

Material Safety Data Sheet

Material Name: POLYMERIZED FULLCURE 720

ID: PFC-720

*** Section 1 - Chemical Product and Company Identification ***

Product Use: Cured polymeric material for industrial use.

Manufacturer Information

Objet Geometries Ltd.
2 Holtzman St., Science Park
P.O. Box 2496, Rehovot 76124
Israel

Phone: +972-8-9314314

Mfg Contact: info@2objet.com

*** Section 2 - Hazards Identification ***

Emergency Overview

This product is considered to be an article according to 29 CFR 1910.1200 (OSHA Hazard Communication Standard). While no specific safety information is required for articles, this Material Safety Data Sheet is provided for informational purposes.

As manufactured and supplied, the cured polymeric material is not hazardous under normal conditions of use.

Potential Health Effects: Eyes

Direct contact with cured resin may be irritating to the eyes.

Potential Health Effects: Skin

Contact with cured resin is not expected to be irritating to skin.

Potential Health Effects: Ingestion

Ingestion is not a likely exposure route. Cured resin is not expected to be irritating to the digestive tract.

Potential Health Effects: Inhalation

Inhalation is not a likely exposure route. Inhalation of cured resin (as particulate or dust) may irritate the respiratory tract.

HMIS Ratings: Health: 1 Fire: 1 Physical Hazard: 0

Hazard Scale: 0 = Minimal 1 = Slight 2 = Moderate 3 = Serious 4 = Severe * = Chronic hazard

*** Section 3 - Composition / Information on Ingredients ***

CAS #	Component	Percent
Not Available	Acrylic oligomers	< 5
5888-33-5	2-Propenoic acid, 1,7,7-trimethylbicyclo[2.2.1]hept-2-yl ester, exo-	< 5
Proprietary	Monomer	< 1

Component Information/Information on Non-Hazardous Components

No additional information is available.

*** Section 4 - First Aid Measures ***

First Aid: Eyes

Flush eyes immediately with water for at least 15 minutes. Seek medical attention if irritation develops or persists.

First Aid: Skin

Wash affected area with soap and water, and seek medical attention if irritation develops or persists.

First Aid: Ingestion

If ingested, seek immediate medical advice. DO NOT INDUCE VOMITING!

First Aid: Inhalation

Remove source of contamination or move affected person to fresh air. Seek medical advice if irritation develops or persists.

*** Section 5 - Fire Fighting Measures ***

General Fire Hazards

See Section 9 for Flammability Properties.

Combustible solid. May form explosive dust/air mixture.

Hazardous Combustion Products

Carbon dioxide, carbon monoxide, and low molecular weight hydrocarbons.

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Extinguishing Media

Water spray, foam, BC dry powder, carbon dioxide.

Unsuitable Extinguishing Media

None identified.

Specific Hazards Arising From the Chemical

None identified.

Fire Fighting Equipment/Instructions

Firefighters should wear full protective clothing including self contained breathing apparatus.

NFPA Ratings: Health: 1 Fire: 1 Reactivity: 0

Hazard Scale: 0 = Minimal 1 = Slight 2 = Moderate 3 = Serious 4 = Severe

* * * Section 6 - Accidental Release Measures * * *

Personal Precautions

Refer to Section 8 of this MSDS.

Containment Procedures

Cured resin solid does not ordinarily pose a spill or leak hazard. Use water spray to keep dust cloud formation to a minimum.

Environmental Precautions

Not applicable under normal conditions of use.

Clean-Up Procedures

Scoop or sweep up spilled solid to a suitable container for disposal. Avoid raising dust (if in powdered form).

Wash contaminated surfaces with soap and water.

Evacuation Procedures

Not ordinarily required.

Special Procedures

Contact local regulatory authorities for advice regarding disposal of cleanup materials.

* * * Section 7 - Handling and Storage * * *

Handling Procedures

Follow good industrial hygiene practices when handling this material. Avoid raising dust. See Section 8 of this MSDS.

Storage Procedures

Not applicable under normal conditions of use.

* * * Section 8 - Exposure Controls / Personal Protection * * *

A: Component Exposure Limits

ACGIH, OSHA, and NIOSH have not developed exposure limits for any of this product's components.

Engineering Controls

Not ordinarily required.

PERSONAL PROTECTIVE EQUIPMENT

Personal Protective Equipment: Eyes/Face

Not ordinarily required.

Personal Protective Equipment: Skin

Not ordinarily required.

Personal Protective Equipment: Respiratory

Not ordinarily required.

Personal Protective Equipment: General

Use good industrial hygiene practices when using this product.

* * * Section 9 - Physical & Chemical Properties * * *

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Appearance:	Solid	Odor:	NA
Physical State:	powder	pH:	NA
Vapor Pressure:	NA	Vapor Density:	NA
Boiling Point:	NA	Melting Point:	NA
Solubility (H2O):	insoluble	Specific Gravity:	NA
Evaporation Rate:	NA	Octanol/H2O Coeff.:	NA
Flash Point:	> 212 °F (> 100 °C) (estimated)	Flammability Class:	Combustible Solid
Auto Ignition:	NA		

*** Section 10 - Chemical Stability & Reactivity Information ***

Chemical Stability

Stable under normal conditions of use and storage.

