

Safety Data Sheet

Figure 4[®] High Temp 150C FR Black

Revision Date: July 13, 2021

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

1.1 Identification of the mixture: Figure 4 High Temp 150C FR Black

1.2 Use of the preparation: For 3D printing use in Figure 4[®] 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

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:

Acute (oral) toxicity	Category 4	H302
Skin Sensitization	Category 1	H317
Serious Eye Damage/Eye Irritation	Category 1	H318
STOT Repeated Exposure	Category 2	H373

Environmental Hazard:

Aquatic environment – Chronic	Category 3	H412
-------------------------------	------------	------

2.2 Label Elements

Regulation (EC) No, 1272/2008:

Hazard pictograms and signal word:



GHS07



GHS05



GHS08

Signal word: Danger

Hazard determining components of labelling: Tris(2-hydroxyethyl)isocyanurate ; (Octahydro-4,7-methano-1H-indenediyl)bis(methylene) diacrylate; 1,3,5-Tri-2-propenyl-1,3,5-triazine-2,4,6(1H,3H,5H)-trione; Phenyl bis(2,4,6-trimethylbenzoyl)-phosphine oxide

Hazard statements:

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

Safety Data Sheet

Figure 4[®] High Temp 150C FR Black

Revision Date: July 13, 2021

Precautionary statements:

Prevention:

P260: Do not breathe dust/fume/gas/mist/vapours/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.
 P273: Avoid release to the environment.
 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: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
 P317: Get medical help.
 P319: Get medical advice/attention 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:

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.

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
Tris(2-hydroxyethyl)isocyanurate	40220-08-4	254-843-6	25-40	Eye Dam/Eye Irri Cat 1 - H318 Skin Sensi Cat 1 - H317 Aqua Chro Cat 3 - H412
(Octahydro-4,7-methano-1H-indenediyl)bis(methylene) diacrylate	42594-17-2	255-901-3	5- 15	Skin Sens Cat 1 - H317 Aqua Chro Cat 2 - H411
1,3,5-Tri-2-propenyl-1,3,5-triazine-2,4,6(1H,3H,5H)-trione	1025-15-6	213-834-7	25- 40	Acute (oral) Cat 4 - H302 Acute (dermal) Cat 4 - H312 STOT RE Cat 2 - H373
Phenyl bis(2,4,6-trimethylbenzoyl)-phosphine oxide	162881-26-7	423-340-5	1-10	Skin Sens Cat 1 - H317 Aqua Chro Cat 4 - H413

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.

Safety Data Sheet

Figure 4[®] High Temp 150C FR Black

Revision Date: July 13, 2021

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.

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.

Safety Data Sheet

Figure 4[®] High Temp 150C FR Black

Revision Date: July 13, 2021

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)	Not available
Evaporation rate	Not available
Flammability (solid, gas)	Not available
Relative density (g/cm³)	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)	1000 (@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.

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.

Safety Data Sheet

Figure 4[®] High Temp 150C FR Black

Revision Date: July 13, 2021

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

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

Safety Data Sheet

Figure 4[®] High Temp 150C FR Black

Revision Date: July 13, 2021

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 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.

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 in Australia, Canada, China, European Union, Japan, New Zealand, South Korea, Switzerland, Taiwan and United States.

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

Safety Data Sheet

Figure 4[®] High Temp 150C FR Black

Revision Date: July 13, 2021

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):

H302: Harmful if swallowed Causes serious eye damage
H312: Harmful in contact with skin
H317: May cause an allergic skin reaction
H318: Serious Eye Damage/Eye Irritation
H373: May cause damage to organs through prolonged or repeated exposure
H412: Harmful to aquatic life with long-lasting effects
H413: May cause long-lasting harmful effects to aquatic life

16.2 Further information:

SDS Creation Date: October 6, 2020
SDS Revision #: -03-A
SDS Revision Date: April 23, 2021
Reason for Revision: Update product name.

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 2020 - 2021 by 3D Systems, Inc. All rights reserved. 3D Systems, the 3D logo, and Figure 4 are registered trademarks of 3D Systems, Inc.