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

- **Product identifier**
  - **Trade name:** P400 ABS Model
  - **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

- **Details of the supplier of the safety data sheet**
  - **Manufacturer/Supplier:**
    Stratasys, Inc.
    7665 Commerce Way
    Eden Prairie, MN 55344
    USA

  For information in Europe contact:
  - **C.S.B. GmbH**
    Düsseldorfer Straße 113
    D-47809 Krefeld
    Germany
  - **Information department:** Product safety department.
  - **Emergency telephone number:** see above

2 Hazards identification

- **Classification of the substance or mixture**
  - **Classification according to Directive 67/548/EEC or Directive 1999/45/EC** 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.
  - **Label elements**
  - **Labelling according to EU guidelines:** Observe the general safety regulations when handling chemicals
  - **Classification system**
    - **NFPA ratings (scale 0–4)**
      Health = 0
      Fire = 1
      Reactivity = 0
  - **HMIS**
    - **Health = 0**
    - **Fire = 1**
    - **Reactivity = 0**
  - **Other hazards**
    - **Results of PBT and vPvB assessment**
      - **PBT:** Not applicable.
      - **vPvB:** Not applicable.

3 Composition/information on ingredients

- **Chemical characterization:** Mixtures
  - **Description:** Polymer

(Contd. on page 2)
4 First aid measures

- Description of first aid measures
  - General information: Remove contaminated clothing.
  - After inhalation: Supply fresh air; consult doctor in case of complaints.
  - 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 a doctor.
  - Remove contact lenses, if present and easy to do.
  - After swallowing: Rinse out mouth and then drink plenty of water.
  - If symptoms persist consult doctor.
  - Most important symptoms and effects, both acute and delayed: No further relevant information available.
  - Indication of any immediate medical attention and special treatment needed: No further relevant information available.

5 Firefighting measures

- Extinguishing media
  - Suitable extinguishing agents: CO₂, extinguishing powder or water spray. Fight larger fires with water spray or alcohol resistant foam.
  - For safety reasons unsuitable extinguishing agents: Water with full jet.
  - Special hazards arising from the substance or mixture: Nitrogen oxides (NOₓ)
  - Irritant gases/vapors
  - In certain fire conditions, traces of other toxic gases cannot be excluded, e.g.:
  - Hydrogen cyanide (HCN)
  - Styrene
  - Advice for firefighters
  - Protective equipment: Wear self-contained respiratory protective device.
  - Additional information: Cool endangered receptacles with water spray.
  - Dispose of fire debris and contaminated fire fighting water in accordance with official regulations.

6 Accidental release measures

- Personal precautions, protective equipment and emergency procedures
  - Wear protective clothing.
  - Avoid formation of dust.
  - Do not breathe dust.
Avoid contact with eyes.

- **Environmental precautions:** Do not allow to enter sewers/surface or ground water.

- **Methods and material for containment and cleaning up:**
  - Pick up mechanically.
  - Dispose of the collected material according to regulations.

- **Reference to other sections**
  - See Section 8 for information on personal protection equipment.
  - See Section 13 for disposal information.

### 7 Handling and storage

- **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.

- **Conditions for safe storage, including any incompatibilities**

- **Storage**
  - **Requirements to be met by storerooms and receptacles:**
    - 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 receptacle in a well ventilated area.
    - Store in cool, dry conditions in well sealed receptacles.
    - Maximum storage temperature: < 70 °C

- **Specific end use(s)** No further relevant information available.

### 8 Exposure controls/personal protection

- **Additional information about design of technical systems:** No further data; see item 7.

- **Control parameters**

- **Components with limit values that require monitoring at the workplace:**
  - Observe all workplace limits for dust:
    - TLV inhalable dust: 15 mg/m³ OSHA
    - TLV respirable dust: 5 mg/m³ OSHA

- **Additional information:** The lists that were valid during the creation were used as basis.

- **Exposure controls**
  - **Personal protective equipment**
  - **General protective and hygienic measures**
    - Keep away from foodstuffs, beverages and feed.
    - Do not eat, drink, smoke or sniff while working.
    - Do not inhale dust / smoke / mist.
    - Avoid contact with the eyes.
    - Wash hands before breaks and at the end of work.

- **Breathing equipment:**
  - If all workplace limits are observed and good ventilation is ensured, no special precautions necessary.

- **Protection of hands:**
  - No chemical-protective gloves required.
  - Use heat resistant gloves when handling hot/molten product.

