

# SAFETY DATA SHEET

## UPM Formi 3D 20/2019

The safety data sheet is in accordance with Commission Regulation (EU) 2015/830 of 28 May 2015 amending Regulation (EC) No 1907/2006 of the European Parliament and of the Council on the Registration, Evaluation, Authorisation and Restriction of Chemicals (REACH)

### SECTION 1: Identification of the substance / mixture and of the company / undertaking

Date issued 02.05.2022

#### 1.1. Product identifier

Product name UPM Formi 3D 20/2019

#### 1.2. Relevant identified uses of the substance or mixture and uses advised against

Use of the substance / preparation Specialty application. Production of extrusion products.

Main intended use PC-TEC-OTH Other products for chemical or technical processes

Industrial use Yes

Professional use Yes

Consumer use No

#### 1.3. Details of the supplier of the safety data sheet

Company name UPM-Kymmene Corporation

Office address Alvar Aallon katu 1

Postal address P.O Box 380

Postcode FI-00101

City Helsinki

Country Finland

Telephone number +358 20 41 5113

Email [upmformi@upm.com](mailto:upmformi@upm.com)

Enterprise No. 1041090-0

#### 1.4. Emergency telephone number

Emergency telephone Telephone number: 112  
Description: Emergency telephone number (in Finland) Open 24 hours a day.

Telephone number: +358 800 147 111 or +358 9 471 977  
Description: Poison Information Centre (in Finland), P.O. Box 790 (Tukholmankatu 17), 00029 HUS Open 24 hours a day.

## Identification, comments

Please contact the Emergency Centre in your own country, e.g. 112 in European Union countries.

## SECTION 2: Hazards identification

### 2.1. Classification of the substance or mixture

## CLP classification, notes

In accordance with CLP/GHS regulation (EC) No 1272/2008, the product has not been classified as hazardous.

### 2.2. Label elements

## Hazard statements

EUH 208 Contains maleic anhydride. May produce an allergic reaction.

### 2.3. Other hazards

## PBT / vPvB

For results of PBT and vPvB assessment, see point 12.5.

## Other hazards

The product does not contain any known or suspected endocrine disruptors.

## SECTION 3: Composition / information on ingredients

### 3.2. Mixtures

Substance	Identification	Classification	Contents	Notes
Cellulose	CAS No.: 9004-34-6 EC No.: 232-674-9	CLP classification, notes: Not classified.	20 %	
Maleic anhydride	CAS No.: 108-31-6 EC No.: 203-571-6 Index No.: 607-096-00-9	Acute Tox. 4; H302 STOT RE 1; H372 Skin Corr. 1B; H314 Eye Dam. 1; H318 Resp. Sens. 1; H334 Skin Sens. 1A; H317	≤ 0.005 %	
Description of the mixture	Cellulose fiber filled biocomposite. The principal ingredients are cellulose fibers and polylactic acid.			
Remarks, substance	Specific concentration limits Maleic anhydride (CAS 108-31-6): Skin Sens. 1A; H317: C ≥ 0,001 % On basis of tests on a corresponding product, the product contains < 0.001 % unbound and biologically available maleic anhydride and does not require classification as a skin sensitiser.			

## SECTION 4: First aid measures

### 4.1. Description of first aid measures

## General

If the situation is unclear or symptoms persist, seek medical attention.

## Inhalation

If symptoms occur, move exposed person to fresh air.

## Skin contact

Under normal conditions no need for first aid measures.

## Eye contact

Immediately flush eyes with plenty of water for several minutes, holding eyelids open. If eye irritation or other symptoms persist, seek medical attention.

Ingestion	Under normal conditions no need for first aid measures.
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#### 4.2. Most important symptoms and effects, both acute and delayed

Acute symptoms and effects	May produce an allergic skin reaction.
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Delayed symptoms and effects	None known.
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#### 4.3. Indication of any immediate medical attention and special treatment needed

Other information	Treat symptomatically.
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### SECTION 5: Firefighting measures

#### 5.1. Extinguishing media

Suitable extinguishing media	ABC dry chemical. Water.
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Improper extinguishing media	None known.
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#### 5.2. Special hazards arising from the substance or mixture

Fire and explosion hazards	The product is not flammable under normal conditions of storage, manipulation and use. Auto-ignition is possible after purging the moulding machine.
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Hazardous combustion products	During fire, toxic gases and vapours may be evolved. Carbon dioxide (CO <sub>2</sub> ). Carbon monoxide (CO). Smoke.
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#### 5.3. Advice for firefighters

Personal protective equipment	Wear appropriate protective equipment and self-contained breathing apparatus.
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### SECTION 6: Accidental release measures

#### 6.1. Personal precautions, protective equipment and emergency procedures

General measures	Avoid generation and spreading of dust.
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Personal protection measures	Wear appropriate personal protective equipment.
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#### 6.2. Environmental precautions

Environmental precautionary measures	No special measures required.
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#### 6.3. Methods and material for containment and cleaning up

Clean up	Avoid generation and spreading of dust. Avoid dry sweeping and use water spraying or vacuum cleaning systems.
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#### 6.4. Reference to other sections

Other instructions	Safe handling: see point 7. Personal protective equipment: see point 8. Waste disposal: see point 13.
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## SECTION 7: Handling and storage

### 7.1. Precautions for safe handling

Handling	Ensure adequate ventilation (use local exhaust ventilation if necessary). Avoid breathing dust. Avoid contact with skin, eyes, and clothing. Use appropriate personal protective equipment while handling the product (see point 8). Handle with care, avoid spills and leaks.
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### Protective safety measures

Safety measures to prevent fire	Material from the moulding machine should be purged into cool water.
Advice on general occupational hygiene	Handle in accordance with good industrial hygiene and safety practices. Do not eat, drink or smoke when using this product. Wash hands before breaks and at the end of workday. Take off contaminated clothing and wash before reuse.

