

Product Name:
FILAMEON HDPE Filament

Product code:
HDPE

Revision Number
1

Revision Date:
30.05.2020

Print Date:
30.05.2020



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

Product name: FILAMEON HDPE Filament
Product Code: HDPE
Product Use: A mono filament which can be used for 3D printing which uses Fused Deposition Modeling (FDM) method

Supplier: Riiz Makine Arge Proje Danışmanlık ve İnşaat Sanayi ve Ticaret Limited Şirketi
Erciyes Teknopark, Yıldırım Beyazıt Mah. Aşık Veysel Bulvarı No:63D
:M 38010
Melikgazi / Kayseri
Tel: +90 536 064 82 99
info@filameon.com

Emergency Number +90 536 064 82 99(24 hours a day)

2. HAZARDS IDENTIFICATION

2.1 CLASSIFICATION OF SUBSTANCE OR MIXTURE

Material is not classified as hazardous when used under recommended conditions.

2.2 LABEL ELEMENTS

Not a hazardous substance or mixture according to Regulation (EC) No. 1272/2008

2.3 OTHER HAZARDS

Slipping hazard.

This product contains no substances assessed to be PBT or vPvB at levels of 0.1% or higher.

3. COMPOSITION/INFORMATION ON INGREDIENTS

Ingredient Name	CAS Number	EC Number	Content
High Density Polyethylene (HDPE)	26221-73-8	-	> 99,0 %

4. FIRST AID MEASURES

4.1 DESCRIPTION OF FIRST AID MEASURES

We are not expected hazards under normal conditions and correct usage.

General advice: First Aid responders should pay attention to self-protection and use the recommended protective clothing (chemical resistant gloves, splash protection). If potential for exposure exists refer to Section 8 for specific

Product Name:

FILAMEON HDPE Filament

Product code:

HDPE

Revision Number

1

Revision Date:

30.05.2020

Print Date:

30.05.2020

Eye contact:	personal protective equipment. Flush eyes thoroughly with water for several minutes. Remove contact lenses after the initial 1-2 minutes and continue flushing for several additional minutes. If effects occur, consult a physician, preferably an ophthalmologist.
Skin contact:	Wash off with plenty of water. Seek first aid or medical attention as needed. If molten material comes in contact with the skin, do not apply ice but cool under ice water or running stream of water. DO NOT attempt to remove the material from skin. Removal could result in severe tissue damage. Seek medical attention immediately. Suitable emergency safety shower facility should be immediately available.
Inhalation:	Move person to fresh air and keep comfortable for breathing; consult a physician.
Ingestion:	If swallowed, seek medical attention. May cause gastrointestinal blockage. Do not give laxatives. Do not induce vomiting unless directed to do so by medical personnel.

4.2 MOST IMPORTANT SYMPTOMS AND EFFECTS, BOTH ACUTE AND DELAYED:

Aside from the information found under Description of first aid measures (above) and Indication of immediate medical attention and special treatment needed (below), any additional important symptoms and effects are described in Section 11: Toxicology Information.

4.3 INDICATION OF ANY IMMEDIATE MEDICAL ATTENTION AND SPECIAL TREATMENT NEEDED**NOTES TO PHYSICIAN:**

If burn is present, treat as any thermal burn, after decontamination. If lavage is performed, suggest endotracheal and/or esophageal control. Danger from lung aspiration must be weighed against toxicity when considering emptying the stomach. No specific antidote. Treatment of exposure should be directed at the control of symptoms and the clinical condition of the patient.

5. FIRE-FIGHTING MEASURES**5.1 EXTINGUISHING MEDIA**

Suitable extinguishing media: Water fog or fine spray. Dry chemical fire extinguishers. Carbon dioxide fire extinguishers. Foam.

Unsuitable extinguishing media: None known.

5.2 SPECIAL HAZARDS ARISING FROM THE SUBSTANCE OR MIXTURE

Hazardous combustion products: During a fire, smoke may contain the original material in addition to combustion products of varying composition which may be toxic and/or irritating. Combustion products may include and are not limited to: Carbon monoxide, Carbon dioxide.

