

# UltiMaker PPS CF

## Safety Data Sheet

According to Federal Register / Vol. 77, No. 58 / Monday, March 26, 2012 / Rules and Regulations  
SDS ID: UM00014  
Issue date: 4/5/2024 Version: 1.0

### SECTION 1: Identification

#### 1.1. Identification

Product form : Mixture  
Trade name : UltiMaker PPS CF

#### 1.2. Recommended use and restrictions on use

Use of the substance/mixture : 3D-Printer filament  
Restrictions on use : This product must not be used in applications other than those identified above, without first seeking advice of the supplier

#### 1.3. Supplier

##### Supplier

UltiMaker  
Watermolenweg 2  
Geldermalsen, 4191 PN - The Netherlands  
T +31 (0) 88 383 4000 ( 9 AM - 5 PM CET)  
[Product-Compliance@Ultimaker.com](mailto:Product-Compliance@Ultimaker.com)

##### Supplier

UltiMaker  
55 Water Street  
51st Floor  
New York, NY 10041 - United States  
T +1 347 676 3456 (Mon-Fri 9 AM - 6 PM ET)  
[Product-Compliance@Ultimaker.com](mailto:Product-Compliance@Ultimaker.com)

#### 1.4. Emergency telephone number

Emergency number : +31 (0) 88 383 4000  
(during office hours: 9 AM - 5 PM CET)

### SECTION 2: Hazard(s) identification

#### 2.1. Classification of the substance or mixture

##### GHS US classification

Not classified

#### 2.2. GHS Label elements, including precautionary statements

##### GHS US labeling

No labeling applicable

#### 2.3. Other hazards which do not result in classification

No additional information available

#### 2.4. Unknown acute toxicity (GHS US)

Not applicable

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### SECTION 3: Composition/Information on ingredients

#### 3.1. Substances

Not applicable

#### 3.2. Mixtures

Name	Product identifier	Conc. (% w/w)
Poly(thio-1,4-phenylene)	CAS-No.: 25212-74-2	> 82
Carbon	CAS-No.: 7440-44-0	10
Vinyl polymer functionalized with Maleic anhydride	CAS-No.: 85244-45-7	< 7.5
Phosphorous trichloride, reaction products with 1,1'-biphenyl and 2,4-bis(1,1-dimethylethyl)phenol	CAS-No.: 119345-01-6	< 0.5

Full text of hazard classes and H-statements : see section 16

### SECTION 4: First-aid measures

#### 4.1. Description of first aid measures

First-aid measures general	: No hazards which require special first aid measures.
First-aid measures after inhalation	: Remove person to fresh air and keep comfortable for breathing. In molten state: Hazardous vapors may be released.
First-aid measures after skin contact	: Wash skin with plenty of water and soap. Take off contaminated clothing. In case of contact with molten product, cool rapidly with water and seek immediate medical attention. Do not attempt to remove molten product from skin because skin will tear easily. Burns caused by molten material must be treated clinically.
First-aid measures after eye contact	: Rinse eyes with water as a precaution. In the event of contact with molten product: Immediately flush eyes thoroughly with water for at least 15 minutes. Get immediate medical advice/attention.
First-aid measures after ingestion	: Rinse mouth with water. Get medical advice/attention if you feel unwell.

#### 4.2. Most important symptoms and effects (acute and delayed)

Symptoms/effects	: No acute and delayed symptoms and effects are observed.
Symptoms/effects after ingestion	: None under normal conditions.

#### 4.3. Immediate medical attention and special treatment, if necessary

Treat symptomatically.

### SECTION 5: Fire-fighting measures

#### 5.1. Suitable (and unsuitable) extinguishing media

Suitable extinguishing media	: Use extinguishing media appropriate for surrounding fire: Water spray, Dry powder, Foam, Carbon dioxide.
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Unsuitable extinguishing media : Do not use a solid water stream as it may scatter and spread fire.

### 5.2. Specific hazards arising from the chemical

Hazardous decomposition products in case of fire : Under fire conditions, hazardous fumes will be present: Carbon dioxide, Carbon monoxide.

### 5.3. Special protective equipment and precautions for fire-fighters

Firefighting instructions : Fight fire from safe distance and protected location. Do not enter fire area without proper protective equipment, including respiratory protection.

Protection during firefighting : Self-contained breathing apparatus. Do not attempt to take action without suitable protective equipment. Complete protective clothing. Cool containers / tanks with spray water if possible.

