



Safety Data Sheet
according to Regulation (EC) No 1907/2006 (REACH)
Cube ABS plastic
Revision Date: December 4, 2012

1. IDENTIFICATION OF THE SUBSTANCE/PREPARATION AND OF THE COMPANY/UNDERTAKING

1.2 Identification of the substance or preparation: Cube ABS plastic

1.2 Use of the substance / preparation: For use with the Cube® 3D Printer

1.3 Company/undertaking identification:

3D Systems Europe Ltd.
Mark House, Mark Road
Hemel Hempstead
Herts HP2 7
United Kingdom
Phone: +44 144-2282600
703.527.3887 - Chemtrec (U.S.)

2. HAZARDS IDENTIFICATION

2.1 Classification: Not classified according to regulation 1999/45/EC.

2.2 Information pertaining to special dangers for human and environment:

Eye Contact: Fumes released from heated material may cause irritation or corneal injury due to mechanical action.

Skin Contact: Heated or molten material will produce thermal burns.

Inhalation: Fumes released from heated material may cause irritation to respiratory system.

Acute Effects of Exposure due to High Temperature and Thermal Decomposition: At Thermal Decomposition, very small amounts (within permissible exposure limits) decomposition products including but not limited to Carbon monoxide, Carbon dioxide, Hydrogen Cyanide, Styrene, Ethylbenzene and Acrylonitrile may be emitted. Exposure to high concentrations of these vapours and fumes could cause nausea, drowsiness and headache.

3. COMPOSITION/INFORMATION ON INGREDIENTS

3.1 Preparation related information

Description: Polymer

3.2 Hazard ingredients:

Chemical name	CAS- No	EC-No.	Value (%)	Classification		Remark
				Hazards characteristics	R-Phrases	
ABS (Acrylonitrile- butadiene styrene- copolymer)	9003-56-9	polymer	95- 100%	-	-	Not classified in the Annex I of Directive 67/548/EEC

3.3. Additional Information:

This substance is not classified according to European Union Directive 67/548/EEC.



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4. FIRST AID MEASURES

4.1 General information:

4.2 In case of inhalation: Fumes released from heated material may cause respiratory irritation. In case of inhaling dense smoke, move affected person to fresh air. If respiratory irritation occurs or breathing becomes difficult seek medical attention immediately.

4.3 In case of skin contact: If molten material gets on skin, cool rapidly with cold water. Do not attempt to peel material from skin. Use mineral oil to loosen the material. Seek medical attention for burns.

4.4 In case of eye contact: Flush eyes with plenty of water for at least 15 minutes. Get medical attention if symptoms persist.

4.5 In case of ingestion: Ingestion is unlikely. If ingested, drink plenty of water and seek immediate medical attention. Do not induce vomiting.

5. FIRE-FIGHTING MEASURES

5.1. Suitable extinguishing media: Water mist, dry chemical, carbon dioxide, or appropriate foam.

5.2 Extinguishing media which must not be used for safety reasons: -

5.3 Special exposure hazards arising from the substance or preparation itself, combustion products, resulting gases: During a fire, combustion products including but not limited to Carbon monoxide, Carbon dioxide, Hydrogen Cyanide, Styrene, Ethylbenzene and Acrylonitrile may be emitted.

5.4 Special protective equipment for fire-fighters: Use self-contained breathing apparatus. Use water spray to keep fire-exposed containers cool. Dust is not expected to be generated in the event of a fire.

6. ACCIDENTAL RELEASE MEASURES

6.1. Personal precautions: -

6.2 Environmental precautions: Keep out of irrigation ditches, sewers and water supplies

6.3 Methods for cleaning up: Sweep up and dispose of properly.

7. HANDLING AND STORAGE

7.1. Handling: Keep material dry, avoid it from getting wet. Proper protection should be taken while handling molten resin during fabrication in order to avoid possible direct contact.

7.2 Storage: Keep this material in a cool (<35 °C), dry, well-ventilated place.

7.3 Specific uses: -

8. EXPOSURE CONTROLS / PERSONAL PROTECTION

Although some of the additives used in this product may have exposure guidelines, these additives are encapsulated in the product and no exposure would be expected under normal handling conditions.

8.1 Exposure limit values:

No occupational exposure limits (PEL/TWA) have been established for this product.

8.2 Exposure controls:

Technical measures to prevent exposure: Good general ventilation should be sufficient for normal operation.



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Personal protection equipment:

If product is used as intended, no personal protective equipment is required.

