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MATERIAL SAFETY DATA SHEET

according to Regulation (EU) No. 1907/2006

EPR InnoPET by Innofil3D BV

1. IDENTIFICATION OF THE PRODUCT AND OF THE COMPANY

Trade name : EPR InnoPET

Chemical name : Polyethylene Terephthalate Chemical family : Thermoplastic polyester Use : Monofilament for 3D-printing

Company : Innofil3D BV

Street address : Eerste Bokslootweg 17 Postal code and city : 7821 AT Emmen Country : The Netherlands Telephone number : +31(0)591820389

2. HAZARDS IDENTIFICATION

Risk advice to man and the environment

No risk exists to the health of employees if the product is handled and processed properly.

COMPOSITION/INFORMATION ON INGREDIENTS 3.

Chemical name Polyethylene Terephthalate (virgin)

CAS Number : 25038-59-9

FIRST-AID MEASURES 4.

Eye contact : If molten material contacts the eye, immediately flush with plenty of

water for at least 15 minutes. If easy to do, remove contact lenses.

Get medical attention.

Skin contact : PET is unlikely to cause any hazard on skin contact. If molten polymer

> contacts skin, cool rapidly with plenty of cold water and obtain medical attention for treatment of the burn. Do not remove frozen

material from burned skin.

Inhalation No specific intervention is indicated since the compound is non-

> hazardous. However, if persons have been exposed to excessive levels of fumes from overheating or combustion or dust, remove to fresh air. If not breathing, give artificial respiration. Get medical





attention if symptoms persist.

Note to physician Burns should be treated as thermal burns. The material will come off

during healing; therefore, immediate removal from skin is not

necessary.

FIRE-FIGHTING MEASURES

Flammable properties Combustion products: CO₂, H₂O and, if combustion is incomplete,

Suitable extinguishing media

Special fire and explosion

hazard

Powdered material can form explosive dust - air mixtures.

: All generally used extinguishing media are suitable.

Special firefighting Keep personnel removed from and upwind of fire. Wear selfprocedures

contained breathing apparatus and full protective equipment to

prevent contact with skin and/or eyes.

ACCIDENTAL RELEASE MEASURES 6.

Personal precautions : Use appropriate protective equipment during cleaning.

Environmental precautions : PET is not biological degradable. Do not dispose in the

environment.

Methods for cleaning up When spilled or leaked, remove the material to avoid slipping.

Recycle or incinerate at appropriate waste facilities.

HANDLING AND STORAGE 7.

Safe handling advice See section 8 for appropriate precautions to ensure safe handling.

Storage conditions Store in accordance with relevant precautions and safe material

handling practises.

Fire and explosion : To avoid fire or explosion, avoid and if necessary remove

precautions dust and keep away from sources of ignition. Vigilance precautions

towards the effects of electrostatic charge is advanced.

EXPOSURE CONTROLS/PERSONAL PROTECTION 8.

Engineering controls : Ground connection is necessary in case of electrostatic charge. Use

suction systems in case of excessive dust and/or fume formation.

Not established. **Exposure limits**

Personal protective equipment

Wear heat protecting gloves, safety glasses and avoid direct skin Handling of molten polymer

contact as molten material can cause severe burns. Keep equipment,

rooms and clothing clean.





9. PHYSICAL AND CHEMICAL PROPERTIES

Appearance : Filament.

Color : Natural: Transparent.

Physical state : Solid at room temperature.

Odor : Odorless.

Melting point/range : > 60 °C.

Auto-ignition temperature : Not applicable. Density : 1.38 ± 0.04 . pH : Not applicable. Vapor pressure : Negligible. Water solubility : Not applicable.

10. STABILITY AND REACTIVITY

Conditions to avoid : Decomposition will occur in the presence of oxygen at temperatures

in excess of 350°C.

Incompatibility : Material can react with strong oxidizing agents.

Decomposition : Combustion products include CO2 and CO. Thermal

decomposition products include acetaldehyde and ethylene.

11. TOXICOLOGICAL INFORMATION

Effects of exposure : No adverse toxic effects expected on exposure by inhalation,

ingestion, or by skin/eye contact. Animal testing indicates that Polyethylene Terephthalate does not have carcinogenic, mutagenic,

developmental or reproductive effects.

12. ECOLOGICAL INFORMATION

The material is a high molecular weight polymer with very low water solubility. As such, it is expected to have a low biochemical oxygen demand and to cause essentially no oxygen depletion in aquatic systems. It is expected to have a low potential to affect aquatic organisms, secondary waste treatment microorganisms, and the germination and early growth of plants.

13. DISPOSAL CONSIDERATIONS

Recommendation : It is preferable to recycle the material, disposal on household waste

disposal facilities and incineration are however possible. Discharge, treatment and/or disposal is subject to national, state or local regulations. European waste code: EURAL code 070213.





14. TRANSPORT INFORMATION

ADR/RID : Not regulated.
ADN/ADNR : Not regulated.
IMDG : Not regulated.
IATA-DGR : Not regulated.

15. REGULATORY INFORMATION

No labelling according to EC Directives.

16. OTHER INFORMATION

- The information in this Material Safety Data Sheet (MSDS) is mainly based on information used from the supplier of the raw materials which are used for production of the filaments.
- The information in this Material Safety Data Sheet (MSDS) is based on current knowledge and experience. No liability can be assumed for the accuracy and completeness of this information.
- Users should consider this information only as additional to other data gathered. Independent determination of suitability and completeness of information from all available sources is essential to ensure proper and safe use and disposal of these materials.
- The information in this MSDS applies for this specific material only. It therefor does not apply for its usage in combination with other materials or ways of processing.