

Issuing Date 26-Sep-2021

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Revision Number 3.02

1. IDENTIFICATION OF THE SUBSTANCE/PREPARATION AND OF THE COMPANY/UNDERTAKING**Product identifier****Product Name** FDM™ Nylon 12 Model Material**Other means of identification****Product Code(s)** SDS-400621 EN A**PN (Part Number)** 310-21800 355-02230**Synonyms** None**Recommended use of the chemical and restrictions on use****Recommended Use** Additive manufacturing**Uses advised against** No information available**Details of the supplier of the safety data sheet****Manufacturer Address**

Stratasys Corporate headquarters United States
9600 West 76th Street Suite #108
Eden Prairie, MN 55344
United States
Local: +1 952-294-3900
Phone: +1 952-937-3000

Emergency telephone number**Emergency Telephone** +1 215 207 0061 - Americas - Multi lingual response**E-mail address** info@Stratasys.com**2. HAZARDS IDENTIFICATION****Classification**

This chemical is not considered hazardous by the 2012 OSHA Hazard Communication Standard (29 CFR 1910.1200)

Label elements

The product contains no substances which at their given concentration, are considered to be hazardous to health.

Appearance Monofilament**Physical state** Solid**Odor** No information available

Hazards not otherwise classified (HNOC)

Not applicable

Other Information

Not applicable.

3. COMPOSITION/INFORMATION ON INGREDIENTS**Mixture**

Chemical name	CAS No	Weight-%	Proprietary
Carbon mesoporous (Bound)	1333-86-4	1 - 3	*

Not a dangerous substance or mixture according to the Globally Harmonized System (GHS).

4. FIRST AID MEASURES**Description of first aid measures**

Inhalation	Remove to fresh air.
Eye contact	Rinse thoroughly with plenty of water for at least 15 minutes, lifting lower and upper eyelids. Consult a physician.
Skin contact	Wash skin with soap and water when in contact with molten residues.
Ingestion	Drink plenty of water. Do not induce vomiting without medical advice. Call a physician immediately.

Most important symptoms and effects, both acute and delayed

Symptoms	None known.
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Indication of any immediate medical attention and special treatment needed

Note to physicians	Treat symptomatically.
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5. FIRE-FIGHTING MEASURES

Suitable Extinguishing Media	Foam. Water. Carbon dioxide (CO2). Dry chemical. Alcohol resistant foam.
Unsuitable extinguishing media	None known.
Specific hazards arising from the chemical	None known.
Explosion data	
Sensitivity to Mechanical Impact	None.
Sensitivity to Static Discharge	None.
Special protective equipment for fire-fighters	Firefighters should wear self-contained breathing apparatus and full firefighting turnout gear. Use personal protection equipment.

6. ACCIDENTAL RELEASE MEASURES

Personal precautions, protective equipment and emergency procedures

Personal precautions Use personal protective equipment as required. Avoid contact with skin and eyes. Remove all sources of ignition. Sweep up to prevent slipping hazard.

Environmental precautions

Environmental precautions Do not flush into surface water or sanitary sewer system. Keep out of waterways.

Methods and material for containment and cleaning up

Methods for containment Prevent further leakage or spillage if safe to do so.

Methods for cleaning up Pick up and transfer to properly labeled containers.

Prevention of secondary hazards May form combustible dust concentrations in air if small particles are generated during further processing, handling or by other means. Avoid dust accumulation in enclosed space. Prevent dust cloud. Remove all sources of ignition.

7. HANDLING AND STORAGE

Precautions for safe handling

Advice on safe handling Use personal protection equipment. Avoid contact with skin and eyes, when handling melted filament. If small particles are generated during further processing, handling, or by other means, combustible dust concentrations in air may form. Use respirator.

Conditions for safe storage, including any incompatibilities

Storage Conditions Keep containers tightly closed in a dry, cool and well-ventilated place.

