SECTION 1: Identification of the substance/mixture and of the Company

1.1 Product identifier Material Safety Data Sheet valid from May 13 2019

Trade name: FLEX

1.2 Relevant identified uses of the substance or mixture and uses advised against
General use: Polymer for 3D printing applications

1.3 Details of the supplier of the safety data sheet

Company name: Prima Printer Nordic AB
Street/POB-No.: Kantyxegatan 25 F
Postal Code, city: SE 213 76 Malmö, SWEDEN
WWW: www.primacreator.com
E-mail: info@primacreator.com
Telephone: + 46 40 684 97 90

SECTION 2: Hazards identification

2.1 Classification of the substance or mixture
Product definition: Mixture

Classification according to Regulation (EC) No. 1272/2008 [CLP/GHS]
Not classified.
The product is not classified as hazardous according to Regulation (EC) 1272/2008 as amended.

Classification according to Directive 1999/45/EC [DPD]
The product is not classified as dangerous according to Directive 1999/45/EC and its amendments.

Classification: Not classified.

Remarks: Hazard of slipping on spilt product. Heated material can cause thermal burns. Electrostatic charging can occur during unloading or processing of this material. If necessary take precautionary measures against static discharges. The likelihood of adverse health effects arising from normal use of the product is considered very low.
Appropriate precautions should be taken if the product is subjected to secondary processing. If user operations generate dust, fumes or mist, use ventilation to keep exposure to airborne contaminants below the exposure limit.
Dust may cause mechanical irritation.

2.2 Label elements

Hazard pictograms:	
Signal word:	No signal word.
Hazard statements:	No known significant effects or critical hazards.
Supplemental label elements:	Not applicable.
Precautionary statements	
Prevention:	Not applicable.
Response:	Not applicable.
Storage:	Not applicable.
Disposal:	Not applicable.
Hazardous ingredients:	Not applicable.

2.3 Other hazards

Other hazards which do not result in classification: Heated material can cause thermal burns.

SECTION 3: Composition / information on ingredients

3.1 Substances / 3.2 Mixtures: Mixture

Chemical description:Base polymer: thermoplastic polyester elastomer

There are no ingredients present which, within the current knowledge of the supplier and in the concentrations applicable, are classified as hazardous to health or the environment.

Remarks: The components of this product are embedded in an impervious polymer matrix and are therefore not biologically available. Any hazardous constitu ents are fixed in the polymer matrix and therefore present a negligible exposu re risk under normal conditions of processing and handling. Additives contai ned in this product do not pose a risk to health unless they are liberated during processing (fumes from melting, dusts). Suitable Industrial Hygiene precau tions should be implemented to prevent (respirable) dust and fume expo sures. Exposure to (melting) fumes should be kept as low as possible, using suitable ventilation equipment. Dusts and fumes created from secondary processing may be irritating to respiratory tract and skin and should be considered as potentially hazardous. If user operations generate dust, fumes or mist, use ventilation to keep exposure to airborne contaminants below the exposure limit.

SECTION 4: First aid measures

4.1 Description of first aid measures

Eye contact: Immediately flush eyes with plenty of water, occasionally lifting the upper and lower eyelids. Check for and remove any contact lenses. Get medical attention if irritation occurs.

Inhalation: Remove victim to fresh air and keep at rest in a position comfortable for breathing. Get medical attention if symptoms occur.

Skin contact: Flush contaminated skin with plenty of water. Remove contaminated clothing and shoes. Get medical attention if symptoms occur. Do not remove clothing adhering to skin.

Ingestion: Wash out mouth with water. Remove victim to fresh air and keep at rest in a position comfortable for breathing. Do not induce vomiting unless directed to do so by medical personnel. Get medical attention if symptoms occur.

Protection of first-aiders: No action shall be taken involving any personal risk or without suitable training.

4.2 Most important symptoms and effects, both acute and delayed

Potential acute health effects

Eye contact: No known significant effects or critical hazards.

Inhalation: No known significant effects or critical hazards.

Skin contact: Heated material can cause thermal burns resulting in pain, redness, blistering.

Ingestion: No known significant effects or critical hazards.

Over-exposure signs/symptoms

Eye contact: No specific data.

Inhalation: No specific data.

Skin contact: No specific data.

Ingestion: No specific data.

4.3 Indication of any immediate medical attention and special treatment needed

Notes to physician: Treat symptomatically. Contact poison treatment specialist immediately if large quantities have been ingested or inhaled.

Specific treatments: No specific treatment.

