1. IDENTIFICATION OF THE PREPARATION AND OF THE COMPANY/UNDERTAKING

1.1 Identification of the mixture: VisiJet® M2 ENT, VisiJet M2 EBK

1.2 Use of the preparation: For use with ProJet® 2500 systems

1.3 Company/undertaking identification:

3D Systems, Inc. 333 Three D Systems Circle
Rock Hill, South Carolina U.S.A.
Phone: 803.326.3900 or Toll-free Phone: 800.793.3669
e-mail: moreinfo@3dsystems.com
Chemical Emergency: 800.424.9300 – Chemtrec

3D Systems Europe Ltd. Mark House, Mark Road
Hemel Hempstead Herts HP2 7 United Kingdom
Phone: +44 144-2282600 e-mail: moreinfo@3dsystems.com
Chemical Emergency: +44(0)7532.3887 - Chemtrec

3D Systems / Australia 5 Lynch Street
Hawthorn, VIC 3122

3D Systems Europe Ltd. Mark House, Mark Road
Hemel Hempstead Herts HP2 7 United Kingdom
Phone: +44 144-2282600 e-mail: moreinfo@3dsystems.com
Chemical Emergency: +44(0)7532.3887 - Chemtrec

3D Systems Europe Ltd. Mark House, Mark Road
Hemel Hempstead Herts HP2 7 United Kingdom
Phone: +44 144-2282600 e-mail: moreinfo@3dsystems.com
Chemical Emergency: +44(0)7532.3887 - Chemtrec

3D Systems Europe Ltd. Mark House, Mark Road
Hemel Hempstead Herts HP2 7 United Kingdom
Phone: +44 144-2282600 e-mail: moreinfo@3dsystems.com
Chemical Emergency: +44(0)7532.3887 - Chemtrec

3D Systems / Australia 5 Lynch Street
Hawthorn, VIC 3122

2. HAZARDS IDENTIFICATION


<table>
<thead>
<tr>
<th>Hazard Class</th>
<th>Category</th>
<th>Code</th>
</tr>
</thead>
<tbody>
<tr>
<td>Eye irritation</td>
<td>2</td>
<td>H319</td>
</tr>
<tr>
<td>Skin irritation</td>
<td>2</td>
<td>H315</td>
</tr>
<tr>
<td>Skin Sensitization</td>
<td>1</td>
<td>H317</td>
</tr>
<tr>
<td>Acute toxicity, inhalation</td>
<td>4</td>
<td>H332</td>
</tr>
<tr>
<td>Aquatic environment – long-term hazard</td>
<td>2</td>
<td>H411</td>
</tr>
</tbody>
</table>

2.2 Label Elements

Regulation (EC) No, 1272/2008:
Hazard pictograms and signal word:

![GHS09](image1) ![GHS07](image2)

Signal word: Danger

Hazard determining components of labelling: Monofunctional aliphatic urethane acrylate

Hazard statements:

- **H319** Causes serious eye irritation
- **H315** Causes skin irritation
- **H317** May cause an allergic skin reaction
- **H332** Harmful if inhaled
- **H411** Toxic to aquatic life with long lasting effects

Precautionary statements:

- **P261** Avoid breathing dust/fume/gas/mist/vapours/spray
- **P273** Avoid release to the environment
- **P280** Wear protective gloves, protective clothing, eye protection
- **P302+350** If on skin, wash with soap and water
- **P304+340** If inhaled Remove person to fresh air and keep comfortable for breathing.
VisiJet® M2 ENT, VisiJet M2 EBK
Revision Date: March 22, 2019

