Safety Data Sheet

according to the REACH Regulation (EC) 1907/2006 amended by Regulation (EU) 2020/878, Regulation (EC) 1272/2008 amended by Regulation (EU) 2024/2865

SDS number: PL-XC-2026-EU-043

Revision date: 2026-09-23

SECTION 1: Identification of the substance/mixture and of the company/undertaking

1.1 Product identifier

Product form	3D printing filament
Product name	**G-flex**
UFI	N/A
Additional identification	Nanoform is NOT covered by this SDS.

1.2 Relevant identified uses of the substance or mixture and uses advised against

Relevant identified uses	3D printing filament
Uses advised against	No uses advised against identified.

1.3 Details of the supplier of the safety data sheet

Supplier (Manufacturer)	Polymaker.BV
Address	Zeilschip 8, 3991 CT Houten, Utrecht, Nederland
Telephone	+31 618647677
E-mail	support@polymaker.com

1.4 Emergency telephone number

+31 618647677 (Available only during office hours (9:00-17:00))

SECTION 2: Hazards identification

2.1 Classification of the substance or mixture

Classification according to Regulation (EC) No 1272/2008 [CLP]

Hazard classes / Hazard categories	Hazard codes	Classification
Not classified	N/A	Not classified

To our knowledge, this product does not present any particular risk, provided it is handled in accordance with good occupational hygiene and safety practice.

2.2 Label elements

Labelling according to Regulation (EC) No 1272/2008 [CLP]

Hazard pictogram(s)	No symbol
Signal word	No signal word
Hazard statement(s)	None
Precautionary statement(s)	None
Supplemental Hazard information (EU)	Not applicable

2.3 Other hazards

This substance/mixture does not meet the PBT criteria of REACH regulation, annex XIII.

This substance/mixture does not meet the vPvB criteria of REACH regulation, annex XIII.

Contains no PBT and/or vPvB substances ≥ 0.1% assessed in accordance with REACH Annex XIII.

Thermal hazards: Molten material can cause severe thermal burns upon skin contact.

The substance is not included in the list established in accordance with Article 59(1) of REACH for having endocrine disrupting properties, or is not identified as having endocrine disrupting properties in accordance with the criteria set out in Commission Delegated Regulation (EU) 2017/2100 or Commission Regulation (EU) 2018/605.

SECTION 3: Composition/information on ingredients

3.1 Substances

Not applicable.

3.2 Mixtures

Substance	Content (% w/w)	EC Number	CAS Number	Classification 1272/2008/EC
TPU	20-60%	—	9009-54-5	Not classified
CaCO3	0-10%	207-439-9	471-34-1	Not classified

** For full wording of used classification abbreviations and Hazard Statements (H-phrases) see Section 16.*

SECTION 4: First aid measures

4.1 Description of first aid measures

First-aid measures general	If you feel unwell, seek medical advice.
First-aid measures after inhalation	Remove person to fresh air and keep comfortable for breathing.
First-aid measures after skin contact	Wash skin with plenty of water. Burns caused by molten material require hospital treatment.
First-aid measures after eye contact	Rinse eyes with water as a precaution. If irritation develops, seek medical attention.
First-aid measures after ingestion	Call a poison center or a doctor if you feel unwell. Rinse mouth.

4.2 Most important symptoms and effects, both acute and delayed

Symptoms/effects: None under normal conditions. The product is not classified as harmful to human health effect. When melted, it can cause serious burns if contacted with skin and eyes. Dust of the product, if present, may cause respiratory irritation after excessive inhalation exposure.

4.3 Indication of any immediate medical attention and special treatment needed

Treat symptomatically. Use supportive and symptomatic treatment.

SECTION 5: Firefighting measures

5.1 Extinguishing media

Suitable extinguishing media	Water spray, alcohol resistant foam, dry powder, carbon dioxide.
Unsuitable extinguishing media	Do not use a heavy water stream — could spread fire.

5.2 Special hazards arising from the substance or mixture

Fire hazard: No fire hazard under normal conditions.

Hazardous decomposition products in case of fire: Carbon monoxide, carbon dioxide, organic products of decomposition. Under certain conditions of combustion traces of other toxic substances cannot be excluded.

5.3 Advice for firefighters

Wear self-contained breathing apparatus for fire fighting if necessary. Complete protective clothing. Fight fire from safe distance and protected location. Use water spray to cool fire exposed containers.