## SECTION 6: Accidental release measures

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

General measures : During mechanical post processing of 3D printed parts avoid exposure to dust and apply external air extraction to outside air or a suitable filter.

#### 6.1.1. For non-emergency personnel

Protective equipment : Wear recommended personal protective equipment. Refer to section 8.2. Remove contaminated clothing and shoes.

Emergency procedures : None in particular. Do not breathe dust. In molten state: Do not breathe vapors. Evacuate personnel to a safe area. Ventilate area. Wear suitable protective clothing.

#### 6.1.2. For emergency responders

Protective equipment : Do not attempt to take action without suitable protective equipment. For further information refer to section 8: "Exposure controls/personal protection".

### 6.2. Environmental precautions

Avoid release to the environment. Notify authorities if product enters sewers or public waters.

### 6.3. Methods and material for containment and cleaning up

For containment : Stop leak if safe to do so.

Methods for cleaning up : Sweep up and put in a closed container for disposal. If melted: allow liquid to solidify before taking it up.

Other information : Dispose of materials or solid residues at an authorized site.

### 6.4. Reference to other sections

For further information refer to section 8: "Exposure controls/personal protection". For disposal of residues refer to section 13: Disposal considerations".

## SECTION 7: Handling and storage

### 7.1. Precautions for safe handling

Additional hazards when processed : Not expected to present a significant hazard under anticipated conditions of normal use.

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Precautions for safe handling	: During mechanical post processing of 3D printed parts avoid exposure to dust and apply external air extraction to outside air or a suitable filter. Avoid dust formation. In molten state: Do not breathe vapors. Avoid contact with skin, eyes and clothing. Wear personal protective equipment.
Hygiene measures	: Handle in accordance with good industrial hygiene and safety practice. Do not eat, drink or smoke when using this product. Always wash hands after handling the product. Contaminated work clothing should not be allowed out of the workplace. Wash contaminated clothing before reuse.

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

Storage conditions	: Store in original container. Store in a well-ventilated place. Keep container tightly closed. Keep in properly labeled containers. Avoid dust formation.
Incompatible materials	: Strong oxidizing agents.
Heat-ignition	: Keep away from heat, sparks and flames. Keep out of direct sunlight.
Storage area	: Store according to local legislation.

## SECTION 8: Exposure controls/personal protection

### 8.1. Control parameters

<b>UltiMaker PPS CF</b>
No additional information available
<b>Carbon (7440-44-0)</b>
No additional information available
<b>Poly(thio-1,4-phenylene) (25212-74-2)</b>
No additional information available
<b>Phosphorous trichloride, reaction products with 1,1'-biphenyl and 2,4-bis(1,1-dimethylethyl)phenol (119345-01-6)</b>
No additional information available
<b>Vinyl polymer functionalized with Maleic anhydride (85244-45-7)</b>
No additional information available

### 8.2. Appropriate engineering controls

Appropriate engineering controls	: Use process enclosures, local exhaust ventilation or other engineering controls to keep airborne levels below specified exposure limits. If user operations generate dust, fumes or mist, use ventilation to keep exposure to airborne particles below the exposure limit. Ventilation conditions (1 printer): Provide a good standard of general ventilation, not less than 2 air changes per hour (assumes a room volume of: 30 m <sup>3</sup> ).
Environmental exposure controls	: Avoid release to the environment.

### 8.3. Individual protection measures/Personal protective equipment

#### Personal protective equipment:

Wear recommended personal protective equipment.

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<b>Hand protection:</b>				
None under normal conditions. Use insulated gloves when handling this material hot				
<b>Type</b>	<b>Material</b>	<b>Permeation</b>	<b>Thickness (mm)</b>	<b>Penetration</b>
In molten state: Chemically resistant protective gloves, Heat-resistant	Nitrile rubber (NBR)	6 (> 480 minutes)	>0.35	
<b>Eye protection:</b>				
None under normal use. In molten state: Wear eye protection				
<b>Type</b>	<b>Use</b>		<b>Characteristics</b>	
Safety glasses with side shields	In molten state			
<b>Skin and body protection:</b>				
Wear suitable protective clothing				
<b>Type</b>				
Long sleeved protective clothing				
<b>Respiratory protection:</b>				
None under normal use. In molten state: In case of insufficient ventilation, wear suitable respiratory equipment				
<b>Device</b>	<b>Filter type</b>		<b>Condition</b>	
Air-Purifying Respirator (APR), disposable	Type B/P2			

### Thermal hazard protection:

Risk of thermal burns on contact with molten product. Hazardous vapors may be released. In molten state: Use respiratory protection/heat resistant gloves.

