

Safety Data Sheet RBE03D

Revision No: 1st Date: 2016.7

1. <u>PRODUCT IDENTIFICATION</u>

Product Identifier	RBE03D
General Use	Negative Type Photoresist
Product Description	Negative Type Photoresist

Supplier Detail:EMK Technologies Pte Ltd / 21 Bukit Batok Crescent,
Wcega Tower #14-76, Singapore 658065

Emergency Contact Number: Tel: +65.6684 7855 / +65.9722 1005 / Fax: +65.6684 7838

2. <u>COMPOSITION / INFORMATION ON INGREDIENTS</u>

Chemical Name	CAS No.	Content (%)
Novolac resin	9003-35-4	20-30
Propylene Glycol Methyl Ether Acetate	108-65-6	50-70
1-Hydroxycyclohexyphenyl ketone	947-19-3	10-20

3. HAZARD IDENTIFICATION



Emergency Overview:	Red transparent liquid with slightly acetone-like odor
Potential Health Effects: Inhalation may cause anesthesia. Vapors are irritating eyes, nose and respiratory tract. Overexposure may result in headache, nausea and vomiting.	
Eye Contact :	Eye contact may cause severe irritation.
Skin Contact :	Prolonged and repeated contact with skin may cause irritation and dermatitis.
Ingestion :	Swallowing may nauseate and cause pain in esophagus and
	stomach.



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4. FIRST AID MEASURES

Inhalation [:]	Remove exposed person to fresh air, perform artificial respiration if necessary. Call a physician.
Eye Contact:	Immediately flush eyes with plenty of water at least 15 min. Call a physician.
Skin Contact:	Immediately wash skin with soap and plenty of water.
Ingestion:	Contact a poison center and have MSDS information available.

5. <u>FIRE-FIGHTING MEASURES</u>

General Hazard : Combustible Liquid. May release vapors that form flammable mixtures when temperatures are at or above the flash point. Toxic gases will form upon combustion

Extinguishing Media: Water, Foam, Dry chemical powder

Special Fire Fighting Procedures : Firefighters should wear self-contained breathing apparatus and protective clothing.

Unusual Fire and Explosion Hazards : None

Hazardous Combustion Products : Smoke, fumes and toxic gas and/or carbon mono-oxide.

6. <u>ACCIDENTAL RELEASE MEASURES</u>

- General: Provide maximum ventilation. Wear suitable protective equipment. Small spill should be flushed with large quantities of water. Large spill should be collected for disposal. Toxic to fish.
- Land Spill: Dike or absorb with inert absorbent material such as sand or sawdust and transfer to container for disposal.

Water Spill: Remove from surface by skimming or with suitable absorbents.

7. HANDLING AND STORAGE

Warning : Combustible solvent mixture. Avoid heat, sunlight, and ignition sources.

Precautions: Handle with care. Open only under well ventilated conditions.
Loosen closure cautiously before opening. When using this substance : (a) avoid breathing the substance; (b) avoid ingestion; (c) use respiratory protection when in dust or insist from. Wear chemical goggles, resistant gloves and protective clothing to prevent contact. Wash thoroughly after handling.

Storage Temperature : 3 °C ~ 8 °C

Storage Pressure: Atmospheric



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8. <u>EXPOSURE CONTROLS / PERSONAL PROTECTION</u>

Engineering Controls : The use of local exhaust ventilation is recommended to control emissions near the source. Laboratory samples should be handled in a fume hood. Provide mechanical ventilation of confined spaces. Use explosion-proof ventilation equipment.

9. PHYSICAL AND CHEMICAL PROPERTIES

Flashpoint and Method :	48 °C Tag closed cup	
Flammable Limits :	LEF: 1.1 %	UFL:10.2% (Reference)
Vapor Pressure :	3.8mmHg (25°	C)
Specific Gravity : Solubility in Water :	1.003 insoluble	
Boiling Point :	146 °C	

10. STABILITY AND REACTIVITY

Incompatible Materials and Conditions to Avoid : Strong oxidizing agents, strong acid, strong bases and strong reducing agents.

Hazardous Decomposition : This material is stable under recommended storage and handling conditions.

Hazardous Polymerization : May not occur.

11. TOXICOLOGICAL INFORMATION

SOLVENT (Diethylene glycol dimethyl ether) : Acute Toxicity : LD50 (oral- rat): -



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12. ECOLOGICAL INFORMATION

SOLVENT : Biodegradations : BOD :

13. DISPOSAL CONSIDERATIONS

Burn in a chemical incinerator equipped with an afterburner but exert extra care in igniting as this material is highly flammable. Do not flush into the sewer.

14. TRANSPORT INFORMATION

Proper Shipping Name :	Resin solution
Identification Number :	UN 1866
Packing Group :	III
DOT Classification :	Class 3, Flammable Liquid

15. <u>REGULATORY INFORMATION</u>

TSCA (Toxic Substance Control Act):

All the components in the color photoresist are on TSCA lists or are subject to a Low Volume Exemption.

16. OTHER INFORMATION

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