

SAFETY DATA SHEET

UNIVERSAL ABS Hi

According to regulation (EC) 1907/2006
Date of compilation / revision: 19.04.2019
Version / revision n°: 2

1. Identification of the substance/preparation and of the company

- 1.1 Trade name: UNIVERSAL ABS Hi
- 1.2 Chemical name: Acrylonitrile-Butadiene-Styrene
- 1.3 Typical use of the material: Monofilament for FFF/FDM technology based 3D printing
- 1.4 Identification of the company: Tag Plasturgie
N°188 zone industrielle ouest
Mohammedia, Maroc
Tel: +212 (0)5 23 31 51 40
Email: contact@tag-plasturgie.com
- 1.4 Emergency telephone number: ORFILA +33 (0)1 45 42 59 59

2. Identification of the substance/preparation and of the company

- 2.1 Classification of the substance or mixture: The mixture has been assessed and/or tested for its physical health and environmental hazards and the following classification applies.
Classification according to Directive 67/548/EEC or 1999/45/EC: Not classified as hazardous (polymeric state)
Classification according to Regulation (EC) N°1272/2008 (CLP): Not classified as hazardous (polymeric state)
- 2.3 Special advice on hazards: vPvB/PBT assessment: Not available

3. Composition / information on ingredients

- 3.1 Chemical nature: Acrylonitrile-Butadiene-Styrene

CAS	Name	content
9003-56-9	Acrylonitrile-Butadiene-Styrene copolymer	> 98 %
-	Additives	≤ 2 %

- 3.2 CAS number: 9003-56-9

- 3.3 Additional information:

	Pre-registration No.	Registration No.
Acrylonitrile	05-2117149456-38-0000	01-2119474195-34-0045
Styrene	05-2117149462-45-0000	01-2119457861-32-0006 01-2119457861-32-0007 01-2119457861-32-0057 01-2119457861-32-0065 01-2119457861-32-0081
Buta-1,3-diene	05-2117149467-35-0000	01-2119471988-16-0044

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4. First-aid measures

- 4.1 On skin contact: Wash with soap and water. Get medical attention if symptoms occur. In case of contact with molten polymer immediately cool the skin with cold water. Medical aid may be required to remove adhering material and for treatment of burns.
- 4.2 After inhalation: Move to fresh air. Treat symptomatically. Contact a doctor in case of discomfort.
- 4.3 On ingestion: No effects know. Rinse mouth with water and drink more water. Contact a doctor in case of discomfort.
- 4.4 On eyes contact: Rinse open eyes thoroughly with water. Get medical attention if symptoms persist. If molten material contacts the eye, immediately flush with plenty of water for at least 15 minutes.
- 4.5 Most important symptoms & effects both acute & delayed: Skin irritation, eye irritations and redness

5. Firefighting measures

- 5.1 Suitable extinguishing media: Foam, water spray, dry extinguishing media, CO₂
- 5.2 Specific hazards: Carbon monoxide (CO), carbon dioxide (CO₂), and hydrocarbons during incomplete combustion. The substances mentioned can be releases at highly elevated temperatures and in case of fire.
- 5.3 Special protective equipment: Full protective clothing and self-contained breathing apparatus.
- 5.4 Further information: -

6. Accidental Release Measures

- 6.1 Personal precautions: Use personal equipment/closing (see Section 8). Avoid eye contact and dust formation and remove all sources of ignition. Sweep up to prevent slipping hazard.
- 6.2 Environmental precautions: Prevent entry into drainage systems, or surface water.
- 6.3 Methods for cleaning up: Sweep/shovel into suitable container for disposal. Avoid raising dust and ensure adequate ventilation.

7. Handling and storage

- 7.1 Handling: Handle in a well ventilated area. Install local exhaust at 3D printers area is recommended when many printers are operated at once. Avoid contact with heated or molten product. Use personal protective equipment (Section 8). Avoid dust formation and electrostatic charge. Keep away from fire ignition sources.

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7.2 Storage:	Protect from water, moisture and direct sunlight. Store material in dry rooms and keep material in closed packaging/container with desiccant when not in use. Store at ambient temperatures. Avoid all sources of ignition.
7.3 Precautions:	No special precautions required.
7.4 Specific end use(se):	Primarily used for 3D Printing.

