Ultimaker

PETG
Safety data sheet

Non-hazardous mixture

1. Identification of the substance / mixture and of the company / undertaking

1.1 Product identifier	
Trade name or designation of the mixture	PETG
Registration number	-
Synonyms	None
1.2 Relevant identified uses of the substance or mixture and uses advised against	
Identified uses	3D printer filament
Uses advised against	None known
1.3 Details of the supplier of the safety data sheet	
Company name	Ultimaker B.V.
Address	Stationsplein 32, 3511 ED, Utrecht, the Netherlands
Telephone	+31 (0) 88 383 4000 (available during office hours, CET)
e-mail	product-compliance@ultimaker.com
Contact person	Product compliance
1.4 Emergency telephone number	No emergency expected: non-hazardous mixture. In case of doubt contact your physician and show this SDS

2. Hazards identification

2.1 Classification of the substance or mixture	The mixture has been assessed and/or tested for its physical, health and environmental hazards and the following classification applies
Classification according to Regulation (EC) No 1272/2008 as amended	This mixture does not meet the criteria for classification according to Regulation (EC) 1272/2008 as amended
Hazard summary	Not available
2.2 Label elements	
Label according to Regulation (EC) No. 1272/2008 as amended	
Hazard pictograms	None
Signal word	None
Hazard statements	The mixture does not meet the criteria for classification.
Precautionary statements	
Prevention	Not available
Response	Not available
Storage	Not available
Disposal	Not available
Supplemental label information	None
2.3 Other hazards	Not a PBT or vPvB substance or mixture

3. Composition / information on ingredients

3.2 Mixtures

General information

Chemical name	%	CAS-No. / EC No.	REACH Registration No.	Index No.	Notes
Glycol-modified PET (Polyethylene Terephthalate	> 98	25038-91-9	-	-	Base polymer
Titanium Dioxide	< 1	13463-67-7	-	-	Additive in PETG White, Grey, Blue, Green, and Yellow
Carbon Black	< 0.5	1333-86-4	-	-	Additive in PETG Black, Grey and Green
Classification:	-				
Composition comments	The full text for all H-statements is displayed in section 16.				

4. First aid measures

General information	Ensure that medical personnel are aware of the material(s) involved, and take precautions to protect themselves.
4.1 Description of first aid measures	
Inhalation	Not likely, due to the form of the product. If exposed to excessive levels of dusts or fumes, remove to fresh air and get medical attention if cough or other symptoms develop.
Skin contact	If burned by contact with hot material, cool molten material adhering to skin as quickly as possible with water, and see a physician for removal of adhering material and treatment of burn. Do not peel polymer from the skin.
Eye contact	Not likely, due to the form of the product. If hot product contacts eye, flush with water for at least 15 minutes and seek medical attention immediately.
Ingestion	Not likely, due to the form of the product.
4.2. Most important symptoms and effects, both acute and delayed	Exposure may cause temporary irritation, redness, or discomfort.
4.3. Indication of any immediate medical attention and special treatment needed	Treat symptomatically.

5. Firefighting measures

General fire hazards	No unusual fire or explosion hazards noted.
5.1 Extinguishing media	
Suitable extinguishing media	Water mist. Foam. Dry chemical powder. Carbon dioxide (CO_2).
Unsuitable extinguishing media	Do not use water jet as an extinguisher, as this will spread the fire.
5.2 Special hazards arising from the substance or mixture	During fire, gases hazardous to health may be formed (CO, CO_2).
5.3 Advice for firefighters	
Special protective equipment for firefighters	Self-contained breathing apparatus and full protective clothing must be worn in case of fire.
Special fire fighting procedures	Move containers from fire area if you can do so without risk.
Specific methods	Use standard firefighting procedures and consider the hazards of other involved materials.

6. Accidental release measures

6.1.Personal precautions, protective equipment and emergency procedures	
For non-emergency personnel	Keep unnecessary personnel away. For personal protection, see section 8 of the SDS
For emergency responders	Keep unnecessary personnel away. Use personal protection recommended in Section 8 of the SDS.
6.2 Environmental precautions	Avoid discharge into drains, water courses or onto the ground.
6.3 Methods and material for containment and cleaning up	Sweep up or vacuum up spillage and collect in suitable container for disposal. For waste disposal, see section 13 of the SDS.
6.4 Reference to other sections	For personal protection, see section 8 of the SDS. For waste disposal, see section 13 of the SDS.

