

## SECTION 1: Identification

### 1.1. Product identifier

Product form : Mixture  
Trade name : Nylon  
(Black, Transparent)

### 1.2. Recommended use and restrictions on use

Recommended use : 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)

### 1.4. Emergency telephone number

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

## SECTION 2: Hazard identification

### 2.1. Classification of the substance or mixture

**Classification (GHS CA)**

Not classified

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

**GHS CA labelling**

No labelling applicable

### 2.3. Other hazards

Other hazards not contributing to the classification : Risk of thermal burns on contact with molten product.

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

No additional information available

## SECTION 3: Composition/information on ingredients

### 3.1. Substances

Not applicable

# Nylon

## Safety Data Sheet

according to the Hazardous Products Regulation (February 11, 2015)

### 3.2. Mixtures

| Name                                       | Chemical name / Synonyms | Product identifier  | Conc. (% w/w) | Classification (GHS CA) |
|--------------------------------------------|--------------------------|---------------------|---------------|-------------------------|
| Polyamide                                  | -                        | CAS-No.: 24993-04-2 | > 99          | Not classified          |
| Carbon black<br>(Additive for Nylon Black) | -                        | CAS-No.: 1333-86-4  | < 1           | Not classified          |

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 after inhalation   | : Remove person to fresh air and keep comfortable for breathing. Remove person to fresh air and keep comfortable for breathing. In molten state: Hazardous vapours 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    | : If you feel unwell, seek medical advice. Call a poison center or a doctor if you feel unwell.                                                                                                                                                                                                                               |
| First-aid measures general            | : If you feel unwell, seek medical advice (show the label where possible).                                                                                                                                                                                                                                                    |

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

|                                     |                                                           |
|-------------------------------------|-----------------------------------------------------------|
| Symptoms/effects                    | : No acute and delayed symptoms and effects are observed. |
| Symptoms/effects after skin contact | : Risk of thermal burns on contact with molten product.   |

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

|                                   |                          |
|-----------------------------------|--------------------------|
| Other medical advice or treatment | : Treat symptomatically. |
|-----------------------------------|--------------------------|

## SECTION 5: Fire-fighting measures

### 5.1. Suitable extinguishing media

|                              |                                                                                                            |
|------------------------------|------------------------------------------------------------------------------------------------------------|
| Suitable extinguishing media | : Use extinguishing media appropriate for surrounding fire: Water spray, Dry powder, Foam, Carbon dioxide. |
|------------------------------|------------------------------------------------------------------------------------------------------------|

### 5.2. Unsuitable extinguishing media

|                                |                                                                      |
|--------------------------------|----------------------------------------------------------------------|
| Unsuitable extinguishing media | : Do not use a solid water stream as it may scatter and spread fire. |
|--------------------------------|----------------------------------------------------------------------|

### 5.3. Specific hazards arising from the hazardous product

|                                                  |                                                                                                                              |
|--------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------|
| Explosion hazard                                 | : Material can accumulate some static charge during transfer. Prevent build-up of electrostatic charges (e.g. by grounding). |
| Hazardous decomposition products in case of fire | : Under fire conditions, hazardous fumes will be present: Carbon dioxide, Carbon monoxide.                                   |

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

|                                |                                                                                                                                          |
|--------------------------------|------------------------------------------------------------------------------------------------------------------------------------------|
| Protection during firefighting | : Do not attempt to take action without suitable protective equipment. Self-contained breathing apparatus. Complete protective clothing. |
| Precautionary measures fire    | : Do not allow run-off from fire-fighting to enter drains or water courses.                                                              |

# Nylon

## Safety Data Sheet

according to the Hazardous Products Regulation (February 11, 2015)

### SECTION 6: Accidental release measures

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

Personal Precautions, Protective Equipment and Emergency Procedures : Avoid contact with skin, eyes and clothing. In molten state: Do not breathe vapours. Wear recommended personal protective equipment. Refer to section 8.2. Remove contaminated clothing and shoes. Ventilate spillage area.