- **Eye protection:** Safety glasses
Trade name: P400 ABS Model

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

9 Physical and chemical properties

- Information on basic physical and chemical properties
  - General Information
    - Appearance:
      - Form: solid
      - Color: milky white
      - Odor: odorless
      - Odor threshold: no data available
  - Change in condition
    - Melting point/Melting range: Not applicable
    - Boiling point/Boiling range: Not applicable
  - Flash point: Not applicable
  - Flammability (solid, gaseous) combustible
  - Ignition temperature:
    - Decomposition temperature: > 300 °C (> 572 °F)
  - Auto igniting: Product is not selfigniting.
  - Danger of explosion: Product does not present an explosion hazard.
  - Explosion limits:
    - Lower: Not determined
    - Upper: Not determined
  - Oxidizing properties: Not applicable
  - Vapor pressure: Not applicable
  - Density at 20 °C (68 °F): 1.05 g/cm³ (8.762 lbs/gal)
  - Relative density at 20 °C (68 °F) 1.05
  - Vapour density (AIR = 1) Not applicable
  - Evaporation rate Not applicable
  - Solubility in / Miscibility with Water: Insoluble
  - Partition coefficient (n-octanol/water): Not determined
  - Viscosity:
    - dynamic: Not applicable
    - kinematic: Not applicable
  - Other information No further relevant information available.

10 Stability and reactivity

- Reactivity: No further relevant information available.
- Chemical stability
- Thermal decomposition / conditions to be avoided: Temperature over 300 °C
- Possibility of hazardous reactions: No dangerous reactions known
- Conditions to avoid: No further relevant information available.
- Incompatible materials: Strong oxidizing agents
- Hazardous decomposition products:
  - Irritant gases/vapors
  - Nitrogen oxides (NOx)
Trade name: P400 ABS Model

Carbon monoxide and carbon dioxide
Hydrogen cyanide (prussic acid)
Styrene

11 Toxicological information

- Information on toxicological effects
  - Acute toxicity:
  - LD/LC50 values that are relevant for classification:

<table>
<thead>
<tr>
<th>Compound</th>
<th>Oral LD₅₀</th>
<th>Dermal LD₅₀</th>
<th>Inhalative LC₅₀/₄ h</th>
</tr>
</thead>
<tbody>
<tr>
<td>100-41-4 Ethylbenzene</td>
<td>3500 mg/kg (rat)</td>
<td>15500 mg/kg (rabbit)</td>
<td>17.2 mg/l (rat)</td>
</tr>
</tbody>
</table>

- 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 effects 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.

- Carcinogenic categories

<table>
<thead>
<tr>
<th>Compound</th>
<th>IARC</th>
<th>NTP</th>
</tr>
</thead>
<tbody>
<tr>
<td>100-41-4 Ethylbenzene</td>
<td>2B</td>
<td>None of the ingredients is listed.</td>
</tr>
</tbody>
</table>

12 Ecological information

- Toxicity
  - Aquatic toxicity:

<table>
<thead>
<tr>
<th>Compound</th>
<th>EC₅₀/₄₈ h</th>
<th>IC₅₀/₇₂ h</th>
<th>LC₅₀/₉₆ h</th>
</tr>
</thead>
<tbody>
<tr>
<td>100-41-4 Ethylbenzene</td>
<td>1.8 - 2.9 mg/l (daphnia)</td>
<td>4.6 mg/l (selenastrum capricornutum)</td>
<td>12.1 mg/l (fathead minnow (pimephales promelas))</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>4.2 mg/l (rainbow trout (oncorhynchus mykiss))</td>
</tr>
</tbody>
</table>

- Persistence and degradability: No further relevant information available.
- Bioaccumulative potential: Does not accumulate in organisms
- Mobility in soil: No further relevant information available.
- Additional ecological information:
  - General notes: Water hazard class 1 (Self-assessment) (German regulation): slightly hazardous for water.
  - Results of PBT and vPvB assessment
    - PBT: Not applicable.
    - vPvB: Not applicable.
  - Other adverse effects: No further relevant information available.
13 Disposal considerations

- Waste treatment methods
- Recommendation: Disposal must be made according to local/official regulations.
- Uncleaned packaging:
- Recommendation: Disposal must be made according to local/official regulations.

14 Transport information

- UN-Number
- DOT, ADR, IMDG, IATA: Void
- UN proper shipping name
- DOT, IMDG, IATA: Void
- ADR: Void

- Transport hazard class(es)
- DOT, ADR, IMDG, IATA: Void
- Class: Void

- Packing group
- DOT, ADR, IMDG, IATA: Void

- Environmental hazards:
- Not applicable.

- Special precautions for user:
- Not applicable.

- Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code:
- Not applicable.

- Transport/Additional information:
- Not dangerous according to the above specifications.

15 Regulatory information

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

- SARA Section 355 (extremely hazardous substances)
- None of the ingredients is listed.

- TSCA (Toxic Substances Control Act)
- 9003-56-9 Acrylonitrile/butadiene/styrene copolymer
- 8042-47-5 White mineral oil (petroleum)

- Cancerogenity categories
- None of the ingredients is listed.

- MAK (German Maximum Workplace Concentration)
- None of the ingredients is listed.

- National regulations

- Water hazard class:
  - Water hazard class 1 (Self-assessment) (German regulation): slightly hazardous for water.
- Chemical safety assessment: A Chemical Safety Assessment has not been carried out.

16 Other information

This information is based on our present knowledge. However, this shall not constitute a guarantee for any specific product features and shall not establish a legally valid contractual relationship.