

Issuing Date 29-Nov-2017

Revision Date 26-Nov-2017

Revision B

**Section 1: PRODUCT AND COMPANY IDENTIFICATION****Product identifier**

**Product Name** FDM™ Nylon 12 Model Material  
**Product Code(s)** SDS-400621 EN Z  
**PN (Part Number)** 310-21800 355-02230 355-02411

**Other means of identification**

**Synonyms** Polyamide 12  
**Pure substance/mixture** Mixture

**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****Importer**

Stratasys AP Limited  
7/F, C-BONS International Center  
108 Wai Yip Street, Kwun Tong  
Kowloon Hong Kong  
+852 3944 8888

**For further information, please contact**

**Contact Point** Product Safety Department  
**E-mail address** info@Stratasys.com

**Emergency telephone number**

**Emergency Telephone**

- +44 1865 407333 - Global – English Language response
- +44 1235 239670 - Europe - Multi lingual response
- +1 215 207 0061 - USA – Multi-lingual response
- +65 3158 1074 - Asia Pacific - Multi lingual response
- +61 2 8014 4558 - Australia - English Language response
- +86 512 8090 3042 - China - Chinese response

**Section 2: HAZARDS IDENTIFICATION**

**Dangerous Goods Class** Not regulated

**GHS Classification**

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

**Label elements**

**Other hazards**

No protective equipment is needed under normal use conditions. If exposure limits are exceeded or irritation is experienced, ventilation and evacuation may be required

If small particles are generated during further processing, handling, or by other means, combustible dust concentrations in air may form

See section 7 for more information

See section 8 for more information

No information available

### Section 3: COMPOSITION/INFORMATION ON INGREDIENTS

**Substance**

Not applicable

**Mixture**

Chemical name	CAS No	Weight-%
Non-hazardous ingredients	Proprietary	Balance

### Section 4: FIRST AID MEASURES

**Description of first aid measures**

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

**Most important symptoms and effects, both acute and delayed**

<b>Symptoms</b>	None known.
-----------------	-------------

**Indication of any immediate medical attention and special treatment needed**

<b>Note to doctors</b>	Treat symptomatically.
------------------------	------------------------

### Section 5: FIRE-FIGHTING MEASURES

**Suitable Extinguishing Media**

**Suitable Extinguishing Media** Foam. Water. Carbon dioxide (CO<sub>2</sub>). Dry chemical. Alcohol resistant foam.

**Unsuitable extinguishing media** None known.

**Specific hazards arising from the chemical**

**Specific hazards arising from the chemical** None known.

**Special protective actions for fire-fighters**

**Special protective equipment for fire-fighters** Firefighters should wear self-contained breathing apparatus and full firefighting turnout gear. Use personal protection equipment.

## Section 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.

**For emergency responders** Use personal protection recommended in Section 8.

### 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 labelled containers.

### Precautions to prevent secondary hazards

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

## Section 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.

**Incompatible materials** Oxidising agent. Strong bases.

## Section 8: EXPOSURE CONTROLS/PERSONAL PROTECTION

### Control parameters

**Exposure Limits** This product, as supplied, does not contain any hazardous materials with occupational exposure limits established by the region specific regulatory bodies.

**Biological occupational exposure limits** Not applicable.

### Appropriate engineering controls

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

### Individual protection measures, such as personal protective equipment

<b>Eye/face protection</b>	Goggles. Safety glasses with side-shields.
<b>Skin and body protection</b>	Impervious clothing.
<b>Respiratory protection</b>	Minimise dust generation and accumulation. Wear respiratory protection.
<b>Environmental exposure controls</b>	No information available.

## Section 9: PHYSICAL AND CHEMICAL PROPERTIES

### Information on basic physical and chemical properties

<b>Physical state</b>	Solid
<b>Appearance</b>	Monofilament
<b>Odour</b>	No information available.
<b>Colour</b>	No information available
<b>Odour threshold</b>	No information available

<u>Property</u>	<u>Values</u>	<u>Remarks • Method</u>
<b>pH</b>	No data available	None known
<b>Melting point / freezing point</b>	No data available	None known
<b>Boiling point / boiling range</b>	No data available	None known
<b>Flash point</b>	No data available	None known
<b>Evaporation rate</b>	No data available	None known
<b>Flammability (solid, gas)</b>	No data available	None known
<b>Flammability Limit in Air</b>		None known
<b>Upper flammability limit:</b>	No data available	
<b>Lower flammability limit</b>	No data available	
<b>Vapour pressure</b>	No data available	None known
<b>Vapour density</b>	No data available	None known
<b>Relative density</b>	No data available	None known
<b>Water solubility</b>	No data available	None known
<b>Solubility(ies)</b>	No data available	None known
<b>Partition coefficient</b>	No data available	None known
<b>Autoignition temperature</b>	No data available	None known
<b>Decomposition temperature</b>	No data available	None known
<b>Kinematic viscosity</b>	No data available	None known
<b>Dynamic viscosity</b>	No data available	None known
<b>Explosive properties</b>	No information available.	
<b>Oxidising properties</b>	No information available.	

