MATERIAL SAFETY DATA SHEET

(DIRECTIVE 1907/2006/CE)

1. IDENTIFICATION OF THE SUBSTANCE/PREPARATION AND THE COMPANY/UNDERTAKING

1.1. Identification of the substance/preparation

Chemical denomination: PMMA
Commercial name: HIRMA – High impact resistance modified acrylic

1.2. Use of substance/preparation

Additive printing filaments production

1.3. Identification of the company/undertaking

Sa2p sas/Treed Filaments
Via Messina 101, 20831 Seregno (MB) Italy
Ph. +39 0362 320500
Email: info@treedfilaments.com

1.4. Emergency telephone number

Ph: +39 0362 320500

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2. COMPOSITION/INFORMATION ON INGREDIENTS

2.1 The preparation is composed by:

Poly Methyl Methacrilate, colorants and/or pigments if necessary.
CAS N° 9011 – 14-7

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3. HAZARDS IDENTIFICATION

3.1. Classification:

The preparation is not classified as dangerous according to CEE 1999/45 and 67/548 directives and updates.

3.2. Potential Health Effects:

The preparation is considered harmless for human health as it is and when exposed to normal and predictable production process and storage.

According with EU directives it is not dangerous. See section 4 and 11 for further information.

3.3. Potential Environmental Effects

The preparation in normal storage and processing conditions is inert and does not show environmental hazards.

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4. FIRST AID MEASURES

4.1. General information:

The measures indicated are referred to critical situations (fire, wrong process conditions). At ambient temperature the product is not irritating and does not release harmful smokes

4.2. Eye Contact:

Immediately flush eyes with water. If symptoms develop, get medical attention.

4.3. Skin Contact:

In case of melted product contact, flush area with large amounts of cold water. Do not remove consolidated product. Seek medical attention.

4.4. Inhalation:

In case of excessive smoke inhalation remove to fresh air. Seek medical attention.

4.5. Ingestion:

If necessary, get medical attention. Low toxicity by this route is expected based on biological activity of high molecular weight polyester polymers.

4.6. Specific instruments needed on workplace:

Eyewashes.

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5. FIRE FIGHTING MEASURES

5.1. Extinguishing media:

Water spray, foam, chemical powder and carbon dioxide. Do NOT use straight streams of water.

5.2. Hazardous Combustion Products:

May emit toxic fumes under fire and overheat conditions. At elevated temperatures decomposition may occur resulting in the release of carbon dioxide, carbon monoxide, Mma monomer vapor gas.

5.3. Fire fighting procedures:

Wear approved positive pressure, self-contained breathing apparatus and full protection turn out gear. Use caution in approaching fire.

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6. ACCIDENTAL RELEASE MEASURES

6.1. Health and Safety Precautions:

Avoid walking on filaments to minimize slipping risk.

6.2. Measures for Environmental Protection:

Place waste in an appropriate labeled container for disposal. Do not discharge in sewerage.

6.3. Measures for Cleaning / Collecting:

Collect with available mechanical media. Reuse if possible or dispose in accordance with regulation on waste disposal.

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7. HANDLING AND STORAGE

7.1. General Handling:

No specific risks for manipulation of the material at ambient temperature. Avoid inhalation of smokes during the working process, sufficient ventilation is necessary.

7.2. Storage Conditions:

Keep product away from heat sources and direct sunlight. Store in fresh and well ventilated areas. Keep away from flames and static electricity.

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8. EXPOSURE CONTROLS/PERSONAL PROTECTION

8.1. OEL/PEL:

Breathable powders:	N/A
Total powders:	N/A

8.2. Personal Protective Equipment:

Hands:	Wear impervious gloves if skin contact is possible with melted product.
Eye:	Wear safety glasses if eye contact is possible.
Skin:	Not required for normal use of this product.

Respiratory protection: Adequate laboratory ventilation.

9. PHYSICAL AND CHEMICAL PROPERTIES

9.1. Aspect: Filament

Physical State: Solid

Color: Transparent.

Smell: Slight odor.

Melting point: Min 132°C

Decomposition: 280°C

Autoignition Temp: 393°C

10. STABILITY AND REACTIVITY

10.1. Stability: Stable. Do not heat above 280°C.

10.2. Conditions to Avoid:

Open flames and ignition sources, heat.

10.3. Incompatible Materials:

Oxidizing agents, acids and alkalies.

10.4. Hazardous Decomposition Products:

Major: CO2, H2O, CO. Minor: esters, ketone, methacrylic acid.

11. TOXICOLOGICAL INFORMATION

No data available

12. ECOLOGICAL INFORMATION

12.1. Environmental Overview:

The preparation is a polymer considered non-toxic.

12.2. Bioaccumulation and Toxicity:

Avoid product dispersion, the preparation is not biodegradable.

13. DISPOSAL CONSIDERATIONS

13.1. Disposal procedures:

Observe all local and national regulations when disposing of this material.

13.2. National and European regulations:

Directive 91/156/CEE, Directive 91/689/CEE, Directive 94/62/CEE.

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14. TRANSPORT INFORMATION

No limitations existing.

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15. REGULATION INFORMATION

15.1. Labeling:

The preparation is not classified as dangerous with actual regulation (1999/45/CE), (67/548/CEE) and updates. Labeling not required.

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16. OTHER INFORMATION

This safety data sheet is provided according to directive 1907/2006/CE and 91/155/CE.

DISCLAIMER

The Information presented herein has been compiled from sources considered to be dependable and is accurate to the best of our knowledge. However, since data, safety standards, and government regulations are subject to change and the conditions of handling and use, or misuse are beyond our control, Sa2p Treed Filaments makes no warranty expressed or implied, with respect to completeness or continuing accuracy of the information contained herein and disclaims all liability for reliance thereon. User should satisfy himself that he has all current data relevant to his particular use.