SECTION 5: Firefighting measures

5.1 Extinguishing media

Small fire

Suitable: Use dry chemical or CO.

Not suitable: None known.

Large fire

Suitable: Use dry chemical powder. Alcohol-resistant foam.

Not suitable: None known.

5.2 Special hazards arising from the substance or mixture

Hazards from the substance or mixture: No specific fire or explosion hazard.

Hazardous combustion products: In case of fire, may produce hazardous decomposition products such as carbon monoxide, carbon dioxide, (dense) black smoke, aldehydes and organic acids.

5.3 Advice for firefighters

Special protective actions for fire-fighters: Avoid contact with heated material.

Special protective equipment for fire-fighters: Fire-fighters should wear appropriate protective equipment and self-contained breathing apparatus (SCBA) with a full face-piece operated in positive pressure mode. Clothing for fire- fighters (including helmets, protective boots and gloves) conforming to European standard EN 469 will provide a basic level of protection for chemical incidents.

SECTION 6: Accidental release measures

6.1 Personal precautions, protective equipment and emergency procedures

For non-emergency personnel: No action shall be taken involving any personal risk or without suitable training. Evacuate surrounding areas. Keep unnecessary and unprotected personnel from entering. Do not touch or walk through spilt material. Put on appropriate personal protective equipment.

For emergency responders: If specialized clothing is required to deal with the spillage, take note of any information in Section 8 on suitable and unsuitable materials. See also the information in "For nonemergency personnel".

6.2 Environmental precautions

Avoid dispersal of spilt material and runoff and contact with soil, waterways, drains and sewers.
Inform the relevant authorities if the product has caused environmental pollution (sewers, waterways, soil or air).

6.3 Methods and material for containment and cleaning up

Small spill: Move containers from spill area. Vacuum or sweep up material and place in a designated, labelled waste container. Dispose of via a licensed waste disposal contractor.

Large spill: Move containers from spill area. Prevent entry into sewers, water courses, basements or confined areas. Vacuum or sweep up material and place in a designated, labelled waste container. Dispose of via a licensed waste disposal contractor. Note: see Section 1 for emergency contact information and Section 13 for waste disposal.

6.4 Reference to other sections
See Section 1 for emergency contact information.
See Section 8 for information on appropriate personal protective equipment.
See Section 13 for additional waste treatment information.

SECTION 7: Handling and storage

The information in this section contains generic advice and guidance. The list of Identified Uses in Section 1 should be consulted for any available use-specific information provided in the Exposure Scenario(s).

7.1 Precautions for safe handling

Protective measures:	Use with adequate ventilation. Local exhaust ventilation should be provided. Avoid creating dusty conditions and prevent wind dispersal. Take measures against static discharge. Keep away from sources of ignition.

Advice on general occupational hygiene:
Eating, drinking and smoking should be prohibited in areas where this material is handled, stored and processed. Workers should wash hands and face before eating, drinking and smoking.
Remove contaminated clothing and protective equipment before entering eating areas. See also Section 8 for additional information on hygiene measures.

7.2 Conditions for safe storage, including any incompatibilities
Store in accordance with local regulations. Store in a dry, cool and well-ventilated area, away from incompatible materials (see Section 10). Keep container tightly closed and sealed until ready for use. Containers that have been opened must be carefully resealed and kept upright to prevent leakage. Do not store in unlabeled containers. Use appropriate containment to avoid environmental contamination. Store in original container, protected from direct sunlight.

7.3 Specific end use(s)

Recommendations:	Not available.
Industrial sector specific solutions:	Not available.
Remarks:	Big Bags may not be stacked. Do not stack pallets.

SECTION 8: Exposure controls/personal protection

The information in this section contains generic advice and guidance. Information is provided based on typical anticipated uses of the product. Additional measures might be required for bulk handling or other uses that could significantly increase worker or exposure or environmental releases.

8.1 Control parameters
Occupational exposure limits
No exposure limit value known.

Recommended monitoring procedures:
If this product contains ingredients with exposure limits, personal, workplace atmosphere or biological monitoring may be required to determine the effectiveness of the ventilation or other control measures and/or the necessity to use respiratory protective equipment. Reference should be made to monitoring standards, such as the following: European Standard EN 689 (Workplace atmospheres - Guidance for the assessment of exposure by inhalation to chemical agents for comparison with limit values and measurement strategy) European Standard EN 14042 (Workplace atmospheres - Guide for the application and use of procedures for the assessment of exposure to chemical and biological agents) European Standard EN 482 (Workplace atmospheres - General requirements for the performance of procedures for the measurement of chemical agents) Reference to national guidance documents for methods for the determination of hazardous substances will also be required.

