

Printing date 03/07/2013

Reviewed on 03/07/2013

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

- **Product identifier**

- **Trade name:** ABS-M30i 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

Tel +1 952 937 3000
 Fax +1 952 937 0070

For information in Europe contact:

C.S.B. GmbH
 Düsseldorf Straße 113
 D-47809 Krefeld
 Germany

Tel.: +49-2151-6520860
 Fax: +49-2151-6520869
 E-Mail: info@csb-online.de

- **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)**



- **HMIS**



- **Other hazards**

- **Results of PBT and vPvB assessment**

- **PBT:** Not applicable.

- **vPvB:** Not applicable.

3 Composition/information on ingredients

- **Chemical characterization:** Mixtures

- **Description:** Polymer

- **Dangerous components:** Void

(Contd. on page 2)

USA

Printing date 03/07/2013

Reviewed on 03/07/2013

Trade name: ABS-M30i Model

(Contd. of page 1)

· **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 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.

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.

Remove contact lenses, if present and easy to do.

· **After swallowing**

Rinse out mouth and then drink plenty of water.

Do not induce vomiting!

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**

Water spray

Foam

· **For safety reasons unsuitable extinguishing agents**

Water with full jet.

Carbon dioxide

Extinguishing powder.

ABC powder

Lack of cooling capacity may permit re-ignition.

· **Special hazards arising from the substance or mixture**

Formation of toxic gases is possible during heating or in case of fire.

Irritant gases/vapors

In case of fire, the following can be released:

Smoke

Carbon monoxide and carbon dioxide

Hydrocarbons

Hydrogen cyanide (HCN)

In certain fire conditions, traces of other toxic gases cannot be excluded.

· **Advice for firefighters**· **Protective equipment:** Wear self-contained respiratory protective device.

6 Accidental release measures

· **Personal precautions, protective equipment and emergency procedures**

Avoid formation of dust.

(Contd. on page 3)

USA

Printing date 03/07/2013

Reviewed on 03/07/2013

Trade name: ABS-M30i Model

(Contd. of page 2)

- Do not breathe dust.*
- Keep away from ignition sources*
- Avoid contact with eyes.*
- Danger of slipping on leaked/spilled product.*
- **Environmental precautions:** *Do not allow to enter sewers/ surface or ground water.*
- **Methods and material for containment and cleaning up:**
 - Allow to solidify. 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.*
 - Any deposit of dust which cannot be avoided must be regularly removed.*
 - Avoid contact with skin and eyes.*
 - Make sure that all applicable workplace limits are observed.*
 - Avoid contact with hot product.*
- **Information about protection against explosions and fires:**
 - Protect against electrostatic charges.*
 - Keep ignition sources away - Do not smoke.*
 - Protect from heat.*
 - Risk of dust explosion if enriched with fine dust in the presence of air*
- **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.*
- **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 and skin.*
 - 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.*

(Contd. on page 4)

USA

Printing date 03/07/2013

Reviewed on 03/07/2013

Trade name: ABS-M30i Model

(Contd. of page 3)

- **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: | <i>solid</i> |
| · Color: | <i>Different according to coloring</i> |
| · Odor: | <i>weak/faint</i> |
| · Odor 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 determined</i>
-----------------------	-----------------------

· Flammability (solid, gaseous)	<i>combustible</i>
--	--------------------

· Ignition temperature:	<i>Not determined</i>
--------------------------------	-----------------------

· Decomposition temperature:	<i>Not determined</i>
-------------------------------------	-----------------------

· Auto igniting:	<i>Product is not selfigniting.</i>
-------------------------	-------------------------------------

· Danger of explosion:	<i>Risk of dust explosion if enriched with fine dust in the presence of air</i>
-------------------------------	---

· Explosion limits:

- | | |
|-----------------|-----------------------|
| · Lower: | <i>Not determined</i> |
| · Upper: | <i>Not determined</i> |

· Oxidizing properties	<i>Not applicable</i>
-------------------------------	-----------------------

· Vapor pressure:	<i>negligible</i>
--------------------------	-------------------

· Density:	<i>> 1 g/cm³ (> 8.345 lbs/gal)</i>
-------------------	---

· Relative density at 20 °C (68 °F)	<i>> 1 (H₂O = 1)</i>
--	------------------------------------

· Vapour density (AIR = 1)	<i>Not determined</i>
-----------------------------------	-----------------------

· Evaporation rate	<i>negligible</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> |

· Other information	<i>No further relevant information available.</i>
----------------------------	---

10 Stability and reactivity

- **Reactivity** see 10.3

(Contd. on page 5)

USA

Printing date 03/07/2013

Reviewed on 03/07/2013

Trade name: ABS-M30i Model

(Contd. of page 4)

- **Chemical stability**
- **Thermal decomposition / conditions to be avoided:**
*No decomposition if used and stored according to specifications.
 Avoid impact, friction, heat, sparks, electrostatic charges.*
- **Possibility of hazardous reactions** *Risk of dust explosion if enriched with fine dust in the presence of air*
- **Conditions to avoid** *No further relevant information available.*
- **Incompatible materials:** *Strong oxidizing agents*
- **Hazardous decomposition products:**
*Irritant gases/vapors
 Poisonous gases/vapors
 Smoke
 Carbon monoxide and carbon dioxide
 Hydrocarbons
 Hydrogen cyanide (prussic acid)
 Styrene
 Aldehyde
 Phenol
 Acrylonitril
 Nitrogen oxides (NO_x)*

11 Toxicological information

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

Oral	LD50	> 5000 mg/kg (rat)
Dermal	LD50	> 2000 mg/kg (rabbit)

- **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.*
- **Subacute to chronic toxicity:** *no data available*
- **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:** *No further relevant information available.*
- **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 1 (Self-assessment) (German regulation): slightly hazardous for water.*
- **Results of PBT and vPvB assessment**
- **PBT:** *Not applicable.*

(Contd. on page 6)

USA

Printing date 03/07/2013

Reviewed on 03/07/2013

Trade name: ABS-M30i Model

(Contd. of page 5)

- **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 | Void |
| · DOT, ADR, IMDG, IATA | Void |
| · UN proper shipping name | Void |
| · DOT, IMDG, IATA | Void |
| · ADR | Void |
| · Transport hazard class(es) | Void |
| · DOT, ADR, IMDG, IATA | Void |
| · Class | Void |
| · Packing group | Void |
| · DOT, ADR, IMDG, IATA | Void |
| · Environmental hazards: | Not applicable. |
| · Special precautions for user | Not applicable. |
| · 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. |

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.

- **Carcinogenicity categories**

- **MAK (German Maximum Workplace Concentration)**

None of the ingredients is listed.

- **National regulations**

- **Disturbance regulations:** Directive 96/82/EC does not apply.
- **Other regulations, limitations and prohibitive regulations**

Product resp. its monomers are listed in:
 Toxic Substance Control Act TSCA (USA)
 Canadian Domestic Substance List DSL
 Existing and New Chemical Substance List ENCS (Japan)

(Contd. on page 7)

USA

Material Safety Data Sheet
acc. to OSHA HCS

Printing date 03/07/2013

Reviewed on 03/07/2013

Trade name: ABS-M30i Model

(Contd. of page 6)

*Korean Existing Chemicals List KECL**Australian Inventory of Chemical Substances AICS (Australia)**· 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.**· Sources These data are based on information submitted by pre-suppliers.*

USA