(s) which have the following odour:<br>weak aromatic |
| Odor threshold                                  | : No data available   |
| pH  | : no data   |
| Melting point                                   | : 0 °C  |
| Freezing point                                  | : No data available   |
| Boiling point                                   | : 214   |
| Flash point                                     | : 50  |
| Relative evaporation rate (butyl acetate=1)     | : No data available   |
| Flammability (solid, gas)                       | : Not applicable.   |
| Vapor pressure                                  | : no data   |
| Relative vapor density at 20°C                  | : no data   |
| Relative density                                | : No data available   |
| Solubility                                      | : No data available   |
| Partition coefficient n-octanol/water (Log Pow) | : No data available   |
| Auto-ignition temperature                       | : No data available   |
| Decomposition temperature                       | : No data available   |
| Viscosity, kinematic                            | : No data available   |
| Viscosity, dynamic                              | : No data available   |
| Explosion limits                                | : No data available   |
| Explosive properties                            | : No data available   |
| Oxidizing properties                            | : No data available   |

#### 9.2. Other information

No additional information available

### SECTION 10: Stability and reactivity

#### 10.1. Reactivity

Flammable liquid and vapor.

#### 10.2. Chemical stability

Stable under normal conditions.

#### 10.3. Possibility of hazardous reactions

No dangerous reactions known under normal conditions of use.

#### 10.4. Conditions to avoid

Avoid contact with hot surfaces. Heat. No flames, no sparks. Eliminate all sources of ignition.

#### 10.5. Incompatible materials

No additional information available

#### 10.6. Hazardous decomposition products

Under normal conditions of storage and use, hazardous decomposition products should not be produced.

### SECTION 11: Toxicological information

#### 11.1. Information on toxicological effects

|                             |                       |
|-----------------------------|-----------------------|
| Acute toxicity (oral)       | : Not classified      |
| Acute toxicity (dermal)     | : Not classified      |
| Acute toxicity (inhalation) | : Harmful if inhaled. |

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|                     |              |
|---------------------|--------------|
| ATE US (gases)      | 4500 ppmV/4h |
| ATE US (vapors)     | 11 mg/l/4h   |
| ATE US (dust, mist) | 1.5 mg/l/4h  |

### Methyl Methacrylate (80-62-6)

|                             |             |
|-----------------------------|-------------|
| LD50 oral rat               | 7872 mg/kg  |
| LD50 dermal rat             | > 5 g/kg    |
| LC50 Inhalation - Rat [ppm] | 7093 ppm/4h |

|                                   |  |
|-----------------------------------|--|
| Skin corrosion/irritation         | : Causes skin irritation.<br>pH: no data |
| Serious eye damage/irritation     | : Causes eye irritation.<br>pH: no data  |
| Respiratory or skin sensitization | : May cause an allergic skin reaction.   |
| Germ cell mutagenicity            | : Not classified                         |
| Carcinogenicity                   | : Not classified                         |

### Methyl Methacrylate (80-62-6)

|            |                      |
|------------|----------------------|
| IARC group | 3 - Not classifiable |
|------------|----------------------|

|                       |                  |
|-----------------------|------------------|
| Reproductive toxicity | : Not classified |
| STOT-single exposure  | : Not classified |

### Methyl Methacrylate (80-62-6)

|                      |                                   |
|----------------------|-----------------------------------|
| STOT-single exposure | May cause respiratory irritation. |
|----------------------|-----------------------------------|

|                                     |  |
|-------------------------------------|--|
| STOT-repeated exposure              | : Not classified                                   |
| Aspiration hazard                   | : Not classified                                   |
| Viscosity, kinematic                | : No data available                                |
| Symptoms/effects after skin contact | : Irritation. May cause an allergic skin reaction. |
| Symptoms/effects after eye contact  | : Mild eye irritation.                             |

## SECTION 12: Ecological information

### 12.1. Toxicity

|                   |  |
|-------------------|--|
| Ecology - general | : The product is not considered harmful to aquatic organisms or to cause long-term adverse effects in the environment. |
|-------------------|--|

### 12.2. Persistence and degradability

No additional information available

### 12.3. Bioaccumulative potential

No additional information available

### 12.4. Mobility in soil

No additional information available

### 12.5. Other adverse effects

No additional information available

## SECTION 13: Disposal considerations

### 13.1. Disposal methods

|                         |   |
|-------------------------|---|
| Waste treatment methods | : Dispose of contents/container in accordance with licensed collector's sorting instructions. |
| Additional information  | : Flammable vapors may accumulate in the container.   |

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### SECTION 14: Transport information

#### Department of Transportation (DOT)

In accordance with DOT

|                                |   |
|--------------------------------|---|
| Transport document description | : UN1247 Methyl methacrylate monomer, stabilized, 3, II         |
| UN-No.(DOT)                    | : UN1247  |
| Proper Shipping Name (DOT)     | : Methyl methacrylate monomer, stabilized                       |
| Class (DOT)                    | : 3 - Class 3 - Flammable and combustible liquid 49 CFR 173.120 |
| Packing group (DOT)            | : II - Medium Danger  |
| Hazard labels (DOT)            | : 3 - Flammable liquid  |



