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

- Trade name: P400 SR Soluble Support Material
  - Relevant identified uses of the substance or mixture and uses advised against
    - No further relevant information available.
- Application of the substance / the preparation: Soluble release material
- Manufacturer/Supplier:
  - Stratasys, Inc.
  - 7665 Commerce Way
  - Eden Prairie, MN 55344
  - USA
  - In Europe:
    - C.S.B. GmbH
    - Parkstraße 29
    - D-47829 Krefeld
    - Germany
  - Information department: Product safety department.
  - Emergency telephone number: see above

2 Hazards identification

- Classification of the substance or mixture
  - The product is not classified according to the Globally Harmonized System (GHS).
  - Classification according to Directive 67/548/EEC or Directive 1999/45/EC
    - Toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment.
  - Classification system:
    - The product has 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
  - GHS label elements: Void
  - Hazard pictograms: Void
  - Signal word: Void
  - Hazard statements: Void
  - Classification system
  - NFPA ratings (scale 0–4)
    - Health = 0
    - Fire = 1
    - Reactivity = 0
  - HMIS
    - HEALTH: Health = 0
    - FIRE: Fire = 1
    - REACTIVITY: Reactivity = 0
- Other hazards
  - Results of PBT and vPvB assessment
    - PBT: Not applicable.

(Contd. on page 2)
Material Safety Data Sheet
acc. to ISO/DIS 11014

Printing date 02/07/2013
Reviewed on 02/07/2013

Trade name: P400 SR Soluble Support Material

· vPvB: Not applicable.

(Contd. of page 1)

3 Composition/information on ingredients

· Chemical characterization: Mixtures
· Description: Polymer

- Dangerous components:

<table>
<thead>
<tr>
<th>Chemical</th>
<th>CAS Number</th>
<th>Description</th>
<th>H302</th>
<th>R50/53</th>
<th>Skin Irrit. 2, H315</th>
<th>Acute Tox. 4, H302</th>
</tr>
</thead>
<tbody>
<tr>
<td>Triphenyl phosphate</td>
<td>115-86-6</td>
<td></td>
<td></td>
<td></td>
<td>&lt; 2.5%</td>
<td></td>
</tr>
<tr>
<td>Di-tert-butylphenyl phenyl phosphate</td>
<td>65652-41-7</td>
<td></td>
<td></td>
<td></td>
<td>&lt; 2.5%</td>
<td></td>
</tr>
</tbody>
</table>

· Other components: Thermoplastic acrylic copolymer

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 skin contact: Wash with soap and water; If skin irritation continues, consult a doctor. 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.
- 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: Oxides of phosphorus (PₓOᵧ). Carbon monoxide and carbon dioxide.
- Advice for firefighters
- Protective equipment: Use suitable respiratory protective device.
- Additional information: Collect contaminated fire fighting water separately. It must not enter the sewage system.

6 Accidental release measures

- Personal precautions, protective equipment and emergency procedures: Avoid formation of dust. Do not breathe dust.

(Contd. on page 3)
Avoid contact with eyes.

**Environmental precautions:**
Do not allow to enter sewers/ surface or ground water.
Inform respective authorities in case product reaches water or sewage system.

**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**
Ensure good ventilation/exhaustion at the workplace.
Prevent formation of dust.
If dust/smoke is developed, avoid breathing dust/smoke.
Avoid contact with eyes.
Make sure that all applicable workplace limits are observed.
Avoid contact with hot product.

**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 in cool, dry conditions in well sealed receptacles.
Store receptacle in a well ventilated area.

**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

<table>
<thead>
<tr>
<th>substance</th>
<th>PEL</th>
<th>REL</th>
<th>TLV</th>
</tr>
</thead>
<tbody>
<tr>
<td>115-86-6 Triphenyl phosphate</td>
<td>3 mg/m³</td>
<td>3 mg/m³</td>
<td>3 mg/m³</td>
</tr>
</tbody>
</table>

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

**Exposure controls**

**Personal protective equipment**

**General protective and hygienic measures**
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.
Trade name: P400 SR Soluble Support Material

- **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.

### 9 Physical and chemical properties

- **Information on basic physical and chemical properties**
- **General Information**
  - **Appearance:**
    - Form: solid
    - Color: Dark brown
  - **Odor:** Acidic
  - **Odor threshold:** no data available
  - **pH-value:** Not applicable

- **Change in condition**
  - Melting point/Melting range: Not applicable
  - Boiling point/Boiling range: Not applicable

- **Flash point:** > 427°C (> 801 °F)

- **Flammability (solid, gaseous):** Not determined

- **Ignition temperature:** Not determined

- **Decomposition temperature:** Not determined

- **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 determined

- **Density at 20°C (68 °F):** 1.25 g/cm³ (10.431 lbs/gal)

- **Solubility in / Miscibility with Water:** Insoluble

- **Viscosity:**
  - dynamic: Not applicable
  - kinematic: Not applicable

- **Other information**
  - No further relevant information available.