### 7.2. Conditions for safe storage, including any incompatibilities

Storage	Store in tightly closed original container in a dry and cool place.
Conditions to avoid	Protect from heat and direct sunlight. Keep away from moisture and water. For incompatible materials see point 10.5.

### Conditions for safe storage

Storage temperature	Value: < 50 °C
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### 7.3. Specific end use(s)

Specific use(s)	The identified uses for this product are detailed in Section 1.2.
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## SECTION 8: Exposure controls / personal protection

### 8.1. Control parameters

Substance	Identification	Exposure limits	TWA Year
Organic dust		Country of origin: Finland Limit value (8 h) : 5 mg/m <sup>3</sup> <b>Limit value (short term)</b> Value: 10 mg/m <sup>3</sup>	
Dust		Country of origin: United Kingdom Limit value (8 h) : 4 mg/m <sup>3</sup> Particle fraction: Inhalable Limit value (8 h) : 10 mg/m <sup>3</sup> Particle fraction: Respirable	
Maleic anhydride	CAS No.: 108-31-6	Country of origin: Finland Limit value (8 h) : 0,1 ppm Limit value (8 h) : 0,41 mg/m <sup>3</sup> <b>Limit value (short term)</b> Value: 0,2 ppm <b>Limit value (short term)</b> Value: 0,81 mg/m <sup>3</sup>	

Comments: Ceiling value  
 Country of origin: United Kingdom  
 Limit value type: WEL  
 Limit value (8 h) : 1 mg/m<sup>3</sup>  
**Limit value (short term)**  
 Value: 3 mg/m<sup>3</sup>

## DNEL / PNEC

Summary of risk management measures, human

DNEL/PNEC: Chemical safety assessment has not been performed for the product, no information available about ingredients.

## 8.2. Exposure controls

### Precautionary measures to prevent exposure

Technical measures to prevent exposure

Ensure adequate ventilation. Use local exhaust ventilation if necessary.

### Eye / face protection

Suitable eye protection

Wear suitable protective goggles if there is a risk of eye contact or conditions are dusty.

### Hand protection

Suitable gloves type

Under normal conditions not required. Workers who suffer from dermatitis / sensitive skin: Use appropriate chemical-resistant, impervious gloves.

Suitable materials

Contact glove manufacturer for specific advice on glove selection.

### Skin protection

Suitable protective clothing

Under normal conditions not required. Workers who suffer from dermatitis / sensitive skin: Wear appropriate protective clothing.

### Respiratory protection

Respiratory protection necessary at

If it is not possible to reduce exposure levels to below exposure limit values by ventilation or if dust forms, use appropriate respirator.

Recommended type of equipment

Dust filter P2 (for fine dust).

### Appropriate environmental exposure control

Environmental exposure controls

Avoid wind dispersal. Prevent entry into drains, sewers, waterways or soil.

## SECTION 9: Physical and chemical properties

### 9.1. Information on basic physical and chemical properties

Physical state

Solid. Granular.

Colour

Yellowish.

Odour

Mild wood odour.

Odour limit	Comments: Unknown.
pH	Comments: Unknown.
Melting point / melting range	Value: 135 - 180 °C Method: ISO 11357
Boiling point / boiling range	Comments: Unknown.
Flash point	Comments: Unknown.
Evaporation rate	Comments: Unknown.
Flammability	Not flammable.
Explosion limit	Comments: Unknown.
Vapour pressure	Comments: Not applicable.
Vapour density	Comments: Not applicable.
Particle characteristics	Comments: Not determined.
Density	Value: 1.2 g/cm <sup>3</sup> Method: EN ISO 1183
Solubility	Comments: Unknown.
Partition coefficient: n-octanol/ water	Comments: Not applicable.
Auto-ignition temperature	Comments: Auto-ignition of the material is possible after purging the processing equipment.
Decomposition temperature	Value: > 200 °C
Viscosity	Comments: Not applicable.
Explosive properties	Not classified as explosive.
Oxidising properties	Not classified as oxidising.

