

# ASAHI KASEI E-MATERIALS CORPORATION

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First issue: May 13, 2013

Revised: January 23, 2014

MSDS No.: ACLM-EP48

Trade Name: DC series, HMCK series, MC series, MCS series, MCQ series, MCJ series, MCI series,  
MCL series, SMC series, SHCN series, TC series, TCU series, TMC series

## **MATERIAL SAFETY DATA SHEET**

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### 1. PRODUCT AND COMPANY IDENTIFICATION

PRODUCT NAME: Plastic Optical Fiber

TRADE NAME: DC series, HMCK series, MC series, MCS series, MCQ series, MCJ series, MCI series,  
MCL series, SMC series, SHCN series, TC series, TCU series, TMC series

GENERAL USE: Data transmission, light sensors, light guides, display, Image guide

PRODUCT DESCRIPTION: Polyethylene, Ethylene acrylate copolymer, Ethylene vinyl acetate copolymer -jacketed,  
Polymethyl-methacrylate fiber coated with fluoropolymer

### MANUFACTURER:

COMPANY NAME: ASAHI KASEI E-MATERIALS CORPORATION

ADDRESS: Plastic Optical Fiber Marketing & Development Group  
1-105 Kanda Jinbocho, Chiyoda-ku, Tokyo 101-8101, Japan

### EMERGENCY TELEPHONE NUMBER:

ASAHI KASEI E-MATERIALS CORPORATION

Plastic Optical Fiber Marketing & Development Group, Japan

+81-3-3296-3981 9 AM - 6 PM Japan Time M-F

### 2. COMPOSITION, INFORMATION ON INGREDIENTS

Plastic optical fiber cable composed of core, cladding, and jacket.

### CHEMICAL NAME:

Core material: Acrylic polymer (main monomer: methyl methacrylate)

Cladding material: Fluoropolymer

Jacket material: Polyethylene, PE  
Ethylene vinyl acetate copolymer  
Ethylene acrylate copolymer  
Carbon Black

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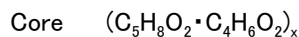
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### COMPOSITION:

COMPONENT	CAS #	PERCENTAGE (by Wt.)	OSHA PEL	ACGIH TLV	OTHER LIMITS RECOMMENDED
Core material Acrylic polymer	9011-87-4	5 - 70	NE	NE	NE
Cladding material Fluoropolymer	Confidential (registered)	0.5 - 25	NE	NE	NE
Jacket material Polyethylene	9002-88-4	0 - 95	NE	NE	NE
Jacket material ETHYLENE ACRYLATE COPOLYMER	9010-86-0	0 - 95	NE	NE	NE
Jacket material Ethylene vinyl acetate copolymer	24937-78-8	0 - 95	NE	NE	NE
Jacket material Polyamide	25038-74-8	0- 95	NE	NE	NE
Jacket material Carbon Black	1333-86-4	0 - 1	NE	NE	NE

NE: Not established

### CHEMICAL OR STRUCTURAL FORMULA:



UN CLASSIFICATION & UN NO.: Not applicable (N.A.)

OSHA HAZARDS (29 CFR 1910.1200): None

### 3. HAZARDS IDENTIFICATION

#### EMERGENCY OVERVIEW:

Skin contact of molten polymer causes thermal burn.

This material, upon combustion, will emit hazardous gases such as hydrogen fluoride, methyl methacrylate monomer vapors, and carbon monoxide.

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### POTENTIAL HEALTH EFFECTS:

Hydrogen fluoride is extremely corrosive to the tissue of mucous membranes, upper respiratory tract, eyes, and skin.

Methyl methacrylate monomer vapors may cause irritation of eyes and mucous membranes, nausea, headache, and dizziness.

MEDICAL CONDITIONS GENERALLY AGGRAVATED BY EXPOSURE: No information

PRIMARY ROUTES OF EXPOSURE: Skin contact

### CHRONIC/CARCINOGENICITY:

NTP: Not tested

OSHA: Not regulated

IARC: Not listed

## 4. FIRST AID MEASURES

EYE CONTACT: Flush eyes thoroughly with clean water for at least 15 minutes;  
seek medical care.

SKIN CONTACT: Wash exposed skin with soap and water.

INHALATION: Not probable, because of bare fiber form. In case of inhalation of dust, breathe in fresh air immediately;  
seek medical care.

INGESTION: Induce vomiting immediately as directed by medical personnel; seek medical care.

