

Safety Data Sheet

Accura AMX Rigid Black

Revision Date: May 26, 2021

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

1.1 Identification of the mixture: Accura AMX Rigid Black

1.2 Use of the preparation: For use in SLA 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

1.4. Emergency telephone number:

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

2. HAZARDS IDENTIFICATION

2.1 Classification

GHS : Regulation (EC) No. 1272/2008, 29 CFR 1910:

Physical Hazard: None

Health Hazard:

Acute Toxicity (oral)	Category 4	H302
Skin Sensitization	Category 1	H317
Serious Eye Damage/Eye Irritation	Category 1	H318
Reproductive Toxicity	Category 1B	H360
STOT RE 2 (Oral)	Category 2	H373

Environmental Hazard:

Chronic aquatic toxicity	Category 3	H412
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2.2 Label Elements

Regulation (EC) No, 1272/2008:

Hazard pictograms and signal word:



GHS07



GHS05



GHS08

Signal word: Warning

Hazard determining components of labelling: 2-Propen-1-one, 1-(4-morpholinyl); 2-Propenoic acid, 2-methyl-, (1R,2R,4R)-1,7,7-trimethylbicyclo[2.2.1]hept-2-yl ester, rel-; 3,3,5-Trimethylcyclohexyl acrylate; Diphenyl (2,4,6-trimethylbenzoyl) phosphine oxide

Hazard statements:

H302: Harmful if swallowed
H317: May cause an allergic skin reaction
H318: Causes serious eye damage
H360: May damage fertility or the unborn child
H373: May cause damage to organs through prolonged or repeated exposure
H412: Harmful to aquatic life with long-lasting effect

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Precautionary statements:

Prevention:

P203: Obtain, read and follow all safety instructions before use.
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.
P272: Contaminated work clothing should not be allowed out of the workplace.
P280: Wear protective gloves/protective clothing/eye protection/face protection.

Response:

P301 + P317: IF SWALLOWED: Get medical help
P302 + P352: IF ON SKIN: Wash with plenty of soap and water
P305 + P354 + P338: IF IN EYES: Immediately rinse with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
P317: Get medical help.
P318: IF exposed or concerned, get medical advice.
P319: Get medical help if you feel unwell.
P321: Specific treatment (Wash contaminated skin with soap and water. Wash eyes with clean water for about 15 minutes).
P330: Rinse mouth.
P333 + P317: If skin irritation or rash occurs: Get medical help.
P362+P364: Take off contaminated clothing and wash before reuse.

Storage:

P405: Store locked up.

Disposal:

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

Supplementary Information:

Safety: In case of inadequate ventilation wear respiratory protection.

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

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-Propen-1-one, 1-(4-morpholinyl)	5117-12-4	418-140-1	30 - 50	Acute Tox (oral) Cat 4 - H302 Eye Dam/Eye Irri Cat 1 - H318 Skin Sens Cat 1 - H317 STOT RE 2 (Oral) Cat 2 - H373
2-Propenoic acid, 2-methyl-, (1R,2R,4R)-1,7,7-trimethylbicyclo[2.2.1]hept-2-yl ester, rel-	7534-94-3	231-403-1	5 - 25	Skin Irri Cat 2 - H315 Eye Dam/Eye Irri Cat 2 - H319 STOT SE Cat 3 - H335 Aqu Chro Cat 3 - H412
3,3,5-Trimethylcyclohexyl acrylate	86178-38-3	289-200-9	5 - 25	Skin Sens Cat 1 - H317 Aqu Chro Cat 2 - H411 Aqu Acute Cat 1 - H400
Diphenyl (2,4,6-trimethylbenzoyl) phosphine oxide	75980-60-8	278-355-8	1-5	Repro Tox Cat 1B - H360 Skin Sens Cat 1 - H317 Aqu 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.

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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.

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 National Institute for Occupational Safety and Health (NIOSH) certified respirator with an Assigned Protection Factor (APF) of 50).