### 10 Stability and reactivity

- **Reactivity**
- **Chemical stability**
- **Thermal decomposition / conditions to be avoided:**
  - Temperature over 300 °C
  - No decomposition if used and stored according to specifications.
- **Possibility of hazardous reactions**
  - No dangerous reactions known
- **Conditions to avoid**
  - No further relevant information available.
Incompatible materials:
- Strong oxidizing agents
- Alkaline materials

Hazardous decomposition products:
- Phosphorus oxides (e.g. $P_2O_5$)
- Carbon monoxide and carbon dioxide

11 Toxicological information

Information on toxicological effects

Acute toxicity:

- LD/LC50 values that are relevant for classification:

115-86-6 Triphenyl phosphate

<table>
<thead>
<tr>
<th>Route</th>
<th>LD50</th>
<th>LC50</th>
</tr>
</thead>
<tbody>
<tr>
<td>Oral</td>
<td>1300 mg/kg (mouse)</td>
<td>&gt; 3800 mg/kg (rat)</td>
</tr>
<tr>
<td>Dermal</td>
<td>&gt; 7900 mg/kg (rabbit)</td>
<td></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

- IARC (International Agency for Research on Cancer)
  None of the ingredients is listed.
- NTP (National Toxicology Program)
  None of the ingredients is listed.

12 Ecological information

Toxicity

Aquatic toxicity:

115-86-6 Triphenyl phosphate

<table>
<thead>
<tr>
<th>EC50/48 h</th>
<th>LC50/96 h</th>
</tr>
</thead>
<tbody>
<tr>
<td>1.35 mg/l (water flea (daphnia magna))</td>
<td>0.36 mg/l (rainbow trout (oncorhynchus mykiss))</td>
</tr>
</tbody>
</table>

Persistence and degradability: No further relevant information available.

Bioaccumulative potential: No further relevant information available.

Mobility in soil: No further relevant information available.

Additional ecological information:

General notes: Water hazard class 2 (German Regulation) (Self-assessment): 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 packagings:
  - Recommendation: Disposal must be made according to local/official regulations.

14 Transport information

- UN-Number
  - DOT, ADR, IMDG, IATA: UN3077

- UN proper shipping name
  - DOT, IATA: ENVIRONMENTALLY HAZARDOUS SUBSTANCE, SOLID, N.O.S. (Triphenyl phosphate)
  - ADR: 3077 ENVIRONMENTALLY HAZARDOUS SUBSTANCE, SOLID, N.O.S. (Triphenyl phosphate)
  - IMDG: ENVIRONMENTALLY HAZARDOUS SUBSTANCE, SOLID, N.O.S. (Triphenyl phosphate), MARINE POLLUTANT

- Transport hazard class(es)
  - DOT, IMDG, IATA
    - Class: 9 Miscellaneous dangerous substances and articles
    - Label: 9

- ADR
  - Class: 9 (M7) Miscellaneous dangerous substances and articles
  - Label: 9

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

- Environmental hazards:
  - Product contains environmentally hazardous substances: TRIPHENYL PHOSPHATE

- Marine pollutant:
  - Symbol (fish and tree)

- Special marking (ADR):
  - Symbol (fish and tree)

- Special marking (IATA):
  - Symbol (fish and tree)

- Special precautions for user:
  - Warning: Miscellaneous dangerous substances and articles
  - Danger code (Kemler): 90
  - EMS Number: F-A,S-F

- Transport in bulk according to Annex II of MARPOL73/78 and the IBC Code
  - Not applicable.
Trade name: P400 SR Soluble Support Material

Transport/Additional information:
- DOT
- Remarks: Special marking with the symbol (fish and tree).
- UN "Model Regulation": UN3077, ENVIRONMENTALLY HAZARDOUS SUBSTANCE, SOLID, N.O.S. (Triphenyl phosphate), 9, III

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)
    None of the ingredients is listed.

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

- National regulations
  - Information about limitation of use: Employment restrictions concerning young persons must be observed.
  - Disturbance regulations:
    Critical quantity values according to the regulations on accidents should be adhered to.
  - Water hazard class: Water hazard class 2 (Self-assessment): 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.

- Relevant phrases
  The(se) R-phrase(s) are those of the ingredient(s) and do(es) NOT represent the classification of the preparation.

- Department issuing MSDS:
  C.S.B. GmbH
  Parkstraße 29
  D-47829 Krefeld
  Germany

- 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
  DOT: US Department of Transportation
  IATA: International Air Transport Association
  NFPA: National Fire Protection Association (USA)
  HMIS: Hazardous Materials Identification System (USA)
  LC50: Lethal concentration, 50 percent
  LD50: Lethal dose, 50 percent

- * Data compared to the previous version altered.