



# MATERIAL SAFETY DATA SHEET

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DATE PREPARED: 05/03/2007

MSDS No: psr4100wl07

PSR-4100WL

## 1. CHEMICAL PRODUCT AND COMPANY IDENTIFICATION

Product Identifier: PSR-4100WL

Product Description: Epoxy Solder Mask

Product Name: PSR-4000WL

### MANUFACTURER:

Taiyo America, Inc.

2675 Antler Drive

Carson City, NV 89701

### 24 HR. EMERGENCY TELEPHONE NUMBERS:

Emergency Contact:

Phillip Harrison

Emergency Phone

775-885-9959

## 2. COMPOSITION/INFORMATION ON INGREDIENTS

	wt. %	CAS Registry #
Diethylene Glycol Monoethyl Ether Acetate	9 - 10	112 -15-2
Heavy Aromatic Naphtha (petroleum)	18 - 19	64742 -94-5
Acetophenone Derivative (Trade Secret)	4 - 5	
Dipropylene Glycol Monomethyl Ether	<2	034590-94-8
Naphthalene	<1.9	91-20-3

### OSHA HAZARDOUS COMPONENTS (29 CFR 1910.1200)

	EXPOSURE LIMITS		
	OSHA PEL	ACGIH TLV	Supplier
Dipropylene Glycol Monomethyl Ether	100 ppm	100 ppm	
Naphthalene	10 ppm	Skin	

### COMMENTS:

Manufacturer recommended internal exposure limit (CIEL - Value) for acetophenone derivative in dry, granular, pure form is 0.5 mg/m<sup>3</sup>.

Naphthalene is a component of Heavy Aromatic Naphtha Solvent (CAS# 64742-94-5)

## 3. HAZARDS IDENTIFICATION

### EMERGENCY OVERVIEW

#### PHYSICAL APPEARANCE:

Viscous white ink with solvent odor.

## **POTENTIAL HEALTH EFFECTS**

### **EYES:**

May cause irritation of the eyes

### **SKIN:**

May cause skin irritation.

May cause skin sensitization, an allergic reaction, which becomes evident upon reexposure to this material.

### **INGESTION:**

Harmful if swallowed.

### **INHALATION:**

May cause respiratory tract irritation.

High vapor concentrations may cause headaches, dizziness and nausea.

## **SUBCHRONIC/CHRONIC TOXICITY**

### **CHRONIC:**

Prolonged or repeated contact can result in drying of the skin which may result in skin irritation and dermatitis (rash).

### **CARCINOGENICITY:**

Naphthalene

NTP - "Reasonably Anticipated to be a Human Carcinogen"

IARC - "Possibly Carcinogenic to Humans" (Group 2B)

### **COMMENTS:**

Reproductive Toxicity Study

A combined one-generation reproduction and early development study was conducted on the acetophenone derivative. The study on rats showed effects on fetal development at doses of 40, 80 and 120 mg/kg/day and effects on reproduction at 80 and 120 mg/kg/day when female parental animals were dosed for a minimum of 33 days.

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## **4. FIRST AID MEASURES**

### **EYES:**

Immediately flush eyes with plenty of water for 15 minutes. Get medical attention if irritation persists.

### **SKIN:**

Wash skin with soap and plenty of water.

### **INGESTION:**

Do not induce vomiting. Give milk or water.

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**INHALATION:**

If breathing becomes difficult, remove to fresh air.

If symptoms persist give oxygen and seek medical attention.

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**5. FIRE FIGHTING MEASURES**

Flashpoint and Method: ~165°F 74°C SETA Flash CC

**FLAMMABLE CLASS:**

OSHA: Combustible

DOT: Combustible

**GENERAL HAZARD:**

The Uniform Fire Code flammability rating for this product is: Class III-A Combustible Liquid.

If burning, this material may produce hazardous fumes or hazardous decomposition products.

**EXTINGUISHING MEDIA:**

Use carbon dioxide, foam, dry chemical or water spray when fighting fires involving this material.

**HAZARDOUS COMBUSTION PRODUCTS:**

Combustion products may be toxic. May produce various carbon oxides and hydrocarbons.

**EXPLOSION HAZARDS:**

Sealed containers may build up pressure and rupture when exposed to high heat (fire).

**FIRE FIGHTING PROCEDURES:**

Remove sealed containers from the vicinity of the fire.

Use normal fire fighting procedures for burning liquids.