7. Handling and storage

7.1 Precautions for safe handling	Observe good industrial hygiene practices.
7.2 Conditions for safe storage, including any incompatibilities	Store in tightly closed container. Store away from incompatible materials (see Section 10 of the SDS).
7.3 Specific end use(s)	Not available.

8. Exposure controls / personal protection

8.1 Control parameters	
Occupational exposure limits	Carbon Black (inhalation of powders): • No EU community levels available. Typical national limit value: 3 mg/m³ • USA (NIOSH): REL is 3,5 mg/m³ • USA (OSHA): PEL is 3.5 mg/m³ Titanium Dioxide (inhalation of powders): • No EU community levels available. Typical national limit value: 10 mg/m³ • USA (OSHA): PEL is 15 mg/m³ (total dust)
Biological limit values	No biological exposure limits noted for the ingredient(s).
Recommended monitoring procedures	Follow standard monitoring procedures.
Derived no-effect levels (DNELs)	Not available.
Predicted no-effect concentrations (PNECs)	Not available.
8.2 Exposure controls	
Appropriate engineering controls	Good general ventilation (typically 10 air changes per hour) should be used. Ventilation rates should be matched to conditions. If applicable, use process enclosures, local exhaust ventilation, or other engineering controls to maintain airborne levels below recommended exposure limits. If exposure limits have not been established, maintain airborne levels to an acceptable level.
Individual protection measures, such as personal protective equipment	
General information	Personal protection equipment should be chosen according to the CEN standards and in discussion with the supplier of the personal protective equipment.
Eye/face protection	Wear safety glasses with side shields (or goggles).
Skin protection - Hand protection - Other	 Wear appropriate chemical resistant gloves. Wear suitable protective clothing.
Respiratory protection	In case of insufficient ventilation, wear suitable respiratory equipment.
Thermal hazards	Wear appropriate thermal protective clothing, when necessary.
Hygiene measures	Always observe good personal hygiene measures, such as washing after handling the material and before eating, drinking, and/or smoking. Routinely wash work clothing and protective equipment to remove contaminants.
Environmental exposure controls	Environmental manager must be informed of all major releases.

9. Physical and chemical properties

9.1 Information on basic physical and chemical properties			
Appearance	Physical state	Form	Color
	Solid	Filament	Color depends on product specification.
Odour	Slight.		
Odour threshold	Not available.		
pH	Not available.		
Melting point/freezing point	220 - 230 °C		
Initial boiling point and boiling range	Not available.		
Flash point	Not available.		
Evaporation rate	Not available.		
Flammability (solid, gas)	Not available.		
Upper/lower flammability or explosive limits	Flammability limit - lower (%)	Flammability limit - upper (%)	
	Not available.	Not available.	
Vapour pressure	Not available.		
Vapour density	Not available.		
Relative density	1.27 g/mL (25°C)		
Solubility(ies)	Solubility (water)		
	Insoluble		
Partition coefficient (n-octanol/water)	Not available.		
Auto-ignition temperature	Not available.		
Decomposition temperature	Not available.		
Viscosity	Not available.		
Explosive properties	Not explosive.		
Oxidizing properties	Not oxidizing.		
9.2 Other information	No relevant additional information available.		

10. Stability

10.1 Reactivity	The product is stable and non-reactive under normal conditions of use, storage and transport
10.2 Chemical stability	Material is stable under normal conditions.
10.3 Possibility of hazardous reactions	No dangerous reaction known under conditions of normal use.
10.4 Conditions to avoid	Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. Avoid temperatures exceeding the decomposition temperature. Contact with incompatible materials.
10.5 Incompatible materials	Strong oxidizing agents
10.6 Hazardous decomposition products	No hazardous decomposition products are known.

11. Toxicological information

11.1 Information on toxicological effects	
Acute toxicity	Not known
Skin corrosion / irritation	Based on available data, the classification criteria are not met.
Serious eye damage / eye irritation	Based on available data, the classification criteria are not met.
Respiratory sensitization	Based on available data, the classification criteria are not met.

Skin sensitization	Based on available data, the classification criteria are not met.
Germ cell mutagenicity	Based on available data, the classification criteria are not met.
Carcinogenicity	Based on available data, the classification criteria are not met.
Hungary. 26/2000 EüM Ordinance on protection against and preventing risk relating to exposure to carcinogens at work (as amended)	Not listed.
Reproductive toxicity	Based on available data, the classification criteria are not met.
Specific target organ toxicity - single exposure	Based on available data, the classification criteria are not met.
Specific target organ toxicity - repeated exposure	Based on available data, the classification criteria are not met.
Aspiration hazard	Based on available data, the classification criteria are not met.
Mixture versus substance information	No information available.
Other information	This product has no known adverse effect on human health.