## 9.2. Other information

### 9.2.2. Other safety characteristics

Comments	None reported.
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## SECTION 10: Stability and reactivity

### 10.1. Reactivity

Reactivity	Not reactive under normal use and storage conditions.
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### 10.2. Chemical stability

Stability	Chemically stable under normal storage conditions.
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### 10.3. Possibility of hazardous reactions

Possibility of hazardous reactions	No dangerous reactions under normal use and storage conditions.
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### 10.4. Conditions to avoid

Conditions to avoid	Protect from moisture. Avoid exposure to high temperatures or direct sunlight. UV light.
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## 10.5. Incompatible materials

Materials to avoid	No known incompatible materials.
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## 10.6. Hazardous decomposition products

Hazardous decomposition products	No hazardous decomposition products known. In a fire or if overheated, harmful compounds may be formed (carbon dioxide, carbon monoxide).
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# SECTION 11: Toxicological information

## 11.1. Information on toxicological effects

Other toxicological data	There is no toxicological data available about the product as such. The product is not classified as acutely toxic.
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## Other information regarding health hazards

Assessment of skin corrosion / irritation, classification	The product is not classified as irritant or corrosive to skin.
Assessment of eye damage or irritation, classification	The product is not classified as damaging or irritating to eyes.
Sensitisation	The product is not classified as a respiratory or skin sensitiser. Contains maleic anhydride. May produce an allergic reaction. The product contains small amounts of a skin sensitiser, but its unbound concentration in the product is below the specific concentration limit for classification (< 10 ppm or 0.001 %). While the release of this substance from the polymer cannot be entirely ruled out, experience with similar polymer products excludes allergic reactions in sensitised persons at lower concentrations.
Mutagenicity	The product is not classified as a mutagen.
Carcinogenicity, other information	The product is not classified as a carcinogen.
Reproductive toxicity	The product is not classified as toxic to reproduction.
Assessment of specific target organ toxicity - single exposure, classification	The product is not classified as toxic to specific target organs at a single exposure.
Assessment of specific target organ toxicity - repeated exposure, classification	The product is not classified as toxic to specific target organs at repeated exposure.
Assessment of aspiration hazard, classification	The product is not classified as an aspiration hazard.

## 11.2 Other information

Endocrine disruption	The product does not contain any known or suspected endocrine disruptors.
Other information	None reported.

# SECTION 12: Ecological information

**12.1. Toxicity**

Ecotoxicity	There is no ecotoxicological data available about the product as such. The product is not classified as hazardous to the environment.
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**12.2. Persistence and degradability**

Persistence and degradability description/evaluation	No data available.
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**12.3. Bioaccumulative potential**

Bioaccumulation, evaluation	The product is not bioaccumulating.
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**12.4. Mobility in soil**

Mobility	No data available.
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**12.5. Results of PBT and vPvB assessment**

Results of PBT and vPvB assessment	Chemical safety assessment has not been performed for the product, no information available about ingredients.
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**12.6. Endocrine disrupting properties**

Endocrine disrupting properties	The product does not contain any known or suspected endocrine disruptors.
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**12.7. Other adverse effects**

Additional ecological information	Prevent entry into drains, sewers, waterways or soil.
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**SECTION 13: Disposal considerations****13.1. Waste treatment methods**

Appropriate methods of disposal for the chemical	Dispose of waste and residues in accordance with local authority requirements. Avoid dust formation from residues in packaging.
Appropriate methods of disposal for the contaminated packaging	Dispose of empty containers to an approved waste disposal facility for recycling or disposal.
Other information	Dispose of in compliance with local and national regulations.

**SECTION 14: Transport information****14.1. UN number**

Comments	The product is not classified for transportation.
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**14.2. UN proper shipping name****14.3. Transport hazard class(es)****14.4. Packing group**

## 14.5. Environmental hazards

IMDG Marine pollutant	No.
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## 14.6. Special precautions for user

## 14.7. Maritime transport in bulk according to IMO instruments

## SECTION 15: Regulatory information

### 15.1. Safety, health and environmental regulations / legislation specific for the substance or mixture

Legislation and regulations	No specific regulations.
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### 15.2. Chemical safety assessment

Chemical safety assessment performed	No
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## SECTION 16: Other information

List of relevant H-phrases (Section 2 and 3)	H302 Harmful if swallowed. H314 Causes severe skin burns and eye damage. H317 May cause an allergic skin reaction. H318 Causes serious eye damage. H334 May cause allergy or asthma symptoms or breathing difficulties if inhaled. H372 Causes damage to organs through prolonged or repeated exposure
Training advice	Read safety data sheet. Training in the proper use and handling of this product must be provided to workers.
Key literature references and sources for data	Product specifications by manufacturer Decree on Concentrations known to be Hazardous 654/2020 (HTP-arvot 2020), Finland EH40/2005 Workplace exposure limits (4th ed, 2020)
Abbreviations and acronyms used	DNEL: Derived No-Effect Level HTP: Concentrations known to be Hazardous. PBT: Persistent, Bioaccumulative and Toxic substance. PNEC: Predicted No-Effect Concentration vPvB: very Persistent and very Bioaccumulative substance WEL: Workplace Exposure Limit
Version	1
Prepared by	Sweco Industry
Comments	The information of this safety data sheet is based on existing public information sources, such as current legislation, available at the time of publication of the completed safety data sheet, and information on the Customer's products that has been provided by the Customer to Sweco. The Customer is responsible that the information provided to Sweco is accurate and up to date.