|  |  |
|--|--|
| DOT Packaging Non Bulk (49 CFR 173.xxx)                          | : 202  |
| DOT Packaging Bulk (49 CFR 173.xxx)                              | : 242  |
| DOT Special Provisions (49 CFR 172.102)                          | : 387 - When materials are stabilized by temperature control, the provisions of §173.21(f) of this subchapter apply. When chemical stabilization is employed, the person offering the material for transport shall ensure that the level of stabilization is sufficient to prevent the material as packaged from dangerous polymerization at 50 °C (122 °F). If chemical stabilization becomes ineffective at lower temperatures within the anticipated duration of transport, temperature control is required and is forbidden by aircraft. In making this determination factors to be taken into consideration include, but are not limited to, the capacity and geometry of the packaging and the effect of any insulation present, the temperature of the material when offered for transport, the duration of the journey, and the ambient temperature conditions typically encountered in the journey (considering also the season of year), the effectiveness and other properties of the stabilizer employed, applicable operational controls imposed by regulation (e.g.requirements to protect from sources of heat, including other cargo carried at a temperature above ambient) and any other relevant factors. The provisions of this special provision will be effective until January 2, 2019, unless we terminate them earlier or extend them beyond that date by notice of a final rule in the Federal Register.<br>IB2 - Authorized IBCs: Metal (31A, 31B and 31N); Rigid plastics (31H1 and 31H2); Composite (31HZ1). Additional Requirement: Only liquids with a vapor pressure less than or equal to 110 kPa at 50 C (1.1 bar at 122 F), or 130 kPa at 55 C (1.3 bar at 131 F) are authorized.<br>T4 - 2.65 178.274(d)(2) Normal..... 178.275(d)(3)<br>TP1 - The maximum degree of filling must not exceed the degree of filling determined by the following: Degree of filling = $97 / 1 + a (tr - tf)$ Where: tr is the maximum mean bulk temperature during transport, and tf is the temperature in degrees celsius of the liquid during filling. |
| DOT Packaging Exceptions (49 CFR 173.xxx)                        | : 150  |
| DOT Quantity Limitations Passenger aircraft/rail (49 CFR 173.27) | : 5 L  |
| DOT Quantity Limitations Cargo aircraft only (49 CFR 175.75)     | : 60 L   |
| DOT Vessel Stowage Location                                      | : C - The material must be stowed "on deck only" on a cargo vessel and on a passenger vessel.  |
| DOT Vessel Stowage Other   | : 25 - Protected from sources of heat,40 - Stow "clear of living quarters"   |
| Emergency Response Guide (ERG) Number                            | : 129P   |
| Other information  | : No supplementary information available.  |

#### Transportation of Dangerous Goods

Not applicable

#### Transport by sea

|                                       |   |
|---------------------------------------|---|
| Transport document description (IMDG) | : UN 1247 METHYL METHACRYLATE MONOMER, STABILIZED, 3, II (8°C c.c.) |
| UN-No. (IMDG)                         | : 1247  |
| Proper Shipping Name (IMDG)           | : METHYL METHACRYLATE MONOMER, STABILIZED                           |
| Class (IMDG)                          | : 3 - Flammable liquids   |
| Packing group (IMDG)                  | : II - substances presenting medium danger                          |
| Limited quantities (IMDG)             | : 1 L   |

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### Air transport

|                                       |  |
|---------------------------------------|--|
| Transport document description (IATA) | : UN 1247 Methyl methacrylate monomer, stabilized, 3, II |
| UN-No. (IATA)                         | : 1247   |
| Proper Shipping Name (IATA)           | : Methyl methacrylate monomer, stabilized                |
| Class (IATA)                          | : 3 - Flammable Liquids                                  |
| Packing group (IATA)                  | : II - Medium danger                                     |

## SECTION 15: Regulatory information

### 15.1. US Federal regulations

#### OSTEO-BED RESIN SOLUTION (DS #355)

Not listed on the United States TSCA (Toxic Substances Control Act) inventory

#### Methyl Methacrylate (80-62-6)

Listed on the United States TSCA (Toxic Substances Control Act) inventory  
Subject to reporting requirements of United States SARA Section 313  
Listed on EPA Hazardous Air Pollutant (HAPS)

CERCLA RQ 1000 lb

### 15.2. International regulations

#### CANADA

#### OSTEO-BED RESIN SOLUTION (DS #355)

Not listed on the Canadian DSL (Domestic Substances List)/NDSL (Non-Domestic Substances List)

#### Methyl Methacrylate (80-62-6)

Listed on the Canadian DSL (Domestic Substances List)

### EU-Regulations

#### National regulations

No additional information available

### 15.3. US State regulations

| Component                    | State or local regulations  |
|------------------------------|---|
| Methyl Methacrylate(80-62-6) | U.S. - Massachusetts - Right To Know List; U.S. - New Jersey - Right to Know Hazardous Substance List; U.S. - Pennsylvania - RTK (Right to Know) List |

## SECTION 16: Other information

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#### Hazard Rating

|              |   |
|--------------|---|
| Health       | : 2 Moderate Hazard - Temporary or minor injury may occur   |
| Flammability | : 3 Serious Hazard - Materials capable of ignition under almost all normal temperature conditions. Includes flammable liquids with flash points below 73 F and boiling points above 100 F. as well as liquids with flash points between 73 F and 100 F. (Classes IB IC) |
| Physical     | : 2 Moderate Hazard - Materials that are unstable and may undergo violent chemical changes at normal temperature and pressure with low risk for explosion. Materials may react violently with water or form peroxides upon exposure to air.                             |

SDS US (GHS HazCom 2012)

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