#### 6.2. Methods and materials for containment and cleaning up

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.

#### 6.3. Reference to other sections

For further information refer to section 8: "Exposure controls/personal protection"

### SECTION 7: Handling and storage

#### 7.1. Precautions for safe handling

Precautions for safe handling : Wear personal protective equipment. Ensure good ventilation of the work station. In molten state: Do not breathe vapours. Avoid contact with skin, eyes and clothing. Do not breathe dust. Avoid dust formation.  
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 : To guarantee the quality and properties of the product: Store in a well-ventilated place. Store in original container. Keep container tightly closed to avoid moisture absorption and contamination.  
Heat and ignition sources : Keep away from heat, sparks and flames. Keep out of direct sunlight.  
Storage temperature : -20 – 30 °C (Relative air humidity: <50%)

### SECTION 8: Exposure controls/personal protection

#### 8.1. Control parameters

| Carbon black<br>(Additive for Nylon Black) (1333-86-4) |                                                                     |
|--------------------------------------------------------|---------------------------------------------------------------------|
| Canada (Alberta) - Occupational Exposure Limits        |                                                                     |
| Local name                                             | Carbon black                                                        |
| OEL TWA (mg/m <sup>3</sup> )                           | 3.5 mg/m <sup>3</sup>                                               |
| Regulatory reference                                   | Alberta Regulation 191/2021                                         |
| Canada (Quebec) - Occupational Exposure Limits         |                                                                     |
| Local name                                             | Carbon black                                                        |
| VEMP (mg/m <sup>3</sup> )                              | 3 mg/m <sup>3</sup> Id                                              |
| Notations and remarks                                  | C3                                                                  |
| Regulatory reference                                   | S-2.1, r. 13 - Regulation respecting occupational health and safety |

# Nylon

## Safety Data Sheet

according to the Hazardous Products Regulation (February 11, 2015)

| Carbon black<br>(Additive for Nylon Black) (1333-86-4)            |                                                                                                      |
|-------------------------------------------------------------------|------------------------------------------------------------------------------------------------------|
| Canada (British Columbia) - Occupational Exposure Limits          |                                                                                                      |
| Local name                                                        | Carbon black                                                                                         |
| OEL TWA (mg/m <sup>3</sup> )                                      | 3 mg/m <sup>3</sup> Inhalable                                                                        |
| Notations and remarks                                             | IARC group 2B carcinogen                                                                             |
| Regulatory reference                                              | OHS Guidelines Part 5: Chemical Agents and Biological Agents (WorkSafe BC)                           |
| Canada (Manitoba) - Occupational Exposure Limits                  |                                                                                                      |
| Local name                                                        | Carbon black                                                                                         |
| OEL TWA (mg/m <sup>3</sup> )                                      | 3 mg/m <sup>3</sup> (I - Inhalable particulate matter)                                               |
| Notations and remarks                                             | TLV® Basis: Bronchitis. Notations: A3 (Confirmed Animal Carcinogen with Unknown Relevance to Humans) |
| Regulatory reference                                              | ACGIH 2023                                                                                           |
| Canada (New Brunswick) - Occupational Exposure Limits             |                                                                                                      |
| Local name                                                        | Carbon black                                                                                         |
| OEL TWA (mg/m <sup>3</sup> )                                      | 3 mg/m <sup>3</sup>                                                                                  |
| Notations and remarks                                             | Bronchitis                                                                                           |
| Canada (Newfoundland and Labrador) - Occupational Exposure Limits |                                                                                                      |
| Local name                                                        | Carbon black                                                                                         |
| OEL TWA (mg/m <sup>3</sup> )                                      | 3 mg/m <sup>3</sup> (I - Inhalable particulate matter)                                               |
| Notations and remarks                                             | TLV® Basis: Bronchitis. Notations: A3 (Confirmed Animal Carcinogen with Unknown Relevance to Humans) |
| Regulatory reference                                              | ACGIH 2023                                                                                           |
| Canada (Nova Scotia) - Occupational Exposure Limits               |                                                                                                      |
| Local name                                                        | Carbon black                                                                                         |
| OEL TWA (mg/m <sup>3</sup> )                                      | 3 mg/m <sup>3</sup> (I - Inhalable particulate matter)                                               |
| Notations and remarks                                             | TLV® Basis: Bronchitis. Notations: A3 (Confirmed Animal Carcinogen with Unknown Relevance to Humans) |
| Regulatory reference                                              | ACGIH 2023                                                                                           |
| Canada (Nunavut) - Occupational Exposure Limits                   |                                                                                                      |
| Local name                                                        | Carbon black                                                                                         |
| OEL TWA (mg/m <sup>3</sup> )                                      | 3.5 mg/m <sup>3</sup>                                                                                |
| OEL STEL (mg/m <sup>3</sup> )                                     | 7 mg/m <sup>3</sup>                                                                                  |
| Regulatory reference                                              | Occupational Health and Safety Regulations, Nu Reg 003-2016 (Amendment R-044-2021)                   |
| Canada (Northwest Territories) - Occupational Exposure Limits     |                                                                                                      |
| Local name                                                        | Carbon black                                                                                         |
| OEL TWA (mg/m <sup>3</sup> )                                      | 3.5 mg/m <sup>3</sup>                                                                                |
| OEL STEL (mg/m <sup>3</sup> )                                     | 7 mg/m <sup>3</sup>                                                                                  |
| Regulatory reference                                              | Occupation Health and Safety Regulations R-039-2015 (R-013-2020)                                     |