DNELs/DMELs
No DNELs/DMELs available.
PNECs
No PNECs available

8.2 Exposure controls
Appropriate engineering controls:
Good general ventilation should be sufficient to control worker exposure to airborne contaminants.

Individual protection measures

Hygiene measures:	Wash hands, forearms and face thoroughly after handling chemical products.
Eye/face protection:	Safety glasses with side shields.
Hand protection:	Wear suitable gloves. When handling hot material, wear heat-resistant protective gloves that are able to withstand the temperature of molten product.
Skin and body:	Working clothes.
Respiratory protection:	No special protection is required. In case of insufficient ventilation, wear suitable respiratory equipment.

Environmental exposure controls:
Emissions from ventilation or work process equipment should be checked to ensure they comply with the requirements of environmental protection legislation. In some cases, fume scrubbers, filters or engineering modifications to the process equipment will be necessary to reduce emissions to acceptable levels.
Advice on personal protection is applicable for high exposure levels. Select proper personal protection based on a risk assessment of the actual exposure situation.

SECTION 9: Physical and chemical properties

9.1 Information on basic physical and chemical properties

Physical state: Solid. [Granules , Pellets.]
Colour: naturally opaque, dependent on the added pigment
Odour: Not available.
Odour threshold: Not available.
pH: Not available.
Melting point/freezing point: 155 to 225 ºC
Initial boiling point and boiling range: Not available.
Softening range: Not available.
Flash point: >350 ºC
E**vaporation rate:** Not available
Flammability (solid, gas): Not available.
Upper/lower flammability or explosive limits: Not available.
Vapour pressure: Not available.
Vapour density: Not available.
Relative density: >1 (Water = 1)
Density (g/cm³): >1 g/cm³
Bulk density: Not available.
Solubility: Insoluble in the following materials: cold water.
Solubility in water: Not available.
Partition coefficient: n- octanol/water: Not available.
Auto-ignition temperature: > 400 ºC
Decomposition temperature: >300ºC
Viscosity: Not available.
Explosive properties: Not available.
Oxidising properties: Not available.

9.2 Other information

Minimum ignition temperature: 400 ºC
Dust explosion class: St1 - moderately explosive.

SECTION 10: Stability and reactivity

10.1 Reactivity: No specific test data related to reactivity available for this product or its ingredients.
10.2 Chemical stability: The product is stable.
10.3 Possibility of hazardous reactions: Under normal conditions of storage and use, hazardous reactions will not occur.
1**0.4 Conditions to avoid:** No specific data.
10.5 Incompatible materials: No specific data.
10.6 Hazardous decomposition products: No specific data.
Remarks: At processing temperatures some degree of thermal degradation may occur. see section 5.

SECTION 11: Toxicological information

11.1 Information on toxicological effects
Acute toxicity

Conclusion/Summary:	Not available.
Acute toxicity estimates:	Not available.

Irritation/Corrosion
Conclusion/Summary

Eyes:	Not available.
Skin:	Not available.
Respiratory:	Not available.

Sensitisation
Conclusion/Summary

Skin:	Not available.
Respiratory:	Not available.

Mutagenicity
Conclusion/Summary: Not available.
Carcinogenicity
Conclusion/Summary: Not available.
Reproductive toxicity
Conclusion/Summary: Not available.
Teratogenicity
Conclusion/Summary: Not available.

Specific target organ toxicity (single exposure):	Not available.
Specific target organ toxicity (repeated exposure):	Not available.
Aspiration hazard:	Not available.

Potential acute health effects

Eye contact:	No known significant effects or critical hazards.
Inhalation:	No known significant effects or critical hazards.
Skin contact:	Heated material can cause thermal burns resulting in pain, redness, blistering.
Ingestion:	No known significant effects or critical hazards.

Symptoms related to the physical, chemical and toxicological characteristics

Eye contact / Inhalation: No specific data.
Skin contact: No specific data.
Ingestion: No specific data.
General: No known significant effects or critical hazards.
Carcinogenicity: No known significant effects or critical hazards.
Mutagenicity: No known significant effects or critical hazards.

Teratogenicity: No known significant effects or critical hazards.
Developmental effects: No known significant effects or critical hazards.

Fertility effects: No known significant effects or critical hazards.

