

Safety data sheet
according to 1907/2006/EC, Article 31

Printing date 14.11.2013

Version number 1

Revision: 14.11.2013

SECTION 1: Identification of the substance/mixture and of the company/undertaking

- **Date of compilation:** 13.11.2013
- **1.1 Product identifier**
- **Trade name:** Nylon 12
- **1.2 Relevant identified uses of the substance or mixture and uses advised against**
No further relevant information available.
- **Application of the substance / the preparation:** Filament for Stratasys® Inc. FDM™ modeler
- **1.3 Details of the supplier of the safety data sheet**
- **Manufacturer / Supplier:**
Stratasys, Inc. Tel +1 952 937 3000
7665 Commerce Way Fax +1 952 937 0070
Eden Prairie, MN 55344
USA

- **For information in Europe contact:**
- **C.S.B. GmbH** Tel.: +49-2151-6520860
Düsseldorfer Straße 113 Fax: +49-2151-6520869
D-47809 Krefeld E-Mail: info@csb-online.de
Germany
- **E-mail address of the competent person responsible for the Safety Data Sheet:** sdb@csb-online.de
- **Informing department:** Sales / Technics
- **1.4 Emergency telephone number:** As above or next toxicological information centre.

SECTION 2: Hazards identification

- **2.1 Classification of the substance or mixture**
- **Classification according to Regulation (EC) No 1272/2008**
The product is not classified according to the CLP regulation.
- **Classification according to Directive 67/548/EEC or Directive 1999/45/EC** Void
- **Information concerning particular hazards for human and environment:** void
- **Classification system:**
The product does not have to be labelled due to the calculation procedure of the "General Classification guideline for preparations of the EU" in the latest valid version.
- **2.2 Label elements**
- **Labelling according to Regulation (EC) No 1272/2008** Void
- **Hazard pictograms** Void
- **Signal word** Void
- **Hazard statements** Void
- **2.3 Other hazards**
- **Results of PBT and vPvB assessment**
- **PBT:** Not applicable.
- **vPvB:** Not applicable.

SECTION 3: Composition/information on ingredients

- **3.2 Chemical characterization: Mixtures**
- **Description:** Polyamide
- **Dangerous components:** Void

GB

(Contd. on page 2)

Safety data sheet
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Printing date 14.11.2013

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Revision: 14.11.2013

Trade name: Nylon 12

(Contd. of page 1)

SECTION 4: First aid measures

- **4.1 Description of first aid measures**
- **General information:** Remove contaminated clothing.
- **After inhalation:**
Supply fresh air; consult doctor in case of symptoms.
After inhalation of decomposition products, remove the affected person to a source of fresh air and keep calm. Provide medical aid.
- **After skin contact:**
Wash with soap and water.
After contact with the molten product, cool rapidly with cold water.
Do not pull solidified product away from the skin.
Call a doctor immediately.
- **After eye contact:**
Rinse opened eye for several minutes under running water. If symptoms persist, consult doctor.
Remove contact lenses, if present and easy to do.
- **After swallowing:**
Rinse out mouth and then drink plenty of water.
Get medical advice/attention if you feel unwell.
- **4.2 Most important symptoms and effects, both acute and delayed** No further relevant information available.
- **4.3 Indication of any immediate medical attention and special treatment needed**
No further relevant information available.

SECTION 5: Firefighting measures

- **5.1 Extinguishing media**
- **Suitable extinguishing agents**
Carbon dioxide (CO₂), extinguishing powder or water spray/fog. Fight larger fires with water spray/fog or alcohol-resistant foam.
- **For safety reasons unsuitable extinguishing agents** Water with a full water jet.
- **5.2 Special hazards arising from the substance or mixture**
Can be released in case of fire:
Nitrogen oxides (NO_x)
Carbon monoxide (CO) and Carbon dioxide (CO₂)
Under certain fire conditions, traces of other toxic gases cannot be excluded, e.g.:
Hydrogen cyanide (HCN)
- **5.3 Advice for firefighters**
- **Protective equipment:** Wear self-contained breathing apparatus.
- **Additional information**
Dispose of fire debris and contaminated fire fighting water in accordance with official regulations.

SECTION 6: Accidental release measures

- **6.1 Personal precautions, protective equipment and emergency procedures**
Ensure adequate ventilation.
Avoid causing dust.
Do not breathe dust.
Avoid contact with skin and eyes.
Danger of slipping on leaked/spilled product.
- **6.2 Environmental precautions:** Do not allow to enter drainage system, surface or ground water.
- **6.3 Methods and material for containment and cleaning up:**
Ensure adequate ventilation.
Collect mechanically.
Send for recovery or disposal in suitable containers.
Dispose of the material collected according to regulations.

