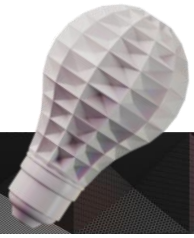

Preparation date: 01-06-2017 Version No.: 2.0

MATERIAL SAFETY DATA SHEET

according to Regulation (EU) No. 1907/2006

ASA by Innofil3D BV

1. IDENTIFICATION OF THE PRODUCT AND OF THE COMPANY

Trade name	:	Innofil3D ASA
Chemical name	:	Acrylonitrile Styrene Acrylate
Chemical family	:	Thermoplastic Copolymer
Use	:	Monofilament for 3D-printing
Company	:	Innofil3D BV
Street address	:	Eerste Bokslootweg 17
Postal code and city	:	7821 AT Emmen
Country	:	The Netherlands
Telephone number	:	+31 (0) 591 820 389

2. HAZARDS IDENTIFICATION

Potential health effects

Eye contact	:	Solid or dust may cause irritation or corneal injury due to mechanical action.
Skin contact	:	Essentially nonirritating to skin, can cause burns when molten.
Ingestion	:	Unlikely to cause problems due to physical properties.
Inhalation	:	Dust may cause irritation to respiratory tract. Fumes released from heated material may cause irritation to the respiratory tract.

3. COMPOSITION/INFORMATION ON INGREDIENTS

Chemical name	:	Acrylonitrile Styrene Acrylate
CAS Number	:	26299-47-8
Weight	:	97-100%

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4. FIRST-AID MEASURES

Eye contact	:	Immediately rinse eyes with copious amount of running water and seek medical advice.
Skin contact	:	Essentially nonirritating. Rinse with water and do not peel off molten material that got onto the skin.
Inhalation	:	Fumes or smoke released from molten material may cause irritation to the respiratory tract, move the person to fresh are. If necessary, apply artificial respiration and seek medical care.
Ingestion	:	If vomiting occurs, lower the head to ease vomiting and seek for medical advice.
Note to physician	:	Treat symptomatically.

5. FIRE-FIGHTING MEASURES

Flammable properties	:	No data available.
Suitable extinguishing media	:	Use water and other extinguishing media appropriate to surrounding conditions.
Hazardous decomposition products	:	Fumes, gases and dense smoke can cause irritation to the respiratory tract.
Special protective equipment for firefighters	:	In case of closed spaces, provide the fire fighter with self-contained breathing apparatus in positive pressure mode.

6. ACCIDENTAL RELEASE MEASURES

Personal precautions	:	Product can cause a slipping hazard.
Environmental precautions	:	Keep out of irrigation ditches, sewers and water supplies.
Methods for cleaning up	:	Sweep up.

7. HANDLING AND STORAGE

Safe handling advice	:	Avoid formation of dust, the product to get wet and contact with hot material during handling.
Storage conditions	:	Keep bags/containers in a well-vertilated place.

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8. EXPOSURE CONTROLS/PERSONAL PROTECTION

Engineering measures	:	Good general ventilation should be sufficient. Local exhaust ventilation may be necessary for some operations.
Personal protective equipment		
Eye protection	:	Use safety glasses or chemical goggles.
Skin and body protection	:	No precautions other that clean body-covering clothing should be needed.
Respiratory protection	:	No respiratory protection should be needed. However, if handling the material at elevated temperatures without sufficient ventilation, use an approved air purifying respirator.
Hand protection	:	Use protective gloves when handling molten material.
Exposure guidelines	:	Although some of the additives used in this product may have expose guidelines, there additives are encapsulated in the product and no exposure would be expected under normal handling conditions.

9. PHYSICAL AND CHEMICAL PROPERTIES

Appearance	:	Filament.
Color	:	Natural white.
Physical state	:	Solid at room temperature.
Odor	:	Almost odorless.
Melting point/range	:	Not applicable.
Boiling point/range	:	Not applicable.
Water solubility	:	Insoluble.
Solubility in other solvents	:	Soluble in THF, Acetone and other Analogous solvents.

10. STABILITY AND REACTIVITY

Stability	:	Stable under normal conditions.
Conditions to avoid	:	Avoid fire and heating above 60 °C in storage.
Incompatibility	:	None known.
Decomposition	:	Not applicable.
Polymerization	:	Does not occur.

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11. TOXICOLOGICAL INFORMATION

See section 3 for potential health effects. Further toxicological information is not known.

12. ECOLOGICAL INFORMATION

Movement and Partitioning	:	No bioconcentration is 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 and persistence	:	This water insoluble polymeric solid is expected to inert in the environment. Surface degradation is expected with exposure to sunlight. No appreciable biodegradation is expected.
Ecotoxicity	:	Not expected to be acutely toxic if ingested by waterfowl or aquitec life, may mechanically cause adverse effects.

13. DISPOSAL CONSIDERATIONS

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

14. TRANSPORT INFORMATION

IMDG	:	Not regulated.
ICAO/IATA	:	Not regulated.

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15. REGULATORY INFORMATION

NOTICE: The information herein is presented in good faith and believed to be accurate as of the print date shown above. However, no warranty, express or implied is given. Regulatory requirements are subject to change and may differ from one location to another; it is the buyer's responsibility to ensure that its activities comply with federal, state or provincial, and local laws. See other sections for health and safety information.

EU regulation 10/2011	:	Listed.
RoHS Directive	:	Certified.
REACH; 1907/2006/EC	:	Certified.
Regulation (EC) No. 1935/2004	:	Compliant.
2023/2006/EC GMP	:	Compliant.
EN 71-3; Toy safety	:	Certified.

16. OTHER INFORMATION

- The information in this Material Safety Data Sheet (MSDS) is mainly based on information used from the supplier of the raw materials which are used for production of the filaments.
- The information in this Material Safety Data Sheet (MSDS) is based on current knowledge and experience. No liability can be assumed for the accuracy and completeness of this information.
- Users should consider this information only as additional to other data gathered. Independent determination of suitability and completeness of information from all available sources is essential to ensure proper and safe use and disposal of these materials.
- The information in this MSDS applies for this specific material only. It therefor does not apply for its usage in combination with other materials or ways of processing.

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