



## MATERIAL SAFETY DATA SHEET

### 1 .CHEMICAL PRODUCT AND COMPANY IDENTIFICATION

Product Name: "SUNFORT™" (Dry film photoresist)  
Product Description: Photopolymer resist for manufacturing printed wiring boards  
MSDS number: DF - 001

MANUFACTURER:  
Company Name: ASAHI KASEI EMD CORPORATION  
Address: Electronics Interconnecting Materials Technology & Development Department  
2-1, Samejima, Fuji-city, Shizuoka-Pref.,416-8501 Japan  
Electronics Interconnecting Materials Marketing Department  
Nishi-Shinjyuku 1-23-7, Shinjyuku-ku, Tokyo 160-0023, Japan

EMERGENCY TELEPHONE NUMBER: +81-545-62-2671

### 2 .COMPOSITION, INFORMATION ON INGREDIENTS

Component	Concentration(wt%)	CAS#
Polyester film		25038-59-9
Polyethylene film		9002-88-4
Photresist layer		
Acrylic/methacrylic monomers	30 - 50	Trade secret
Binder (Methyl methacrylate/ butyl acrylate/methacrylic acid copolymer)	40 - 60	Trade secret
Photoinitiators	1-10	Trade secret
Others	1-10	Trade secret

### 3 .HAZARDS IDENTIFICATION

Emergency overview

Color	Light green
Physical form	Thin film
Odor:	Weak odor
Major health hazards:	May cause respiratory and digestive tract irritation. May cause slight eye and skin irritation. Avoid all unnecessary exposure to the chemical substance and ensure prompt removal from skin, eyes and clothing.

Potential health effects

Inhalation	May cause respiratory tract irritation.
Skin contact	May cause slight irritation.
Eyes contact	May cause slight irritation.
Ingestion	May cause irritation of the digestive tract.

### 4 .FIRST AID MEASURES

Special instructions  
Upon absorption or influence/effect of larger quantities or in case of intoxication symptoms, a physician has to be consulted immediately.

First aid procedure

Inhalation	Breathe in the fresh air.
Skin contact	Wash with soap and running water.
Eyes contact	Immediately flush eyes with plenty of water for at least 15 minutes. Call a physician.
Ingestion	If conscious, drink water and vomit. Call a physician.

Information to a physician or other trained persons giving first aid  
Call first aidants, bring unconscious person in stable side position and protect against cold, remove foreign matter from the mouth.  
In case of respiratory arrest, give artificial respiration.



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### 5 .FIRE FIGHTING MEASURES

Flammable properties  
Flash point Over 190degC  
Flammable limits in air  
LEL Not applicable  
UEL Not applicable  
Autoignition Not applicable

Extinguishing media  
Water spray jet, carbon dioxide, foam, dry chemical powder

Firefighting instructions  
Keep personnel removed from and upwind of fire. Wear full fire-fighting turn-out gear and respiratory protection (self-contained breathing apparatus).

### 6 .ACCIDENTAL RELEASE MEASURES

Personal Precaution  
Wear protective glasses and protective gloves.

Environmental Precaution  
Incineration in accordance with EU, national and local environmental control regulations.

Procedures for clean up  
Clean up with solvents. (Water, alcohol,etc)

### 7 .HANDLING AND STORAGE

Handling  
Use with adequate ventilation at lamination.  
SUNFORT must be taken out from a black shield film under yellow safelights.

Storage  
Store in sealed container and protect from direct sunlight.  
(below 20 , below 60% at humidity level)

### 8 .EXPOSURE CONTROLS, PERSONAL PROTECTION

Engineering controls Use sufficient exhaust on laminators.

Personal protective equipment  
Eye protection Use safety glasses.  
Skin protection Use protective gloves.  
Respiratory protection Not required in normal use.  
Self-contained breathing apparatus for fire fighting and mist or spray exposures, if necessary.

### 9 .PHYSICAL AND CHEMICAL PROPERTIES

Appearance Light green thin film photopolymerizable resist is sandwiched in between carrier film (polyester film) and cover film (polyethylene film).

Odour Weak odour

PH Not applicable

Melting point Over 70degC (Softening point)

Specific gravity 1.15

Solubility in water Negligible

Solubility in solvent Soluble in ketone, alcohol



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### 10 .STABILITY AND REACTIVITY

Condition to avoid	Heat, strong light and radiation source.
Incompatibility with other materials	Peroxides, oxidizing agents, strong lyes and acids.
Hazardous decomposition products	
Thermal decomposition products	Oxides of carbon, Various organic fragments.
Hazardous polymerization	Occurs by UV-light or heat.

### 11 .TOXICOLOGICAL INFORMATION

Acute inhalation effects	May cause irritation to respiratory membrane.
Eye effects	May cause slight irritation.
Skin effects	May cause slight irritation.
Acute oral effects	LD50 > 2000mg/kg (from the similar product, rat ,oral)
Subchronic effects	Not available
Chronic effects/carcinogenicity	Not available
Mutagenicity	Not available

### 12 .ECOLOGICAL INFORMATION

Not available

### 13 .DISPOSAL CONSIDERATIONS

Comply with Eu, national and local regulations.  
Incineration in accordance with EU, national and local environmental control regulations.  
Do not dump this material into sewers, on the ground or into any body of water.

### 14 .TRANSPORT INFORMATION

No classification assigned.

### 15 .REGULATORY INFORMATION

This Article is not dangerous substances as defined in Directive 67/548/EEC.

### 16 .OTHER INFORMATION

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