3. COMPOSITION/INFORMATION ON INGREDIENTS

3.1 Chemical characterization:
Description: Organic mixture

3.2 Dangerous components:

<table>
<thead>
<tr>
<th>Chemical name</th>
<th>CAS-No</th>
<th>EC-No</th>
<th>%</th>
<th>Classification</th>
</tr>
</thead>
<tbody>
<tr>
<td>Monofunctional aliphatic urethane acrylate</td>
<td>63225-53-6</td>
<td>264-036-0</td>
<td>70-80</td>
<td>Acute Tox.3, H331</td>
</tr>
<tr>
<td>Isobornyl methacrylate</td>
<td>7534-94-3</td>
<td>231-403-1</td>
<td>5-15</td>
<td>Skin Sens.1, H317, H317</td>
</tr>
<tr>
<td>Phenylbis(2,4,6-trimethyl benzoyl)-phosphate oxide</td>
<td>162881-26-7</td>
<td>423-340-5</td>
<td>1-3</td>
<td>Eye Irrit. 2, H319, H319, H317</td>
</tr>
<tr>
<td>Acrylic Resin</td>
<td>Proprietary</td>
<td>Proprietary</td>
<td>1-5</td>
<td>Skin Sens. 1, H317, H319, H317, H413</td>
</tr>
</tbody>
</table>

4. FIRST AID MEASURES

4.1 General Information:
Ensure that eyewash stations and safety showers are close to the workstation location. Immediately remove any clothing soiled by the product. Symptoms of poisoning may even occur after several hours. Therefore medical observation is required for at least 48 hours after the accident. In case of irregular breathing or respiratory arrest, provide artificial respiration. Involve doctor immediately.

4.2 In case of inhalation:
Move affected person to fresh air. Call for a doctor. In case of unconsciousness place patient stably in side position for transportation. Seek medical treatment. Do not use mouth to mouth or mouth to nose resuscitation.

4.3 In case of skin contact: May cause irritation or sensitization by skin contact, including redness and/or swelling. Immediately flush skin with plenty of soap and water. Remove contaminated clothing and shoes. Get medical attention if symptoms occur. Wash clothing before reuse.

4.4 In case of eye contact: Irritating to eyes. Causes redness, swelling and pain. Immediately flush eyes with plenty of water for at least 15 minutes. Get medical attention if symptoms persist.

4.5 In case of ingestion: Irritating to mouth, throat and stomach. If ingested, drink plenty of water and seek immediate medical attention. Do not induce vomiting.

4.6 Self-protection of the first aider: Put on appropriate protective equipment (see section 8). Move exposed person to fresh air. Remove contaminated clothing and shoes.
5. FIRE-FIGHTING MEASURES

5.1 Suitable extinguishing media: Water mist, dry chemical, carbon dioxide, or appropriate foam.

5.2 Extinguishing media which must not be used for safety reasons: High volume water jet.

5.3 Special exposure hazards arising from the substance or preparation itself, combustion products, resulting gases: Thermal decomposition products can include CO₂, CO, NOₓ, and smoke.

5.4 Special protective equipment for fire-fighters: Wear full protective clothing, including helmet, self-contained positive-pressure or pressure demand breathing apparatus, protective clothing and facemask.

5.5 Additional information: Move container from area if it can be done without risk. Cool containers with water spray. Avoid inhalation of material or combustion by-products.

6. ACCIDENTAL RELEASE MEASURES

6.1 Personal precautions: Keep unnecessary personnel away. Wear appropriate protective equipment and clothing. Consult expert immediately.

6.2 Environmental precautions: Stop the flow of material, if this is without risk. Ventilate contaminated area. Eliminate sources of ignition. In case of contamination of aquatic environment, inform local authorities.

6.3 Methods for cleaning up: Wear appropriate protective equipment and clothing. Absorb spillage with suitable absorbent materials. Place all waste in an appropriate container for disposal. The material and its container must be disposed of as hazardous waste. Keep away from sources of ignition.

7. HANDLING AND STORAGE

7.1 Handling: Provide adequate ventilation. Use suitable protective equipment. Avoid contact with skin and eyes. Do not breathe vapors or mist. Avoid ignition sources. Do not allow to enter drains or watercourses.

7.2 Storage: Store sealed in the original container at room temperature. Keep this material indoors in a cool, dry, well-ventilated place. Store out of direct sunlight or UV light sources. Storage Temperature: below 35 °C / 95 °F. Storage class 10, environmentally hazardous liquids.

8. EXPOSURE CONTROLS / PERSONAL PROTECTION

8.1 Exposure limit values:
General Product Information: No occupational exposure limits (PEL/TWA) have been established for this product.

