

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

Printing date 08.02.2013

Revision: 08.02.2013

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

- **Date of compilation:** 13.10.2005
- **1.1 Product identifier**
- **Trade name:** P400 R
- **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:**

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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:** Product safety department
- **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 substance is not classified according to the CLP regulation.
- **Classification according to Directive 67/548/EEC or Directive 1999/45/EC** Void
- **2.2 Label elements**
- **Labelling according to Regulation (EC) No 1272/2008** Void
- **Hazard pictograms** Void
- **Signal word** Void
- **Hazard statements** Void
- **Additional information:** 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:** Polymer
- **Dangerous components:** Void
- **Other components:**

| | | |
|-----------|-----------------------------|------|
| 9003-55-8 | Butadiene-styrene copolymer | ~99% |
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SECTION 4: First aid measures**4.1 Description of first aid measures****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:***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.**In case of persistent symptoms consult doctor.***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***Nitrogen oxides (NO_x)**Carbon monoxide (CO) and Carbon dioxide (CO₂)**Irritant gases/vapours**Under certain fire conditions, traces of other toxic gases cannot be excluded, e.g.:**Styrene***5.3 Advice for firefighters****Protective equipment:** *Wear self-contained breathing apparatus.***Additional information** *Collect contaminated fire fighting water separately. It must not enter drains.***SECTION 6: Accidental release measures****6.1 Personal precautions, protective equipment and emergency procedures***Avoid causing dust.**Do not breathe dust.**Avoid contact with eyes.***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:***Collect mechanically.**Dispose of the material collected according to regulations.***6.4 Reference to other sections***See Section 8 for information on personal protection equipment.*

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SECTION 7: Handling and storage

- **7.1 Precautions for safe handling**
 - Prevent formation of dust.
 - If dust/smoke is developed, avoid breathing dust/smoke.
 - Avoid contact with eyes.
 - Avoid contact with hot product.
 - 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 container in a well ventilated position.
 - Store in cool, dry conditions in well sealed containers.
 - Maximum storage temperature: < 70 °C
- **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.
 - **Additional information:** The lists that were valid during the compilation were used as basis.
- **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 inhale dust / smoke / mist.
 - 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.
 - Use breathing protection in case of dust formation.
 - Dust proof mask - particle filter mask
 - **Protection of hands:**
 - No chemical-protective gloves required.
 - Use heat resistant gloves when handling hot/molten product.
 - **Eye protection:** Safety glasses
 - **Body protection:** Wear heat-resistant protective clothing when handling hot/molten product.

SECTION 9: Physical and chemical properties

- **9.1 Information on basic physical and chemical properties**
 - **General Information**
 - **Appearance:**

| | |
|---------|-------------|
| Form: | solid |
| Colour: | milky white |
| Smell: | odourless |

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| | |
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| · Odour threshold: | <i>no data available</i> |
| · pH-value: | <i>not applicable</i> |
| · Change in condition Melting point/Melting range: | <i>not applicable</i> |
| Boiling point/Boiling range: | <i>not applicable</i> |
| · Flash point: | <i>not applicable</i> |
| · Inflammability (solid, gaseous) | <i>combustible</i> |
| · Ignition temperature: | |
| Decomposition temperature: | <i>> 300 °C</i> |
| · Self-inflammability: | <i>Product is not selfigniting.</i> |
| · Danger of explosion: | <i>Product is not explosive.</i> |
| · Critical values for explosion: | |
| Lower: | <i>not determined</i> |
| Upper: | <i>not determined</i> |
| · Oxidizing properties | <i>not applicable</i> |
| · Vapor pressure: | <i>not applicable</i> |
| · Density at 20 °C: | <i>1.045 g/cm³</i> |
| · Relative density at 20 °C | <i>1.045</i> |
| · Vapour density (AIR = 1): | <i>not applicable</i> |
| · Evaporation rate | <i>not applicable</i> |
| · Solubility in / Miscibility with Water: | <i>insoluble</i> |
| · Partition coefficient (n-octanol/water): | <i>not determined</i> |
| · Viscosity: | |
| dynamic: | <i>not applicable</i> |
| kinematic: | <i>not applicable</i> |
| · 9.2 Other information | <i>No further relevant information available.</i> |

SECTION 10: Stability and reactivity

- **10.1 Reactivity** see 10.3
- **10.2 Chemical stability**
- **Thermal decomposition / conditions to be avoided:** *Temperature over 300 °C*
- **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:**
Irritant gases/vapours
Nitrogen oxides (NO_x)
Carbon monoxide (CO) and Carbon dioxide (CO₂)
Styrene

SECTION 11: Toxicological information

- **11.1 Information on toxicological effects**
- **Acute toxicity:**
- **LD/LC50 values that are relevant for classification:** *no data available*

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- **Primary irritant effect:**
- **on the skin:** Dust particles may mechanically irritate the skin.
- **on the eye:** Dust particles may mechanically irritate the eye.
- **Sensitization:** No sensitizing effect known.
- **Additional toxicological information:**
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.
- **Repeated dose toxicity** no data available
- **CMR effects (carcinogenity, 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.
- **12.6 Other adverse effects** No further relevant information available.

SECTION 13: Disposal considerations

- **13.1 Waste treatment methods**
- **Recommendation** Disposal must be made according to official regulations.
- **Waste disposal key number:** According to local/national regulations.
- **European waste catalogue:**
Waste disposal key numbers from EWC have to be assigned depending on origin and processing.
- **Uncleaned packagings:**
- **Recommendation:** Disposal must be made according to official regulations.

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: | Not applicable. |
| · 14.6 Special precautions for user | Not applicable. |

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| · 14.7 Transport in bulk according to Annex II of MARPOL73/78 and the IBC Code | <i>Not applicable.</i> |
| · Transport/Additional information: | <i>Not dangerous according to the above specifications.</i> |
| · 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.

Department issuing MSDS:

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Abbreviations and acronyms:

*RID: Règlement international concernant le transport des marchandises dangereuses par chemin de fer (Regulations Concerning the International Transport of Dangerous Goods by Rail)
ICAO: International Civil Aviation Organization
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
LC50: Lethal concentration, 50 percent
LD50: Lethal dose, 50 percent*

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