



## Safety Data Sheet

### 1 PRODUCT AND COMPANY IDENTIFICATION

Product Name	Photopolymer printing plate "Printight"
Product Code	KF-G, KM-G, KA-G, KM-A
Supplier	TOYOBO Co., Ltd.
Address	2-8 Dojima Hama 2-chome, Kita-Ku OSAKA 530-8230 JAPAN
	Photo-Functional Materials Dept.
Telephone No.	+81-6-6348-3059 (9am -6pm Japan Standard Time Mon-Fri)
Fax No.	+81-6-6348-3099
Recommended use and restrictions on use	Printing Materials, Sign Plates, etc.

### 2 HAZARD IDENTIFICATION

Most Important Hazards	Eye contact or skin contact with the material may cause some irritation. The material contains small amount of hazardous ingredients or the ingredients of insufficient investigation of hazards.
Specific Hazards	Flammable with the existence of ignition sources Prolonged inhalation of fumes or gases generated from the material during the processing operations may cause headache, respiratory irritation.

#### GHS classification

##### Physical and Chemical Hazards

Explosives	Not applicable
Combustible/flammable gases	Not applicable
Combustible/flammable aerosols	Not applicable
Combustion-supporting/oxidizing gases	Not applicable
Gases under pressure	Not applicable
Flammable liquids	Not applicable
Combustible solids	Not classified
Self-reactive substances and mixtures	Classification not possible
Pyrophoric liquids	Not applicable
Pyrophoric solids	Not classified
Self-heating substances and mixtures	Classification not possible
Substances and mixtures which, in contact with water emit flammable gases	Not classified
Oxidizing liquids	Not applicable
Oxidizing solids	Not classified
Organic peroxides	Not classified
Corrosive to metals	Not classified

##### Health Hazards

Acute toxicity (Oral)	Category 5
Acute toxicity (Dermal)	Classification not possible
Acute toxicity (Gases)	Classification not possible



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**2 HAZARD IDENTIFICATION (Continued.)**

Acute toxicity (Vapors)	Classification not possible
Acute toxicity (Dusts)	Classification not possible
Acute toxicity (Mists)	Classification not possible
Skin corrosion/irritation	Not classified
Serious eye damage/eye irritation	Category 2B
Respiratory or skin sensitization	Classification not possible
Germ cell mutagenicity	Not classified
Carcinogenicity	Classification not possible
Reproductive toxicity	Category 1B
Specific Target Organ Toxicity (Single Exposure)	Category 1 (Central nervous system, Optic organ, Systemic toxicity)
Specific Target Organ Toxicity (Repeated Exposure)	Category 1 (Central nervous system, Optic organ)
Hazards to the aquatic environment (Acute)	Classification not possible
Hazards to the aquatic environment (Chronic)	Classification not possible

GHS label elements

Pictogram or Symbol:



Signal word:

Danger

Hazard statement:

May damage fertility or the unborn child.  
 Causes damage to central nervous system, optic organ, systemic toxicity.  
 Causes damage to central nervous system, optic organ through prolonged or repeated exposure.  
 May be harmful if swallowed. (oral)  
 Causes eye irritation.

Precautionary statement:

(Prevention)  
 •Wear protective equipments.  
 •Use with adequate ventilation or local exhaust system.  
 •Wash hands thoroughly after handling.  
 (Response)  
 •Inhalation: In case of irritation, remove victim to fresh air and await recovery. Seek immediate medical attention if irritation persists.  
 •Skin Contact: Wash the affected area thoroughly with water and soap. Seek medical attention if necessary.  
 •Eye Contact: Immediately flush eyes with plenty of clean water for at least 15 minutes. Seek medical attention if irritation persists.  
 •Ingestion: Rinse mouth with water. Seek immediate medical attention if indisposition persists.  
 (Storage)  
 •Keep the packages vertical, and not pile up. Pay attention not to fall them down.  
 •Store plates in a cool (< 25°C) and dry location. Put and store all the unexposed plates into the particular masking bag.  
 (Disposal)  
 •Dispose of in accordance with all applicable local and national laws/regulations.



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### 3 COMPOSITION / INFORMATION ON INGREDIENTS

Chemical Product	Article		
Chemical identity, identification number	Water soluble photo-sensitive resin		
Chemical Name	Conc.	Chemical formula	CAS No.
Polyamide	54~56%	Trade secret	-
Derivative of Acrylates	39~41%	Trade secret	-
Plasticizer	2~4%	Trade secret	-
Photo-initiator and other additives	1~3%	Trade secret	-
Methyl alcohol	< 3%	CH <sub>3</sub> OH	67-56-1
ε -caprolactam	< 2%	C <sub>6</sub> H <sub>11</sub> NO	105-60-2
Methyl acrylate	< 0.5%	C <sub>4</sub> H <sub>6</sub> O <sub>2</sub>	96-33-3
Methyl methacrylate	< 0.2%	C <sub>5</sub> H <sub>8</sub> O <sub>2</sub>	80-62-6

### 4 FIRST-AID MEASURES

Inhalation	In case of irritation, remove victim to fresh air and await recovery. Seek immediate medical attention if irritation persists.
Skin Contact	Wash the affected area thoroughly with water and soap. Seek medical attention if necessary.
Eye Contact	Immediately flush eyes with plenty of clean water for at least 15 minutes. Seek medical attention if irritation persists.
Ingestion	Rinse mouth with water. Seek immediate medical attention if indisposition persists.