8. EXPOSURE CONTROLS/PERSONAL PROTECTION

Control parameters

Exposure Limits

Chemical name	ACGIH TLV	OSHA PEL	NIOSH
Carbon mesoporous (Bound) 1333-86-4	TWA: 3 mg/m ³ inhalable particulate matter	TWA: 3.5 mg/m ³ (vacated) TWA: 3.5 mg/m ³	IDLH: 1750 mg/m ³ TWA: 3.5 mg/m ³ TWA: 0.1 mg/m ³ Carbon black in presence of Polycyclic aromatic hydrocarbons PAH

Appropriate engineering controls

Engineering controls If dust is generated during further processing provide exhaust ventilation.

Individual protection measures, such as personal protective equipment

Eye/face protection Goggles. Safety glasses with side-shields.

Skin and body protection Impervious clothing.

Respiratory protection Minimize dust generation and accumulation. Wear respiratory protection.

General hygiene considerations Handle in accordance with good industrial hygiene and safety practice.

9. PHYSICAL AND CHEMICAL PROPERTIES

Information on basic physical and chemical properties

Physical state	Solid
Appearance	Monofilament
Odor	No information available
Color	No information available
Odor threshold	No information available

<u>Property</u>	<u>Values</u>	<u>Remarks • Method</u>
pH	No data available	None known
Melting point / freezing point	No data available	None known
Boiling point / boiling range	No data available	None known
Flash point	> 380 °C / °F	
Evaporation rate	No data available	None known
Flammability (solid, gas)	No data available	None known
Flammability Limit in Air		None known
Upper flammability limit:	No data available	
Lower flammability limit:	No data available	
Vapor pressure	No data available	None known
Vapor density	No data available	None known
Relative density	1.0 - 1.13	g/cm3
Water solubility	Insoluble in water	
Solubility in other solvents	No data available	None known
Partition coefficient	No data available	None known
Autoignition temperature	No data available	None known
Decomposition temperature	> 350 °C	
Kinematic viscosity	No data available	None known
Dynamic viscosity	No data available	None known
Explosive properties	No information available	
Oxidizing properties	No information available	

Other information

Softening point	No information available
Molecular weight	No information available
VOC Content (%)	negligible
Liquid Density	No information available
Bulk density	No information available

10. STABILITY AND REACTIVITY

Reactivity None under normal use conditions.

Chemical stability Stable under normal conditions.

Possibility of hazardous reactions None under normal processing.

Conditions to avoid Excessive heat. To avoid thermal decomposition, do not overheat.

Incompatible materials Oxidizing agent. Strong bases.

Hazardous decomposition products Burning produces obnoxious and toxic fumes. Carbon monoxide. Carbon dioxide (CO₂). Aldehydes.

11. TOXICOLOGICAL INFORMATION

Information on likely routes of exposure**Product Information**

Inhalation	Specific test data for the substance or mixture is not available.
Eye contact	Specific test data for the substance or mixture is not available.
Skin contact	Specific test data for the substance or mixture is not available.
Ingestion	Specific test data for the substance or mixture is not available.

Information on toxicological effects

Symptoms	None known.
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Numerical measures of toxicity**Acute toxicity**

Unknown acute toxicity	No information available
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Component Information

Chemical name	Oral LD50	Dermal LD50	Inhalation LC50
Carbon mesoporous (Bound) 1333-86-4	> 15400 mg/kg > 15400 mg/kg (Rat)	-	> 4.6 mg/m ³ (Rat) 4 h

Delayed and immediate effects as well as chronic effects from short and long-term exposure

Skin corrosion/irritation	No information available.
Serious eye damage/eye irritation	No information available.
Respiratory or skin sensitization	No information available.
Germ cell mutagenicity	No information available.
Carcinogenicity	No information available.

The table below indicates whether each agency has listed any ingredient as a carcinogen. This product contains carbon black which is classified as a possible carcinogen when present as respirable dust. This is not relevant for this product since it is not in a respirable form.