Component Analysis:

<table>
<thead>
<tr>
<th>Component</th>
<th>Component Manufacturer IEL (Internal Exposure Limit)</th>
<th>DNEL (Derived No-Effect Level)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Phenylbis (2,4,6-trimethyl benzoyl)- phosphine oxide</td>
<td>7.8 mg/m³</td>
<td>1 mg/kg bw/day Population: Consumers Effects: Systemic</td>
</tr>
<tr>
<td>Monofunctional aliphatic urethane acrylate</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Component</th>
<th>Long Term Oral</th>
<th>Long Term Dermal</th>
<th>Long Term Inhalation</th>
</tr>
</thead>
<tbody>
<tr>
<td>Phenylbis (2,4,6-trimethyl benzoyl)- phosphine oxide</td>
<td>7.8 mg/m³</td>
<td>1 mg/kg bw/day Population: Consumers Effects: Systemic</td>
<td>1.7 mg/m³</td>
</tr>
<tr>
<td>Monofunctional aliphatic urethane acrylate</td>
<td>2 mg/kg bw/day Population: Worker</td>
<td>9.9 mg/m³ Population: Workers Effects: Systemic</td>
<td></td>
</tr>
</tbody>
</table>
8.2 Exposure controls

**Technical measures to prevent exposure:** Use local exhaust ventilation.

**Instructual measures to prevent exposure:** When using, do not eat, drink or smoke. Wash hands after handling and before eating, smoking and using the lavatory and at the end of the day.

**Personal protection equipment:**
- **Respiratory protection:** If ventilation cannot effectively keep vapor concentrations below established limits, appropriate certified respiratory protection must be provided. In case of brief exposure or low pollution use respiratory filter device. In case of intensive or longer exposure use self-contained respiratory protective device. 
  - Short term filter device: Filter A/P2
- **Hand protection:** Use thick (>0.5 mm) impervious nitrile gloves.
- **Eye protection:** Wear safety glasses or chemical goggles.
- **Body protection:** Use apron and closed shoes.

9. PHYSICAL AND CHEMICAL PROPERTIES

9.1 Appearance:
- **Physical state:** Liquid
- **Colour:** Slightly yellow or black
- **Odour:** Mild

9.2 Important health, safety and environmental information

- **pH (20 °C):** NA
- **Melting point/range (°C):** NA
- **Boiling point/range (°C):** NA
- **Flash point (°C):** VisiJet M2-ENT 141°C / VisiJet M2-EBK 147°C (COC)
- **Ignition temperature (°C):** NA
- **Vapour pressure (°C):** NA
- **Density (g/cm3):** 1.1
- **Bulk density (kg/m3):** NA
- **Water solubility (20°C in g/l):** insoluble
- **Partition coefficient:** NA
- **n-Octanol/Water (log Po/w):** NA
- **Viscosity, dynamic (mPa s):** 12 (80°C)
- **Dust explosion hazard:** NA
- **Explosion limits:** NA

10. STABILITY AND REACTIVITY

10.1 **Conditions to avoid:** Avoid exposure to heat and light. Take necessary actions to avoid static electricity discharge.

10.2 **Materials to avoid:** Oxidizing materials, strong acids and strong bases

10.3 **Hazardous decomposition products:** Carbon dioxide, carbon monoxide and other toxic fumes can be released at high temperatures or upon burning.

11. TOXICOLOGICAL INFORMATION

11.1 **Toxicokinetics, metabolism and distribution:** NA
11.2 Acute effects (toxicity tests)

<table>
<thead>
<tr>
<th>Component</th>
<th>LD₅₀ Oral</th>
<th>LD₅₀ Dermal</th>
<th>LC₅₀/4h Inhalative (mist)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Monofunctional aliphatic urethane acrylate</td>
<td>&gt;2000-5000 mg/kg (rat)</td>
<td>NA</td>
<td>0.5 - 1 mg/l (rat) (OECD 436)</td>
</tr>
<tr>
<td>Isobornyl methacrylate</td>
<td>NA</td>
<td>NA</td>
<td>(inhalative toxicity 4h, Rat)</td>
</tr>
<tr>
<td>Phenylbis (2,4,6-trimethyl benzoyl)- phosphine oxide</td>
<td>&gt;2000 mg/kg (rat)</td>
<td>&gt; 2000 mg/kg</td>
<td></td>
</tr>
</tbody>
</table>

Irritation to respiratory tract: irritating
Skin irritation: irritating
Eye irritation: irritating
Sensitisation: Causes sensitisation

11.3 Experiences made in practice
Once sensitized, a severe allergic reaction may occur when subsequently exposed to very low levels.