## 5. FIRE FIGHTING MEASURES

EXTINGUISHING MEDIA: Water; dry chemical extinguishers may also be used.

### FIRE FIGHTING INSTRUCTIONS:

Wear MSHA / NIOSH-approved, self-contained breathing apparatus.

Remove spools of bare fiber from fire area, if possible, to avoid degradation.

## 6. ACCIDENTAL RELEASE MEASURES

Collect for recovery or disposal.

## 7. HANDLING AND STORAGE

### HANDLING:

Avoid heating for prolonged periods above softening point (about 100°C, 212°F).

For engineering measures, refer to Section 8.

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### STORAGE:

Store the material away from heat and ignition sources.

It will not degrade during storage, but should be stored indoors to protect the packaging materials from rain or excessive moisture.

### 8. EXPOSURE CONTROLS, PERSONAL PROTECTION

EXPOSURE LIMITS: Not established.

#### ENGINEERING MEASURES:

Exhaust hoods should be provided to prevent inhalation of hazardous smoke, fume, dust, and vapors which may result from cable chopping (for landfill disposal), flammability testing, and other operations.

#### PERSONAL PROTECTIVE EQUIPMENT:

##### RESPIRATORY PROTECTION:

MSHA/NIOSH-approved respirator for dust is recommended if there is any possibility of dust generation.

EYE PROTECTION: Wear safety glasses with side shield, as needed.

HAND PROTECTION: Wear gloves during heating or cutting.

SKIN PROTECTION: Wear as needed.

### 9. PHYSICAL & CHEMICAL PROPERTIES

APPEARANCE:	Cable
VOLATILITY:	None
SPECIFIC GRAVITY:	1.1 – 1.5
MELTING POINT:	None (Softening point is about 100°C, 212°F.)
BOILING POINT:	N.A.
VAPOR PRESSURE:	Negligible
VAPOR DENSITY:	N.A.
EVAPORATION RATE:	Negligible
SOLUBILITY IN WATER:	Insoluble

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### 10. STABILITY & REACTIVITY

AUTOIGNITION TEMPERATURE: Above 400°C (752°F)

FLAMMABILITY: Flammable

STORAGE STABILITY:

Stable at room temperature.

Gradually decomposes thermally at temperatures higher than 200°C (392°F).

HAZARDOUS DECOMPOSITION PRODUCTS:

Thermal decomposition may yield hydrogen fluoride, carbon dioxide, carbon monoxide, and methyl methacrylate monomer.

REACTIVITY WITH WATER: None

OXIDIZING PROPERTY: None

SELF-REACTIVITY / POTENTIAL FOR EXPLOSION: None

HAZARDOUS POLYMERIZATION: None

### 11. TOXICOLOGICAL INFORMATION

IRRITANT AND CORROSIVE PROPERTIES:

Hydrogen fluoride, a product of combustion, is extremely corrosive to the tissue of mucous membranes, upper respiratory tract, eyes, and skin.

Methyl methacrylate monomer vapors, given off at high temperatures, may cause irritation of eyes and mucous membranes, nausea, headache, and dizziness.

### 12. ECOLOGICAL INFORMATION

Never dump or discharge this material into ocean or any other body of water, to avoid ingestion by marine life or birds.

### 13. DISPOSAL CONSIDERATIONS

Dispose in compliance with Federal, State, and local regulations, by landfill or incineration in an acid-resistant incinerator equipped with devices for removing or treating hazardous combustion products.

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### **14. TRANSPORT INFORMATION**

Avoid water contact and rough handling.

DOT (Department of Transportation): This material is not a hazardous material defined in 49 CFR 171. 8.

### **15. REGULATORY INFORMATION**

US Federal Regulations:

OSHA

This material is not hazardous by definition of Hazard Communication Rule, 29 CFR 1910. 1200.

SARA HAZARD CATEGORY

This material has been reviewed according to the EPA Hazard Categories promulgated under Sections 311 and 312 of the Superfund Amendments and Reauthorization Act of 1986 (SARA Title III) and is considered, under applicable definitions, to meet the following categories:

Not to have met any hazard category.

SARA 313 INFORMATION:

This material contains no substance subject to the reporting requirements of Section 313 of Title III of the Superfund Amendments and Reauthorization Act of 1986 and 40 CFR Part 372.

CALIFORNIA PROPOSITION 65:

Substances known to the State of California to cause cancer, birth defects or other reproductive harm: None known

### **16. OTHER INFORMATION**

For further information, please contact:

ASAHI KASEI E-MATERIALS CORPORATION

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