Chemical name	ACGIH	IARC	NTP	OSHA
Carbon mesoporous (Bound) 1333-86-4	A3	-	-	X

Reproductive toxicity	No information available.
STOT - single exposure	No information available.
STOT - repeated exposure	No information available.
Aspiration hazard	No information available.

12. ECOLOGICAL INFORMATION

Ecotoxicity	The environmental impact of this product has not been fully investigated
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Persistence and degradability	Not readily biodegradable.
Bioaccumulation	There is no data for this product.
Mobility	The product is insoluble and floats on water.
Other adverse effects	No information available.

13. DISPOSAL CONSIDERATIONS

Disposal methods

Waste from residues/unused products	Dispose of in accordance with local regulations. Dispose of waste in accordance with environmental legislation.
Contaminated packaging	Do not reuse empty containers.

14. TRANSPORT INFORMATION

<u>DOT</u>	Not regulated
<u>TDG</u>	Not regulated
<u>MEX</u>	Not regulated
<u>ICAO (air)</u>	Not regulated
<u>IATA</u>	Not regulated
<u>IMDG</u>	Not regulated
<u>RID</u>	Not regulated
<u>ADR</u>	Not regulated
<u>ADN</u>	Not regulated

15. REGULATORY INFORMATION

International Inventories

TSCA	Complies
DSL/NDSL	No information available
ENCS	Complies
IECSC	No information available
KECL	Complies
PICCS	Complies
AICS	No information available

Legend:

TSCA - United States Toxic Substances Control Act Section 8(b) Inventory

DSL/NDSL - Canadian Domestic Substances List/Non-Domestic Substances List

ENCS - Japan Existing and New Chemical Substances

IECSC - China Inventory of Existing Chemical Substances
KECL - Korean Existing and Evaluated Chemical Substances
PICCS - Philippines Inventory of Chemicals and Chemical Substances
AICS - Australian Inventory of Chemical Substances

US Federal Regulations**SARA 313**

Section 313 of Title III of the Superfund Amendments and Reauthorization Act of 1986 (SARA). This product does not contain any chemicals which are subject to the reporting requirements of the Act and Title 40 of the Code of Federal Regulations, Part 372.

SARA 311/312 Hazard Categories

Acute health hazard	No
Chronic Health Hazard	No
Fire hazard	No
Sudden release of pressure hazard	No
Reactive Hazard	No

CWA (Clean Water Act)

This product does not contain any substances regulated as pollutants pursuant to the Clean Water Act (40 CFR 122.21 and 40 CFR 122.42).

CERCLA

This material, as supplied, does not contain any substances regulated as hazardous substances under the Comprehensive Environmental Response Compensation and Liability Act (CERCLA) (40 CFR 302) or the Superfund Amendments and Reauthorization Act (SARA) (40 CFR 355). There may be specific reporting requirements at the local, regional, or state level pertaining to releases of this material.

US State Regulations**California Proposition 65**

This product contains carbon black which is classified as a possible carcinogen when present as respirable dust. This is not relevant for this product since it is not in a respirable form. This product contains the following Proposition 65 chemicals:.

Chemical name	California Proposition 65
Carbon mesoporous (Bound) - 1333-86-4	Carcinogen

U.S. State Right-to-Know Regulations**US State Regulations**

Chemical name	New Jersey	Massachusetts	Pennsylvania
Carbon mesoporous (Bound) 1333-86-4	X	X	X

U.S. EPA Label Information

EPA Pesticide Registration Number Not applicable

16. OTHER INFORMATION, INCLUDING DATE OF PREPARATION OF THE LAST REVISION

NFPA	Health hazards 0	Flammability 0	Instability 0	Special hazards -
HMIS	Health hazards 0	Flammability 0	Physical hazards 0	Personal protection X

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Revision Note No information available.

Disclaimer

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End of Safety Data Sheet