8. Exposure controls / personal protection

8.1 Occupational exposure limits:	Given suitable ventilation it can be that the threshold limits will not be reached.
8.2 Exposure controls:	Provide appropriate exhaust ventilation at places where dust is formed. Avoid electrostatic charge by use of grounding cables.
<u>8.3 Personal protective equipment</u>	
8.3.1 Hand protection:	Wear heat protection gloves, preferably cotton or leather, when handling hot melt product.
8.3.2 Eye protection:	Wear protective glasses, preferable with side-shields.
8.3.3 Skin and body protection:	Wear (protective) clothing to avoid direct exposure of skin to hot molten product when handling.
<u>8.4 Environmental exposure controls</u>	
8.4.1 Product related measures to prevent exposure:	None specific
8.4.2 Instruction measures to prevent exposure:	None specific
8.4.3 Organizational measures to prevent exposure:	None specific
8.4.4 Technical measures to prevent exposure:	None specific
8.4.5 Environmental exposure controls:	Do not allow product to reach sewage system or water bodies

9. Physical and chemical properties

9.1 Form:	Filament
9.2 Color:	Natural or off-white
9.3 Odor:	Odorless or negligible
9.4 Melting point:	Not determined
9.5 Auto-ignition temperature:	466°C
9.6 Explosions limit:	Not explosive
9.7 Density:	1.03 – 1.10 g/cc
9.8 Solubility in water:	Not soluble
9.9 Decomposition Temperature:	> 300°C

10. Stability and reactivity

10.1 Stability:	Product is stable at recommended storage conditions.
10.2 Conditions to avoid:	Avoid excessive heat, flames and all sources of ignition
10.3 Incompatible materials:	Not applicable
10.4 Hazardous reactions:	-

11. Toxicological information

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11.1 Information on toxicological effects:

Toxicological data has not been determined for this product. Information is based on similar products.

11.1.1 Acute toxicity

Inhalation:
Ingestion:
Skin contact:
Eye contact:

Not data available
After ingestion stomach pain or nausea are possible.
No data available, may cause irritations
No data available, may cause irritations

11.1.2 Irritation

Skin:
Eye:

Dust can cause irritation of eyes, respiratory organs and skin.
Dust can cause irritation of eyes, respiratory organs and skin.

11.1.3 Sensitization:

Not expected to be a skin sensitizer.

11.1.4 Repeated dose toxicity:

Not expected to cause toxic effects.

11.1.5 Carcinogenicity:

No data available, but not expected.

11.1.6 Mutagenicity:

No data available, but not expected.

11.1.7 Toxicity for reproduction:

No data available, but not expected.

11.2 Other information:

This product has no known adverse effect on human health

12. Ecological information

12.1 Information on eco-toxicity:

The product is not classified as environmentally hazardous. However, this does not exclude the possibility that large of frequent spills can have a harmful or damaging effect on the environment.

12.1.1 Ecological toxicity effects:

No data available

12.2 Mobility in soil:

No data available

12.3 Persistence and degradability:

Product is not readily biodegradable
The product is likely to persist in environment

12.4 Bioaccumulation potential:

To avoid bioaccumulation plastics should not be disposed in the sea or in other water environments.

13. Disposal considerations

13.1 Product:

Generation of waste should be minimized, check possibility for recycling. Waste product can be incinerated or dumped together with domestic waste in compliance with local authority requirements.

13.2 Packaging:

Packaging material has to be emptied completely and disposed in accordance with the regulations. Packaging can be recycled if not contaminated.

14. Transport information

14.1 ADR
14.2 RID

Not regulated as dangerous goods
Not regulated as dangerous goods

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14.3 AND
14.4 IATA
14.5 AMDG

Not regulated as dangerous goods
Not regulated as dangerous goods
Not regulated as dangerous goods

15. Regulatory information

15.1 EU regulations: The following substances are under European Seveso regulation:

Substance	Seveso category	Other Seveso categories	Seveso concentrations	Categories
Acrylonitrile	2	9ii 7b	10 % ≤ C < 20 %	2
Buta-1,3-diene	0	8	-	-
Styrene	6	-	C ≥ 12,5 %	-

16. Other information

Further information:

According to the guidance version 2.0 for monomers and polymers from the European Chemicals Agency dated as of April 2012, the classification of the polymer takes into account the classification of all its constituents, such as unreacted monomers. These constituents in fact should be taken into account for classification of the polymer. This means that the same classification methods as for mixture should be applied to polymer substances.

This data is based on the current state of our information and experience.

This safety data sheet describes our product in terms of safety requirements. Preceding data is not applicable as a warranty of product properties. It is the responsibility of the recipient to observe the existing legal regulations for use of this product.

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