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MATERIAL SAFETY DATA SHEET

POLYKLEAR EPOXY RESIN SW-2713-A

1. IDENTIFICATION OF THE SUBSTANCE/PREPARATION AND OF THE COMPANY

POLYKLEAR EPOXY RESIN SW-2713-A Product Name:

SWANCOR HARDENER SW-2713-B

DISTRIBUTOR:

SEA Olympus Marketing Inc.

SEA Olympus Bldg., A.C. Cortes Ave.,

Mandaue City, Cebu Philippines 6014

Telephone No.: (032) 346-7137

2. HAZARDS IDENTIFICATION

HAZARDS TO CLASSIFY:

ACUTE TOXICITY (ORAL) TO FOURTH CLASS · ACUTE TOXICITY (DERMAL) TO FOURTH CLASS · SKIN CORROSION TO FIRST CLASS · SKIN SENSITZATION TO FIRST CLASS · CHRONIC AQUATIC TOXICITY TO THIRD CLASS.



LABELLING:

WARN: DANGER WARN INFORMATION:

Harmful if swallowed

Harmful in contact with skin

Causes severe skin burns and eye damage

May cause an allergic reaction

Harmful to aquatic life with long lasting effects

EMERGENCY OVERVIEW:

Avoid release to the environment.

Wear protective gloves /protective clothing/eye protection/face

protection.

Wash with plenty of soap and water.

Rinse cautiously with water for several minutes.

Remove contact lenses, if present and easy to do. Continue rinsing.

Store Locked Up

OTHER: -

3. COMPOSITION ON INGREDIENTS

SWANCOR EPOXY RESIN SW-2713-A NAME: **SWANCOR HARDENER SW-2713-B**

INGREDIENTS (%):

MODIFY AMINE :> 80%

CHEMISTRY:

MODIFY AMINE: SECURITY SUBSTANCE

LUZON:

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Fax #: (032) 421-7789; 346-1817

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4. FIRST AIDS MEASURES

Inhalation: Move to fresh air.

If symptoms persist, consult a physician.

Eye contact: Rinse immediately with plenty of water for at least 15 minutes.

If eye irritation persists, consult a specialist.

Skin Contact: Wash off with soap and plenty of water.

If skin irritation persists, call a physician.

Ingestion: Immediately give plenty of water (If possible charcoal slurry).

If a person vomits, while lying on his back place him in the recovery position

Oxygen or artificial respiration if needed.

Do not induce vomiting.

5. FIRE FIGHTING MEASURES

Suitable extinguishing media: Water Spray.

Carbon dioxide (CO₂)

Foam

Dry powder

Extinguishing media which must not be used for safety reasons: High volume water jet.

Special protective equipment for fire-fighters: Wear self-contained breathing apparatus and protective

suit.

Further information: Burning produces obnoxious and toxic fumes.

> Carbon Oxides Nitrogen Oxides

6. ACCIDENTAL RELEASE MEASURES

Personal precautions:

Keep away from sources of ignition – No smoking.

Avoid contact with skin, eyes and clothing.

Do not breathe vapours/dust.

Environmental precautions:

Prevent product from entering drains.

Do not contaminate surface water.

Avoid subsoil penetration.

Methods for cleaning up:

Soak up with inert absorbent material and dispose of as hazardous waste.

7. HANDLING AND STORAGE

Handling

Advice on safe handling: Provide sufficient air exchange and/ or exhaust in work rooms.

Avoid formation in aerosol.

Handle an open container with care.

Requirements for storage areas and containers: Keep at temperature 25°C

Further Information in storage condition: Keep away, from food, drink and other animal feeding

stuffs.

Keep container tightly closed.

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8. EXPOSURE CONTROLS/PERSONAL PROTECTION

Components with workplace control parameters

NONE

Engineering measurements

No special precautions required.

Personal Protective Equipment

Respiratory Protection: In case of insufficient ventilation wear suitable respiratory equipment.

Eye Protection: Tight fitting safety goggles

Face-shield

Material of gloves for long term application(BTT>480 min): Hand Protection:

Butyl rubber

Ethyl Vinyl Alcohol Laminate(EVAL)

Material of gloves for short term/or splash application

Nitrile rubber

Suitability and durability of a glove is dependent on usage, e.g. frequency and

duration of contact, chemical resistance of glove material and dexterity.

Skin and Body Protection: Protective Suit

Safety Shoes

Protective Measures: Do not breathe vapours or dust

Keep away from sources of ignition / No smoking

Avoid contact with eyes, skin and clothing.