### Other information:

Handle in accordance with good industrial hygiene and safety procedures. Do not eat, drink or smoke when using this product. Wash hands immediately after handling the product. Take off contaminated clothing and wash before reuse.

## SECTION 9: Physical and chemical properties

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

Physical state	: Solid
Color	: Black
Odor	: odorless
Odor threshold	: No data available
pH	: No data available
Melting point	: 539.6 °F
Freezing point	: Not applicable
Boiling point	: No data available

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Flash point	: Not applicable
Relative evaporation rate (butyl acetate=1)	: No data available
Flammability (solid, gas)	: Non flammable.
Vapor pressure	: No data available
Relative vapor density at 20°C	: No data available
Relative density	: 1.28
Solubility	: Insoluble in water.
Partition coefficient n-octanol/water (Log Pow)	: No data available
Auto-ignition temperature	: Not applicable
Decomposition temperature	: 860 °F
Viscosity, kinematic	: Not applicable
Viscosity, dynamic	: No data available
Explosion limits	: Not applicable
Explosive properties	: No data available
Oxidizing properties	: No data available

### 9.2. Other information

No additional information available

## SECTION 10: Stability and reactivity

### 10.1. Reactivity

The product is non-reactive under normal conditions of use, storage and transport.

### 10.2. Chemical stability

Stable under normal conditions.

### 10.3. Possibility of hazardous reactions

No dangerous reactions known under normal conditions of use.

### 10.4. Conditions to avoid

Keep away from heat, sparks and flames.

### 10.5. Incompatible materials

Strong oxidizing agents.

### 10.6. Hazardous decomposition products

Under normal conditions of storage and use, hazardous decomposition products should not be produced. Under fire conditions, hazardous fumes will be present: Carbon dioxide, Carbon monoxide.

## SECTION 11: Toxicological information

### 11.1. Information on toxicological effects

Acute toxicity (oral)	: Not classified
Acute toxicity (dermal)	: Not classified

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Acute toxicity (inhalation) : Not classified

<b>Carbon (7440-44-0)</b>	
LD50 oral rat	> 2000 mg/kg body weight (OECD 423 method)

<b>Phosphorous trichloride, reaction products with 1,1'-biphenyl and 2,4-bis(1,1-dimethylethyl)phenol (119345-01-6)</b>	
LD50 oral rat	> 2000 mg/kg body weight Animal: rat, Guideline: EU Method B.1 tris (Acute Oral Toxicity - Acute Toxic Class Method)
LD50 dermal rat	> 2000 mg/kg body weight Animal: rat, Guideline: EU Method B.3 (Acute Toxicity (Dermal))

Skin corrosion/irritation : Not classified  
Serious eye damage/irritation : Not classified  
Respiratory or skin sensitization : Not classified  
Germ cell mutagenicity : Not classified  
Carcinogenicity : Not classified  
Reproductive toxicity : Not classified

<b>Carbon (7440-44-0)</b>	
NOAEL (animal/male, F0/P)	≥ 859 mg/kg body weight (OECD 422 method)

<b>Phosphorous trichloride, reaction products with 1,1'-biphenyl and 2,4-bis(1,1-dimethylethyl)phenol (119345-01-6)</b>	
NOAEL (animal/male, F0/P)	607.85 mg/kg body weight Animal: rat, Animal sex: male, Guideline: OECD Guideline 421 (Reproduction / Developmental Toxicity Screening Test)
NOAEL (animal/female, F0/P)	783.98 mg/kg body weight Animal: rat, Animal sex: female, Guideline: OECD Guideline 421 (Reproduction / Developmental Toxicity Screening Test)

STOT-single exposure : Not classified  
STOT-repeated exposure : Not classified

<b>Phosphorous trichloride, reaction products with 1,1'-biphenyl and 2,4-bis(1,1-dimethylethyl)phenol (119345-01-6)</b>	
NOAEL (oral,rat,90 days)	1000 mg/kg body weight Animal: rat, Guideline: EU Method B.7 (Repeated Dose (28 Days) Toxicity (Oral))

Aspiration hazard : Not classified  
Viscosity, kinematic : Not applicable  
Symptoms/effects : No acute and delayed symptoms and effects are observed.  
Symptoms/effects after ingestion : None under normal conditions.

## SECTION 12: Ecological information

### 12.1. Toxicity

Ecology - general : The product is not considered harmful to aquatic organisms or to cause long-term adverse effects in the environment.

