

Designer Molecules, Inc.

Safety Data Sheet

Product: DMI-3006
MSDS ID: R1303

Revised Date: 01/01/19
Replaces Date: 12/05/17

1. Product and Company Identification

Product Code: R1303
Trade Name(s): DMI-3006
Product Type: Negative Tone Solvent Developable Wafer Coating Material
Recommended Use: Wafer buffer coating
Restrictions: None identified

Company: Designer Molecules, Inc.
10080 Willow Creek Rd.
San Diego, CA 92131
Telephone: 858-348-1122

Emergency phone number (spill, leak, fire, exposure or accident):
US Domestic (800) 535-5053 (INFOTRAC) Includes Canada and Mexico
International +1 (352) 323-3500
China Specific (86) 400-120-0761
Germany Specific (49) 0800-181-2924
Australia Specific (61) 1-300-366-961

2. Hazards Identification

EMERGENCY OVERVIEW:

OSHA Hazards:
Combustible liquid, Carcinogen

GHS Classification:

Physical Hazards	Category 4
Health Hazards	
Acute Toxicity (Oral)	Not Classified
Acute Toxicity (Dermal)	Not Classified
Acute Toxicity (Gases)	Not Applicable
Acute Toxicity (Vapors)	Not Classified
Acute Toxicity (Dusts and Mists)	Not Classified
Skin Corrosion /Irritation	Category 2
Serious Eye Damage /Eye Irritation	Not Classified
Respiratory or Skin Sensitization	Category 1
Germ Cell Mutagenicity	Not Classified
Carcinogenicity	Not Classified
Reproductive Toxicity	Not Classified
Specific Target Organ Toxicity (Single Exposure)	Category 3
Specific Target Organ Toxicity (Repeated Exposure)	Category 2
Aspiration Hazard	Not Classified

ENVIRONMENTAL HAZARDS

Hazardous to the Aquatic Environment (Acute)	Category 2
Hazardous to the Aquatic Environment (Chronic)	Not Classified

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SYMBOL



SIGNAL WORD

Warning

HAZARD STATEMENT

Combustible liquid
Causes Skin Irritation
May Cause an Allergic Skin Reaction
May Cause a Drowsiness and Dizziness
May Cause Damage to Organs (Blood) through prolonged or repeated exposure
Toxic to Aquatic Life

HMIS Classification:

Health Hazard: 1*
Flammability: 2
Physical Hazards: 1

NFPA Rating:

Health Hazard: 1*
Fire: 2
Reactivity Hazard: 1

POTENTIAL HEALTH EFFECTS:

INHALATION: May be harmful if inhaled. Causes respiratory tract irritation.
EYE CONTACT: Causes eye irritation
SKIN CONTACT: Harmful if absorbed through skin. Causes skin irritation.
SWALLOWING: Harmful if swallowed.

3. Composition Information

SUBSTANCE / MIXTURE GENERIC NAME

MIXTURE
Buffer Coating material of modified polyimide resin

INGREDIENT	Modified polyimide resin	Initiator	Additives	Tetralin
RATIO	40-70wt%	1-8wt%	0.1-3wt%	20-65wt%
CAS REGISTRY	Trade Secret	Trade Secret	Trade Secret	119-64-2

4. First Aid Measures

GENERAL ADVICE:

Consult a physician. Show this safety data sheet to the doctor in attendance. Move out of dangerous area.

INHALATION

Remove the victim to fresh air, and make him blow his nose and gargle.

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SKIN CONTACT

Remove all contaminated clothing, shoes and socks from the affected areas as quickly as possible, cutting them off if necessary. Wash the affected area under tepid running water using a mild soap.

EYE CONTACT

Gently rinse the affected eyes with clean water for at least 15 minutes. Arrange for transport to the nearest medical facility for examination and treatment by a physician as soon as possible.

INGESTION

Give the victim water or salt water and make him vomit. Get medical attention.

5. Fire and Explosion Hazard Data

SPECIFIC HAZARDS WITH REGARD TO FIRE-EXTINGUISHING MEASURES

Shut off the supply. Use extinguishing equipment from the up-wind side. If necessary wear protective clothing including a breathing apparatus.

If the fire extends to the surrounding, cool the facilities by splaying with water. Immediately move containers to safe place if possible.

EXTINGUISHING MEDIA

In case of fire use dry chemical powder, carbon dioxide, dry sand, foam

PROHIBITED EXTINGUISHING

Water spray

6. Accidental Release Measures

CAUTIONS FOR PERSONNEL

Wear proper equipment and avoid contact with skin and inhalation of vapor. Keep personnel away from downwind of any fire. Shut off all sources of ignition.

CAUTIONS FOR ENVIRONMENT

Prevent spills from entering waterways.

REMOVAL MEASURE

Shut off the leakage source to stop the leakage. For small spill, absorb spill with absorbent and collect in chemical waste container. For large spill, prevent contamination of surrounding area and move material to a safe place for collection.

PREVENTION OF SECOND ACCIDENT

Remove nearby sources of ignition and prepare extinguishing media.

7. Handling and Storage

HANDLING

Engineering measures

Wear proper protective equipment to prevent contact with skin or inhalation of the vapor. Pay attention to fire

Cautions for safety handling

Use with an enclosed system or a local exhaust ventilation.