11.4 General remarks:
Carcinogenicity: None of this product’s components are listed by ACGIH, IARC, OSHA, NIOSH, or NTP.

12. Ecological information

12.1 Ecotoxicity: The aquatic toxicity of the product is unknown; however based on components, it is predicted that this material may be harmful to aquatic organisms or cause long-term adverse effects in the aquatic environment. Prevent contamination of soil, drains and surface waters.

<table>
<thead>
<tr>
<th>Component</th>
<th>Data</th>
</tr>
</thead>
<tbody>
<tr>
<td>Monofunctional aliphatic urethane acrylate</td>
<td>EC 50/48h: 18.6 mg/l (daphnia)</td>
</tr>
<tr>
<td>Isobornyl methacrylate</td>
<td>NA</td>
</tr>
<tr>
<td>Phenylbis (2,4,6-trimethyl benzoyl)- phosphine oxide</td>
<td>EC 50 (48h): 117.5 mg/l (Daphnia magna)</td>
</tr>
</tbody>
</table>

12.2 Persistence and degradability

<table>
<thead>
<tr>
<th>Component</th>
<th>Data</th>
</tr>
</thead>
<tbody>
<tr>
<td>Monofunctional aliphatic urethane acrylate</td>
<td>Aquatic half-life Fresh water 132 days, 25°C</td>
</tr>
</tbody>
</table>

12.3 Bioaccumulative potential

<table>
<thead>
<tr>
<th>Component</th>
<th>Data</th>
</tr>
</thead>
<tbody>
<tr>
<td>Monofunctional aliphatic urethane acrylate</td>
<td>Biodegradability 15 % (28d) (OECD 301F)</td>
</tr>
</tbody>
</table>

12.4 Mobility in soil

<table>
<thead>
<tr>
<th>Component</th>
<th>Data</th>
</tr>
</thead>
<tbody>
<tr>
<td>Monofunctional aliphatic urethane acrylate</td>
<td>Soil/water partition coefficient (Koc) 75,86</td>
</tr>
</tbody>
</table>

Ecotoxic effects:
- Remark: Toxic for fish
- Additional ecological information:
- General notes:
  Water hazard class 2 (German Regulation) (Self-assessment): hazardous for water
  Do not allow product to reach ground water, water course or sewage system.
  Danger to drinking water if even small quantities leak into the ground.
  Also poisonous for fish and plankton in water bodies.
  Toxic for aquatic organisms
12.5 Results of PBT and vPvB assessment
- PBT: Persistent: Yes
- vPvB: Not applicable.

12.6 Other adverse effects
No further relevant information available.

13. DISPOSAL CONSIDERATIONS

13.1 Appropriate disposal / Product: Do not contaminate drains, soil or surface waters with this material or its container. Reduce waste by attempting to utilize product completely. Dispose of this container and its contents in accordance with all local, state, and federal regulations. Do not reuse or refill.

13.2 Waste codes / waste designations according to EWC / AVV: 08 01 99 wastes not otherwise specified

13.3 Appropriate packaging: NA

13.4 Additional information: Prior to disposal 3D Systems recommends consulting an approved waste disposal firm to ensure regulatory compliance.

14. TRANSPORT INFORMATION

14.1 Land transport (ADR/RID/GGVSE):
Official transport designation: Environmentally hazardous substance, liquid N.O.S.
UN-No.: 3082
Class: 9
Packing group: III
Marine pollutant: yes
Contains: Acrylates

14.2 Sea transport (IMDG-Code/GGVSee):
Official transport designation: Environmentally hazardous substance, liquid N.O.S.
UN-No.: 3082
Class: 9
Packing group: III
Marine pollutant: yes
Contains: Acrylates

14.3 Air transport (ICAO-IATA/DGR):
Official transport designation: Environmentally hazardous substance, liquid N.O.S.
UN-No.: 3082
Class: 9
Packing group: III
Contains: Acrylates