Unusual Fire and Explosion Hazards: Pneumatic conveying and other mechanical handling operations can generate combustible dust. To reduce the potential for dust explosions, do not permit dust to accumulate.. Dense smoke is emitted when burned without sufficient oxygen.

5.3 ADVICE FOR FIREFIGHTERS

Product Name:

FILAMEON HDPE Filament

Product code:

HDPE

Revision Number

1

Revision Date:

30.05.2020

Print Date:

30.05.2020

Fire Fighting Procedures: Keep people away. Isolate fire and deny unnecessary entry.. Soak thoroughly with water to cool and prevent re-ignition. If material is molten, do not apply direct waterstream. Use fine water spray or foam. Cool surroundings with water to localize fire zone. Hand held dry chemical or carbon dioxide extinguishers may be used for small fires.

Special protective equipment for firefighters: Wear positive-pressure self-contained breathing apparatus (SCBA) and protective fire fighting clothing (includes fire fighting helmet, coat, trousers, boots, and gloves). If protective equipment is not available or not used, fight fire from a protected location or safe distance.

6. ACCIDENTAL RELEASE MEASURES**6.1 PERSONAL PRECAUTIONS**

Spilled material may cause a slipping hazard. Use appropriate safety equipment. For additional information, refer to Section 8, Exposure Controls and Personal Protection.

6.2 ENVIRONMENTAL PRECAUTIONS

Prevent from entering into soil, ditches, sewers, waterways and/or groundwater. See Section 12, Ecological Information.

6.3 METHODS AND MATERIAL FOR CONTAINMENT AND CLEANING UP

Contain spilled material if possible. Sweep up. Collect in suitable and properly labeled containers. See Section 13, Disposal Considerations, for additional information.

6.4 REFERENCE TO OTHER SECTIONS

References to other sections, if applicable, have been provided in the previous sub-sections.

7. HANDLING AND STORAGE**7.1 PRECAUTIONS FOR SAFE HANDLING**

Use with adequate ventilation. No smoking, open flames or sources of ignition in handling and storage area. Good housekeeping and controlling of dusts are necessary for safe handling of product. Pneumatic conveying and other mechanical handling operations can generate combustible dust. To reduce the potential for dust explosions, electrically bond and ground equipment and do not permit dust to accumulate. Dust can be ignited by static discharge. When appropriate, unique handling information for containers can be found on the product label. Workers should be protected from the possibility of contact with molten resin. Do not get molten material in eyes, on skin or clothing. Avoid breathing process fumes. See section 8, exposure controls and personal protection.

7.2 CONDITIONS FOR SAFE STORAGE, INCLUDING ANY INCOMPATIBILITIES:

Store in accordance with good manufacturing practices. Store indoors. Store in a cool, dry place. Store away from direct sunlight or ultraviolet light.

7.3 SPECIFIC END USE(S):

See the technical data sheet on this product for further information.

8. EXPOSURE CONTROLS AND PERSONAL PROTECTION

Product Name:

FILAMEON HDPE Filament

Product code:

HDPE

Revision Number

1

Revision Date:

30.05.2020

Print Date:30.05.2020

8.1 CONTROL PARAMETERS

If exposure limits exist, they are listed below. If no exposure limits are displayed, then no values are applicable.

8.2 EXPOSURE CONTROLS

Engineering controls: Use local exhaust ventilation, or other engineering controls to maintain airborne levels below exposure limit requirements or guidelines. If there are no applicable exposure limit requirements or guidelines, general ventilation should be sufficient for most operations. Local exhaust ventilation may be necessary for some operations.

Individual protection measures

Eye/face protection: Use safety glasses (with side shields). Safety glasses (with side shields) should be consistent with EN 166 or equivalent. If there is a potential for exposure to particles which could cause eye discomfort, wear chemical goggles. Chemical goggles should be consistent with EN 166 or equivalent. If exposure causes eye discomfort, use a full-face respirator (meeting standard EN 136) with organic vapor cartridge (meeting standard EN 14387).