12. Ecological information

12.1 Toxicity	The product is not classified as environmentally hazardous. However, this does not exclude the possibility that large or frequent spills can have a harmful or damaging effect on the environment.
12.2 Persistence and degradability	No data is available on the degradability of any ingredients in the mixture.
12.3 Bioaccumulative potential	No data available
Partition coefficient n-octanol/water (log Kow)	Not available.
Bioconcentration factor (BCF)	No data available.
12.4 Mobility in soil	Not a PBT or vPvB substance or mixture. Not available.
12.5 Results of PBT and vPvB assessment	No other adverse environmental effects (e.g. ozone depletion, photochemical ozone creation potential, endocrine disruption, global warming potential) are expected from this component.
12.6 Other adverse effects	No other adverse environmental effects are expected from this component.

13. Disposal considerations

13.1 Waste treatment methods	
Residual waste	Dispose of in accordance with local regulations.
Contaminated packaging	Empty containers should be taken to an approved waste handling site for recycling or disposal.
EU waste code	The Waste code should be assigned in discussion between the user, the producer and the waste disposal company.
Disposal methods/information	Collect and reclaim or dispose in sealed containers at licensed waste disposal site.
Special precautions	Dispose in accordance with all applicable regulations.

14. Transport information

ADR	Not regulated as dangerous goods
RID	Not regulated as dangerous goods
IATA	Not regulated as dangerous goods
IMDG	Not regulated as dangerous goods
Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code	Not applicable.

15. Regulatory information

15.1 Safety, health and environmental regulations/legislation specific for the substance or mixture EU regulations	
Regulation (EC) No. 1005/2009 on substances that deplete the ozone layer, Annex I and II, as amended	Not listed.
Regulation (EC) No. 850/2004 On persistent organic pollutants, Annex I as amended	Not listed.
Regulation (EU) No. 649/2012 concerning the export and import of dangerous chemicals, Annex I, Part 1 as amended	Not listed.
Regulation (EU) No. 649/2012 concerning the export and import of dangerous chemicals, Annex I, Part 2 as amended	Not listed.
Regulation (EU) No. 649/2012 concerning the export and import of dangerous chemicals, Annex I, Part 3 as amended	Not listed.
Regulation (EU) No. 649/2012 concerning the export and import of dangerous chemicals, Annex V as amended	Not listed.
Regulation (EC) No. 166/2006 Annex II Pollutant Release and Transfer Registry, as amended	Not listed.
Regulation (EC) No. 1907/2006, REACH Article 59(10) Candidate List as currently published by ECHA	Not listed.
Authorizations	
Regulation (EC) No. 1907/2006, REACH Annex XIV Substances subject to authorization, as amended	Not listed.
Restrictions on use	
Regulation (EC) No. 1907/2006, REACH Annex XVII Substances subject to restriction on marketing and use as amended	Not listed.
Directive 2004/37/EC: on the protection of workers from the risks related to exposure to carcinogens and mutagens at work, as amended.	Not listed.
Other EU regulations	
Directive 2012/18/EU on major accident hazards involving dangerous substances, as amended	Not listed.
Other regulations	
The product is classified and labelled in accordance with Regulation (EC) 1272/2008 (CLP Regulation) as amended. This Safety Data Sheet complies with the requirements of Regulation (EC) No 1907/2006, as amended.	
National regulations	
Follow national regulation on the protection of workers from the risks of exposure to carcinogens and mutagens at work, in accordance with Directive 2004/37/EC	
15.2 Chemical Safety Assessment	No Chemical Safety Assessment has been carried out.

16. Other information

List of abbreviations	Not available.
References	Not available.
Information on evaluation method leading to the classification of mixture	The classification for health and environmental hazards is derived by a combination of calculation methods and test data, if available.
Full text of any H-statements not written out in full under Sections 2 to 15	None.
Revision information	None.
Training information	Follow training instructions when handling this material.
Disclaimer	This safety data sheet (SDS) is issued based on the latest reference, data etc. currently available. The information in this SDS has been carefully assessed, but no guarantee is given for its accuracy. We cannot anticipate all conditions under which this product may be used. It is the user's responsibility to take appropriate safety measures for handling.
Version	1.00
Date	May 19, 2021