SECTION 6: Accidental release measures

6.1 Personal precautions, protective equipment and emergency procedures

General measures	Notify authorities if product enters sewers or public waters. Collect spillage to prevent material dispersion. High risk of slipping due to leakage/spillage of product.
6.1.1 For non-emergency personnel	Ventilate spillage area. Avoid contact with eyes. Wear recommended personal protective equipment.
6.1.2 For emergency responders	Do not attempt to take action without suitable protective equipment. For further information refer to section 8.

6.2 Environmental precautions

Avoid release to the environment. Do not allow to enter drains or water courses. Prevent releases of this product into the environment.

6.3 Methods and material for containment and cleaning up

For containment	Using a clean shovel, put the material in a dry container and cover without compressing it.
Methods for cleaning up	Take up mechanically (sweeping, shovelling) and collect in suitable container for disposal.
Other information	Dispose of materials or solid residues at an authorized site.

6.4 Reference to other sections

For further information refer to section 8 and section 13.

SECTION 7: Handling and storage

7.1 Precautions for safe handling

Additional hazards when processed	Not expected to present a significant hazard under anticipated conditions of normal use.
Handling precautions	Ensure good ventilation of the work station. Wear personal protective equipment. Avoid contact with skin and eyes. Avoid dust formation. **Ensure proper grounding and equipotential bonding.** Use non-sparking tools. Take measures against static electricity. Avoid dust accumulation (clean regularly).
Hygiene measures	Do not eat, drink or smoke when using this product. Always wash hands after handling the product.

7.2 Conditions for safe storage, including any incompatibilities

Technical measures	Keep in a cool, well-ventilated place away from heat. Keep container tightly closed and dry.
Storage conditions	Store in a well-ventilated place. Keep cool. Protect from sunlight. **Keep away from ignition sources, sparks, hot surfaces, and open flames — No smoking.** Do not store together with strong oxidizing agents.
Packaging materials	Store always product in container of same material as original container.
Storage class (LGK, TRGS 510)	LGK 13 - Non-combustible solids

7.3 Specific end use(s)

No additional information available.

SECTION 8: Exposure controls/personal protection

8.1 Control parameters

8.1.1 National occupational exposure and biological limit values

Other EU countries

Country	Substance	CAS No.	OEL value (8h TWA)	Source
France	CaCO3 (Calcium carbonate)	471-34-1	VME 10 mg/m³ (Circulaire du Ministère du travail du 19 juillet 1982). Source: INRS MiXie VLEP fiche CaCO3, mise à jour 11 mars 2025. https://ftweb.inrs.fr/publications/outils/mixie/substance.html?refINRS=MIXIE_Substance_397	INRS
United Kingdom	CaCO3 (Calcium carbonate)	471-34-1	WEL 10 mg/m³ TWA inhalable / 4 mg/m³ TWA respirable (EH40/2005, CaCO3 entry); STEL 30 mg/m³ inhalable / 12 mg/m³ respirable. Source: HSE EH40/2005. https://www.hse.gov.uk/pubns/books/eh40.htm	EH40/2005

Country	Substance	CAS No.	OEL value (8h TWA)	Source
Italy	CaCO3 (Calcium carbonate)	471-34-1	No value established	AIDII / MDLPS
Spain	CaCO3 (Calcium carbonate)	471-34-1	No value established	INSST LEP
Netherlands	CaCO3 (Calcium carbonate)	471-34-1	No value established	SER MAC
Switzerland	CaCO3 (Calcium carbonate)	471-34-1	MAK 3 mg/m³ (a) alveolengängige Fraktion — SUVA Grenzwerte am Arbeitsplatz 2024 (Calciumcarbonat Eintrag, NIOSH derivation). https://www.suva.ch/grenzwerte	SUVA MAK
Austria	CaCO3 (Calcium carbonate)	471-34-1	No value established	GKV MAK
Latvia	CaCO3 (Calcium carbonate)	471-34-1	No value established	LR MK AER

8.1.2 Recommended monitoring procedures

No additional information available.

8.1.3 Air contaminants formed

No additional information available.

8.1.4 DNEL and PNEC

No additional information available.

8.1.5 Control banding

No additional information available.

8.2 Exposure controls

8.2.1 Appropriate engineering controls

Ensure good ventilation of the work station. In case of thermal processing, provide for extraction of the vapours or adequate ventilation.