Skin protection

Hand protection: Chemical protective gloves should not be needed when handling this material. Consistent with general hygienic practice for any material, skin contact should be minimized. Use gloves to protect from mechanical injury. Selection of gloves will depend on the task. Use gloves with insulation for thermal protection (EN 407), when needed. Other protection: No precautions other than clean body-covering clothing should be needed.

Respiratory protection:

Respiratory protection should be worn when there is a potential to exceed the exposure limit requirements or guidelines. If there are no applicable exposure limit requirements or guidelines, wear respiratory protection when adverse effects, such as respiratory irritation or discomfort have been experienced, or where indicated by your risk assessment process. Use an approved air-purifying respirator when vapors are generated at increased temperatures or when dust or mist is present. Use the following CE approved air-purifying respirator: When dust/mist are present use a/an Particulate filter, type P2 (meeting standard EN 143). When combinations of vapors, acids, or dusts/mists are present use a/an Organic vapor cartridge with a particulate pre-filter, type AP2 (meeting standard EN 14387).

Environmental exposure controls

See SECTION 7: Handling and storage and SECTION 13: Disposal considerations for measures to prevent excessive environmental exposure during use and waste disposal.

9. PHYSICAL AND CHEMICAL PROPERTIES**9.1 INFORMATION ON BASIC PHYSICAL AND CHEMICAL PROPERTIES APPEARANCE**

Physical state: Solid

Colour: Depending on product grade

Odor: Odorless to mild

Odor: Threshold No test data available

Product Name:

FILAMEON HDPE Filament

Product code:

HDPE

Revision Number

1

Revision Date:

30.05.2020

Print Date:

30.05.2020

pH: Not applicable, substance/mixture is non-soluble (in water)

Melting point/range: Variable

Freezing point: Not applicable

Boiling point (760 mmHg): Not applicable

Flash point closed cup: Not applicable

Evaporation Rate (Butyl Acetate = 1): Not applicable

Flammability (solid, gas) :May form combustible dust concentrations in air during processing, handling or other means.

Lower explosion limit: Not applicable

Upper explosion limit: Not applicable

Vapor Pressure: Not applicable

Relative Vapor Density (air = 1): Not applicable

Relative Density (water = 1) : 0,83 - 0,97 ASTM D 792

Water solubility : negligible

Partition coefficient: noctanol/water : No data available

Auto-ignition temperature : No test data available

Decomposition temperature : No test data available

Kinematic Viscosity : Not applicable

Explosive properties : Not explosive

Oxidizing properties : no oxidising properties

9.2 OTHER INFORMATION MOLECULAR WEIGHT

No data available

NOTE: The physical data presented above are typical values and should not be construed as a specification

10. STABILITY AND REACTIVITY

Reactivity: No data available

Chemical stability: Stable

Possibility of hazardous reactions: Polymerization will not occur

Conditions to avoid: Exposure to elevated temperatures can cause product to decompose.

Incompatible materials: No additional information available

Hazardous decomposition products: Decomposition products depend upon temperature, air supply and the presence of other materials. Processing may release fumes and other decomposition products. At temperatures exceeding melt temperatures, polymer fragments can be released. Fumes can be irritating. Decomposition products can include and are not limited to: Aldehydes. Alcohols. Organic acids. Decomposition products can include trace amounts of hydrocarbons..

11. TOXICOLOGICAL INFORMATION**11.1 INFORMATION ON TOXICOLOGICAL EFFECT**

No adverse effects for human health are expected under conditions of correct usage. Material have no toxicological effect in solid state, but vapours of styrene released from melt are toxic.

Product Name:

FILAMEON HDPE Filament

Product code:

HDPE

Revision Number

1

Revision Date:

30.05.2020

Print Date:

30.05.2020

Acute toxicity:	Very low toxicity if swallowed. Harmful effects not anticipated from swallowing small amounts. May cause choking if swallowed.
Irritation:	Typical for this family of materials. Prolonged contact is essentially nonirritating to skin. Mechanical injury only. Under normal processing conditions, material is heated to elevated temperatures; contact with the material may cause thermal burns.
Sensitization:	For skin sensitization: No relevant data found. For respiratory sensitization: No relevant data found.
Repeated dose toxicity:	No relevant data found.
Carcinogenic effect:	No relevant data found.
Mutagenicity:	No relevant data found.
Reproductive toxicity:	No relevant data found.