15. REGULATORY INFORMATION

15.1 EU regulations
EINEC/ELINCS/NLP: All materials are listed or exempt from listing.
REACH Annex XVII: None listed

15.2 National EU regulations
Wassergefährdungsklasse (water hazard class, Germany): WGK 2: Hazard to waters
15.3 US FEDERAL
TSCA: All materials are listed on the TSCA Inventory or are not subject to TSCA requirements
SARA 302 EHS List (40 CFR 355 Appendix A): None listed
SARA 313 (40 CFR 372.65): None listed
CERCLA (40 CFR 302.4): None listed

15.4 Australian regulations
All substances are listed according to chemical regulations of Australia, Canada, China, South Korea and Japan (ENCS) and EU REACH, Taiwan and USA

15.5 Japanese regulations
| Chemical Risk Information platform (CHRIP) | Listed
| Industrial Health and Safety Law | not applicable |
| Hazardous material | not applicable |
| Organic solvent poison prevention rule | not applicable |
| Ordinance on prevention of hazard due to specified chemical substances | not applicable |
| Lead Poisoning Prevention Rule | not applicable |
| Poison and Deleterious Substance Control law | not applicable |
| PRTR and Promotion of Chemical Management law (PRTR Law) | no listed components |
| Fire Services Act | Category 4, Class 3, oil |
| Explosives Law | not applicable |
| High pressure gas safety law | not applicable |
| Export Trade Control Order | not applicable |
| Waste Disposal and Public Cleaning Law | applicable. Before disposal, consult an approved waste disposal operative to ensure regulatory compliance. |

16. OTHER INFORMATION

16.1 Relevant Hazard Statements (number and full text) referred to in sections 2 and 3 (according to (EC) No. 1272/2008):
Skin irrit. 2, H 315- Skin irritation, category 2, H315: Causes skin irritation
Skin sens. 1, H 317- Skin sensitization, category 1, H317: May cause an allergic skin reaction
Eye Irrit. 2, H319- Eye irritation, category 2, H319: Causes serious eye irritation
Acute Tox.3, H331- Acute toxicity, category 3, H 331: Toxic if inhaled
Acute Tox.4, H332- Acute toxicity, category 4, H 332: Harmful if inhaled
Aqu.Chron. 2, H41-1: Aquatic environment – long-term hazard, category 2, H411: Toxic to aquatic life with long lasting effects
Aqu. Chron. 4, H413: Aquatic environment – long-term hazard, category 4, H413: May cause long lasting harmful effects to aquatic life

16.2 Further information:
SDS Creation Date: ..........December 30, 2015
SDS Revision #: ............03
SDS Revision Date:.......March 22, 2019
Reason for Revision: .....Update section 2, 3, 14, 15, 16.

www.3dsystems.com
800.793.3669 (Toll-free in the US GMT-07:00; N. America, Mon – Fri, 6:00 a.m. to 6 p.m.)
803.326.3900 (Outside the U.S, GMT-07:00; N. America, Mon – Fri, 6:00 a.m. to 6 p.m.)
+44 144-2282600 (Europe GMT+01:00; Mon – Fri, 08:00 a.m. - 17:00 p.m. MEZ)
DISCLAIMER OF LIABILITY: The following supersedes any related provision in your company’s forms, letters, and agreements from, by or with 3D Systems Corporation. 3D Systems, Inc. makes no warranty whether expressed or implied, including warranties of merchantability or of fitness for a particular purpose for this product. No statements or recommendations contained in the product literature are to be construed as inducements to infringe any relevant patent now or hereafter in existence. Under no circumstances shall 3D Systems, Inc. be liable for incidental, consequential, or other damages from alleged negligence, breach of warranty, strict liability or any other theory, arising out of the use or handling of this product. The sole liability of 3D Systems, Inc. for any claims arising out of the manufacture, use or sale of its products shall be for the buyer’s purchase price.

The contents of this safety data sheet are subject to change without notice. 3D Systems, Inc. recommends that you periodically check www.3dsystems.com to make sure you are using the most current safety data sheet.

© Copyright 2015 - 2019 by 3D Systems, Inc. All rights reserved. The 3D logo, VisiJet and ProJet are registered trademarks of 3D Systems, Inc.