(Contd. on page 3)

GB

Safety data sheet
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Printing date 14.11.2013

Version number 1

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Trade name: Nylon 12

(Contd. of page 2)

· 6.4 Reference to other sections*See Section 7 for information on safe handling**See Section 8 for information on personal protection equipment.**See Section 13 for information on disposal.***SECTION 7: Handling and storage****· 7.1 Precautions for safe handling***Ensure good ventilation/exhaustion at the workplace.**Prevent formation of dust.**Any deposit of dust which cannot be avoided must be removed regularly.**Do not breathe dust.**Avoid prolonged or repeated skin contact.**Avoid contact with eyes.**Make sure that all applicable workplace limits are observed.***· Information about protection against explosions and fires: No special measures required.****· 7.2 Conditions for safe storage, including any incompatibilities****· Storage****· Requirements to be met by storerooms and containers:***Observe all local and national regulations for storage of water polluting products.***· Information about storage in one common storage facility: Not required.****· Further information about storage conditions:***Store in cool, dry conditions in well sealed containers.**This product is hygroscopic.**Protect from humidity and keep away from water.***· 7.3 Specific end use(s) No further relevant information available.****SECTION 8: Exposure controls/personal protection****· Additional information about design of technical systems: No further data; see item 7.****· 8.1 Control parameters****· Components with critical values that require monitoring at the workplace:***Observe all workplace limits for dust.***· 8.2 Exposure controls****· Personal protective equipment****· General protective and hygienic measures***Keep away from foodstuffs, beverages and food.**Do not eat, drink or smoke while working.**Do not breathe dust.**Avoid close or long term contact with the skin.**Avoid contact with the eyes.**Wash hands during breaks and at the end of the work.***· Breathing equipment:***If all workplace limits are observed and good ventilation is ensured, no special precautions necessary.***· Protection of hands:***Use heat resistant gloves when handling hot/molten product.**To avoid skin problems reduce the wearing of gloves to the required minimum.**Sensibilization by the components in the glove materials is possible.**Check the permeability prior to each renewed use of the glove.**The glove material has to be impermeable and resistant to the product/ the substance/ the preparation.**Due to missing tests no recommendation to the glove material can be given for the product/ the preparation/ the chemical mixture.**Selection of the glove material on consideration of the penetration times, rates of diffusion and the degradation.*

(Contd. on page 4)

GB

Safety data sheet
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Printing date 14.11.2013

Version number 1

Revision: 14.11.2013

Trade name: Nylon 12

(Contd. of page 3)

- **Material of gloves**

The selection of the suitable gloves does not only depend on the material, but also on further marks of quality and varies from manufacturer to manufacturer. As the product is a preparation of several substances, the resistance of the glove material can not be calculated in advance and has therefore to be checked prior to the application.

- **Penetration time of glove material**

Protective gloves should be replaced at first signs of wear.

The exact break through time has to be found out by the manufacturer of the protective gloves and has to be observed.

- **Eye protection:** Safety glasses

- **Body protection:**

Wear heat-resistant protective clothing when handling hot/molten product.

Body protection must be chosen depending on activity and possible exposure.

- **Limitation and supervision of exposure into the environment**

Do not allow to enter drainage system, surface or ground water.

SECTION 9: Physical and chemical properties

- **9.1 Information on basic physical and chemical properties**

- **General Information**

- **Appearance:**

Form: Filament

Colour: black

- **Smell:** odourless

- **Odour threshold:** not determined

- **pH-value:** Not applicable.

- **Change in condition**

Melting point/Melting range: not determined

Boiling point/Boiling range: not determined

- **Flash point:** > 400 °C

- **Inflammability (solid, gaseous)** not classified as flammable solid

- **Ignition temperature:**

Decomposition temperature: > 315 °C

- **Self-inflammability:** Product is not selfigniting.

- **Danger of explosion:** Product is not explosive.

- **Critical values for explosion:**

Lower: Not determined.

Upper: Not determined.

- **Oxidizing properties** not applicable

- **Vapor pressure:** Not applicable.

- **Density at 20 °C:** ~ 1.04 g/cm³

- **Relative density at 20 °C** ~ 1.04 g/cm³ (H₂O = 1)

- **Vapour density (AIR = 1):** Not applicable.

- **Evaporation rate** Not applicable.

- **Solubility in / Miscibility with**

Water: insoluble

- **Partition coefficient (n-octanol/water):** Not determined.

