

## Safety Data Sheet

### Accura<sup>®</sup> Bond

Revision Date: December 1, 2020

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

##### 1.1 Identification of the mixture: Accura Bond

**1.2 Use of the preparation:** For use with SLA (Stereolithography) printed parts

##### 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

3D Systems Europe Ltd.  
200 Maylands Avenue  
Hemel Hempstead  
Herts, HP2 7TG United Kingdom  
Phone: +44 144-2282600  
e-mail: moreinfo@3dsystems.com

3D Systems Asia-Pacific  
30-32 Ceylon St  
Nunawading VIC 3131  
Australia  
+61 3 9819 4422  
e-mail: moreinfo@3dsystems.com

##### 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 Sensitization	Category 1	H317
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##### Environmental Hazard:

Aquatic environment – Chronic	Category 2	H411
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##### 2.2 Label Elements

**Regulation (EC) No, 1272/2008:**

**Hazard pictograms and signal word:**



GHS07



GHS09

**Signal word: Warning**

**Hazard determining components of labelling:** 2-Propenoic acid, 1,1'-[(octahydro-4,7-methano-1H-indene-5,2'-diyl)bis(methylene)] ester

##### Hazard statements:

H317: May cause an allergic skin reaction

H411: Toxic to aquatic life with long-lasting effects

##### Precautionary statements:

##### Prevention:

P261: Avoid breathing dust/fume/gas/mist/vapours/spray.

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

P280: Wear protective gloves/protective clothing/eye protection/face protection. P264: Wash contaminated skin thoroughly after handling.

P273: Avoid release to the environment.

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**Response:**

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

P333 + P317: If skin irritation or rash occurs: Get medical help

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.

P391: Collect spillage.

**Storage:**

None

**Disposal:**

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

**Supplementary information:**

Storage: Protect from sunlight. Store in a well-ventilated place.

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### 3. COMPOSITION/INFORMATION ON INGREDIENTS

**3.1 Chemical characterization:**

**Description:** Organic mixture

**3.2 Mixtures:**

Chemical name	CAS-number	EC-number	%	Classification Regulation (EC) 1272/2008
2-Propenoic acid, 1,1'-[(octahydro-4,7-methano-1H-indene-5,?-diyl)bis(methylene)] ester	42594-17-2	255-901-3	40-60	Skin Sensitization Category 1 - H317 Aquatic Chronic Category 2 - H411

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### 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.

**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.

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### 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 CO<sub>2</sub>, CO, NO<sub>x</sub> and smoke.

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**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.

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#### 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:** Do not allow product to enter sewage systems, surface water or ground water.

**6.3 Methods for cleaning up:** Absorb product with liquid-binding material such as sand, universal binders, sawdust. Do not flush down drains. Place in closed containers. Ventilate area and wash spill site after material pickup is complete.

**6.4 Waste Disposal Method:** Follow safe solid waste disposal guidelines in accordance with federal, state and local regulations. National or regional provisions may also be in force. It is the responsibility of the generator to determine whether the material meets the criteria of a hazardous waste.

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#### 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.

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#### 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.

**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 (e.g. 3M 6000 with organic vapor cartridge A2 or half mask 3M 4251).

**Hand protection:** Use impervious nitrile gloves.

**Eye protection:** Wear safety glasses or chemical goggles.

**Body protection:** Use apron and closed shoes.

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## 9. PHYSICAL AND CHEMICAL PROPERTIES

Appearance	-
Physical state	Liquid
Form	Not available
Color	colorless
Odor	Mild acrylate
Odor threshold	Not available
pH	Not available
Melting point/freezing point (°C)	< -80
Initial boiling point and boiling range (°C)	345
Flash point (°C)	~144
Evaporation rate	Not available
Flammability (solid, gas)	Not available
Relative density (g/cm <sup>3</sup> )	1.10 @ 23 °C
Upper/lower flammability or explosive limits	-
Flammability limit - lower (%)	Not available
Flammability limit - upper (%)	Not available
Explosive limit - lower (%)	Not available
Explosive limit - upper (%)	Not available
Vapor pressure	Not available
Vapor density	Not available
Solubility(ies)	-
Solubility (water)	insoluble
Partition coefficient (n-octanol/water)	Not available
Auto-ignition temperature	Not available
Decomposition temperature (°C)	333
Viscosity (cPs)	860 @ 25 °C
Other information	-
Oxidizing properties	Not available
VOC (g/L)	17.7

## 10. STABILITY AND REACTIVITY

10.1 Conditions to avoid: Stable under recommended storage conditions.

10.2 Materials to avoid: Bases, amines, alcohols

10.3 Hazardous decomposition products: Irritant gases/vapors

10.4. Hazardous Polymerization: Exothermic polymerization may occur with amines and other bases

## 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:

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.

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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.

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#### 13. DISPOSAL CONSIDERATIONS

**13.1 Appropriate disposal / Product:** As with all foreign substances do not allow to enter the storm or sewer drainage systems. Dispose of the product by burning in a suitable incinerator or bury in an approved land field following safe solid waste disposal guidelines in accordance with governmental regulations (community, national or regional). Contact a licensed professional waste disposal service to dispose of this product.

**13.2 Waste codes / waste designations according to EWC / AVV**  
20 01 27 paint, inks, adhesives and resins containing dangerous substances

**13.3 Additional information: Uncleaned Packaging:** Recommend that empty containers not be disposed of unless any remaining material adhering to the internal walls has been removed.

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#### 14. TRANSPORT INFORMATION

##### 14.1 Land transport (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. 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

**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

**California Prop. 65 Components:** WARNING: This product can expose you to chemicals known to the State of California to cause birth defects or other reproductive harm. For more information go to [www.P65Warnings.ca.gov](http://www.P65Warnings.ca.gov).

**Chemical Name**

Toluene

**CAS Number**

108-88-3

**15.4 International regulations:** All components of this product are registered or exempt from registration according to chemical regulations is Australia, Canada, China, Japan, South Korea, New Zealand,, Taiwan and USA.

There may be substances not listed in Philippines chemical inventory.

##### 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.

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#### 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):

H317: May cause an allergic skin reaction

H411: Toxic to aquatic life with long-lasting effects

##### 16.2 Further information:

SDS Creation Date: ..... September 10, 2020

SDS Revision #: ..... 02-A

SDS Revision Date: ..... December 1, 2020

Reason for Revision: ..... Update product name, section 2, 3, 9.

[www.3dsystems.com](http://www.3dsystems.com)

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