# Nylon

## Safety Data Sheet

according to the Hazardous Products Regulation (February 11, 2015)

### Carbon black (Additive for Nylon Black) (1333-86-4)

#### Canada (Ontario) - Occupational Exposure Limits

|                      |                                                           |
|----------------------|-----------------------------------------------------------|
| Local name           | Carbon black                                              |
| OEL TWA (mg/m³)      | 3 mg/m³ (I - Inhalable fraction)                          |
| Regulatory reference | Ontario Occupational Exposure Limits under Regulation 833 |

#### Canada (Prince Edward Island) - Occupational Exposure Limits

|                       |                                                                                                      |
|-----------------------|------------------------------------------------------------------------------------------------------|
| Local name            | Carbon black                                                                                         |
| OEL TWA (mg/m³)       | 3 mg/m³ (I - Inhalable particulate matter)                                                           |
| Notations and remarks | TLV® Basis: Bronchitis. Notations: A3 (Confirmed Animal Carcinogen with Unknown Relevance to Humans) |
| Regulatory reference  | ACGIH 2023                                                                                           |

#### Canada (Saskatchewan) - Occupational Exposure Limits

|                      |                                                                             |
|----------------------|-----------------------------------------------------------------------------|
| Local name           | Carbon black                                                                |
| OEL TWA (mg/m³)      | 3.5 mg/m³                                                                   |
| OEL STEL (mg/m³)     | 7 mg/m³                                                                     |
| Regulatory reference | The Occupational Health and Safety Regulations, 2020. Chapter S-15.1 Reg 10 |

### 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 m³). |
| Environmental exposure controls  | : Avoid release to the environment.                                                                                                                                                                                                                                                                                                                                                                                                      |

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

#### Hand protection:

None under normal conditions. Use insulated gloves when handling this material hot. Wear protective gloves

| Type                                                                              | Material             | Permeation        | Thickness (mm) | Penetration |
|-----------------------------------------------------------------------------------|----------------------|-------------------|----------------|-------------|
| In molten state:<br>Chemically resistant<br>protective gloves, Heat-<br>resistant | Nitrile rubber (NBR) | 6 (> 480 minutes) | 0.35           |             |

