

Material Safety Data Sheet

according to Regulation (EC) No. 1907/2006
Issued on December 2016
Rev.4:April 2017

1. CHEMICAL PRODUCT AND COMPANY IDENTIFICATION

1.1 Product identifier

Trade name: PLA FILAMENT for 3D PRINTER
Registration number: -
Synonyms: None

55267 VERBATIM 3D PRINTER FILAMENT PLA 1.75MM 1KG BLACK
55268 VERBATIM 3D PRINTER FILAMENT PLA 1.75MM 1KG WHITE
55269 VERBATIM 3D PRINTER FILAMENT PLA 1.75MM 1KG WHITE
55270 VERBATIM 3D PRINTER FILAMENT PLA 1.75MM 1KG BLUE
55271 VERBATIM 3D PRINTER FILAMENT PLA 1.75MM 1KG RED
55274 VERBATIM 3D PRINTER FILAMENT PLA 1.75MM 1KG YELLOW
55275 VERBATIM 3D PRINTER FILAMENT PLA 1.75MM 1KG NATURAL TRANSPARENT
55276 VERBATIM 3D PRINTER FILAMENT PLA 1.75MM 1KG SILVER/METAL GREY
55277 VERBATIM 3D PRINTER FILAMENT PLA 2.85MM 1KG BLACK
55278 VERBATIM 3D PRINTER FILAMENT PLA 2.85MM 1KG WHITE
55279 VERBATIM 3D PRINTER FILAMENT PLA 2.85MM 1KG BLUE
55282 VERBATIM 3D PRINTER FILAMENT PLA 2.85MM 1KG NATURAL TRANSPARENT
55283 VERBATIM 3D PRINTER FILAMENT PLA 2.85MM 1KG SILVER/METAL GREY

1.2. Relevant identified uses: 3D Printer Filament for Material Extrusion

Grade: Verbatim

1.3. Supplier: Verbatim GmbH

Address: Duesseldorfer Strasse 13
D- 65760 Eschborn, Germany

Email: SDS@verbatim-europe.com

Emergency Telephone

Number: +49 (0) 6196 9001- 0

2. HAZARDS IDENTIFICATION GHS Classification:

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 substance does not meet the criteria for classification according to Regulation (EC) 1272/2008 as amended.

2.2. Label elements

Label according to Regulation (EC) No. 1272/2008 as amended

Hazard pictograms:	Not applicable
Signal word:	Not applicable
Hazard statements:	The mixture does not meet the criteria for classification.
Other hazards:	None known

2.3. Precautionary statements

Safety measures:	Do not breathe dust/fume/gas/mist
Response:	Get medical attention/advice if you feel unwell
Storage:	Keep away from fire. Store indoors at ambient temperature
Disposal:	Do not dump into sewers, on the ground or into any body of water. Burn in an adequate incinerator or bury in landfill in accordance with applicable local, state and federal regulations

Supplemental

label information:	None
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3. COMPOSITION/INFORMATION ON INGREDIENTS

General information

Chemical substance/mixture:	A mixture
Chemical properties (chemical formula, etc):	Poly lactide resin
Chemical name or generic name:	No relevant Information

Description	CAS ID	EINECS No.	Content in %
Poly lactide Resin (PLA)	9051-89-2	H[(-OCH(CH ₃))CO-] nOH	90-99 %

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:

If you feel unwell by inhalation of vapor or gas, move to fresh air and keep at rest in a position comfortable for breathing. Call a doctor if you feel unwell.

Skin Contact:

In case of contact with melted material, fully cool down by pouring plenty of water over the clothing. Then take off clothing, cover with clean gauze and get medical attention immediately. Get medical attention if appearance changes, irritating pain occurs or feeling unwell.

Eye contact:

Immediately rinse the eye with plenty of clean running water for at least 15 minutes. Remove contact lenses, if present and easy to do. Rinse thoroughly the inner side of the eye lid. Get medical attention as soon as possible.

Ingestion:

If swallowed by accident, keep at rest and get medical attention immediately. Avoid vomit entering into respiratory tract. Do not induce vomiting unless instructed by a doctor.

Further protective measures:

Wear appropriate protective equipment (protective glasses, protective mask, gloves, etc.). Install ventilation.

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. FIRE-FIGHTING MEASURES

General fire hazards: No unusual fire or explosion hazards noted.

5.1 Extinguishing media:

Suitable extinguishing media:

Water fog. Foam, dry chemical powder, Carbon dioxide (CO₂)

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, hazardous gases may be formed

5.3 Special protective equipment for firefighters:

Self-contained breathing apparatus and full protective clothing must be worn in case of fire

5.4. 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:

Stop the flow of material, if this is without risk. Following product recovery, flush area with water

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:

Handle in a well-ventilated area. Installation of local exhaust at 3D printers area is recommended when many printers are operated at once
Keep away from fire (ignition source) and store at ambient temperature

7.2. Storage:

Protect from water, moisture and direct sunlight and store indoors at ambient temperature and well-ventilated.

