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## Material Safety Data Sheet

Issued on April 24 2015

### 1. CHEMICAL PRODUCT AND COMPANY IDENTIFICATION

Product name: ABS Filament for 3D Printer

55015	VERBATIM 3D PRINTER FILAMENT ABS 1.75MM 1KG TRANSPARENT (n)
55019	VERBATIM 3D PRINTER FILAMENT ABS 2.85MM 1KG TRANSPARENT (n)

Brand: Verbatim  
Company name: Mitsubishi Kagaku Media Co., LTD.  
Address: Daini Ryumeikan Bldg. 8F 3-20, Kandaogawmachi,  
Chiyoda-ku, Tokyo 101-0052, Japan  
Department: Archive Business Development Department  
Telephone: +81-3-5577-3095  
Fax: +81-3-3295-0680  
Reference number: 3DF-150421-02E  
Recommended use and restriction on use: 3D Printer Filament for Material Extrusion  
type

### 2. HAZARDS IDENTIFICATION GHS Classification:

Physical hazards: Classification not applicable  
Health hazards: Classification not applicable  
Environmental hazards: Classification not applicable

GHS Label elements:  
Pictogram or symbol: Not applicable.  
Signal word: Not applicable.  
Hazard statement: No relevant information.  
Precautionary statement:  
Safety measures: Do not breathe dust/fume/gas/mist.  
Response: Get medical attention/advice if you feel  
unwell.  
Storage: Keep away from fire.  
Disposal: Store indoors at ambient temperature.  
Do not dump into sewers, on the ground or  
into any body of water.

Burn in an adequate incinerator or bury in landfill in accordance with applicable local, state, and federal regulations.

### 3. COMPOSITION/INFORMATION ON INGREDIENTS

Chemical substance/mixture: A mixture  
 Chemical name or generic name: ABS-Methyl methacrylate Polymer  
 Chemical properties (chemical formula, etc): No relevant information.

Contents:

No.	Content	CAS number	Chemical	Content (%)
1	ABS-Methyl methacrylate Polymer	9003-56-9	(C <sub>5</sub> H <sub>8</sub> O <sub>2</sub> , C <sub>3</sub> H <sub>3</sub> N, C <sub>4</sub> H <sub>5</sub> , C <sub>8</sub> H <sub>8</sub> ) <sub>n</sub>	More than 98%
2	Additive & Pigment	Not disclosed	Not disclosed	Less than 2%

No.	ENCS; Japanese Existing and New Chemical Substances	ISHL; Industrial Safety and Health Law Number
1	-	-

Poisonous and Deleterious substances Control Law: Not applicable

### 4. FIRST AID MEASURES

If inhaled: If you feel unwell by inhalation of vapor or gas, move to fresh air and keep at rest in a position comfortable for breathing. Call a doctor if you feel unwell.

If on skin: In case of contact with melted material, fully cool down by pouring plenty of water over the clothing. Then take off clothing, cover with clean gauze and get medical attention immediately. Get medical attention if appearance changes, irritating pain occurs or feeling unwell.

If in eyes: Immediately rinse the eye with plenty of clean running water for at least 15 minutes. Remove contact lenses, if present and easy to do. Rinse thoroughly the inner side of the eye lid. Get medical attention as soon as possible.

If swallowed: If swallowed by accident, keep at rest and get medical attention immediately. Avoid vomit entering into respiratory tract. Do not induce vomiting unless instructed by a doctor.

Protection of the person who gives the first aid: Wear appropriate protective equipment (protective glasses, protective mask, gloves, etc.). Provide ventilation.

## 5. FIRE-FIGHTING MEASURES

Suitable extinguisher media: All types of fire extinguisher include water.

Specific fire fighting method, protection for fire-fighter:

- Fight fire responding to the fire in vicinity.
- Wear appropriate protective equipment (heat-proof clothing, etc.).
- Remove flammable substances from surroundings immediately.
- Fight fire from windward.
- Restrict the area around fire to unauthorized personnel and prevent secondary disaster.

## 6. ACCIDENTAL RELEASE MEASURES

Personal precautions, protective equipment and emergency procedures:

- Wear appropriate protective equipment (gloves, protective mask, apron, goggles, etc.).
- Collect the residual filament from the floor to prevent falls.

Environmental precautions: Care should be taken to avoid environmental impacts caused by release to rivers, etc.

Methods, materials for containment and cleaning up:

- Treat the contaminated materials and waste in accordance with the relevant laws and regulations.
- If released, sweep and collect in an empty container.

## 7. HANDLING AND STORAGE

Handle in a well-ventilated area.

It is recommended to install exhaust systems where many printers are used simultaneously.

Keep away from fire (ignition source) and store at ambient temperature.

Storage:

Protect from water, moisture and direct sunlight and store indoors at ambient temperature and well-ventilated.

## 8. EXPOSURE CONTROLS/PERSONAL PROTECTION

Protective equipment:

Respiratory protection:

- Wear appropriate protective equipment to avoid inhalation or contact of gas generated from high temperature molten resin.

Hand protection:

- Wear protective gloves.
- It is preferable to wear cotton work gloves or leather gloves when handling the melted resin.

Eye protection:

- Wear protective glasses when handling.

Skin and body protection: Wear clothing to avoid direct exposure of skin to molten resin.

## 9. PHYSICAL AND CHEMICAL PROPERTIES

Appearance Physical state:	Solid (Filament Shape)
Melting point:	About 100 °C
Flash Point:	404 °C
Auto ignition Point	466 °C
Combustibility:	Product is not self-igniting.
Specific gravity (relative density):	1.03 to 1.10 g/cm <sup>3</sup>
Solubility in water:	Insoluble

## 10. STABILITY AND REACTIVITY

Stability (possibility of hazardous reactions):

Stable under normal storing/handling conditions.  
The product is stable at ambient temperature.  
When it decomposes, carbon hydride, hydrogen cyanide, Acrylonitrile, styrene, methacrylate ester, nitric oxide, other hazardous gases can be generated.

Self-reactivity: None

## 11. TOXICOLOGICAL INFORMATION

Other: Acute toxicity: Unknown

## 12. ECOLOGICAL INFORMATION

Handle with care when releasing or disposing of the product because it may cause effect to the environment.

Do not dispose of or release to the sea and water area to avoid intake by marine organism or birds.

## 13. DISPOSAL CONSIDERATIONS

Do not dump into sewers, on the ground or into any body of water. Burn in an adequate incinerator or bury in landfill in accordance with applicable local, state, and federal regulations.

## 14. TRANSPORT INFORMATION

Follow the instructions in "HANDLING AND STORAGE".

International regulation:

UN classification: Not applicable to the dangerous goods under UN classification.

Land transport: Follow all local regulations in your country.

## 15. REGULATORY INFORMATION

Follow all regulations in your country.

## 16. OTHER INFORMATION

The descriptions herein are based on the currently available sources and information but no guarantee is given for the integrity or accuracy regarding the given data and evaluation.

The precautions herein are for normal handling. If you use this product under special conditions, take new safety measures appropriate for the use and usage.