MATERIAL SAFETY DATA SHEET

IDENTIFICATION OF THE SUBSTANCE/PREPARATION AND THE COMPANY/UNDERTAKING

Product name: Filament made of Acrylonitrile, 1,3 Butadiene, and Styrene Co-polymer

Product Use: Polymer which can be used for 3D printing

Chemical type: Thermoplastic

Supplier: Filamania Ltd.

Emergency telephone numbers: +36 30 9 313 973

HAZARDS IDENTIFICATION

Threshold Limit: Not established

Effect of overexposure
Eye Contact: Solid or dust may cause irritation or corneal injury due to mechanical action
Skin Contact: Essentially nonirritating to skin, Mechanical injury only
Skin Absorption: Unlikely due to physical properties
Ingestion: Unlikely due to physical state
Inhalation: Dust may cause irritation to respiratory In case of breathing, fumes released from heated material may cause respiratory irritation
Chronic Effects: Not Available
Mutagenicity: Not Available

COMPOSITION/INFORMATION ON INGREDIENTS

Chemical name and CAS	Contents
ABS(Acrylonitrile-Butadiene-Styrene) 9003-56-9	95 ~ 100%
Typical Stabilizer	0 - 3%
Typical lubricants	0 - 5%

FIRST AID MEASURES

Emergency telephone numbers (+36 30 9313 973):
Eye contact: Rinse immediately with plenty of water, also under the eyelids, for at least 15 minutes. Call a physician immediately.
Skin contact: Essentially nonirritating to skin but rinse with copious water.
Inhalation: In case of breathing, fumes released from heated material may cause respiratory irritation In case of inhaling dense smoke, immediately remove a person to fresh air. If necessary, apply artificial respiration and seek medical attention immediately
Ingestion: If vomiting occurs, lower the head to ease vomiting and seek for medical advice.
Mutagenicity: Not available

FIRE-FIGHTING MEASURES

Flammable Properties
- Flash Point - None
- Method Used – Not applicable
- Auto ignition Temperature - Not applicable

Extinguishing media:	Usually use water and use extinguishing media appropriate to surrounding conditions
Special Fire Fighting Procedure:	Cool Containers with water spray. In closed stores, provide fire fighter with self-contained breathing apparatus in positive pressure mode
Usual Fire and Explosion Hazards:	Irritating gases and dense smoke

ACCIDENTAL RELEASE MEASURES

Personal precautions:	Pellets or beads may present a slipping hazard
Environmental precautions:	Keep out of irrigation ditches, sewers, and water supplies Spills should be collected to prevent contamination of waterways.
Methods for cleaning up:	Sweep up

HANDLING AND STORAGE

Safe handling advice:	Avoid formation of dust Keep bags always closed / Keep container lightly closed Avoid pellets / bags from getting wet
Storage:	Keep bags / containers in a well-ventilated place Avoid pellets / bags from getting wet

EXPOSURE CONTROLS/PERSONAL

Engineering controls:	Good general ventilation should be sufficient for most conditions. Local exhaust ventilation may be necessary for some operations

Personal protective equipment

Eye protection:	Use safety glasses. If the is a potential for exposure to particles which Could cause mechanical injury to the eye, wear chemical goggles
Skin and body protection:	No Precautions other than clean body-covering clothing should be needed.
Respiratory protection:	For most conditions, no respiratory protection should be needed; however, If handling at elevated temperatures without sufficient ventilation, use an approved air-purifying respirator.
Exposure guidelines:	Although some of the additives used in this product may have exposure guidelines, these additives are encapsulated in the product and no exposure would be expected under normal handling conditions

PHYSICAL AND CHEMICAL PROPERTIES

a. Appearance - Pellet
b. Odor - Almost Odorless
c. pH - Neutral
d. Boiling Point - Not applicable
e. Evaporation Rate - Not applicable at standard condition
f. Specific Gravity – 1.05
g. Vapor Pressure - Not applicable at standard condition
h. Vapor Density - Not applicable at standard condition
i. Solubility in Water - Insoluble
j. Solubility in other Solvent - Soluble in THF Acetone and other Analogous Solvents

STABILITY AND REACTIVITY

Stability:	Stable under normal condition
Storage conditions to avoid:	Avoid fire and heating above 60℃
Incompatibility:	None known
Hazardous decomposition products:	Not applicable
Hazardous polymerization:	Not occur

TOXICOLOGICAL INFORMATION

See Section Composition for Potential Health Effects. For detailed toxicological data, call the phone number shown in Section 1.

ECOLOGICAL INFORMATION

Environmental fate	
Movement & Partitioning:	No bioconcentrations expected because of the high molecular weight (MW>1000). In the terrestrial environment, material is expected to remain in the soil. In the aquatic environment, material will sink and remain in the sediment.
Degradation & Persistence:	This water insoluble polymeric solid is expected to the inert in the environment. Surface degradation is expected with exposure to sunlight. No appreciable biodegradation is expected.
Ecotoxicity:	Not Expected to be acutely toxic, but pellets, if ingested by waterfowl or aquatic life, may mechanically cause adverse effects.

DISPOSAL CONSIDERATIONS

Disposal: Do not dump into any sewers, on the ground, or into any body of water. All disposal methods must be in compliance with all Federal, State/Provincial and local laws and regulations. Regulations may vary in different locations. Waste characterizations and compliance with appliance laws are the responsibility solely of the waste generator.

For unused & uncontaminated product, the preferred options include sending to a licensed, permitted: recycler, reclaim, incinerator or other thermal destruction device.

TRANSPORTATION INFORMATION

Not classified as hazardous under transport regulations.