

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

Cube[®] PLA plastic / CubeX™ PLA plastic

Revision Date: 12 December 2013

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

1.1 Identification of the substance or preparation: Cube[®] PLA plastic / CubeX[™] PLA plastic

1.2 Use of the substance / **preparation:** For use with the 2nd and 3rd generation Cube[®] 3D Printers and the CubeX[™] 3D Printer

1.3 Company/undertaking identification:

3D Systems, Inc. 333 Three D Systems Circle Rock Hill, South Carolina U.S.A. Phone: 803.326.3900 or Toll-free Phone: 800.793.3669 Chemical Emergency: 800.424.9300 – Chemtrec (US) 3D Systems Europe Ltd. Mark House, Mark Road Hemel Hempstead Herts HP2 7 United Kingdom Phone: +44 144-2282600 Chemical Emergency: +1.703.527.3887 - 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 Hazardous Materials Identification System (HMIS):

 $\begin{array}{ll}
\text{OPERATE OF SIGNATURE} \\
1 = \text{Slight} & \underline{\text{(Degree of hazard: 0 = low, 4 = extreme);}}
\end{array}$

2 = Moderate 3 = Serious Health 1
4 = Severe Physical Hazards 0

3. COMPOSITION/INFORMATION ON INGREDIENTS

3.1 Preparation related information

Description: Biopolymer

3.2 Dangerous components

| Chemical name | CAS-No | EC-No | % | Classification | |
|-------------------|-----------|---------|--------|------------------------------|--------------------------------------|
| | | | | Regulation (EC) 1272/2008 | Regulation 67/548/EEC, 1999/45/EC |
| Polylactide resin | 9051-89-2 | polymer | 80-90% | - | - |

4. FIRST AID MEASURES

4.1 In case of inhalation: Fumes released from heated material may cause irritation to respiratory system. Move affected person to fresh air. If respiratory irritation occurs, seek medical attention immediately.

4.2 In case of skin contact: Flush skin with plenty of soap and water.

4.3 In case of eye contact: Flush eyes with plenty of water.

4.4 In case of ingestion: If ingested, drink plenty of water. 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 Special exposure hazards arising from the substance or preparation itself, combustion products, resulting gases: Burning produces noxious and toxic fumes. Thermal decomposition products can include CO₂, CO and aldehydes.

6. ACCIDENTAL RELEASE MEASURES

- 6.1 Personal precautions: Wear appropriate protective equipment and clothing.
- 6.2 Environmental precautions: Avoid discharge to sewer system.
- 6.3 Methods for cleaning up: Sweep up. Place all waste in an appropriate container for disposal.

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.

8. EXPOSURE CONTROLS / PERSONAL PROTECTION

8.1 Exposure limit values:

General Product Information: 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. **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

pH (20 °C): NA Vicat Softening Point (°C): NA Boiling point/range (°C): NA Flash point (°C): > 207℃ Ignition temperature (°C): NA Vapour pressure (°C): NA Density (g/cm3): 1.2 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



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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

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: -



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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

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

16. OTHER INFORMATION

SDS Creation Date:January 4, 2013

SDS Revision #:.....01-A

SDS Revision Date:December 12, 2013 Reason for Revision:.....GHS Compliance

www.3dsystems.com

800.793.3669 (Toll-free in the US GMT-07:00; N. America, Mon – Fri, 6:00 a.m. to 6 p.m.) 803.326.3900 (Outside the U.S. GMT-07:00; N. America, Mon – Fri, 6:00 a.m. to 6 p.m.) +44 144-2282600 (Europe GMT+01:00; Mon – Fri, 08:00 a.m. - 17:00 p.m. MEZ)

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