12. ECOLOGICAL INFORMATION

Eco toxicity:	Not expected to be acutely toxic, but material in pellet or bead form may mechanically cause adverse effects if ingested by waterfowl or aquatic life.
Persistence and degradability:	Biodegradability: This water-insoluble polymeric solid is expected to be inert in the environment. Surface photodegradation is expected with exposure to sunlight. No appreciable biodegradation is expected.
Bio accumulative potential:	Bioaccumulation: No bioconcentration is expected because of the relatively high molecular weight (MW greater than 1000).
Mobility in soil:	In the terrestrial environment, material is expected to remain in the soil. In the aquatic environment, material is expected to float.
Results of PBT and vPvB assessment:	This mixture has not been assessed for persistence, bioaccumulation and toxicity (PBT).
Other adverse effect:	No known effects or critical hazards

13. DISPOSAL CONSIDERATIONS**13.1 WASTE TREATMENT METHODS**

For uncontaminated material the disposal options include mechanical and chemical recycling or energy recovery. In some countries landfill is also allowed. For contaminated material the options remain the same, although additional evaluation is required. For all countries the disposal methods must be in compliance with national and provincial laws and any municipal or local by-laws. All disposal methods must be in compliance with the EU framework Directives 2008/98/EC and their subsequent adaptations, as implemented in National Laws and Regulations, as well as EU Directives dealing with priority waste streams.

14. TRANSPORT INFORMATION**Classification for ROAD and Rail transport (ADR/RID):**

14.1: UN number Not applicable

14.2 : UN proper shipping name Not regulated for transport

14.3 : Transport hazard class(es) Not applicable

14.4 : Packing group Not applicable

Product Name:

FILAMEON HDPE Filament

Product code:

HDPE

Revision Number

1

Revision Date:

30.05.2020

Print Date:

30.05.2020

14.5 : Environmental hazards Not considered environmentally hazardous based on available data.

14.6 : Special precautions for user No data available.

Classification for SEA transport (IMO-IMDG):

14.1 : UN number Not applicable

14.2 : UN proper shipping name Not regulated for transport

14.3 : Transport hazard class(es) Not applicable

14.4 : Packing group Not applicable

14.5 : Environmental hazards Not considered as marine pollutant based on available data.

14.6 : Special precautions for user No data available.

14.7 : Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code Consult IMO regulations before transporting ocean bulk

Classification for AIR transport (IATA/ICAO):

14.1 : UN number Not applicable

14.2 : UN proper shipping name Not regulated for transport

14.3 : Transport hazard class(es) Not applicable

14.4 : Packing group Not applicable

14.5 : Environmental hazards Not applicable

14.6 : Special precautions for user No data available.

15. REGULATORY INFORMATION**15.1 SAFETY, HEALTH AND ENVIRONMENTAL REGULATIONS/LEGISLATION SPECIFIC FOR THE SUBSTANCE OR MIXTURE**

Seveso III: Directive 2012/18/EU of the European Parliament and of the Council on the control of major-accident hazards involving dangerous substances. Listed in Regulation: Not applicable

Turkey

This Safety Data Sheet has been prepared in accordance with Regulation on Preparation and Distribution of Safety Data Sheets of Hazardous Substances and Mixtures. This product has been classified according to the Regulation on Classification, Labeling and Packaging of Substances and Mixtures (Official Gazette: 11.12.2013, 28848 Repeated).

Further information

According to 13 December 2014, No:29204, "Ministry of Environment and Urbanization; Regulation on Safety data sheets regarding hazardous substances and mixtures; Part I". Regulation on Classification, Labelling and Packaging of Substances and Mixtures. Dated 11 December 2013, Numbered 28848 (Bis) Ministry of Environment and Forestry.

16. OTHER INFORMATION

This information is based on our current experience. This safety data sheet describes the security requirements of our products. It cannot be applied as a guarantee of the given product features. It is the user's responsibility to comply with the current legal regulations in the use of the product.