

Figure 4[®] RUBBER-65A BLK

Revision Date: July 21, 2020

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

1.1 Identification of the mixture: Figure 4 RUBBER-65A BLK

1.2 Use of the preparation: For use with Figure 4[®] systems

1.3 Company/undertaking identification:

3D Systems, Inc.
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Rock Hill, South Carolina U.S.A.
Phone: 803.326.3900 or
Toll-free Phone: 800.793.3669
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800.424.9300 – Chemtrec

3D Systems Europe Ltd. 200 Maylands Avenue Hemel Hempstead Herts, HP2 7TG United Kingdom Phone: +44 144-2282600 e-mail: moreinfo@3dsystems.com Chemical Emergency: +1 703.527.3887 - Chemtrec 3D Systems Asia-Pacific 30-32 Ceylon St Nunawading VIC 3131 Australia +61 3 9819 4422 e-mail: moreinfo@3dsystems.com 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 Corrosion/Irritation | Category 2 | H315 |
|-----------------------------------|------------|------|
| Serious Eye Damage/Eye Irritation | Category 1 | H318 |
| Skin Sensitization | Category 1 | H317 |
| Acute (Oral) | Category 4 | H302 |

Environmental Hazard:

| Aquatic Acute | Category 1 | H400 | |
|---------------------|------------|------|--|
| Aquatic Tox Chronic | Category 1 | H410 | |

2.2 Label Elements

Regulation (EC) No, 1272/2008:

Hazard pictograms and signal word:







GHS07

GHS05

GHS09

Signal word: Danger

Hazard determining components of labelling: Urethane Methacrylate, 4-hydroxybutyl acrylate, Isobornyl acrylate

Hazard statements:

H302: Harmful if swallowed

H315: Causes skin irritation

H317: May cause an allergic skin reaction

H318: Causes serious eye damage

H400: Very toxic to aquatic life

H410: Very Toxic to aquatic life with long-lasting effects



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Precautionary statements:

Prevention:

P260: Do not breathe dust/fume/gas/mist/vapors/spray.

P264: Wash contaminated skin thoroughly after handling.

P270: Do not eat, drink or smoke when using this product.

P271: Use only outdoors or in a well-ventilated area.

P272: Contaminated work clothing should not be allowed out of the workplace.

P273: Avoid release to the environment.

P280: Wear protective gloves/protective clothing/eye protection/face protection.

P285: In case of inadequate ventilation wear respiratory protection.

Response:

P302 + P352: IF ON SKIN: Wash with plenty of soap and water

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

P307 + P311: IF exposed: Call a POISON CENTER or doctor/physician.

P333 + P313: If skin irritation or rash occurs: Get medical advice/attention.

P362: Take off contaminated clothing and wash before reuse

P391: Collect spillage.

Storage:

P410 + P403: Protect from sunlight. Store in a well-ventilated place.

Disposal:

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

3. COMPOSITION/INFORMATION ON INGREDIENTS

3.1 Chemical characterization:

Description: Organic mixture

3.2 Dangerous components:

| Chemical name | CAS- number | EC- number | % | Classification Regulation (EC) 1272/2008 |
|-------------------------|----------------|---------------|---------|---|
| Urethane Methacrylate | Proprietary | Proprietary | 10 - 30 | Skin Sensitization Category 1 - H317 |
| 4-hydroxybutyl acrylate | 2478-10-6 | 219-606-3 | 20-40 | Acute Toxicity (oral) Category 4 - H302 Skin Corrosion/Irritation Category 2 - H315 Skin Sensitization Category 1 - H317 Serious Eye Damage/Eye Irritation Category 1 - H318 |
| Isobornyl acrylate | 5888-33-5 | 227-561-6 | 20-40 | Sensitization Category 1 - H317 Aquatic Acute Category 1 - H400 Aquatic Chronic Category 1 - H410 |

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.
- **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.



