

VisiJet® EX 200, VisiJet M3 Crystal

Revision Date: July 23, 2020

1. IDENTIFICATION OF THE PREPARATION AND OF THE COMPANY/UNDERTAKING**1.1 Identification of the mixture: VisiJet® EX 200, VisiJet M3 Crystal****1.2 Use of the preparation:** For use with ProJet® SD, HD, HD+, HDMax, 3600W, 3600WMax Professional 3D Printers.**1.3 Company/undertaking identification:**

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1.4. Emergency telephone number:

U.S.A.:
Chemical Emergency:
800.424.9300 – Chemtrec

Europe:
Chemical Emergency:
+1 703.527.3887 - Chemtrec

Australia:
Chemical Emergency:
+(61) 29037.2994 – Aus Chemtrec

2. HAZARDS IDENTIFICATION**2.1 Classification****GHS : Regulation (EC) No. 1272/2008, 29 CFR 1910:****Physical Hazard:**

None

Health Hazard:

Skin irritation	Category 2	H315
Skin Sensitization	Category 1	H317
Serious eye damage/irritation	Category 2	H319

Environmental Hazard:

Aquatic environment-long-term hazard	Category 3	H412
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2.2 Label Elements**Regulation (EC) No, 1272/2008:****Hazard pictograms and signal word:****GHS07****Signal word: Warning****Hazard determining components of labelling:** 2,2'-ethylenedioxydiethyl dimethacrylate ; Tripropyleneglycol diacrylate; Urethane acrylate oligomers**Hazard statements:**

H315: Causes skin irritation
H317: May cause an allergic skin reaction
H319: Causes serious eye irritation
H412: Toxic to aquatic life with long lasting effects

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Precautionary statements:**Prevention:**

P261: Avoid breathing dust/fume/gas/mist/vapours/spray.
P264: Wash contaminated skin thoroughly after handling.
P272: Contaminated work clothing should not be allowed out of the workplace.
P280: Wear protective gloves/protective clothing/eye protection/face protection.
P273: Avoid release to the environment.

Response:

P302 + P352: IF ON SKIN: Wash with plenty of soap and water.
P321: Specific treatment (Wash contaminated skin with soap and water. Wash eyes with clean water for about 15 minutes).
P362+P364: Take off contaminated clothing and wash before reuse.
P333 + P313: If skin irritation or rash occurs: Get medical advice/attention.
P305 + P351 + P338: IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
P337 + P313: If eye irritation persists: Get medical advice/attention.

Storage:

None

Disposal:

P501 -Dispose of contents/container in accordance with local/state/regional regulations.

Supplementary Information:

Safety : In case of inadequate ventilation wear respiratory protection.
Do not eat, drink or smoke when using this product.

3. COMPOSITION/INFORMATION ON INGREDIENTS**3.1 Chemical characterization:****Description:** Organic mixture**3.2 Mixtures:**

Chemical name	CAS-No	EC-No	%	Classification
				Regulation (EC) 1272/2008
2,2'-ethylenedioxydiethyl dimethacrylate	109-16-0	203-652-6	40-50	Skin Sens Cat 1 - H317
Ethoxylated bisphenol A diacrylate	64401-02-1	613-584-2	15-25	Not classified
Urethane acrylate oligomers	proprietary	proprietary	10-20	Eye Dam/Eye Irri Cat 2 - H319 Skin Corr/Irri Category 2 - H315 Skin Sensitization Cat 1 - H317
Tripropyleneglycol diacrylate	42978-66-5	256-032-2	5-15	Eye Dam/Eye Irri Cat 2 - H319 Skin Corr/Irri Cat 2 - H315 Skin Sens Cat 1 - H317 STOT Single Expo Cat 3 - H335 Aqua Chro Cat 2 - H411

4. FIRST AID MEASURES**4.1 General Information:** Ensure that eyewash stations and safety showers are close to the workstation location.**4.2 In case of inhalation:** May cause respiratory irritation. Move affected person to fresh air. If respiratory irritation occurs, if breathing becomes difficult seek medical attention immediately.**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.