Remarks: The components of this product are embedded in an impervious polymer matrix and are therefore not biologically available. The likelihood of adverse health effects arising from normal use of the product is considered very low.

SECTION 12: Ecological information

12.1 Toxicity

Conclusion/Summary: Not available.

12.2 Persistence and degradability

Conclusion/Summary: Not available.

12.3 Bioaccumulative potential

12.4 Mobility in soil

Soil/water partition coefficient (KOC): Not available.
Mobility: Not available.

12.5 Results of PBT and vPvB assessment

PBT: Not applicable.
vPvB: Not applicable.

12.6 Other adverse effects: No known significant effects or critical hazards.

Remarks: This product is not biodegradable and not toxic to aquatic organisms. The components of this product are embedded in an impervious polymer matrix and are therefore not biologically available.

SECTION 13: Disposal considerations

The information in this section contains generic advice and guidance. The list of Identified Uses in Section 1 should be consulted for any available use-specific information provided in the Exposure Scenario(s).

13.1 Waste treatment methods

Product

Methods of disposal:
The generation of waste should be avoided or minimized wherever possible. Disposal of this product, solutions and any by-products should at all times comply with the requirements of environmental protection and waste disposal legislation and any regional local authority requirements. Dispose of surplus and non-recyclable products via a licensed waste disposal contractor. Waste should not be disposed of untreated to the sewer unless fully compliant with the requirements of all authorities with jurisdiction. Waste packaging should be recycled.
Incineration or landfill should only be considered when recycling is not feasible. This material and its container must be disposed of in a safe way. Empty containers or liners may retain some product residues. Avoid dispersal of spilt material and runoff and contact with soil, waterways, drains and sewers.

Hazardous waste:
Within the present knowledge of the supplier, this product is not regarded as hazardous waste, as defined by EU Directive 91/689/EEC.

Packaging
Methods of disposal:
The generation of waste should be avoided or minimized wherever possible. Waste packaging should be recycled. Incineration or landfill should only be considered when recycling is not feasible.

Special precautions:
This material and its container must be disposed of in a safe way. Empty containers or liners may retain some product residues. Avoid dispersal of spilt material and runoff and contact with soil, waterways, drains and sewers.

SECTION 14: Transport information

	ADR/RID	ADN	IMDG	IATA
14.1 UN number	Not regulated.	Not regulated.	Not regulated.	Not regulated.
14.2 UN proper shipping name	-	-	-	-
14.3 Transport hazard class(es)	-	-	-	-
14.4 Packing group	-	-	-	-
14.5 Environmental hazards	No.	No.	No.	No.
Additional information	-	-	-	-

14.6 Special precautions for user
Transport within user's premises: always transport in closed containers that are upright and secure. Ensure that persons transporting the product know what to do in the event of an accident or spillage.

14.7 Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code
Not available.

SECTION 15: Regulatory information

15.1 Safety, health and environmental regulations/legislation specific for the substance or mixture EU Regulation (EC) No. 1907/2006 (REACH)

Annex XIV - List of substances subject to authorization
Annex XIV
None of the components is listed.
Substances of very high concern
None of the components is listed.
Annex XVII - Restrictions on the manufacture, placing on the market and use of certain dangerous substances, mixtures and articles
Not applicable.

International regulations
Chemical Weapon Convention List Schedules I, II & III Chemicals

Full text of abbreviated H statements: Not applicable.
Full text of classifications [CLP/GHS]: Not applicable.
Full text of abbreviated R phrases: Not applicable.
Full text of classifications [DSD/DPD]: Not applicable.

Alterations compared to the previous version:
Alterations compared to the previous version are marked with a little (blue) triangle.

Abbreviations and acronyms:
ATE = Acute Toxicity Estimate
CLP = Classification, Labelling and Packaging Regulation [Regulation (EC) No. 1272/2008]
DMEL = Derived Minimal Effect Level
DNEL = Derived No Effect Level
EUH statement = CLP-specific Hazard statement
PBT = Persistent, Bioaccumulative and Toxic
PNEC = Predicted No Effect Concentration
RRN = REACH Registration Number
vPvB = Very Persistent and Very Bioaccumulative

Training advice:
Before handling this substance/preparation, the personnel involved should be instructed by means of this safety data sheet.

Notice to reader
The information contained in the Safety Data Sheet is based on our data available on the date of publication. The information is intended to aid the user in controlling the handling risks; it is not to be construed as a warranty or specification of the product quality. The information may not be or may not altogether be applicable to combinations of the product with other substances or to particular applications.