

Safety Data Sheet

zp[®]151 Powder

Revision Date: September 20, 2020

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

1.1 Identification of the substance or preparation: zp 151 powder

1.2 Use of the substance / preparation: For use with ZPrinter[®] 3D inkjet printers

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
e-mail: moreinfo@3dsystems.com

3D Systems Europe Ltd.
200 Maylands Avenue
Hemel Hempstead
Herts, HP2 7TG United Kingdom
Phone: +44 144-2282600
e-mail: moreinfo@3dsystems.com

3D Systems Asia-Pacific
30-32 Ceylon St
Nunawading VIC 3131
Australia
+61 3 9819 4422
e-mail: moreinfo@3dsystems.com

1.4. Emergency telephone number:

U.S.A.:
Chemical Emergency:
800.424.9300 – Chemtrec

Europe:
Chemical Emergency:
+1 703.527.3887 - Chemtrec

Australia:
Chemical Emergency:
+(61) 29037.2994 – Aus Chemtrec

2. HAZARDS IDENTIFICATION

2.1 Classification:

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

Physical Hazard:

None

Health Hazard:

None

Environmental Hazard:

None

Hazard pictograms and signal word: None

Hazard determining components of labelling: None

Hazard statements: None

Precautionary statements:

When mixed with water, this material hardens. **DO NOT** attempt to make a cast enclosing any part of the body using this material.

Prevention:

None

Response:

None

Storage:

None

Disposal:

None

Supplementary information:

Safety recommendations:

Wash contaminated skin thoroughly after handling. Do not eat, drink or smoke when using this product. Wear protective gloves/protective clothing/eye protection/face protection.

Get medical advice/attention if you feel unwell. **IF IN EYES:** Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.

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Storage recommendation:

Store in a dry place. Protect from moisture

Disposal recommendation:

Dispose of contents/container in accordance with local/state/regional regulations

3. COMPOSITION/INFORMATION ON INGREDIENTS

3.1 Preparation related information

Description: Mixture

3.2 Hazard ingredients:

Chemical name	CAS-No	KE-No	%	Classification
				Regulation (EC) 1272/2008
Calcium sulphate hemihydrate	10034-76-1	KE-04614	80-100	Not Classified

4. FIRST AID MEASURES

4.1 In case of inhalation: 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.

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: Thermal decomposition products can include sulphur oxides, calcium oxide, CO₂ and CO.

6. ACCIDENTAL RELEASE MEASURES

6.1. Personal precautions: Avoid dust formation. Do not breathe Dust/vapors/mist/gas.

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: Provide adequate ventilation during dust formation.

7.2 Storage: Store sealed in the original container at room temperature. Keep this material in a cool, dry, well-ventilated place.

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.

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Component Analysis:

Component	
OSHA	
Calcium sulphate	
Total Dust PEL (inhalable fraction)	15mg/m ³
8 Hour TWA	10mg/m ³
Respirable fraction	5mg/m ³

8.2 Exposure controls

Technical measures to prevent exposure: Provide adequate ventilation. When ventilation is not adequate, use of a NIOSH approved N95 rated dusk mask is recommended (Example: 3M 8200, 3M8210, 3M8110s).

Instructual measures to prevent exposure: When using, do not eat, drink or smoke. Wash hands after handling and before eating, smoking and using the lavatory and at the end of the day.

Personal protection equipment:

Hand protection: Use impervious nitrile gloves.

Eye protection: Wear safety glasses or chemical goggles.

Body protection: Use apron and closed shoes.

9. PHYSICAL AND CHEMICAL PROPERTIES

9.1 Appearance:

Physical state: Powder

Color: white

Odor: mild

9.2 Important health, safety and environmental information

pH (20 °C):	NA
Melting point/range (°C):	1450°C
Boiling point/range (°C):	NA
Flash point (°C):	NA
Ignition temperature (°C):	NA
Vapour pressure (°C):	NA
Density (g/cm³):	2.6-2.7
Bulk density (kg/m³):	NA
Water solubility (20°C in g/l):	0.83% (3°C)
Viscosity, dynamic (mPa s):	NA
Dust explosion hazard:	NA
Explosion limits:	NA

10. STABILITY AND REACTIVITY

10.1 Conditions to avoid: Avoid wet/humid environment. Avoid dust formation.

10.2 Materials to avoid: Oxidizing materials, acids, strong bases, water, high humidity.

10.3 Hazardous decomposition products: Sulphur oxides, calcium oxide, carbon dioxide and carbon monoxide can be released at high temperatures or upon burning.