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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, NO_x 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: No Data available

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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 organic vapor respiratory protection must be provided (e.g.3M 6001 organic vapor cartridge with half facepiece 3M 6000 or 3M 7000).**Hand protection:** Use 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:** soft solid to paste**Colour:** colorless**Odour:** Mild**9.2 Important health, safety and environmental information**

pH (20 °C):	NA
Melting point/range (°C):	55-65
Boiling point/range (°C):	NA
Flash point (°C):	185°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):	slightly soluble
Partition coefficient:	NA
n-Octanol/Water (log Po/w):	NA
Viscosity, dynamic (mPa s):	13 (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)**

Component	LD₅₀ Oral	LD₅₀ Dermal
Ethoxylated bisphenol A diacrylate	NA	NA
Urethane acrylate oligomers	>5000mg/kg (rat)	NA
Tripropyleneglycol diacrylate	> 2000 mg/kg	N/A

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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. No ecotoxicity data are available for this product's components.**12.2 Mobility:** No information available for product.**12.3 Persistence and degradability:** No information available for product.**12.4 Results of PBT assessment:** No information available for product**12.5 Other adverse effects:** No information available for product

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:** 070208**13.3 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):** Not Regulated**14.2 Sea transport (IMDG-Code/GGVSee):** Not Regulated**14.3 Air transport (ICAO-IATA/DGR):** Not Regulated**14.4 US Department of Transportation:** Not Regulated

15. REGULATORY INFORMATION**15.1. European Union Regulation:****Safety, health and environmental regulations/legislation specific for the substance or mixture****Persistent Organic Pollutants**

Not applicable

Ozone-depleting substances (ODS) regulation (EC) 1005/2009

Not applicable

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Authorisations and/or restrictions on use:

This product does not contain substances subject to authorization (Regulation (EC) No. 1907/2006 (REACH), Annex XIV) This product does not contain substances subject to restriction (Regulation (EC) No. 1907/2006 (REACH), Annex XVII)

Other EU regulations**Directive 2012/18/EU on major accident hazards involving dangerous substances, as amended.**

Not listed

National regulations:**German Water Hazard Class (WGK):** WGK2 (hazard to waters)**15.2. Chemical safety assessment****Chemical Safety Report** - No information available**15.3 US FEDERAL****TSCA:** All components listed or exempt from listing.**TSCA - 5(a) Significant New Use Rule List of Chemicals:** None**US. Toxic Substances Control Act (TSCA) Section 12(b):** None**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**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 International regulations:** All components of this product are registered or exempt from registration according to chemical regulations in Australia, Canada, China, European Union, New Zealand, South Korea, Switzerland, Taiwan and United States.**15.5 South Korea regulations**

All chemical ingredients in this formulation are registered or exempt from registration under South Korean chemical regulations.

A. Restrictions under the Industrial Safety and Health Law

Harmful Substances Requiring Permission for Manufacture or Use: Not regulated.

Controlled Hazardous Substances: Not regulated.

Harmful Substances Requiring Special Medical Examination: Not regulated.

Workplace Environmental Monitoring Harmful Materials: Not regulated.

Occupational Exposure Limit: Not regulated.

B. Restrictions under the Chemicals Control Law (Previously Toxic Chemicals Control Law)

Accidental Release Prevention Substances: Not regulated.

Observational Chemicals: Not regulated.

C. Restrictions under the Dangerous Substance Safety Management Act

Not regulated

D. Restrictions under the Wastes Control Act

Halogenated Materials in Waste Organic Solvents: Not regulated.

Hazardous Substances: Not regulated.

E. Restrictions under other foreign or domestic laws

Clean Air Conservation Act

Air Pollutants: Not regulated.

Specific Air Pollutants: Not regulated.

Act on the Registration and Evaluation of Chemicals

Banned Toxic Chemicals: Not regulated.

Designated Existing Chemicals Subject to Registration (PEC) (MoE No. 2015-92): Not listed.

Restricted Chemical Substances: Not regulated.

Toxic Chemicals: Not regulated

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15.6 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	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):**

H315: Causes skin irritation
H317: May cause an allergic skin reaction
H319: Causes serious eye irritation
H335: May cause respiratory irritation
H411: Toxic to aquatic life with long lasting effects
H412: Harmful to aquatic life with long lasting effects

16.2 Further information:

SDS Creation Date: July 2012
SDS Revision #: -03-A
SDS Revision Date: July 23, 2020
Reason for Revision: Update header, sections 1, 2, 3, 12, 14, 15, 16.

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