CAPE
CREATIVE ADVANCED POLYMER ENGINEERING

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(1) CHEMICAL PRODUCT AND COMPANY IDENTIFICATION

1.1 Product Details

Product Name	: Optoelectronic epoxy resin
Manufacturer's Code	: SM0331UV (part A)
Use	: Clear epoxy hardener for encapsulating of mainly optoelectronics devices

1.2 Company Identification

Manufacturer's Name	: Oriem Technology Sdn. Bhd.
Manufacturer's Address	: Plot 25, Bayan Lepas Industrial Estate, Non-FTZ, Phase 4, 11900 Bayan Lepas, Penang, Malaysia.
Tel. No.	: +6-04-642 6363
Fax. No	: +6-04-642 6369
Email	: sales@cape.com.my
	http://www.cape.com.my

1.3 Emergency Telephone

Designation	: Managing Director
Tel. No.	: +6-04-642 6363

(2) HAZARD IDENTIFICATION

Hazard pictogram

Signal word: Harmful
Most important hazards:
Harmful if swallowed
Causes skin and eye irritation

(3) COMPOSITION / INFORMATION ON INGREDIENTS

Chemical Name / Chemical Group	*CAS No.*	*Proportion*	*Exposure Limit*
Diglycidyl Ether of Bisphenol A	25085-99-8	97.5%	Not established
Blue Pigment	N/A	< 1%	Not established
Proprietary additives	Unknown	< 1%	Not established
UV Additve	104810-48-2	< 0.5%	Not established

(4) FIRST AID MEASURES

Ingestion	: Induce vomiting. Get medical attention immediately.
Eye contact	: Immediately flush with plenty of water for at least 15 minutes. Get medical attention.
Skin contact	: Immediately flush with plenty of water for at least 15 minutes. Get medical attention.
Inhalation	: Remove victim to fresh air. If breathing is difficult, give

oxygen

(5) FIRE FIGHTING MEASURES

Extinguishing Media : Use dry chemical, foam, water jet or carbon dioxide
Fire Fighting Instruction : Shut off fuel to fire if it is possible to do so without hazard. For small out door fires, portable fire extinguishers may be used, and self contained breathing apparatus (SCBA) may not be required. Respiratory and eye protections are required for fire fighting personnel.
Special hazards : COx as decomposition products.

(6) ACCIDENTAL RELEASE MEASURES

Leak / Spill : Absorb with sand or sawdust. Report as per regulatory requirements.
Environmental Protection : Do not allow to enter drainage system, surface or ground water.

(7) HANDLING AND STORAGE

Handling : No special precaution is necessary. Observed good industrial housekeeping practices as for any rubber material. Prevent contact with eyes and skin. Wear goggles and rubber gloves.
Storage : Store in cool & dry place in tightly closed containers.

(8) EXPOSURE CONTROL AND PERSONAL PROTECTION

a. Exposure Limit

Chemical Name	***Standards****	***Reference***
Epoxy resins	N.E.	OSHA, ACGIH
Blue pigment	N.E.	OSHA, ACGIH

NOTE: Eight-hour time-weighted average exposure unless stated otherwise*
N.E. – Not Established
OSHA – Occupational Safety and Health Act
ACGIH – American Conference of Government Industrial Hygienists

b. Ventilation
Use general or local exhausts ventilation.

c. Personal Protection
Eye/skin protection : Safety goggles & cotton gloves are recommended.
Respiratory Protection : Not required where adequate ventilation conditions exist but face mask is advised. If airborne concentration exceeds exposure level, a high efficiency particulate respirator is recommended.

(9) PHYSICAL AND CHEMICAL PROPERTIES

Apperance	: Bluish liquid
Odour	: Not available
Solubility	: None in water
Boiling Point (^{o}C)	: Not applicable
Vapour Pressure (mm of Hg at 25°C)	: Not applicable
Percentage Volatiles	: Not determined
Evaporation Rate	: Not established
Vapour Density	: Not applicable
Flash Point (^{o}C)	: > 240
Autoignition Temperature (^{o}C)	: Not established
Decomposition Temperature (^{o}C)	: > 350
Flammable limit (%)	: Not available
Explosive/oxidizing properties	: Not to be expected

(10) STABILITY AND REACTIVITY

Stability : Stable under ordinary conditions of use and storage.

Conditions to avoid : Excess heat, flame and sources of ignition

Incompatibles : Acid, base, hydrocarbon solvent and oxidizing materials

Decompositions Products : Oxide of carbon, nitrogen

Hazardous polymerization : Will not occur by itself, but masses more than 500g of products with an aliphatic amine will cause irreversible polymerization with considerable heat buildup.

(11) TOXICOLOGICAL INFORMATION

Toxicity Data
Oral : LD50 >5000mg/kg (rat)
Skin : LD50 20000mk/kg (rabbit)

Carcinogenicity
No data

Reproductive Effect
No data

Effects of overexposure
The product has primary irritant effect on the skin, mucous membranes, and eyes

Chronic Effects
No data

Target Organs
Eyes and skin

(12) ECOLOGICAL INFORMATION

Mobility	: Not miscible in water
Bioaccumulation	: Low bioconcentration factor (BCF)
Biodegradability	: Slightly biodegradable.
Aquatic Toxicity	: Fathead minnow : LC50 = 3.1mg/l Daphnia magna: LC50 = 1.3 mg/l.
Environmental Toxicity	: No information found

(13) DISPOSAL INFORMATION

Disposal of waste to be carry out at the city, state or federally permitted disposal facility. Handle in accordance with applicable regulations and/or local authorities.

(14) TRANSPORTATION INFORMATION

Land transport ADR/RID (cross-border)
ADR/RID Class: Not Regulated.

Maritime transport IMDG
IMDG Class: Not Regulated

Air transport ICAO-TI and IATA-DGR
ICAO/IATA Class: Not Regulated

(15) REGULATORY INFORMATION

This product has been adopted according to the GHS of Classification and Labeling of Chemicals worldwide, and the SDS contains all required information.

(16) OTHER INFORMATION

a. Proposed classification: Irritant

b. Hazard statement
H302 Harmful if swallowed
H315/320 Irritate to eyes and skin

c. Precautionary statement
P280 Wear suitable gloves and face protection
P338 Removes contact lenses, if present and easy to do. Continue rinsing
P351 Rinse cautiously with water for several minutes
P352 Wash with plenty of soap and water

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