8.2.2 Personal protection equipment

8.2.2.1 Eye and face protection Safety glasses.

8.2.2.2 Skin protection Hand protection: Protective gloves (Chemical resistant). Body protection: Wear suitable protective clothing.

8.2.2.3 Respiratory protection In case of insufficient ventilation, wear suitable respiratory equipment.

8.2.2.4 Thermal hazards Wear suitable protective clothing to prevent heat. Risk of skin burns caused by hot melt.

8.2.3 Environmental exposure controls

Avoid release to the environment. According to local regulations, Federal and official regulations.

SECTION 9: Physical and chemical properties

9.1 Information on basic physical and chemical properties

Property	Value
Physical state	Solid
Colour	Varies depending on colorant
Odour	Odourless
Odour threshold (mg/m³)	Not available
pH	Not available
Boiling point (°C)	Not available
Flash point (°C)	Not available
Evaporation rate	Not available
Flammability (solid, gas)	Not classified as flammable solid (GHS); physically combustible as an organic polymer

Auto-ignition temperature (°C)	> 350 °C
Decomposition temperature (°C)	Not available
Lower explosion limit (vol %)	Not available
Upper explosion limit (vol %)	Not available
Vapour pressure (kPa)	Not available
Relative vapour density (air = 1)	Not available
Relative density (g/cm³)	1.22 g/cm³
Solubility in water (g/L)	Insoluble in water
Partition coefficient n-octanol/water (log Pow)	Not available
Kinematic viscosity (mm²/s)	Not available
Explosive properties	Not explosive
Oxidising properties	Non oxidizing
Particle characteristics (µm)	Not available

9.2 Other information

No additional information available.

Note on physical combustibility: *This product is not classified as a flammable solid according to GHS criteria. However, as an organic polymer, the product is physically combustible and can burn when exposed to an ignition source or at very high temperatures. Above the decomposition temperature the product will ignite and sustain combustion, releasing carbon oxides and other thermal decomposition products (see Section 5.2 and Section 10.6).*

SECTION 10: Stability and Reactivity

10.1 Reactivity

The substance is stable under normal storage and handling conditions.

10.2 Chemical stability

Stable at room temperature in closed containers under normal storage and handling conditions.

10.3 Possibility of hazardous reactions

No dangerous reactions known.

10.4 Conditions to avoid

Heat, flames, sparks, and any ignition sources. Direct sunlight. Dust formation. Excessive heating (> 60 °C). Protect from moisture. Incompatible materials (see 10.5).

10.5 Incompatible materials

Strong oxidizing agents (e.g. peroxides, chlorates, nitrates, perchlorates) — may intensify combustion behavior. Strong acids. Strong bases. Reducing agents.

10.6 Hazardous decomposition products

Under normal conditions of storage and use, hazardous decomposition products should not be produced.

SECTION 11: Toxicological information

11.1 Information on hazard classes as defined in CLP

Endpoint	Value / Classification
Acute toxicity (oral, rat, LD50)	Not available
Acute toxicity (inhalation, rat, LC50)	Not available
Acute toxicity (dermal, rabbit, LD50)	Not available
Skin corrosion/irritation	Not classified
Serious eye damage/irritation	Not classified

Respiratory or skin sensitisation	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

No toxicological data is available for this product as a whole.

No adverse effects for human health are expected for the mixture under normal conditions of usage. The mixture is biologically inert.

SECTION 12: Ecological information

12.1 Toxicity

No adverse effects in the environment are expected for the mixture. The mixture is almost biologically inert. Within the environment the mixture underlies very slow biological decomposition.

12.2 Persistence and degradability

Not readily biodegradable. The mixture is biologically inert and undergoes very slow biological decomposition.

12.3 Bioaccumulative potential

No bioaccumulation expected.

12.4 Mobility in soil

Low mobility in soil.

12.5 Results of PBT and vPvB assessment

The substances in the mixture do not meet the PBT/vPvB criteria according to REACH, Annex XIII.

12.6 Endocrine disrupting properties

The mixture does not contain components considered to have endocrine disrupting properties according to REACH Article 57(f) or Commission Delegated Regulation (EU) 2017/2100 or Commission Regulation (EU) 2018/605 at levels of 0.1% or higher.

12.7 Other adverse effects

No additional information available.