### 5 FIRE-FIGHTING MEASURES

Extinguishing Media	Water Spray, Carbon Dioxide, Dry Chemical Powder
Specific Hazards	When burning, this product may emit harmful gas as carbon monoxide, nitrogen oxides, chlorine compounds and sulfur oxides, etc.
Specific Methods	Extinguish the fire from windward by water or carbon dioxide.
Protection of Firefighters	In case of a big fire, wear self-contained breathing apparatus and protective clothing.

### 6 ACCIDENTAL RELEASE MEASURES

Personal Precautions	If the material contacts the body, wash the affected area thoroughly with water and soap. Wash-out solution remained on the skin may cause some irritation.
Environmental Precautions	The unexposed plate is soluble in water, that may pollute environment.
Methods for Cleaning up	Carefully pick up and collect the dropped plates. Wipe the area with a cloth containing soapy water to remove any adherent material. Remove all the spilt wash-out solution with absorbent.



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### 7 HANDLING AND STORAGE

#### HANDLING

Technical Measures	Wash hands thoroughly after handling. Pay attention not to contact skin and eyes with the plate material. Wear protective equipments.
Precautions	Use with adequate ventilation or local exhaust system. Do not inhale fumes and gases. Do not contact skin and eyes with the wash-out solution.
Safe Handling Advice	Handle with care not to get hurt to hands with outer case or edge of the plate.

#### STORAGE

Technical Measures	Keep the packages vertical, and not pile up. Pay attention not to fall them down.
Incompatible Products	Strong oxidizing materials Keep away from water and alcohol in which the material is soluble.
Storage Conditions	Store plates in a cool (< 25°C), and dry location, away from sources of intense heat and ignition. Put and store all the unexposed plates into the particular masking bag.
Packaging Materials	Masking bag or corrugated board package

### 8 EXPOSURE CONTROLS / PERSONAL PROTECTION

ENGINEERING MEASURES	Use with adequate ventilation or local exhaust system. Ensure eyewash/safety shower stations are available near areas where the material is used.
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#### Control Parameters

	ε -caprolactam	Methyl alcohol	Methyl methacrylate	Methyl acrylate
ACGIH	5mg/m <sup>3</sup> (STEL)	200ppm(TWA) 250ppm(STEL)	50ppm(TWA) 100ppm(STEL)	2ppm(TWA) (Skin)
(Year)	(2004)	(2004)	(2004)	(2004)

#### PERSONAL PROTECTIVE EQUIPMENT

Respiratory Protection	Suitable gas mask
Hand Protection	Impervious rubber or plastic gloves
Eye Protection	Safety glasses, goggles or face shield
Skin and Body Protection	Impervious clothing

### 9 PHYSICAL AND CHEMICAL PROPERTIES

Physical State	Solid sheet
Color	Yellowish transparent
Odor	Slightly sweet odor
pH	6.4 as washing-out solution
Melting Point	110°C
Flash Point	Not available
Explosion Properties	None
Relative density	1.2
Solubility	Soluble in water and alcohol.
Autoignition point	Not available
Decomposition point	Not available



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### 10 STABILITY AND REACTIVITY

Stability	Stable at ambient temperature
Possible Hazardous Reactions	Flammable with the existence of ignition sources
Conditions to Avoid	High temperature, ignition sources, direct sun-light
Material to Avoid	Strong oxidizers
Hazardous Decomposition Products	When burning, this product may emit harmful gas as carbon monoxide, nitrogen oxides, chlorine compounds and sulfur oxides, etc.

### 11 TOXICOLOGICAL INFORMATION

Acute toxicity (Oral)	Oral-Rat LDLo: > 2,000mg/kg
Skin corrosion/irritation	No irritation potential to the rabbit skin
Serious eye damage /eye irritation	Reversible and moderate irritation potential to the eyes of rabbits
Mutagenicity	No mutagenicity under the Ames test

### 12 ECOLOGICAL INFORMATION

Mobility	Unexposed plate and washed-out solution are soluble in water, and are possible to diffuse in watercourse.
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### 13 DISPOSAL CONSIDERATIONS

Waste from Residues	Dispose of in accordance with all applicable local and national laws/regulations.
Contaminated Packaging	Dispose of as well as the material.

### 14 TRANSPORT INFORMATION

International Regulations	
UN Classification Number	Not classified
Specific Precautionary	Keep it dry and handle with care.

### 15 REGULATORY INFORMATION

Follow all the laws and regulations in your country.

### 16 OTHER INFORMATION

Notice	The information in this SDS, to the best of our knowledge, is accurate and correct. However, TOYOBO makes no warranty and assumes no liability whatsoever in connection with any use of this information. The SDS is subject to revision as new information becomes available.
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