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- **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 to minimise exposure. Use of certified respirators and chemical resistant gloves are required to avoid exposure to any unreacted materials during spill clean-up (use of a 3M 6000 respirator with organic vapor cartridge A2 or half mask 3M 4251 is recommended).

Absorb spillage with suitable absorbent materials. Place all waste in an appropriate air tight bags or containers 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.

8.2 Exposure controls

Technical measures to prevent exposure: Use local exhaust ventilation. Make sure that the printer carbon filtration is working properly.

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.



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Personal protection equipment:

Respiratory protection: Recommend to establish engineering controls measures, such as local exhaust

ventilation, to the printing rooms and post processing areas to minimize inhalation exposure.

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: liquid Colour: black

Odour: mild acrylate

9.2 Important health, safety and environmental information

pH (20 °C):

Melting point/range (°C):

NA

Boiling point/range (°C):

NA

Flash point (°C): 96.5 (Pensky-Martens closed cup)

Ignition temperature (°C):

Vapour pressure (°C):

NA

Density (g/cm3):

NA

Bulk density (kg/m3):

Water solubility (20°C in g/l):

Partition coefficient:

NA

n-Octanol/Water (log Po/w):

NA

Viscosity, dynamic (mPa s): ~ 200 - 300 (@ 30 °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) Formulation has not been tested

Acute toxicity of the components:

Irritation to skin and eye Causes sensitisation Corrosive to skin

- **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.



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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.
- 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 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 (DOT/ADR/RID/GGVSE):

UN Number: 3082

Proper shipping name: Environmentally hazardous substance, liquid, n.o.s. Technical name: (Acrylic Polymers -

Other)

Class: 9 Packaging group: III

Marine pollutant: yes Contains: Acrylates

14.2 Sea transport (IMDG-Code/GGVSee):

UN Number: 3082

Proper shipping name: Environmentally hazardous substance, liquid, n.o.s. Technical name: (Acrylic Polymers -

Other)

Class: 9 Packaging group: III

Marine pollutant: yes Contains: Acrylates

14.3 Air transport (ICAO-IATA/DGR):

UN Number: 3082

Proper shipping name: Environmentally hazardous substance, liquid, n.o.s. Technical name: (Acrylic Polymers

-Other)

Class: 9 Packaging group: III

Marine pollutant: yes Contains: Acrylates

14.4 US Department of Transportation (DOT)

UN Number: 3082

Proper shipping name: Environmentally hazardous substance, liquid, n.o.s. Technical name: (Acrylic Polymers -

Other)

Class: 9 Packaging group: III

Marine pollutant: yes Contains: Acrylates



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15. REGULATORY INFORMATION

15.1 EU regulations

EINEC/ELINCS/NLP and Switzerland: Registered or exempt from registration.

REACH Annex XVII: None listed

15.2 EU National regulations

Wassergefährdungsklasse (water hazard class, Germany): WGK 2: Hazard to waters

15.3 US FEDERAL

TSCA: All components listed or exempt from listing

Toxic Substances Control Act (TSCA) - 5(a)(2) Significant New Use Rule List of Chemicals: None

Toxic Substances Control Act (TSCA) Section 12(b) Export Notification (40 CFR 707, Subpart D): 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, Japan, New Zealand, Philippines, South Korea, Taiwan, and USA.

15.5 Japanese regulations

Chemical Risk Information platform (CHRIP)
Industrial Health and Safety Law
Hazardous material
Organic solvent poison prevention rule
Ordinance on prevention of hazard due to specified chemical
substances

not applicable
not applicable
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)

Fire Services Act

Indicapplicable

no listed components

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):

H302: Harmful if swallowed

H315: Causes skin irritation

H317: May cause an allergic skin reaction

H318: Causes serious eye damage

H319: Causes serious eye irritation

H410: Very toxic to aquatic life with long-lasting effects

H400: Very toxic to aquatic life



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16.2 Further information:

SDS Creation Date: December 04, 2019

SDS Revision #:-03-A

SDS Revision Date:......July 21, 2020 Reason for Revision:.....Update section 15.

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