

MATERIAL SAFETY DATA SHEET



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DATE PREPARED: 03/07/2007
MSDS No: ca40bn07
CA-40 BN

1. CHEMICAL PRODUCT AND COMPANY IDENTIFICATION

Product Identifier: CA-40 BN
Product Description: Solder Mask Hardener
Product Name: CA-40BN
Chemical Family: Epoxy Hardener

MANUFACTURER:

Taiyo America, Inc.
2675 Antler Drive
Carson City, NV 89701
Customer Service: 775-885-9959

24 HR. EMERGENCY TELEPHONE

NUMBERS:

Emergency Contact: Phillip Harrison
Emergency Phone 775-885-9959

2. COMPOSITION/INFORMATION ON INGREDIENTS

	wt.%	CAS Registry #
Dipropylene Glycol Methyl Ether	13 – 14	34590-94-8
Diethylene Glycol Mono Ethyl Ether Acetate	2 – 3	112-15-2
Epoxy Resin (Trade Secret)	19 – 22	

OSHA HAZARDOUS COMPONENTS (29 CFR 1910.1200)

	EXPOSURE LIMITS		
	OSHA PEL	ACGIH TLV	Supplier
Dipropylene Glycol Methyl Ether	100 ppm	100 ppm Skin	

COMMENTS:

Dipropylene Glycol Methyl Ether STEL: 150 ppm

3. HAZARDS IDENTIFICATION

EMERGENCY OVERVIEW

PHYSICAL APPEARANCE:

White, viscous liquid (paste) with very mild 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 on re-exposure to this material.

INGESTION:

Harmful if swallowed.

INHALATION:

May cause respiratory tract irritation.
High vapor concentrations may cause headaches, dizziness and nausea.

ACUTE EFFECTS:

Symptoms of overexposure (ingestion, inhalation, skin contact) include: stomach or intestinal upset (vomiting, nausea, diarrhea), irritation (nose, throat, airways)

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:

NTP, IARC, and OSHA sources checked: Not Listed.

MUTAGENICITY:

Animal studies of one component in the soldermask have shown mixed results, indicating over-exposure may cause toxic effects to the testes, possible liver and lung effects and possible male reproductive effects. The impact on humans has not been established.

ROUTES OF ENTRY:

Inhalation, dermal, ingestion.

TARGET ORGANS:

Skin, eyes at high concentrations.

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.



INHALATION:

If breathing becomes difficult, remove to fresh air.
If symptoms persist give oxygen and seek medical attention.

5. FIRE FIGHTING MEASURES

Flashpoint and Method: ~165°F 74°C Penskey-Marten CC
Autoignition Temperature: Not Established

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 demand mode with appropriate turn-out gear.

COMMENTS:

Flash Point listed based upon component data

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. Transfer absorbent, soil and other materials to containers for disposal.

SPECIAL PROTECTIVE EQUIPMENT:

Protective eyewear, impervious gloves, air purifying respirator recommended.

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 sealed container away from sunlight and heat. Recommended storage below 68 F (20 C) to maintain shelf life.

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.



9. PHYSICAL AND CHEMICAL PROPERTIES

Physical State: Liquid
Odor: Slight mild organic solvent odor.
Appearance: White viscous liquid.
Percent Volatile: 15 - 17
Vapor Pressure: <0.2 mmHg at 20°C
Vapor Density: <4.7-6.1 (Air = 1)
Boiling Point: Not Established
Freezing Point: Not Established
Melting Point: None
Solubility in Water: <15 at 20°C
Evaporation Rate: <0.1 (n-Butyl Acetate=1)
Specific Gravity: ~1.7 (water=1) at 20°C
(VOC): 268 to 278

COMMENTS:

Percent Volatile: Listed as percent weight.

COMMENTS:

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

10. STABILITY AND REACTIVITY

STABLE: Yes

HAZARDOUS POLYMERIZATION: No

CONDITIONS TO AVOID:

Avoid high temperatures, sunlight.

HAZARDOUS DECOMPOSITION:

Normal combustion products.

INCOMPATIBLE MATERIALS:

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

11. TOXICOLOGICAL INFORMATION

GENERAL COMMENTS:

No specific toxicological data is available for this product.



12. ECOLOGICAL INFORMATION

GENERAL COMMENTS:

No specific environmental data is available.

13. DISPOSAL CONSIDERATIONS

PRODUCT DISPOSAL:

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.

14. TRANSPORT INFORMATION

15. REGULATORY INFORMATION

UNITED STATES

TSCA (TOXIC SUBSTANCE CONTROL ACT)

TSCA Regulatory: This product complies with all applicable rules or orders under TSCA.

RCRA STATUS:

Not a RCRA hazardous waste.

CANADA

CANADIAN ENVIRONMENTAL PROTECTION ACT:

All intentional components of this product are listed on the DSL or NDSL.

16. OTHER INFORMATION

Approved by: Phillip Harrison Title: Plant Manager

Approval date: 03/07/2007

Information Contact: Phillip Harrison

REVISION SUMMARY

New MSDS



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DATE PREPARED: 03/07/2007

MSDS No: ca40bn07

CA-40 BN

HMIS CODES

Fire: 1 Health: 2 Reactivity: 2

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.