8. EXPOSURE CONTROLS/PERSONAL PROTECTION

8.1. Control parameters

Occupational exposure limits:

No exposure limits noted for ingredient(s)

Biological limit values:

No biological exposure limits noted for the ingredient(s)

Recommended monitoring procedures:

Follow the standard monitoring procedures

Derived no-effect level (DNEL):

Not available

9. PHYSICAL AND CHEMICAL PROPERTIES

9.1. Information on basic physical and chemical properties

Appearance

Physical state:

Filament Shape

Colour(s)

White, Black, Blue, Green, Yellow, Orange, Red, Transparent, Silver

Melting Point:

Starts to melt between
160°C to 165°C

(Auto) ignition point:

388°C

Combustibility:

Flammable when exposed to any ignition source

**Specific gravity
(relative density):**

1.20 to 1.28 g/cm³

Solubility (water):

10. STABILITY AND REACTIVITY

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:

Exposing to direct ignition sources.

10.5. Incompatible materials:

No data available.

10.6. Hazardous decomposition products:

It decomposes at high temperature heating and thereby may generate hazardous gas (e.g. Carbon Hydride or Aldehydes).

10.7. Self reactivity:

None

11. TOXICOLOGICAL INFORMATION

General Information: Occupational exposure to the substance or mixture may cause adverse effects.

Information on likely routes of exposure:

Inhalation: No adverse effects due to inhalation are expected.
Skin contact: No adverse effects due to skin contact are expected
Eye contact: Direct contact with eyes may cause temporary irritation
Ingestion: May cause discomfort if swallowed. However, ingestion is not likely to be a primary route of occupational exposure

11.1. Information on toxicological effects

Acute toxicity: No data available
Skin corrosion/irritation: Not classified
Serious eye damage/eye irritation: There is no acidity to the eye
Respiratory sensitization: Not classified
Skin sensitization: classification is not possible
Germ cell mutagenicity: AMES Test Negative
Carcinogenicity: classification is not possible
Reproductive toxicity: classification is not possible
Specific target organ toxicity -single exposure: classification is not possible
Specific target organ toxicity -repeated exposure: classification is not possible
Aspiration hazard: classification is not possible
Mixture versus substance information: classification is not possible
Other information: classification is not possible

12. ECOLOGICAL INFORMATION

12.1. Toxicity:

Due to partial or complete lack of data the classification for hazardous to the aquatic environment, is not possible

12.2 Persistence and degradability:

No data is available on the degradability of this product

12.3 Bioaccumulative potential:

No data available

Partition coefficient n-octanol/water (log Kow):

Not available

Bioconcentration factor (BCF):

Not available

12.4 Mobility in soil:

No data available

12.5. Results of PBT and vPvB assessment:

Not available

13. DISPOSAL CONSIDERATIONS

13.1. Waste treatment methods

Residual waste:	Dispose of in accordance with local regulations
EU waste code:	The Waste code should be assigned in discussion between the user, the producer and the waste disposal company.
Disposal methods/ information:	Do not dump into sewers, on the ground or into any body of water. Burn in an adequate incinerator or bury in landfill in accordance with applicable regulations.
Special precautions:	Dispose in accordance with all applicable regulations.

14. TRANSPORT INFORMATION

General information:	Follow the instructions of Section 7.
International regulation:	UN classification: Not applicable to the dangerous goods under UN classification.
Land transport:	Follow local regulations.

Regulatory Body	Special Provisions
ADR	Not regulated as dangerous goods
RID	Not regulated as dangerous goods
AND	Not regulated as dangerous goods
IMDG	Not regulated as dangerous goods
IATA	Not regulated as dangerous goods
Transport in bulk according to Annex II of Marpol 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

Directive 92/85/EEC: on the safety and health of pregnant workers and workers who have recently given birth or are breastfeeding, as amended: Not listed

Other EU regulations

Directive 2012/18/EU on major accident hazards involving dangerous substances: Not listed

Directive 98/24/EC on the protection of the health and safety of workers from the risks related to chemical agents at work, as amended: Not listed

Directive 94/33/EC on the protection of young people at work, as amended: Not listed

Other regulations:

The product is classified and labelled in accordance with EC directives or respective national laws. This Safety Data Sheet complies with the requirements of Regulation (EC) No 1907/2006, as amended.

National regulations:

Follow national regulation for work with chemical agents.

15.2. Chemical safety assessment:

No Chemical Safety Assessment has been carried out

16. Other information

List of abbreviations

Not available

References

GESTIS Substance Database

ACGIH Documentation of the Threshold Limit Values and
Biological Exposure Indices

EPA: AQUIRE database

HSDB® - Hazardous Substances Data Bank

IARC Monographs. Overall Evaluation of Carcinogenicity

Raw material safety data sheet (SDS)

Information on evaluation method leading to the classification of mixture

Not available

Full text of any H-statements not written out in full under Sections 2 to 15

None

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. Verbatim Limited cannot anticipate all conditions under which this information and its product, or the products of other manufacturers in combination with its product, may be used. It is the user's responsibility to ensure safe conditions for handling, storage and disposal of the product, and to assume liability for loss, injury, damage or expense due to improper use. The information in the sheet was written based on the best knowledge and experience currently available.