**FIRE FIGHTING EQUIPMENT:**

Use self-contained breathing apparatus with full facepiece operated in the positive pressure mode with appropriate turn-out gear.

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**6. ACCIDENTAL RELEASE MEASURES**

**SMALL SPILL:**

Absorb the spilled material with inert material. Scrub the area with detergent and water.

**ENVIRONMENTAL PRECAUTIONS:**

**WATER SPILL:**

Contain, minimize dispersion and collect as soon as possible.

**LAND SPILL:**

Prevent from entering drain, sewer, stream or other bodies of water.

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**SPECIAL PROTECTIVE EQUIPMENT:**

Protective eyewear, impervious gloves, air purifying respirator recommended.

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**7. HANDLING AND STORAGE**

**HANDLING:**

Avoid contact with skin, eyes and clothing. Use only with adequate ventilation.

**STORAGE:**

Store in a cool place in original container away from sunlight and heat.

Recommended storage below 68 F (20 C) to help maintain shelf life.

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**8. EXPOSURE CONTROLS/PERSONAL PROTECTION**

**ENGINEERING CONTROLS:**

Good general mechanical ventilation recommended.

**PERSONAL PROTECTION**

**EYES AND FACE:**

Wear safety glasses with side shields, goggles or face shield to prevent splashes into the eyes.

**SKIN:**

In general avoid skin contact. Wear impervious gloves.

**RESPIRATORY:**

Not necessary for adequately ventilated work area.

**PROTECTIVE CLOTHING:**

As necessary to avoid contact with skin.

**WORK HYGIENIC PRACTICES:**

Wash hands with soap and water after using material. Do not use solvent to remove product from skin.

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**9. PHYSICAL AND CHEMICAL PROPERTIES**

Physical State: Liquid

Odor: Organic solvent odor

Appearance: Viscous white liquid

Percent Volatile: 27 - 33

Vapor Pressure: <2.0 mmHg

Vapor Density: ~4.7-6.1 (Air = 1)

Solubility in Water: <20

Evaporation Rate: <0.1 (n-Butyl Acetate=1)

Specific Gravity: ~1.3 (water=1)

(VOC): 380 to 390

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**COMMENTS:**

Percent Volatile: Listed as percent weight.

VOC g/l is a calculated value based on component data.

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**10. STABILITY AND REACTIVITY**

STABLE: Yes

HAZARDOUS POLYMERIZATION: No

CONDITIONS TO AVOID:

Avoid high temperatures and sunlight.

HAZARDOUS DECOMPOSITION:

Normal decomposition products.

INCOMPATIBLE MATERIALS:

Oxidizers, peroxides, strong acids and bases, amines and active epoxy curing agents.

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**11. TOXICOLOGICAL INFORMATION**

GENERAL COMMENTS:

No specific toxicological data is available for this product.

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**12. ECOLOGICAL INFORMATION**

GENERAL COMMENTS:

No specific environmental data is available.

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**13. DISPOSAL CONSIDERATIONS**

DISPOSAL METHOD:

Dispose of in accordance with all Federal, State and Local regulations.

Keep out of sewers and waterways.

RCRA/USPA WASTE INFORMATION:

Not a RCRA waste material.

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## 14. TRANSPORT INFORMATION

### SPECIAL SHIPPING NOTES:

Not DOT regulated.

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## 15. REGULATORY INFORMATION

### UNITED STATES

SARA TITLE III (SUPERFUND AMENDMENTS AND REAUTHORIZATION ACT)

313 Reportable Ingredients: Diethylene Glycol Ethyl Ether Acetate, Naphthalene

TSCA (TOXIC SUBSTANCE CONTROL ACT)

TSCA Status: This product complies with all applicable rules and orders under TSCA.

RCRA STATUS:

Waste material is not RCRA regulated.

### CANADA

CANADIAN ENVIRONMENTAL PROTECTION ACT:

This product contains substances not included in the DSL or the NDSL, in the following concentrations in % by weight:

Polymer 39.4

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## 16. OTHER INFORMATION

Approval date: 05/03/2007

### REVISION SUMMARY

New MSDS

### HMIS CODES

Fire: 2    Health: 1    Reactivity: 0

### MANUFACTURER SUPPLEMENTAL NOTES:

This product contains no environmentally restricted substances as listed in Sony Technical Standard SS-00259 fifth edition.

### MANUFACTURER DISCLAIMER:

The information contained herein is based on data considered accurate. However, no warranty is expressed or implied regarding the accuracy of the data or the results to be obtained from the use thereof.

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