9. PHYSICAL AND CHEMICAL PROPERTIES

APPEARANCE: LIQUID	ODOR:
ODOR THRESHOLD:	MELTING POINT:
ph:11.6	BOILING POINT:
FLAMABILITY:	FLASH POINT:120°C
DECOMPOSITION TEMPERATURE:	FLBERGLASS - R
AUTOIGNITION TEMPERATURE:	EXPLOSIVES LIMIT:
VAPOR PORESSURE:	VAPOR DENSITY:
SPECIFIC GRAVITY: 0.94	SOLUBILITY:
PARTITION COEFFICIENT N-	EVAPORATION RATE:
OCTANOL/WATER:	B + JUE BIN

10. STABILITY AND REACTIVITY

Conditions to Avoid:	Note: Take necessary action to avoid static electricity discharge which might		
	cause ignition of organic		
Materials to Avoid:	Strong acids and	d strong Bases	
	Strong oxidizing	gagents	
Hazardous Decomposition Products:		Carbon Oxides	
	FUE	Nitrogen oxides	
		Burning Produces obnoxious and toxic fumes	

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11. TOXICOLOGICAL INFORMATION

Acute Toxicity

LD50 Oral rat 1050 mg/kg

Potential Acute Health Effects

Ingestion: Harmful if swallowed. May cause burns to mouth, throat and stomach.

Inhalation: Irritating to respiratory system

Eyes: Corrosive to eyes. Cause burns.

Skin: Corrosive to skin. Cause burns.

Potential Chronic Health Effects

Target Organs: No known significant effects or critical hazards.

Carcinogenicity: No known significant effects or critical hazards.

Mutagenicity: No known significant effects or critical hazards.

Teratogenicity: No known significant effects or critical hazards.

Developmental effects: No known significant effects or critical hazards.

12. ECOLOGICAL INFORMATION

ENVIRONMENTAL FATE:

LC50:---

EC50:---

BCF:---

DEGRADITION AND PERSISTENCE:

On The Skin: Irritating to skin.

On The Eyes: Irritating to eyes.

Sensitization: Sensitization possible by skin contact

13. DISPOSAL CONSIDERATIONS

Waste disposal:

The generation of waste should be avoided or minimized wherever possible. Dispose of surplus and non-recyclable products via a license waste disposal contractor. Disposal of these products, solutions and any by- products should all times comply with the requirements of environmental protection and waste disposal legislation and any regional local authority requirements. Avoid dispersal of spilled material and runoff and contact with soil, waterways, drains and sewers.

14. TRANSPORT INFORMATION

UN NO. 2375

UN TRANSPORT NAME: Ammonia Solution

Hazards Class: 8

PG: 11

SEA POLLUTANTS: (YES/NO): NO

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15. REGULATORY INFORMATION

Hazard labels: C Corrosive

R-phrase(s): R20/21/22 Harmful by inhalation, in contact with skin and if swallowed.

R34 Causes burns.

R43 May cause sensitization by skin contact.

R52/53 Harmful to aquatic organisms, may cause long-term adverse effects in the

aquatic environment.

S26 In case of contact with eyes, rinse immediately with plenty of water and seek S-phrase(s):

medic advice.

S28 After contact with skin, wash immediately with plenty of soap and water. S36/37/39 Wear suitable protective clothing, gloves and eye/face protection.

S45 In case of accident or if you feel unwell, seek medical advice immediately (show

label where possible).

S61 Avoid release to the environment. Refer to special instructions/safety data sheets.

16. OTHER INFORMATION

HAZARD RATING: Health 2 / Reactivity 2

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POLYKLEAR EPOXY RESIN SW-2713-A SWANCOR HARDENER SW-2713-B

PRODUCT DESCRIPTION

SWANCOR EPOXY RESIN SW-2713-A/B is designed for the process of hand lay-up which is composed of particular epoxy resin and hardener. This is especially suitable for marine and other large structure use. Their main characteristics are suitable viscosity, moderate pot life and superior immersed effect at glass fiber and carbon fiber.

RESIN IN LIQUID PROPERTIES: ROLLASS

Properties	SW-2713-A	SW-2713-B
Appearance	Clear	Clear Blue
Viscosity(cps,25°C /77°C)	2,300-3,200	20-60
	(LVT#4-	(LVT#1-60rpm)
	60rpm)	
Flash Point(°C)	>150°C	>120°C
Density (g/cm ³ 25°C/77C)	19 E K G L 1.1-1.2+ HE SIN	1.0-1.1
A/B ratio (weight)	100:	
llkear	3	
Initial Mix viscosity(cps,25°C		400-600
/77°C)		(LVT#3-60rpm)
Exothermic peak time/ Gel time (mins, 25°C, 60%rh /100g)	Boly Warr	35-55

MECHANICAL PROPERTIES OF CONDENSATE OF EPOXY RESIN:

Properties	SW-2713-A/SW-2713-B	Standard or Method
Tensile Strength (MPa)	70-85	ASTM D638 / ISO 527
Tensile Modulus (MPa)	2,800-3,700	ASTM D638 / ISO 527
Flexural Strength (MPa)	128-164	ASTM D790 / ISO 178
Flexural Modulus (MPa)	2,950-3,700	ASTM D790 / ISO 178
Elongation of Break (%)	>5	ASTM D638 / ISO 527
$T_{g}(^{\circ}C)$	80-95	ASTM D3418 / ISO 11357-2
HDT (°C)	78-88	ASTM D648 / ISO 75-2

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