#### Eye protection:

None under normal use. In molten state: Wear eye protection. Wear eye protection

| Type                             | Use             | Characteristics |
|----------------------------------|-----------------|-----------------|
| Safety glasses with side shields | In molten state |                 |

#### Skin and body protection:

None under normal use. In molten state: Wear suitable protective clothing

# Nylon

## Safety Data Sheet

according to the Hazardous Products Regulation (February 11, 2015)

|                                                                                                                  |
|------------------------------------------------------------------------------------------------------------------|
| <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 |

### Thermal hazard protection:

Risk of thermal burns on contact with molten product. Hazardous vapours may be released. In molten state: Wear 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                                                   |
| Appearance                                      | : Filament.                                               |
| Colour                                          | : Various colours                                         |
| Odour                                           | : Slight                                                  |
| Odour threshold                                 | : No data available                                       |
| pH                                              | : No data available                                       |
| Relative evaporation rate (butylacetate=1)      | : No data available                                       |
| Relative evaporation rate (ether=1)             | : No data available                                       |
| Melting point                                   | : 185 – 195 °C                                            |
| Freezing point                                  | : Not applicable                                          |
| Boiling point                                   | : No data available                                       |
| Flash point                                     | : > 400 °C                                                |
| Auto-ignition temperature                       | : > 430 °C                                                |
| Decomposition temperature                       | : > 300 °C                                                |
| Flammability (solid, gas)                       | : Non flammable                                           |
| Vapour pressure                                 | : No data available                                       |
| Relative vapour density at 20°C                 | : No data available                                       |
| Relative density                                | : No data available                                       |
| Density                                         | : 1.14 g/cm <sup>3</sup>                                  |
| Solubility                                      | : Water: Insoluble<br>Organic solvent:Sulphuric acid: 96% |
| Partition coefficient n-octanol/water (Log Pow) | : No data available                                       |
| Viscosity, kinematic                            | : Not applicable                                          |
| Explosive limits                                | : Not applicable                                          |
| Particle size distribution                      | : Not applicable                                          |

### 9.2. Other information

No additional information available

## SECTION 10: Stability and reactivity

|                                    |                                                                                                                               |
|------------------------------------|-------------------------------------------------------------------------------------------------------------------------------|
| Reactivity                         | : The product is non-reactive under normal conditions of use, storage and transport.                                          |
| Chemical stability                 | : Stable under normal conditions.                                                                                             |
| Possibility of hazardous reactions | : No dangerous reactions known under normal conditions of use.                                                                |
| Conditions to avoid                | : None under recommended storage and handling conditions (see section 7). Printing process:<br>Avoid temperature above 280°C. |

# Nylon

## Safety Data Sheet

according to the Hazardous Products Regulation (February 11, 2015)

|                                  |                                                                                                                                                                                                 |
|----------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Incompatible materials           | : No additional information available                                                                                                                                                           |
| 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. |
| Hardening time:                  | : No additional information available                                                                                                                                                           |

### SECTION 11: Toxicological information

#### 11.1. Information on toxicological effects

|                                   |                  |
|-----------------------------------|------------------|
| Acute toxicity (oral)             | : Not classified |
| Acute toxicity (dermal)           | : Not classified |
| Acute toxicity (inhalation)       | : Not classified |
| 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 |
| STOT-single exposure              | : Not classified |
| STOT-repeated exposure            | : Not classified |
| Aspiration hazard                 | : Not classified |

#### Nylon (Black, Transparent)

|                      |                |
|----------------------|----------------|
| Viscosity, kinematic | Not applicable |
|----------------------|----------------|

|                                     |                                                           |
|-------------------------------------|-----------------------------------------------------------|
| Symptoms/effects                    | : No acute and delayed symptoms and effects are observed. |
| Symptoms/effects after skin contact | : Risk of thermal burns on contact with molten product.   |

