



SAFETY DATA SHEET

In accordance with paragraph (d) of 29 CFR 1910.1200:2012
Regulation (EU) No. 1907/2006,

Section 1. Chemical Product and Company identification

Product Name: KODAK 3D Printing Filament FLEX 98

Importer: Smart International Inc.
2035 Sunset Lake Road
Newark, Delaware 19702
USA.
Email: support@smart3d.tech
USA Emergency Poison Control Hot Line (24/7):
1 (800) 222-1222 or call your LOCAL POISON CONTROL
CENTER.

Section 2. Hazards Identification

GHS Classification: Not applicable

GHS label elements

Hazard symbols: None needed.
Signal word: None needed.
Hazard statement: None needed.

Precautionary statements

Prevention: None needed.
Response: None needed.
Storage: None needed.

EU Classification

Classification of substance or mixture:

REGULATION (EC) No 1272/2008

This product is not classified as dangerous according to EC criteria.

Disposal

Dispose of contents/container in accordance with local/regional/national/international regulation.

OSHA Regulatory Status

This product is not considered hazardous by the 2012 OSHA Hazard Communication Standard (29 CFR 1910.1200)

Other hazards which do not result in classification:

NFPA rating: (0-4 steps) Health=1, Flammability=0, Reactivity=0



Section 3. Composition

Chemical name: Thermoplastic Polyurethane (TPU)
Chemical Family: Polymer, thermoplastic copolymer.
Product Use: Monofilament for FFF 3D Printing

Chemical name	CAS n./ECL n./EINECS n.	Contents (%)
Aromatic Polyether-based Thermoplastic Polyurethane	75701-44-9	>98

Section 4. First Aid Measures

Inhalation:

No data available. Not expected to be harmful. Dust may cause irritation of the upper respiratory tract. Epsilon-caprolactam solid: LD50/ inhalative/ rat > 8.16 mg/kg.

Ingestion:

There were no target organ effects noted following ingestion in animal studies. Polyamide 6: LD50/ oral/ rat > 3200 mg/kg. Epsilon-caprolactam solid: LD50/ oral/ rat > 1475-1876 mg/kg.

Eye/Skin:

There were no target organ effects noted following dermal exposure in animal studies Did not cause skin allergic reactions in skin sensitization studies using guinea pigs. Molten material may cause burns. Epsilon-caprolactam solid: LD50/ dermal/ rabbit > 2000 mg/kg.

Genotoxicity:

Not mutagenic in AMES Test (rat).

Notice to Physician

It is unlikely that first aid shall be needed if the product is used under ordinary conditions. Treat symptomatically according to victim's conditions and specifics of incident.

Antidote

None known. Treat symptomatically and supportively.

Section 5. Fire-fighting Measures

Flammability:

Autoignition temperature: No data available.

Suitable extinguishing media

Water, foam, regular dry chemical, carbon dioxide.

Unsuitable extinguishing media



None known.

Specific hazards arising from the chemical

Avoid generating dust. Fine dust dispersed in air in sufficient concentrations, and in the presence of an ignition source is a potential dust explosion hazard.

Hazardous Combustion Products

Carbon monoxide, Carbon dioxide, Nitrogen oxides (NO_x), Sulphur oxides (SO_x).
Levels of fire hazard: Not available

Fire fighting procedures and equipments

Wear appropriate personal protective equipment (see section 9. EXPOSURE CONTROLS/PERSONAL PROTECTION).

Avoid inhalation of smoke or gas when fire fighting. Use self contained breathing apparatus (SCBA) for protection against possible exposure.

Isolate hazard area and deny entry. Stay upwind and keep out of low areas. Move container from fire area if it can be done without risk.

Cool containers with water until well after fire is out.

Special Protective Equipment and Precautions for Firefighters

Avoid inhalation of material or combustion by-products. Stay upwind and keep out of low areas.

Section 6. Accidental Release Measures

Personal Precautions, Protective Equipment and Emergency procedures

Perform in accordance with section 9. EXPOSURE CONTROLS/PERSONAL PROTECTION. Wear full protective fire fighting gear including self contained breathing apparatus (SCBA) for protection against possible exposure.

Methods and Materials for Containment and Cleaning Up

Where possible allow leak of molten material to solidify before disposal in an appropriate container. Dispose in accordance with all applicable regulations.

Environmental Precautions

Avoid dispersal of spilt material and runoff and contact with waterways, drains, sewers and basements or confined areas. If large spills, advise emergency services. Comply with all applicable regulations on spill and release reporting.