Chemical Stability: Conditions to Avoid

Exposure to heat.

Incompatibility

Not applicable under normal conditions of use and storage.

Hazardous Decomposition

Combustion products include carbon dioxide, carbon monoxide, low molecular weight hydrocarbons, and possibly nitrogen oxides.

Possibility of Hazardous Reactions

Not applicable.

*** Section 11 - Toxicological Information ***

Acute Dose Effects

A: General Product Information

Under normal conditions of use, the likelihood of exposure effects from solid cured resin are very small. Ingestion, inhalation, eye and skin contact are unlikely to cause harmful effects.

B: Component Analysis - LD50/LC50

2-Propenoic acid, 1,7,7-trimethylbicyclo[2.2.1]hept-2-yl ester, exo- (5888-33-5)

Oral LD50 Rat: 4890 mg/kg; Dermal LD50 Rabbit: >5 g/kg

Irritation

Cured resin may be irritating to eyes (mechanical irritation), and is unlikely to irritate skin, or respiratory/digestive tracts. When tested on rabbit skin, cured resin had a Primary Irritation Index of 0 (not irritating).

Carcinogenicity

A: General Product Information

No information available for product.

B: Component Carcinogenicity

None of this product's components are listed by ACGIH, IARC, OSHA, NIOSH, or NTP.

Sensitization

Cured product tested negative for dermal sensitization.

*** Section 12 - Ecological Information ***

Ecotoxicity

A: General Product Information

No data available for product.

B: Component Analysis - Ecotoxicity - Aquatic Toxicity

No ecotoxicity data are available for this product's components.

Persistence & Degradability

No information available for product.

Bioaccumulation & Accumulation

No information available for product.

Mobility in Environmental Media

No information available for product.

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*** Section 13 - Disposal Considerations ***

US EPA Waste Number & Descriptions

Component Waste Numbers

No EPA Waste Numbers are applicable for this product's components.

Disposal Instructions

Consult with Local, State, or Federal Regulatory agencies for advice regarding recycling or environmentally sound disposal of this product. Ordinarily, disposal as normal office waste will be acceptable.

See Section 7 for Handling Procedures. See Section 8 for Personal Protective Equipment recommendations.

*** Section 14 - Transportation Information ***

US DOT Information

Shipping Name: Not regulated as a hazardous material for transportation.

*** Section 15 - Regulatory Information ***

US Federal Regulations

A: General Product Information

Components of this product have been checked against the non-confidential TSCA inventory by CAS Registry Number. Components not identified on this non-confidential inventory are either exempt from listing (i.e. polymers, hydrates) or are listed on the confidential inventory as declared by the supplier. All components listed in this product are either exempt from listing or are appear on the Canadian DSL/NDSL.

B: Component Analysis

None of this products components are listed under SARA Section 302 (40 CFR 355 Appendix A), SARA Section 313 (40 CFR 372.65), or CERCLA (40 CFR 302.4).

State Regulations

A: General Product Information

Other state regulations may apply. Check individual state requirements.

B: Component Analysis - State

None of this product's components are listed on the state lists from CA, MA, MN, NJ, PA, or RI.

Component Analysis - WHMIS IDL

No components are listed in the WHMIS IDL.

Additional Regulatory Information

A: General Product Information

No information available for the product.

B: Component Analysis - Inventory

Component	CAS #	TSCA	CAN	EEC
2-Propenoic acid, 1,7,7-trimethylbicyclo[2.2.1]hept-2-yl ester, exo-	5888-33-5	Yes	DSL	EINECS
Monomer	Proprietary	Yes	No	No

*** Section 16 - Other Information ***

Other Information

The information herein is presented in good faith and believed to be accurate as of the effective date given.

However, no warranty, expressed or implied, is given. It is the buyer's responsibility to ensure that its activities comply with Federal, State or provincial, and local laws.

MSDS History

New MSDS 27 September 2004.

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Key/Legend

ACGIH = American Conference of Governmental Industrial Hygienists; CAS = Chemical Abstracts Service; CERCLA = Comprehensive Environmental Response, Compensation, and Liability Act; CFR = Code of Federal Regulations; CPR = Controlled Products Regulations; DOT = Department of Transportation; DSL = Domestic Substances List; EINECS = European Inventory of Existing Commercial Chemical Substances; EPA = Environmental Protection Agency; IARC = International Agency for Research on Cancer; IATA = International Air Transport Association; mg/Kg = milligrams per Kilogram; mg/L = milligrams per Liter; mg/m³ = milligrams per Cubic Meter; MSHA = Mine Safety and Health Administration; NA = Not Applicable or Not Available; NIOSH = National Institute for Occupational Safety and Health; NJTSR = New Jersey Trade Secret Registry; NTP = National Toxicology Program; OSHA = Occupational Safety and Health Administration; SARA = Superfund Amendments and Reauthorization Act; STEL = Short Term Exposure Limit; TDG = Transport Dangerous Goods; TSCA = Toxic Substances Control Act; WHMIS = Workplace Hazardous Materials Information System.

This is the end of MSDS # PFC-720