### SECTION 12: Ecological information

#### 12.1. Toxicity

|                                                           |                                                                                                                         |
|-----------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------|
| Ecology - general                                         | : The product is not considered harmful to aquatic organisms nor to cause long-term adverse effects in the environment. |
| Hazardous to the aquatic environment, short-term (acute)  | : Not classified                                                                                                        |
| Hazardous to the aquatic environment, long-term (chronic) | : Not classified                                                                                                        |

#### 12.2. Persistence and degradability

#### Nylon (Black, Transparent)

|                               |                    |
|-------------------------------|--------------------|
| Persistence and degradability | Not biodegradable. |
|-------------------------------|--------------------|

#### 12.3. Bioaccumulative potential

No additional information available

#### 12.4. Mobility in soil

No additional information available

# Nylon

## Safety Data Sheet

according to the Hazardous Products Regulation (February 11, 2015)

### 12.5. Other adverse effects

Ozone : Not classified

## SECTION 13: Disposal considerations

### 13.1. Disposal methods

Regional waste regulation : Dispose of in accordance with relevant local 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 Transportation of Dangerous Goods / Department of Transport / IMDG / IATA

| TDG                                     | DOT           | IMDG          | IATA          |
|-----------------------------------------|---------------|---------------|---------------|
| <b>14.1. UN number</b>                  |               |               |               |
| Not regulated for transport             |               |               |               |
| <b>14.2. Proper Shipping Name</b>       |               |               |               |
| Not regulated                           | Not regulated | Not regulated | Not regulated |
| <b>14.3. Transport hazard class(es)</b> |               |               |               |
| Not regulated                           | Not regulated | Not regulated | Not regulated |
| <b>14.4. Packing group</b>              |               |               |               |
| Not regulated                           | Not regulated | Not regulated | Not regulated |
| <b>14.5. Environmental hazards</b>      |               |               |               |
| Not regulated                           | Not regulated | Not regulated | Not regulated |
| No supplementary information available  |               |               |               |

### 14.6. Special precautions for user

#### TDG

Not regulated

#### DOT

Not regulated

#### IMDG

Not regulated

#### IATA

Not regulated

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

Not applicable



# Nylon

## Safety Data Sheet

according to the Hazardous Products Regulation (February 11, 2015)

### SECTION 15: Regulatory information

#### 15.1. National regulations

##### Polyamide (24993-04-2)

Listed on the Canadian DSL (Domestic Substances List)

##### Carbon black (Additive for Nylon Black) (1333-86-4)

Listed on the Canadian DSL (Domestic Substances List)

#### 15.2. International regulations

##### Polyamide (24993-04-2)

Listed on the United States TSCA (Toxic Substances Control Act) inventory - Status: Active  
Listed introduction on Australian Industrial Chemicals Introduction Scheme (AICIS Inventory)  
Listed on PICCS (Philippines Inventory of Chemicals and Chemical Substances)  
Listed on KECL/KECI (Korean Existing Chemicals Inventory)  
Listed on IECSC (Inventory of Existing Chemical Substances Produced or Imported in China)  
Listed on NZIoC (New Zealand Inventory of Chemicals)

##### Carbon black (Additive for Nylon Black) (1333-86-4)

Listed on the United States TSCA (Toxic Substances Control Act) inventory - Status: Active  
Listed on INSQ (Mexican National Inventory of Chemical Substances)

### SECTION 16: Other information

Issue date : 10/11/2023

#### Indication of changes:

Not applicable.

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

#### Abbreviations and acronyms:

|       |                                                                                                   |
|-------|---------------------------------------------------------------------------------------------------|
| 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                                                          |

# Nylon

## Safety Data Sheet

according to the Hazardous Products Regulation (February 11, 2015)

### Abbreviations and acronyms:

|     |                                  |
|-----|----------------------------------|
| PBT | Persistent Bioaccumulative Toxic |
| SDS | Safety Data Sheet                |

Safety Data Sheet (SDS), Canada

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.