Respiratory protection: NA

Eye protection: NA

Body protection: NA

9. PHYSICAL AND CHEMICAL PROPERTIES

9.1 Appearance:

Physical state: Solid filament

Colour: Black, Blue, Brown, glow-in-the-dark Blue, glow-in-the-dark Green, Green, Magenta, Neon Green, Neon Orange, Purple, Red, Silver, Tan, Teal, White, Yellow

Odour: Odourless

9.2 Important health, safety and environmental information

Safety relevant basic data

pH (20 °C):	NA
Vicat Softening Point (°C):	105
Boiling point/range (°C):	NA
Flash point (°C):	> 207 °C
Ignition temperature (°C):	NA
Vapour pressure (°C):	NA
Density (g/cm³):	1.05
Bulk density (kg/m³):	NA
Water solubility (20 °C in g/l):	Insoluble
Partition coefficient:	NA
n-Octanol/Water (log Po/w):	NA
Viscosity, dynamic (mPa s):	NA
Dust explosion hazard:	NA
Explosion limits:	NA

10. STABILITY AND REACTIVITY

10.1 Conditions to avoid: Temperatures over the decomposition temperature of 300 °C. These temperatures are not encountered in normal operations.

10.2. Hazardous decomposition products: At high temperatures or upon burning, thermal decomposition products including but not limited to Carbon monoxide, Carbon dioxide, Hydrogen Cyanide, Styrene, Ethylbenzene and Acrylonitrile may be emitted.

11. TOXICOLOGICAL INFORMATION

11.1 Toxicokinetics, metabolism and distribution: NA

11.2 Acute effects (toxicity tests)

Acute toxicity: NA

Oral LD50: NA

Irritant and corrosive effects: NA

Irritation to respiratory tract: NA

Sensitisation: NA

11.3 Experiences made in practice

Observations relevant to classification: -

Other observations:-

11.4 General remarks:

Carcinogenicity: None of this product's components are listed by ACGIH, IARC, OSHA, NIOSH, or NTP



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12. Ecological information

12.1 Ecotoxicity: Not expected to be acutely toxic, but if ingested by waterfowl or aquatic life, may mechanically cause adverse effects.

12.2 Mobility: No bioconcentration is expected because of the high molecular weight (MW>1000). In the terrestrial environment, material is expected to remain in the soil. In the aquatic environment material will sink and remain in the sediment.

12.3 Persistence and degradability: This water insoluble polymeric solid is expected to be inert in the environment. Surface degradation is expected with exposure to sunlight. No appreciable biodegradation is expected.

12.4 Results of PBT assessment: No information available for product

12.5 Other adverse effects: No information available for product

13. DISPOSAL CONSIDERATIONS

13.1 Appropriate disposal / Product: Do not dump into any sewers, on the ground, or into any body of water. All disposal methods must be in compliance with all Federal, State/Provincial and local laws and regulations. Regulations may vary in different locations. Waste characterizations and compliance with appliance laws are the responsibility solely of the waste generator. For unused & uncontaminated product, the preferred options include sending to a licensed, permitted recycler, reclaim, incinerator or other thermal destruction device.

13.2 Waste codes / waste designations according to EWC / AVV:

13.3 Appropriate packaging: -

13.4 Additional information: -

14. TRANSPORT INFORMATION

14.1 Land transport (ADR/RID/GGVSE): Not Regulated

Official transport designation:

Class:

Classification Code:

UN-No.:

Packing group:

Hazard label:

Tunnel restriction code:

Special provisions:

14.2 Sea transport (IMDG-Code/GGVSee): Not Regulated

Proper Shipping Name:

Class:

UN-No.:

Packing group:

EmS:

Marine Pollutant:

Special provisions:

14.3 Air transport (ICAO-IATA/DGR): Not Regulated

Proper Shipping Name:

Class:

UN-No.:

Packing group:

Special provisions:



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15. REGULATORY INFORMATION

15.1 EU regulations

General Product Information: This substance is not classified according to European Union Directive 67/548/EEC.

Chemical Safety Assessment:

Labelling

Hazard symbols and hazard statements: -

Hazard components for labelling: -

R-Phrases: -

S-Phrases: -

Special provisions concerning the labelling of certain preparations: -

Authorisations and/or restrictions on use:

Authorisations: -

Restrictions on use: -

Other EU regulations:

Information according 1999/13/EC about limitation of emissions of volatile organic compounds (VOC-guideline): -

15.2 National regulations (Germany)

Restrictions of occupation:

Störfallverordnung (12. BImSchV):

Wassergefährdungsklasse (water hazard class):

Technische Anleitung Luft (TA-Luft):

Other regulations, restrictions and prohibition regulations: All components are listed on the TSCA and EINECS inventories or are exempt from listing requirements

16. OTHER INFORMATION

16.1 Relevant R-phrases (Number and full text): -

16.2 Training instructions: -

16.3 Uses- and exposure categories (overview): -

Consumer use

Professional use

16.4 Further information:

SDS Creation Date: May 13, 2012

SDS Revision #: 01-A

SDS Revision Date: 4 December 2012

Reason for Revision: additional colors, product name change, concluding statement revisions

For more information: www.3dsystems.com

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