Safety Data Sheet

according to Regulation (EC) No 1907/2006 and 1272/2008, 830/2015
Hazard Communication Standard 29 CFR 1910 (USA),
WHS Regulations Australia,
JIS Z 7253 (2012) Japan

FFMS3200 Support Material

Revision Date: Fab 22, 2024

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

1.1 Identification of the substance or preparation: FFMS3200 Support Material

1.2 Use of the substance / preparation: FFMS3200 Support Material is for use in the 510 Modeling System.

1.3 Company/undertaking identification:

Zhejiang Flashforge 3D Technology co, .Ltd.
2nd Floor, Building B, 328 Wen'er Road,
Xihu District, Hangzhou, Zhejiang, China
Phone: 0086-571-89774128

2. HAZARDS IDENTIFICATION

2.1 Classification:
Not classified according to GHS, Regulation (EC) No. 1272/2008, 29 CFR 1910, Australian Dangerous Goods Code

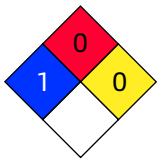
2.2 Information pertaining to special dangers for human and environment:

Skin: Not expected to be absorbed through the skin. Wax, when heated, can cause skin burn.
Ingestion: Ingestion may cause nausea, diarrhea and/or stomach pain.

2.3 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	1
Flammability	0
Physical Hazards	0

3. COMPOSITION/INFORMATION ON INGREDIENTS

3.1 Preparation related information
Description: Organic mixture

3.2 Dangerous components

Chemical name	CAS-No	EC-No	%	Classification	
				Regulation (EC) 1272/2008	Regulation 67/548/EEC, 1999/45/EC
Hydroxylated Wax	112-92-5	204-017-6	60%	-	-
Rosin resin	8050-09-7	650-015-00-7	40%	-	-

4. FIRST AID MEASURES

4.1 General information:

4.2 In case of inhalation: Move affected person to fresh air. If respiratory irritation occurs, if 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: Immediately 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: Thermal decomposition products can include CO2, CO and smoke.

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: Keep unnecessary personnel away. Wear appropriate protective equipment and clothing, including a ground strap, during clean up.

6.2 Environmental precautions: Stop the flow of material, if this is without risk. Ventilate contaminated area. Eliminate sources of ignition. Avoid the generation of dusts during clean up.

6.3 Methods for cleaning up: If material is molten, allow it to freeze before clean up. Scrape the material loose from the floor if necessary and vacuum or sweep the solid material into a closed container. Use internally and externally explosion-proof vacuum equipment with appropriate electrical classification per National Electrical Code, Article 502 or use non-sparking tools. Avoid the generation of dusts during clean up. Place material in an appropriate container for disposal.

7. HANDLING AND STORAGE

7.1 Handling: No special measures necessary in normal use of product.

7.2 Storage: Keep this material in a cool (<35 °C (95 °F)), 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.

8.2 Exposure controls
Technical measures to prevent exposure: Use local exhaust ventilation.
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:
Respiratory protection: If ventilation cannot effectively keep vapor concentrations below established limits, appropriate certified respiratory protection must be provided (e.g. 3M 6000 with organic vapor cartridge A2 or half mask 3M 4251).
Hand protection: Use impervious nitrile gloves.
Eye protection: Wear chemical goggles
Body protection: Use apron.

9. PHYSICAL AND CHEMICAL PROPERTIES

9.1 Appearance:
Physical state: Solid
Colour: White
Odour: Mild

9.2 Important health, safety and environmental information

Safety relevant basic data

pH (20°C):	NA
Melting point/range (°C):	55-65°C
Boiling point/range (°C):	NA
Flash point (°C):	185°C (COC)
Ignition temperature (°C):	NA
Vapour pressure (°C):	NA
Density (g/cm3):	0.80-0.91
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):	12 (90°C)
Dust explosion hazard:	NA
Explosion limits:	NA

10. STABILITY AND REACTIVITY

10.1 Conditions to avoid: -

10.2 Materials to avoid: Avoid strong oxidizing agents.

10.3 Hazardous decomposition products: Carbon dioxide, carbon monoxide and other toxic fumes 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	LD50 Oral	LD50 Dermal
Hydroxylated Wax	20`000 mg/kg (rats)	NA
Rosin resin	2800 mg/kg (rats)	2000 mg/kg (rats)

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: The aquatic toxicity of the product is unknown; however based on the components, it is predicted that the product is not harmful to the aquatic environment.

Component Analysis - Ecotoxicity - Aquatic Toxicity:

Component	Data
Hydroxylated Wax	LC50 (48h) - 1700 mg/l (daphnia) EC50 (96h) – 235 mg/l (Scenedesmus subspicatus (algae)
Rosin resin	LC50 (96h) - 60.3 mg/l (Zebrafish)

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.

12.6 Further ecological information: The ecological assessment of this material is based on an evaluation of its components. This product is classified as not dangerous to the environment.

13. DISPOSAL CONSIDERATIONS

13.1 Appropriate disposal / Product: Avoid disposal. Attempt to utilize preparation completely. Prior to disposal of unused preparation, consult an approved waste disposal operative to ensure regulatory compliance.

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:

15. REGULATORY INFORMATION

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

15.2 National EU 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 Japanese regulations

Chemical Risk Information platform (CHRIP):	Listed
Industrial Health and Safety Law	not applicable
Hazardous material	not applicable
Organic solvent poison prevention rule	not applicable
Ordinance on prevention of hazard due to specified chemical substances	not applicable
Lead Poisoning Prevention Rule	not applicable
Poison and Deleterious Substance Control law	not applicable
PRTR and Promotion of Chemical Management law (PRTR Law)	no listed components
Fire Services Act	not applicable
Explosives Law	not applicable
High pressure gas safety law	not applicable
Export Trade Control Order	not applicable
Waste Disposal and Public Cleaning Law	applicable. Before disposal, consult an approved waste disposal operative to ensure regulatory compliance.

16. OTHER INFORMATION

SDS Creation Date: ..... October 31, 2016
SDS Revision #: 01-C
SDS Revision Date: ..... Fab 22, 2024
Reason for Revision: ..... Update header

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