

# Safety Data Sheet RBE03C

## Revision No: 1st Date: 2016.1

#### 1. <u>PRODUCT IDENTIFICATION</u>

| Product Identifier  | RBE03C                    |
|---------------------|---------------------------|
| General Use         | Negative Type Photoresist |
| Product Description | Negative Type Photoresist |

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

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#### 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. FIRE-FIGHTING MEASURES

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 :<br>Solubility in Water : | 1.003<br>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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