### Other Information

<b>Softening point</b>	No information available
<b>Molecular weight</b>	No information available
<b>VOC Content (%)</b>	No information available
<b>Liquid Density</b>	No information available
<b>Bulk density</b>	No information available
<b>Particle Size</b>	No information available
<b>Particle Size Distribution</b>	No information available

## Section 10: STABILITY AND REACTIVITY

### Reactivity

<b>Reactivity</b>	None under normal use conditions.
-------------------	-----------------------------------

### Chemical stability

<b>Stability</b>	Stable under normal conditions.
------------------	---------------------------------

### Explosion data

**Sensitivity to Mechanical Impact** None.

**Sensitivity to Static Discharge** None.

**Possibility of hazardous reactions**

**Possibility of hazardous reactions** None under normal processing.

**Conditions to avoid**

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

**Incompatible materials**

**Incompatible materials** Oxidising agent. Strong bases.

**Hazardous decomposition products**

**Hazardous decomposition products** Burning produces obnoxious and toxic fumes. Carbon monoxide. Carbon dioxide (CO<sub>2</sub>). Aldehydes.

## Section 11: TOXICOLOGICAL INFORMATION

**Acute toxicity**

**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.

**Symptoms** None known.

**Numerical measures of toxicity - Product Information**

**Unknown acute toxicity** No information available  
 99.97995 % of the mixture consists of ingredient(s) of unknown acute oral toxicity  
 99.97995 % of the mixture consists of ingredient(s) of unknown acute dermal toxicity  
 99.97995 % of the mixture consists of ingredient(s) of unknown acute inhalation toxicity (gas)  
 99.97995 % of the mixture consists of ingredient(s) of unknown acute inhalation toxicity (vapour)  
 99.97995 % of the mixture consists of ingredient(s) of unknown acute inhalation toxicity (dust/mist)

*See section 16 for terms and abbreviations*

**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.

**Sensitisation** No information available.

**Germ cell mutagenicity** No information available.

**Carcinogenicity** No information available.

<b>Reproductive toxicity</b>	No information available.
<b>STOT - single exposure</b>	No information available.
<b>STOT - repeated exposure</b>	No information available.
<b>Aspiration hazard</b>	No information available

## Section 12: ECOLOGICAL INFORMATION

### Ecotoxicity

#### Ecotoxicity

**Unknown aquatic toxicity** 99.99995 % of the mixture consists of component(s) of unknown hazards to the aquatic environment.

### Persistence and degradability

**Persistence and degradability** No information available.

### Bioaccumulative potential

**Bioaccumulation** No information available.

### Mobility

**Mobility in soil** No information available.

**Mobility** No information available.

### Other adverse effects

**Other adverse effects** No information available.

## Section 13: DISPOSAL CONSIDERATIONS

### Waste treatment 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.

## Section 14: TRANSPORT INFORMATION

### Road transport

**ADG** Not regulated

**IATA** Not regulated

**IMDG** Not regulated

**Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code**  
No information available

## Section 15: REGULATORY INFORMATION

### Safety, health and environmental regulations/legislation specific for the substance or mixture

#### New Zealand

**National Regulations** See section 8 for national exposure control parameters

#### International Inventories

<b>TSCA</b>	Complies
<b>DSL/NDSL</b>	Complies
<b>EINECS/ELINCS</b>	Complies
<b>ENCS</b>	Complies
<b>IECSC</b>	Complies
<b>KECL</b>	Complies
<b>PICCS</b>	Complies
<b>AICS</b>	Complies

#### **Legend:**

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

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

**EINECS/ELINCS** - European Inventory of Existing Chemical Substances/European List of Notified Chemical Substances

**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

#### International Regulations

**Ozone-depleting substances (ODS)** Not applicable

**Persistent Organic Pollutants** Not applicable

**Export Notification requirements** Not applicable

## Section 16: OTHER INFORMATION

**Issuing Date** 11-Nov-2015

**Revision Date** 26-Nov-2017

#### **Revision Note**

The symbol (\*) in the margin of this SDS indicates that this line has been revised.

#### Key or legend to abbreviations and acronyms used in the safety data sheet

#### **Legend Section 8: EXPOSURE CONTROLS/PERSONAL PROTECTION**

TWA	TWA (time-weighted average)	STEL	STEL (Short Term Exposure Limit)
Ceiling	Maximum limit value	*	Skin designation
C	Carcinogen		

#### Disclaimer

The information provided in this Safety Data Sheet derives from a third party source. Whilst we believe that the information is correct as at the date of its publication, we do not make any representations or warranties regarding the accuracy or completeness of the information nor the quality or specification of any materials, substances or mixtures referred to herein (collectively, "Materials"). The information is being provided solely as a guideline for the safe handling, use, consumption, processing, storage, transportation, disposal and release of the Materials. The information may not be

sufficient for such purposes and the user should not place any reliance on the information provided. The information may not be applicable to Materials that are combined with any materials or in any process other than as expressly stated herein. We shall not be liable for any kind of liability including, without limitation, damages, losses or expenses, arising out of or as a result of any reliance on the information contained in this Safety Data Sheet. This Safety Data Sheet remains our exclusive property and should not be reproduced, modified or distributed without our prior written consent

**End of Safety Data Sheet**