



# Safety Data Sheet

according to Regulation (EC) No 1907/2006 (REACH),  
GHS Rev 04 (2011): US, OSHA, CMA, ANSI  
WHS Regulations Australia,  
JIS Z 7253 (2012): Japan

**Cube<sup>®</sup> ABS plastic / CubeX<sup>™</sup> ABS plastic**  
Revision Date: 31 October 2013

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

**1.1 Identification of the substance or preparation: Cube<sup>®</sup> ABS plastic**

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

**1.3 Company/undertaking identification:**

Company Name Address	3D Systems Japan K.K. Yebisu Garden Place Tower 27F 4-20-3, Ebisu, Shibuya-ku, Tokyo 50-6027 Japan
Telephone No.	03-5798-2500
Chemical Emergency	03-4520-9637 - Chemtrec

## 2. HAZARDS IDENTIFICATION

### 2.1 Classification:

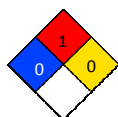
Not classified according to GHS, Regulation (EC) No. 1272/2008, HazCom 2012.

### 2.2 Label Elements

**Regulation (EC) No, 1272/2008:**

**Hazard pictograms and signal word:** None

**Hazard statements:** None



NFPA Ratings  
0 = Minimal  
1 = Slight  
2 = Moderate  
3 = Serious  
4 = Severe

### Hazardous Materials Identification System (HMIS):

(Degree of hazard: 0 = low, 4 = extreme);

Health **0**  
Flammability **1**  
Physical Hazards **0**

## 3. COMPOSITION/INFORMATION ON INGREDIENTS

### 3.1 Preparation related information

**Description:** Polymer

### 3.2 Dangerous components

Chemical name	CAS-No	EC-No	%	Classification	
				Regulation (EC) 1272/2008	Regulation 67/548/EEC, 1999/45/EC
ABS (Acrylonitrile-butadiene styrene-copolymer)	9003-56-9	polymer	95- 100%	-	-



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## 4. FIRST AID MEASURES

**4.1 General information:** Acute Effects of Exposure due to High Temperature and Thermal Decomposition: At thermal decomposition, very small amounts (within permissible exposure limits) of 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.

**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.

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## 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.

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## 6. ACCIDENTAL RELEASE MEASURES

**6.1 Personal precautions:** Wear appropriate protective equipment and clothing.

**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.

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## 7. HANDLING AND STORAGE

**7.1 Handling:** Avoid contact with skin and eyes. Do not allow to enter drains or watercourses.

**7.2 Storage:** Store sealed in the original container at room temperature.

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## 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.



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## 8.2 Exposure controls:

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

**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/cm <sup>3</sup> ):	1.05
Bulk density (kg/m <sup>3</sup> ):	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 250 °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 and carbon dioxide 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

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## 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:**

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## 14. TRANSPORT INFORMATION

**14.1 Land transport (ADR/RID/GGVSE):** Not regulated

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

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

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## 15. REGULATORY INFORMATION

### 15.1 EU regulations

EINEC/ELINCS/NLP: All materials are listed  
REACH Annex XVII: None listed

### 15.2. US FEDERAL

TSCA: All materials are listed on the TSCA Inventory or are not subject to TSCA requirements:  
California Proposition 65: This product does not contain chemicals which are known to the state of California to cause cancer, birth, or any other reproductive defects.

### 15.3 Australian regulations

SUSDP, Industrial Chemicals Act 1989:  
Australian Inventory of Chemical Substances, AICS: Listed

### 15.4 Japanese regulations

Chemical Risk Information platform (CHRIP): Listed



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## **16. OTHER INFORMATION**

SDS Creation Date: .....May 13, 2012  
SDS Revision #: .....02-A  
SDS Revision Date: .....December 31, 2013  
Reason for Revision:.....GHS Compliance

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