

[Plastic Optical Fiber] [Mitsubishi Rayon Co., Ltd.] [SJEB-01E] [2003/12/2] [1/ 3]

MATERIAL SAFETY DATA SHEET

Original issued: Apr./1/1999

Revised: Dec/2/2003

1. Product(s) and Company Identification

Products name: Plastic Optical Fiber
Eska, Super Eska, Eska Premier, Eskamega
Company name: Mitsubishi Rayon Co., Ltd.
Address: 6-41, Konan 1-chome, Minato-Ku, Tokyo 108-8506, Japan
Section in charge: Information Material Production Technology Department
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Document ID number: SJEB-01E

2. Chemical Composition, Material Information

Single product/Mixture: Single product
Chemical name: Polymethylmethacrylate (PMMA), Fluorinated resin
Ingredients and contents: PMMA 90-99%
Official Gazette ID No.: (6)-1188 (The law concerning "Examination and Regulation of Manufacturer, etc. of Chemical Substances" and "The Industrial Safety and Health Law")
CAS No. 9011-14-7

3. Hazardous Ingredients

Categorization: Not applicable

4. First Aid Measures

Skin: No adverse effects anticipated by this route of exposure
Eye: Immediately flush with copious amounts of water. If itching or any unusual sensation develops, get prompt medical attention.
Ingestion: No oral adverse effects reported, get medical attention if necessary.

5. Fire Fighting Measures

Fire-fighting measures: Wear self-contained breathing apparatus in the case that toxic gas, such as carbon monoxide and/or methylmethacrylate may be produced.
Extinguishing media: Water fog, foam and water spray, dry-chemical or carbon dioxide

6. Accidental Release Measures

Immediately keep away from sources of ignition, sweep up and discard in proper measures.

7. Handling & Storage Measures

Handling: Keep away from sources of ignition
Storage: Avoid ignition source and direct sun exposure

8. Exposure Controls/ Personal Protection

Control concentricity: Not applicable
Allowed concentricity: Not applicable

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9. Physical & Chemical Properties

Appearance: solid
pH: Not applicable
Flash point: Over 400°C
Physical transition temperature
Melting point: No explicit melting point observed, gradually soften in the temperature range from 130°C to 150°C
Decomposition temperature: Approximately 300°C
Specific gravity: 1.19
Solubility: Insoluble in water, soluble in organic solution such as chloroform

10. Stability & Reactivity

Stability: Stable under normal condition
Hazardous decomposition product:
By heating over 300°C, PMMA can be decomposed into methylmethacrylate which is slightly toxic. The methylmethacrylate monomer gas may irritate eyes and/or respiratory organs, or may cause unpleasant symptom such as dizziness, vomiting or headache. Heating may also produce corrosive HF gas.

11. Toxicological Information

Acute toxicity: No data
Biologically and ecologically inactive, no effects anticipated.

12. Ecological Information

Biodegradability: No data
Bioaccumulation: No data
Fish toxicity: No data
Environmental effects: Do not discard in oceans, rivers, lakes or ponds to avoid aquatic animals and birds to eat the disposals.

13. Disposal consideration

Scrap of the products may be incinerated or landfilled under properly controlled conditions. The incineration facility should have appropriate acid endurable furnace with counteracting functionality against fluorinated acid gas to avoid the effects of the toxic gas that can be generated from fluorinated resins. Observe the law(s) and the local regulation(s) that shall be applied. Combustion energy of Polymethylmethacrylate: 26.3kJ/g according to the measurement by Mitsubishi Rayon.

14. Transport Information

United nations classification and Serial No: Not applicable
Precautions: Handle with proper attention to avoid damaging the packages. Avoid sun exposure, water soaking, moisture exposure and high temperature.

15. Regulatory Information

Fire service law Flammable resins (>3,000kg)
PRTR Not applicable

16. Other Information

None

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Precautions

This MSDS (Material Safety Data Sheet) may be revised by newly obtained data or information, although the document is based on reliable academic and industrial information and data, which are available at the time prepared.

The precautions described in the MSDS, are applied to those case of the normal handlings and conditions. For each specific case, depending on each application, please consult with manufacturer or take appropriate actions based on proper evaluations of safety concerning the products by the users themselves, in advance.

Please understand that unknown risk or toxicity information regarding the products at the time the MSDS prepared may become known or revealed in the future.

The intention of the MSDS is to supply safety information, and NOT to guarantee the life or health of the person that handles the product(s), neither responsibility to compensation of the property damage or loss concerning the use of the product(s).

The user of the product(s) is responsible to the safety of the applications of the products and will consider the law(s), regulation(s) and/or product specifications, which should be applied to the products and its applications.

Risk level, physical & chemical properties and toxicity parameters described in the MSDS do not imply the guarantee of the performance and/or functionality of the products, by the manufacturer.

Please contact manufacturer or contact person appeared in the top page, if users have any questionnaires regarding the MSDS.