SECTION 13: Disposal considerations

13.1 Waste treatment methods

Regional legislation (waste)	Disposal must be done according to official regulations.
Waste treatment methods	Dispose of contents/container in accordance with licensed collector's sorting instructions.
Product/Packaging disposal recommendations	Avoid release to the environment. Refer to manufacturer/supplier for information on recovery/ recycling.
European List of Waste (LoW) code	07 02 13 - waste plastic (EAK/AVV). The waste code has to be assigned by the user, preferably in consultation with the waste disposal authorities.

SECTION 14: Transport information

In accordance with ADR / RID / IMDG / IATA / ADN:

UN number	UN proper shipping name	Transport hazard class(es)	Packing group	Environmental hazards
Not regulated	Not regulated	Not regulated	Not regulated	No

14.1 UN number

Not regulated.

14.2 UN proper shipping name

Not regulated.

14.3 Transport hazard class(es)

Not regulated.

14.4 Packing group

Not regulated.

14.5 Environmental hazards

No supplementary information available.

14.6 Special precautions for user

No additional information available.

14.7 Maritime transport in bulk according to IMO instruments

Not applicable.

SECTION 15: Regulatory information

15.1 Safety, health and environmental regulations/legislation specific for the substance or mixture

EU Regulations

REACH Annex XVII (Restriction)	Contains no REACH Annex XVII restricted substances above the relevant concentration thresholds.
REACH Annex XIV (Authorisation)	Contains no REACH Annex XIV (Authorization List) substances.
REACH Candidate List (SVHC, ≥ 0.1%)	Contains no substance on the REACH Candidate List at ≥ 0.1%.
PIC Regulation (EU 649/2012)	Not applicable.
POP Regulation (EU 2019/1021)	Contains no persistent organic pollutants.
Ozone Regulation (EC 1005/2009)	Not applicable.
Seveso Directive (2012/18/EU)	Not applicable.

National regulations (target country)

No additional information available.

REACH — Restrictions on the manufacture, placing on the market and use of certain dangerous substances, preparations and articles (Annex XVII)

No entries in Annex XVII apply to the components of this product, or are present above the relevant concentration thresholds.

15.2 Chemical safety assessment

A chemical safety assessment has not been carried out for the substance or the mixture.

SECTION 16: Other information

16.1 Indication of changes

Version	Date	Change description
1.0	2026-09-23	Initial issue.

16.2 Abbreviations and acronyms

Abbreviation	Meaning
ADR	European Agreement concerning the International Carriage of Dangerous Goods by Road
CAS	Chemical Abstracts Service
CLP	Classification, Labelling and Packaging Regulation (EC) No 1272/2008
DNEL	Derived No-Effect Level

EC	European Community
IATA	International Air Transport Association
IMDG	International Maritime Dangerous Goods Code
IOELV	Indicative Occupational Exposure Limit Value (EU)
LGK	Lagerklasse (German storage class, TRGS 510)
OEL	Occupational Exposure Limit
PBT	Persistent, Bioaccumulative and Toxic
PNEC	Predicted No-Effect Concentration
REACH	Registration, Evaluation, Authorisation and Restriction of Chemicals (EC) 1907/2006
RID	Regulations concerning the International Carriage of Dangerous Goods by Rail
SVHC	Substance of Very High Concern
vPvB	very Persistent and very Bioaccumulative

16.3 Key literature references and sources for data

Regulation (EC) No 1907/2006 (REACH), Regulation (EC) No 1272/2008 (CLP), Commission Regulation (EU) 2020/878, Commission Regulation (EU) 2024/2865. ECHA C&L Inventory / REACH registered dossier. OSHA 29 CFR 1910.1000; ACGIH TLVs and BEIs; NIOSH Pocket Guide.

16.4 Classification and procedure used to derive the classification

Classification according to Regulation (EC) No 1272/2008 [CLP] — based on data available for individual ingredients, the mixture as a whole, and bridging principles ("additivity", "concentration of highly hazardous mixtures"). The product does not contain substances classified for health hazards above the relevant cut-off value.

16.5 Relevant H-statements (Hazard statements)

None. (No H-statements applicable — product is not classified.)

16.6 Relevant P-statements (Precautionary statements)

None.

16.7 Disclaimer

Disclaimer: The information in this safety data sheet is based on our current knowledge and on current EU and national regulations. The information is provided for safe handling, use, processing, storage, transportation, disposal and release, and is not to be considered a warranty or quality specification. The user is responsible for ensuring compliance with applicable laws and regulations.