(Contd. on page 5)

GB

Safety data sheet
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Printing date 14.11.2013

Version number 1

Revision: 14.11.2013

Trade name: Nylon 12

(Contd. of page 4)

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|--------------------------------|--------------------------------------------|
| · Viscosity: | |
| dynamic: | Not applicable. |
| kinematic: | Not applicable. |
| · 9.2 Other information | No further relevant information available. |

SECTION 10: Stability and reactivity

- **10.1 Reactivity** see 10.3
- **10.2 Chemical stability**
- **Thermal decomposition / conditions to be avoided:**
Protect from moisture.
Keep away from heat.
Processing temperature over:
No decomposition if used and stored according to specifications.
- **10.3 Possibility of hazardous reactions** No dangerous reactions known.
- **10.4 Conditions to avoid** No further relevant information available.
- **10.5 Incompatible materials:** Strong oxidizing agents
- **10.6 Hazardous decomposition products:**
Nitrogen oxides (NO_x)
Carbon monoxide (CO) and Carbon dioxide (CO₂)
Hydrogen cyanide (HCN)

SECTION 11: Toxicological information

- **11.1 Information on toxicological effects**
- **Acute toxicity:**
- **LD/LC50 values that are relevant for classification:** no data available
- **Primary irritant effect:**
- **on the skin:** No irritant effect.
- **on the eye:** No irritant effect
- **Subacute to chronic toxicity:** not classified
- **Additional toxicological information:**
The product is not subject to classification according to the calculation method of the General EC Classification Guidelines for Preparations as issued in the latest version.
When used and handled according to specifications, the product does not have any harmful effects according to our experience and the information provided to us.
- **Sensitisation** No sensitizing effect known.
- **Repeated dose toxicity** not classified
- **CMR effects (carcinogenicity, mutagenicity and toxicity for reproduction)**
According to present knowledge no CMR-effects known.

SECTION 12: Ecological information

- **12.1 Toxicity**
- **Aquatic toxicity:** No further relevant information available.
- **12.2 Persistence and degradability** No further relevant information available.
- **12.3 Bioaccumulative potential** No further relevant information available.
- **12.4 Mobility in soil** No further relevant information available.
- **Additional ecological information:**
- **General notes:** Water hazard class 1 (Self-assessment): slightly hazardous for water
- **12.5 Results of PBT and vPvB assessment**
- **PBT:** Not applicable.
- **vPvB:** Not applicable.

(Contd. on page 6)

GB

Safety data sheet
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· **12.6 Other adverse effects** No further relevant information available.

(Contd. of page 5)

SECTION 13: Disposal considerations

- **13.1 Waste treatment methods**
- **Recommendation** Disposal must be made according to official regulations.
- **European waste catalogue:**
Waste disposal key numbers from EWC have to be assigned depending on origin and processing.
- **Uncleaned packagings:**
- **Recommendation:**
Empty contaminated packagings thoroughly. They can be recycled after thorough and proper cleaning. Packagings that cannot be cleaned are to be disposed of in the same manner as the product.

SECTION 14: Transport information

- | | |
|----------------------------------------------------------------------------------------|------------------------------------------------------|
| · 14.1 UN-Number
· ADR, IMDG, IATA | Void |
| · 14.2 UN proper shipping name
· ADR, IMDG, IATA | Void |
| · 14.3 Transport hazard class(es)
· ADR, IMDG, IATA
· Class | Void |
| · 14.4 Packing group
· ADR, IMDG, IATA | Void |
| · 14.5 Environmental hazards:
· Marine pollutant: | NO |
| · 14.6 Special precautions for user | Not applicable. |
| · 14.7 Transport in bulk according to Annex II of MARPOL73/78 and the IBC Code | Not applicable. |
| · Transport/Additional information: | Not dangerous according to the above specifications. |
| · UN "Model Regulation": | - |

SECTION 15: Regulatory information

- **15.1 Safety, health and environmental regulations/legislation specific for the substance or mixture**
- **National regulations**
- **Decree to be applied in case of technical fault:** Directive 96/82/EC does not apply.
- **Water hazard class:** Water hazard class 1 (Self-assessment): slightly hazardous for water
- **15.2 Chemical safety assessment:** A Chemical Safety Assessment has not been carried out.

SECTION 16: Other information

These data are based on our present knowledge. However, they shall not constitute a guarantee for any specific product features and shall not establish a legally valid contractual relationship.

(Contd. on page 7)

GB

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(Contd. of page 6)

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· Abbreviations and acronyms:

ADR: Accord européen sur le transport des marchandises dangereuses par Route (European Agreement concerning the International Carriage of Dangerous Goods by Road)
IMDG: International Maritime Code for Dangerous Goods
IATA: International Air Transport Association
GHS: Globally Harmonized System of Classification and Labelling of Chemicals
EINECS: European Inventory of Existing Commercial Chemical Substances
ELINCS: European List of Notified Chemical Substances
CAS: Chemical Abstracts Service (division of the American Chemical Society)
LC50: Lethal concentration, 50 percent
LD50: Lethal dose, 50 percent

· Sources: These data are based on information submitted by pre-suppliers.

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