STORAGE

Adequate storage condition

Store below 5 degree C, keep package tightly closed. Avoid direct rays from the sun. No fire.

Safety adequate container materials

Glass

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8. Exposure Controls and Personal Protection Measures

CONTROL PARAMETERS

Not established

ENGINEERING MEASURES

Use only with adequate ventilation and in closed systems.

PERSONAL PROTECTIVE EQUIPMENT

RESPIRATORY PROTECTION

If necessary, wear chemical cartridge respirator with an organic vapor cartage.

EYE PROTECTION

Safety goggles

HAND PROTECTION

Organic solvents resistant gloves

SKIN AND BODY PROTECTION

Protective clothing, protective boots

9. Physical / Chemical Characteristics

APPEARLANCE, PHYSICAL STATE, COLOR, ODOR

Liquid, Pale yellow, Menthol odor

SPECIFIC TEMPERATURE or TEMPERATURE OF PHYSICAL CONDITIONS CHANGE

Boiling point 207.65°C <Tetralin>

Melting point -35.7°C <Tetralin>

FLASH POINT 71.6°C <Tetralin>

EXPLISION LIMIT Upper : 5.0vol%, Lower : 0.8vol% <Tetralin>

VAPOR PRESSURE 2.66 hPa (20°C) <Tetralin>

VAPOR DENSITY 4.6 <Tetralin>

SPECIFIC GRAVITY 0.979 g/ml (20°C) <Tetralin>

SOLUBILITY Water ; Insoluble <Tetralin>

10. Reactivity Hazard Data

STABILITY May polymerized on high temperature condition

REACTIVITY Strong bases, strong acids, strong oxidizers, or radical initiator

INCOMPATIBILITY Strong bases, strong acids, strong oxidizers, or radical initiator

HAZARDOUS DECOMPOSITION PRODUCTS

Carbon monoxide

11. Toxicological Information

Acute Toxicity (Oral)

Not Classified

Acute Toxicity (Dermal)

Not Classified

Acute Toxicity (Gases)

Not Applicable

Acute Toxicity (Vapors)

Not Classified

Acute Toxicity (Dusts and Mists)

Not Classified

Skin Corrosion /Irritation

(Category 2) Causes skin irritation. The mixture contains $\geq 3\%$ of an ingredient which is irritant (category 2) and for which additivity may not apply.

Serious Eye Damage /Eye Irritation

Not Classified

Respiratory or Skin Sensitization

(Category 1) May Cause an allergic skin reaction. The mixture contains one or more

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Germ Cell Mutagenicity	ingredients classified as a skin sensitizer at $\geq 1\%$.
Carcinogenicity	Not Classified
Reproductive Toxicity	Not Classified
Specific Target Organ Toxicity (Single Exposure)	Not Classified
	(Category 3) May Cause a Drowsiness and Dizziness. The mixture contains one or more ingredients classified as a Category 3 specific target organ toxicant at a concentration of $\geq 20\%$.
Specific Target Organ Toxicity (Repeated Exposure)	(Category 2) May cause damage to organs (blood) through prolonged or repeated exposure
	The mixture contains one or more ingredients classified as a Category 2 specific target organ toxicant at a concentration of $\geq 20\%$.
Aspiration Hazard	Not Classified

12. Ecological Information

Hazardous to the Aquatic Environment (Acute)	Category 2. Sum of the concentrations (in %) of ingredients classified as: (Acute 1 \times M ⁴ \times 10) + Acute 2 $\geq 25\%$
Hazardous to the Aquatic Environment (Chronic)	Not Classified

13. Disposal Considerations

This combustible material may be burned in a chemical incinerator equipped with an afterburner and scrubber. Follow all regulations in your country.

14. Transport Information

DOT (US):

NA-Number: 1993 Class: CBL Packing group: III
Proper shipping name: Combustible liquid, n.o.s. (1,2,3,4-Tetrahydronaphthalene)
Reportable Quantity (RQ):
Poison Inhalation Hazard: No

IMDG: UN Number: 3082 Class: 9 Packing group: III EMS-No: F-A, S-F
Proper shipping name: Environmentally hazardous substance, liquid, n.o.s. (1,2,3,4-Tetrahydronaphthalene)
Marine Pollutant: Yes

IATA: UN Number: 3082 Class: 9 Packing group: III
Proper shipping name: Environmentally hazardous substance, liquid, n.o.s. (1,2,3,4-Tetrahydronaphthalene)

15. Regulatory Information

TSCA Status:

Listed

OSHA Hazards:

Harmful by ingestion. Harmful by skin absorption. Irritant.

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SARA 302 Components:

No chemicals in this material are subject to the reporting requirements of SARA Title III, Section 302.

SARA 313 Components:

This material does not contain any chemical components with known CAS numbers that exceed the threshold (De Minimis) reporting levels established by SARA Title III, Section 313.

SARA 311/312 Hazards:

Acute health hazard

CALIFORNIA PROPOSITION 65:

This product does not contain any chemicals that are known to the State of California to cause cancer, birth defects or other reproductive harm.

16. Other Information

The opinions expressed herein are those of qualified experts within Designer Molecules Inc. We believe that the information contained herein is current, as of the date of this MSDS. Because the use of this information and of these opinions, and the conditions of use of this product, are not within the control of Designer Molecules Inc., it is the user's legal obligation to determine the conditions of safe use of this product.