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: 6.1B

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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 only with systems with installed and fully functional carbon filtration systems. Uncured parts should be transported in closed containers.

Instructional 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: Recommend users establish appropriate engineering control measures, including but not limited to local exhaust ventilation, in rooms/areas where printers are installed and in 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

Appearance	-
Physical state	Liquid
Form	Not available
Color	Black
Odor	Mild acrylate
Odor threshold	Not available
pH	Not available
Melting point/freezing point (°C)	Not available
Initial boiling point and boiling range (°C)	Not available
Flash point (°C)	96.5 (Pensky-Martens closed cup)
Evaporation rate	Not available
Flammability (solid, gas)	Not available
Relative density (g/cm ³)	Not available
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)	Not available
Viscosity (cPs)	200 (@ 30 °C)
Other information	-
Oxidizing properties	Not available
VOC (g/L)	Not available

10. STABILITY AND REACTIVITY

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

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10.2 Materials to avoid: Not tested

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: Formulation has not been tested.

11.3 Chronic effects: This product contains a substance [2-Propen-1-one, 1-(4-morpholinyl)] which according to the US EPA may cause internal organ effects and reproductive effects.

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

11.5 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.

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 DOT:

UN-No.: Not Regulated

UN Proper Shipping Name:

Transport hazard class(es)

Class: Not Available

Subsidiary risk: -

Packing group: Not available

Environmental Hazard:

Marine pollutant: no

Special Precautions for user: Not Available

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14.3 IATA:

UN-No.: Not Regulated
UN Proper Shipping Name:
Transport hazard class(es)
 Class: Not Available
 Subsidiary risk: -
Packing group: Not available
Environmental Hazard: No
Special Precautions for user: Not Available

14.2 IMDG:

UN-No.: Not Regulated
UN Proper Shipping Name:
Transport hazard class(es)
 Class: Not Available
 Subsidiary risk: -
Packing group: Not available
Environmental Hazard:
 Marine pollutant: No
EmS : Not Available

14.1 ADR:

UN-No.: Not Regulated
UN Proper Shipping Name:
Transport hazard class(es)
 Class: Not Available
 Subsidiary risk: -
 Hazard No (ADR): Not available
 Tunnel restriction code : Not available
Packing group: Not available
Environmental Hazard: No
Special Precautions for user: Not available

Further information: Not a dangerous good under DOT, IATA, ADR, IMDG, or RID.
Transport in bulk according to Annex II of MARPOL73/78 and the IBC code: Not applicable.

15. REGULATORY INFORMATION

15.1 European Union Regulations:

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

Authorizations 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

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15.3 US FEDERAL

TSCA: All components are listed (active) or exempt from listing

TSCA – Section 5(e) Consent Order: This product contain 2-Propen-1-one, 1-(4-morpholinyl) subjected to TSCA section 5(e) consent order. Use only in 3D Systems Figure 4 stereolithographic printing applications; Do not release to waters; Avoid direct skin and inhalation exposure to the raw material.

US. Toxic Substances Control Act (TSCA) Section 12(b) Export Notification (40 CFR 707, Subpart D): This product contain 2-Propen-1-one, 1-(4-morpholinyl) (CAS 5117-12-4) subjected to Toxic Substances Control Act Section 12(b) Export Notification.

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 chemical substances in this product are listed according to chemical regulations in Australia, Canada, China, European Union, Japan, New Zealand, South Korea, Switzerland, Taiwan, and USA.

This product may contain substances NOT registered according to chemical regulations in the Philippines.

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.

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

H318: Causes serious eye damage

H317: May cause an allergic skin reaction

H360: May damage fertility or the unborn child

H373: May cause damage to organs through prolonged or repeated exposure

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 10, 2020

SDS Revision #: -02-A

SDS Revision Date: May 26, 2021

Reason for Revision: Update product name, section 2, 3, 7, 9, 10, 14.



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