11. TOXICOLOGICAL INFORMATION

11.1 Toxicokinetics, metabolism and distribution: NA

11.2 Acute effects (toxicity tests)

Component	LD ₅₀ Oral	LD ₅₀ Dermal
Calcium sulphate hemihydrate	> 5000mg/kg (rats)	NA

11.3 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: The aquatic toxicity of the product is unknown. No data are available for the components of this product.

12.2 Mobility: No information available for product.

12.3 Persistence and degradability: No information available for product.

12.4 Results of PBT assessment: No information available for product

12.5 Other adverse effects: No information available for product

13. DISPOSAL CONSIDERATIONS

Appropriate disposal / Product: Reduce waste by attempting to utilize product completely. Dispose of this container and its contents in accordance with all local, state, and federal regulations.

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 EU National regulations

Wassergefährdungsklasse - German Water Hazard Class (WGK): WGK1 (low hazard to waters)

15.3 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.

15.4 Australian regulations

SUSDP, Industrial Chemicals Act 1989:

Australian Inventory of Chemical Substances, AICS: Listed

15.5 International Regulations

Stockholm Convention: Not applicable

Rotterdam Convention: Not applicable

Montreal Protocol: Not applicable

Kyoto protocol: Not applicable

Basel Convention: Not applicable

15.6 Malaysia regulations

Active Ingredients of Pesticide Product (Pesticide Act 1974, First Schedule, as amended through October 1, 2004): Not regulated.

CWC (Chemical Weapons Convention) Act 2005, Schedules 1-3, as amended through CWC Regulations 2007, October 5, 2007): Not regulated.

Ozone Depleting Substances (ODS) (Environmental Quality (Prohibition on the Use of CFC and Other Gases as Propellants and Blowing Agents) Order 1993, Dec. 31, 1993): Not regulated.

Prohibited Use of Substances [Occupational Safety and Health (Prohibition of Use of Substance) Order 1999]: Not regulated.

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Other information

Ordinance of the Minister of Labour and Social Policy of 06 June 2014 concerning maximum permissible concentrations and intensities of agents harmful to health in a work environment (Journal of Laws 2014 item 817).

15.7 Singapore regulations

Controlled Narcotic Drugs (Misuse of Drugs Act, First Schedule, Part I, II & III): Not regulated.

Controlled Specified Drugs (Misuse of Drugs Act, Fourth Schedule): Not regulated.

Prior Informed Consent (PIC) Substances (Environment Protection and Management Act, 2nd Schedule, Part 1, Jul. 1, 2013): Not regulated.

15.8 South Korea regulations

All chemical ingredients in this formulation are registered or exempt from registration under South Korean chemical regulations.

A. Restrictions under the Industrial Safety and Health Law

Harmful Substances Requiring Permission for Manufacture or Use: Not regulated.

Controlled Hazardous Substances: Not regulated.

Harmful Substances Requiring Special Medical Examination: Not regulated.

Workplace Environmental Monitoring Harmful Materials: Not regulated.

Occupational Exposure Limit: Not regulated.

B. Restrictions under the Chemicals Control Law (Previously Toxic Chemicals Control Law)

Accidental Release Prevention Substances: Not regulated.

Observational Chemicals: Not regulated.

C. Restrictions under the Dangerous Substance Safety Management Act

Not regulated

D. Restrictions under the Wastes Control Act

Halogenated Materials in Waste Organic Solvents: Not regulated.

Hazardous Substances: Not regulated.

E. Restrictions under other foreign or domestic laws

Clean Air Conservation Act

Air Pollutants: Not regulated.

Specific Air Pollutants: Not regulated.

Act on the Registration and Evaluation of Chemicals

Banned Toxic Chemicals: Not regulated.

Designated Existing Chemicals Subject to Registration (PEC) (MoE No. 2015-92): Not listed.

Restricted Chemical Substances: Not regulated.

Toxic Chemicals: Not regulated

15.9 Japanese regulations

Chemical Risk Information platform (CHRIP):

Industrial Health and Safety Law

Hazardous material

Organic solvent poison prevention rule

Ordinance on prevention of hazard due to specified chemical substances

Lead Poisoning Prevention Rule

Poison and Deleterious Substance Control law

PRTR and Promotion of Chemical Management law (PRTR Law)

Fire Services Act

Explosives Law

High pressure gas safety law

Export Trade Control Order

Waste Disposal and Public Cleaning Law

Listed

not applicable

not applicable

not applicable

not applicable

not applicable

not applicable

no listed components

not applicable

not applicable

not applicable

not applicable

not applicable

16. OTHER INFORMATION

SDS Creation Date: March 22, 2013

SDS Revision #: -04-A

SDS Revision Date: September 20, 2020

Reason for Revision: Update header, section 1, 2, 3, 6, 8, 15.



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