Section 7. Handling and Storage

Handling

Keep away from the molten plastic while printing in case of being burned.

Storage

Store at temperatures not exceeding 50°C/122°F. Keep cool. Avoid heat, flames, sparks and other sources of ignition. Keep away from incompatible materials.



Incompatible Materials
Oxidizing agents.

Section 8. Exposure Controls & Personal Protection

Component Exposure limit

Exposure limit under ISHL Not applicable

ACGIH Not applicable

Biological exposure limits Not applicable

EU - Occupational Exposure (98/24/EC) - Binding Biological Limit Values and Health

Surveillance Measures

There are no biological limit values for any of this product's components.

Engineering Controls

A system of local and/or general exhaust ventilation system is recommended to keep exposure below the Exposure Limits. Local exhaust ventilation is considered sufficient to effectively remove emissions (dusts and fumes) of the contaminant at its source, preventing dispersion during handling or thermal processing.

Personal Protective Equipment

Respiratory Protection

No respirator is required under normal conditions of use. Under conditions of frequent use or heavy exposure, Respiratory protection may be needed

Eye/face/skin Protection

None during normal use. Protect against molten solid by wearing protective gloves.

Section 9. Physical & Chemical Properties

Appearance:	Monofilament, spool
Physical State:	Solid
Odor:	Odorless, plastic
pH:	Not available
Freezing point:	Not available
Melting point:	Not available
Initial Boiling Point/Boiling Ranges:	Not available
Evapourating Rate:	Not available



Flammability (solid, gas):	Not available
Upper/Lower Flammability or explosive limits:	Not available
Vapour pressure:	Not available
Solubility:	Insoluble.
Vapour density (Air=1):	Not available
Relative density:	1-1.1
Partition coefficient of n-octanol/water:	Not available
Autoignition Temperature :	Not available
Decomposition Temperature:	Not available
Viscosity:	Not available
Molecular weight:	Not available

Section 10. Stability & Reactivity

Reactivity/Stability

This product is chemical stable under recommended storage, handling, use and temperature conditions.

Possibility of Hazardous Reaction

Will not polymerize.

Conditions to Avoid

Avoid contact with heat, sparks, flame or other ignition sources.

Materials to Avoid

Strong oxidizing agents such as liquid chlorine and concentrated oxygen.

Hazardous Decomposition Products

Gas/steam, oxides of carbon, oxides of nitrogen, HCN, acrylonitrile, styrene monomer.

Section 11. Toxicological Information

Information on the likely routes of exposure

Inhalation:

No data available. Not expected to be harmful. Dust may cause irritation of the upper respiratory tract.

Ingestion:

No data available. Not expected to be harmful.



Eye/Skin:

No data available. Not expected to be harmful. Molten material may cause burns.

Genotoxicity:

No data available. Not expected to be harmful.

Medical Conditions Aggravated by Exposure

No data available.

Section 12. Ecological Information

Ecotoxicity

No data available.

Persistence and Degradability

No data available.

Bioaccumulative Potential

No data available.

Mobility

No data available.

Section 13. Disposal Considerations

Disposal methods

Dispose of contents/container in accordance with applicable local, regional, national, and/or international laws and regulations. Avoid release to the environment. Incineration should be done in accordance with prevailing municipal, state, and federal laws and standards from local environmental agencies.

Section 14. Transport Information

US DOT Information

UN/NA number: Not regulated for transport of dangerous goods

Proper shipping name: None

Hazard class: Not applicable

Packing group: None

IMDG:

UN/Id No.: Not regulated for transport of dangerous goods

Proper shipping name: None

Hazard class: Not applicable

Packing group: None

ICAO/IATA:

UN-No.: Not regulated for transport of dangerous goods



Proper shipping name: None
Hazard Class: Not applicable.
Packing group: None

Section 15. Regulatory Information

U.S. Federal Regulations
SARA 313 Not listed
OSHA (29CFR 1910.1200): Not listed

EC Classification: Not listed.

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Disclaimer

This SDS, based on current knowledge and experience, contains a general summary of hazards and is consistent with the information provided by the supplier. No liability can be assumed for the accuracy and completeness of this information.

The information in this SDS applies for this specific material only. It therefore does not apply for its usage in combination with other materials or ways of processing.

It is user's responsibility to read and understand this information and incorporate it into individual safety programs, according to all legal and regulatory applicable procedures.

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