<b>Phosphorous trichloride, reaction products with 1,1'-biphenyl and 2,4-bis(1,1-dimethylethyl)phenol (119345-01-6)</b>	
LC50 fish 1	> 18.65 mg/l Test organisms (species): Oncorhynchus mykiss (previous name: Salmo gairdneri), Guideline: OECD Guideline 203 (Fish, Acute Toxicity Test)

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Phosphorous trichloride, reaction products with 1,1'-biphenyl and 2,4-bis(1,1-dimethylethyl)phenol (119345-01-6)	
EC50 Daphnia 1	> 12.7 mg/l Test organisms (species): Daphnia magna, Guideline: OECD Guideline 202 (Daphnia sp. Acute Immobilisation Test), freshwater, static
NOEC (chronic)	≥ 0.307 mg/l Test organisms (species): Daphnia magna Duration: '21 d'
NOEC chronic fish	1.2 mg/l Test organisms (species): Oncorhynchus mykiss (previous name: Salmo gairdneri), Guideline: OECD Guideline 204 (Fish, Prolonged Toxicity Test: 14-day Study), freshwater, flow-through

### 12.2. Persistence and degradability

No additional information available

### 12.3. Bioaccumulative potential

No additional information available

### 12.4. Mobility in soil

No additional information available

### 12.5. Other adverse effects

No additional information available

## SECTION 13: Disposal considerations

### 13.1. Disposal methods

Regional waste regulation	: Disposal must be done according to official regulations.
Waste treatment methods	: Dispose of contents/container in accordance with licensed collector's sorting instructions.
Product/Packaging disposal recommendations	: Empty containers should be taken for recycling, recovery or waste in accordance with local regulation.

## SECTION 14: Transport information

In accordance with DOT / TDG / IMDG / IATA

DOT	TDG	IMDG	IATA
<b>14.1. UN number</b>			
Not regulated for transport			
<b>14.2. Proper Shipping Name</b>			
Not applicable	Not applicable	Not applicable	Not applicable
<b>14.3. Transport hazard class(es)</b>			
Not applicable	Not applicable	Not applicable	Not applicable
<b>14.4. Packing group</b>			
Not applicable	Not applicable	Not applicable	Not applicable



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DOT	TDG	IMDG	IATA
<b>14.5. Environmental hazards</b>			
Not applicable	Not applicable	Not applicable	Not applicable
No supplementary information available			

### 14.6. Special precautions for user

#### DOT

No data available

#### TDG

No data available

#### IMDG

No data available

#### IATA

No data available

### 14.7. Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code

Not applicable

## SECTION 15: Regulatory information

### 15.1. US Federal regulations

All components of this product are present and listed as Active on the United States Environmental Protection Agency Toxic Substances Control Act (TSCA) inventory, except for:

Poly(thio-1,4-phenylene)	CAS-No. 25212-74-2	> 82%
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This product or mixture is not known to contain a toxic chemical or chemicals in excess of the applicable de minimis concentration as specified in 40 CFR §372.38(a) subject to the reporting requirements of section 313 of Title III of the Superfund Amendments and Reauthorization Act of 1986 and 40 CFR Part 372.

### 15.2. International regulations

No additional information available

### 15.3. US State regulations

California Proposition 65 - This product does not contain any substances known to the state of California to cause cancer, developmental and/or reproductive harm

## SECTION 16: Other information

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Training advice : Ensure staff are informed of and trained on the nature of exposure and basic actions to minimise exposure.

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<b>Abbreviations and acronyms</b>	
ADN	European Agreement concerning the International Carriage of Dangerous Goods by Inland Waterways
ADR	European Agreement concerning the International Carriage of Dangerous Goods by Road
CAS	Chemical Abstract Service number
CLP	Classification Labelling Packaging Regulation; Regulation (EC) No 1272/2008
IATA	International Air Transport Association
IMDG	International Maritime Dangerous Goods
REACH	Registration, Evaluation, Authorisation and Restriction of Chemicals Regulation (EC) No 1907/2006
RID	Regulations concerning the International Carriage of Dangerous Goods by Rail
vPvB	Very Persistent and Very Bioaccumulative
PBT	Persistent Bioaccumulative Toxic
CAS-No.	Chemical Abstract Service number
SDS	Safety Data Sheet

<b>Indication of changes:</b>
Not applicable.

SDS US (GHS HazCom 2012) - RHDHV

This information is based on our current knowledge and is intended to describe the product for the purposes of health, safety and environmental requirements only. It should not therefore be construed as guaranteeing any specific property of the product.