

PA 6/66 · 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

Smart3D Polyamide 6/66

Importer

Industry Supplies, 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

Precautionary statements

GHS label elements Hazard symbols

None needed

Prevention

None needed

Signal word

None needed

Response

None needed

Hazard statement

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.

OSHA Regulatory Status

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

Disposal

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

Other hazards

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

Section 3. Composition

Chemical name

Co-polyamide (6/66)

Chemical family

Polymer, thermoplastic copolymer / Epsilon-caprolactam solid

CAS n./ ECL n./ EINECS n.

24993-04-2

CAS n./ ECL n./ EINECS n.

105-60-2/203-313-2

Product use

Monofilament for FFF 3D Printing

Contens (%)

>95

Contens (%)

<5

Section 4. First-Aid Measures

Skin contact

It is unlikely that first aid shall be needed. In case of contamination, rinse skin with running water. Molten material may cause thermal burns. Get medical attention when in case of burn or skin irritation.

Inhalation

Heating may release irritating fumes. Move exposed person to fresh air keep at rest in a comfortable position. Drink water to clean the throat and blow nose to remove the dust. Get medical advice.

Eye contact

It is unlikely that first aid shall be needed. In case of dust in the eyes, rinse immediately eyes with plenty of water at least 15 minutes. If irritation persists, get medical advice from and ophthalmologist.

Ingestion

There were no target organ effects noted following ingestion in animal studies.

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.

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Section 5. Fire-fighting measures

Flammability

Autoignition temperature: >400°C

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, Hydrogen cyanide (HCN). 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

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Section 8. Exposure Controls / Personal Protection

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

Vapour pressure

Not available

Physical State

Solid

Solubility

Insoluble

Odor

Odorless, plastic

Vapour density (Air=1)

Not available

pH

Not available

Relative density

1.06

Melting point

220-250°C

Partition coefficient of n-octanol/water

Not available

Initial Boiling Point/Boiling Ranges

190°C

Autoignition Temperature

Not available

Flash point

Not available

Decomposition Temperature

>315°C

Evaporating Rate

Not available

Viscosity

235

Flammability (solid, gas)

Not available

Molecular weight

Not available

Upper/Lower Flammability or explosive limits

Not available

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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 above 200°C, sparks, flame or other ignition sources.

Materials to avoid

Strong oxidizing agents such as liquid chlorine and concentrated oxygen.

Hazardous decomposition products

Material does not decompose at ambient temperatures. Combustion or high heat may produce thermal decomposition products that may include carbon monoxide, carbon dioxide dense smoke, and other toxic vapors.

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

Epsilon-caprolactam solid: 105-60-2 Fish: LC50 96 h bluegeil >1000 mg/l Algae: EC50 72 h 130 mg/l Invertebrate: EC50 48 h Daphnia magna >500 mg/l

Persistence and Degradability

The product is biodegradable. 82% after 14 days (OECD 301C) 90-100% DOC after 28 days (OECD 301 A and B).

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.

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Section 14. Transport Information		
US DOT Information UN/NA number Not regulated for transport of dangerous goods	ICAO/IATA UN-No. Not regulated for transport of dangerous goods	IMDG UN-No. Not regulated for transport of dangerous goods
Proper shipping name None	Proper shipping name None	Proper shipping name None
Hazard class Not applicable	Hazard class Not applicable	Hazard class Not applicable
Packing group None	Packing group None	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
Issue date 2017. 10. 28

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