

MATERIAL SAFETY DATA SHEET

1. CHEMICAL PRODUCT & COMPANY IDENTIFICATION

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| Chemical Name: | Photoimageable Solder Mask |
| Trade Name: | R-500 D-400 GD4 |
| Suggestion and Restriction: | Protect PCB surface from scratch and for insulation. Fully mixing with hardener. Printing with screen, exposure and development. |
| Company: | Onstatic Technology Co., Ltd. 7F., No.1, Ren'ai Rd., Yingge Dist., New Taipei City 239, Taiwan(R.O.C.) |
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2. HAZARDS IDENTIFICATION

| | |
|--------------------|---|
| GHS Classification | <ol style="list-style-type: none"> 1. Flammable Liquids - 4 2. Skin Corrosion/Irritation - 2 3. Eye Damage/Irritation - 2A 4. Toxic to Reproduction - 1 5. Hazardous to the Aquatic Environment - Acute Hazard – 2 |
|--------------------|---|

Symbol



| | |
|-------------------------|--|
| Signal word | Warning |
| Emergency Overview | |
| HAZARD | <ol style="list-style-type: none"> 1. Flammable Liquids 2. Causes skin irritation 3. Causes serious eye irritation 4. May damage fertility or the unborn child 5. Toxic to aquatic life |
| PRECAUTIONARY STATEMENT | |
| Prevention | <ol style="list-style-type: none"> 1. Obtain special instructions before use. 2. Do not handle until all safety precautions have been read and understood. 3. Wear protective gloves/clothing and eye/face protection 4. Avoid breathing fume/gas/mist/vapors. 5. Do not eat, drink or smoke when using this product. 6. Keep away from heat/sparks/open flame– No smoking. 7. Use explosion-proof electrical/ventilating/lighting equipment. 8. Wash hands thoroughly after handling. 9. Avoid contact during pregnancy/while nursing. |

10. Avoid release to the environment
 11. Keep container tightly closed when not use.

3. COMPOSITION INFORMATION

| | CAS No. | CONTENT |
|---|-----------------|---------|
| Dipropylene glycol monomethyl ether | 34590-94-8 | ≤ 10% |
| Di(propylene glycol) methyl ether acetate | 88917-22-0 | ≤ 10% |
| Araldite (Epoxy acrylate) | Business secret | ≤ 35% |
| Solvent naphtha | 64742-94-5 | ≤ 5% |
| 2-methyl-4'- -methylthio)-2-morpholino-propiopheno | 71868-10-5 | ≤ 10% |
| Barium sulfata and additives | 7727-43-7 | ≤ 30% |

4. FIRST-AID MEASURES

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| EYE CONTACT: | Immediately flush with plenty of water and continue washing for several minutes. Seek medical advice. |
| SKIN CONTACT: | Remove all contaminated clothing. Wash skin with soap and plenty of water. Obtain medical advice if irritation persists. Wash contaminated clothing before reuse. |
| INGESTION: | Wash out mouth with water. Remove dentures if any. Move exposed person to fresh air. Keep person warm and at rest. If vomiting occurs, the head should be kept low so that vomit does not enter the lungs. Get medical attention immediately. |
| INHALATION: | Move exposed person to fresh air. Seek medical advice if symptoms persist. |
| Notes to physician | No specific treatment. Treat symptomatically. |

5. FIRE FIGHTING MEASURES

FLASH POINT: 78°C

METHOD USED: Se taflash closed-cup

EXTINGUISHING MEDIA: Water spray, carbon dioxide, dry chemical power or appropriate foam.

SPECIAL FIRE FIGHTING PROCEDURES: Wear self-contained breathing apparatus (SCBA) and protective clothing to prevent contact with skin and eyes.

UNUSUAL FIRE AND EXPLOSIONS HAZARDS: Emits toxic fumes under fire conditions.

6. ACCIDENTAL RELEASE MEASURES (See Section 15 for Regulatory Information)

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| Personal precautions | Avoid breathing vapor. Provide adequate ventilation. Wear appropriate respirator when ventilation is inadequate. |
| Environmental precautions | Avoid dispersal of spilled material and runoff and contact with soil, waterways, drains and sewers. |
| Spill | Stop leak if without risk. Move containers from spill area. Prevent entry into sewers, water courses, basements or confined areas. Sweep up material and place in a designated, labelled waste container. Dispose of via a licensed waste disposal contractor. |

7. HANDLING AND STORAGE

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| HANDLING: | Avoid contact with eye. Keep away from heat, flame and sunlight. Wash through after handling. |
| STORAGE: | Stored in dark and cool place. |

8. EXPOSURE CONTROLS/PERSONAL PROTECTION

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| ENGINEERING CONTROLS: | Mechanical exhaust required. Keep tightly closed. Store in a cool dry place. |
| PERSONAL PROTECTION: | Chemical safety goggles. |
| Hands | Compatible chemical resist gloves. |
| Eyes | Wear noish-approved respiration. |
| Skin | Safety shower and eye bath. Avoid contact with eyes, skin and clothing. Wash thorough after handling. |
| Environmental exposure controls | Emissions from ventilation or work process equipment should be checked to ensure they comply with the requirements of environmental protection legislation. In some cases, fume scrubbers, filters or engineering modifications to the process equipment will be necessary to reduce emissions to acceptable levels. |

9. PHYSICAL AND CHEMICAL PROPERTY

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|----------------------|----------------|
| APPEARANCE: | Green paste |
| ODOR: | Ether odor |
| pH (as supplied): | Not Applicable |
| VAPOR PRESSURE: | 2mm Hg @ 38°C |
| VAPOR DENSITY: | 4.7 |
| MELTING POINT: | <-20°C |
| BOILING POINT: | >190°C |
| FLASH POINT: | 78°C |
| AUTOIGNITION POINT: | >360°C |
| DECOMPOSITION POINT: | Not Applicable |
| WATER SOLUBILITY: | immiscible |
| SPECIFIC GRAVITY: | 1.3±0.2/25°C |
| EVAPORATION RATE: | Not Applicable |

10. CHEMICAL STABILITY AND REACTIVITY INFORMATION

CHEMICAL STABILITY: Stable under recommended storage conditions. See storage section.

INCOMPATIBILITY (Materials to Avoid): Strong acids, strong bases, peroxides and strong oxidizing agents.

11. TOXICOLOGICAL INFORMATION

ACUTE EFFECTS: Causes eye and skin irritation.

INGREDIENT NAME:

Dipropylene glycol monomethyl ether acetate (DPMA)

LD50 Dermal Rabbit 5,000 mg/kg

LD50 Oral Rat 5,000 mg/kg

12. ECOLOGICAL INFORMATION

DO NOT discharge into sewer or waterways.

13. DISPOSAL CONSIDERATIONS (See Section 15 for Regulatory Information)

Dissolve or mix the material with a combustible solvent and burn in a chemical incinerator equipped with an afterburner and scrubber.

Observed local environmental regulations.

14. TRANSPORT INFORMATION

Not classified as hazardous under transport regulation.

15. REGULATORY INFORMATION

TOXIC SUBSTANCES CONTROL ACT (TSCA):

All ingredients are on the TSCA inventory or are not required to be list on the TSCA inventory.

16. OTHER INFORMATION

The above information is believed to be correct but does not purport to be all-inclusive and shall be used only as a guide. Onstatic Technology Co., Ltd. shall not be held liable for any damage resulting from handling or from contacting with the above product.

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