

Material Safety Data Sheet

1. PRODUCT AND COMPANY IDENTIFICATION

Product Name: : **Ekoa Prepreg including SKUs P-UD 1.5, P-UD 3.2, P-RS 7.7, P-SU 8.1, P-SX 10.3**

Product Use Description: : Modified Semi-Solid Epoxy Resin and Flax Linen Fiber

Company: : Lingrove LLC
2180 Folsom Street
San Francisco, CA 94110

Contact numbers / Emergency: : San Francisco: (415) 671-8191
: 24/7 Emergency Hotline: (415) 671-8191
: Global Response Access Code: 333178

2. COMPOSITION/ INFORMATION ON INGREDIENTS

Description – The material is composed of Epoxy Resin, Epoxy Resin Curing Agent, and Flax Linen. The exact chemical identity of materials is trade secret.

CAS Number – N/A

Chemical Family: Epoxy Resin

Amounts specified are typical and do not represent a specification. Remaining components are proprietary, non-hazardous, and/or present at amounts below reportable limits.

3. HAZARDS IDENTIFICATION

HMIS Hazard Rating: **Health - 2** **Flammability - 1** **Physical Hazards - 0**

Emergency Overview: May cause allergic skin reaction in susceptible individuals. May cause skin and eye irritation.

4. FIRST AID MEASURES

Symptoms and effects: Irritation of the skin and eyes.

First Aid - Inhalation: No specific measures

First Aid - Skin: Do not delay. Remove contaminated clothing. Wash skin with water using soap if available. If persistent irritation occurs, obtain medical attention.

First Aid - Eye: Do not delay. Flush eye with water. If persistent irritation occurs, obtain medical attention immediately.

First Aid - Ingestion: Do not induce vomiting. In the unlikely event of ingestion, obtain medical attention immediately.

Advice to Physicians: If skin sensitisation has developed and a causal relationship has been confirmed, further exposure should not be allowed.

5. FIRE FIGHTING MEASURES

Special hazards: Not classified as flammable, but will burn. Carbon monoxide may be involved incomplete combustion occurs.

Extinguishing media- small fires: Dry chemical powder, carbondioxide foam, water spray or fog, sand or earth.

Large fires: Foam, water spray or fog.

Unsuitable extinguishing media: Water in a jet.

Protective equipment: Full protective clothing and self contained breathing apparatus.

Other information Keep adjacent containers cool by spraying with water.

6. ACCIDENTAL RELEASE MEASURES

Ekoa Prepreg

MSDS Number: MSDS_1

Version No.: 01

Revision date: 10-May-2016

MSDS US

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Personal precautions:	Avoid contact with skin, eyes and clothing
Personal protection:	Wear protective clothing specified for normal operations (see section 8).
Environmental precautions:	Prevent contamination of soil and water. Prevent from spreading or entering into drains, ditches or rivers by using sand, earth or other appropriate barriers. If materials enter drains it should be pumped out into a open vessel. Emergency services may need to be called to assist in this operation.
Clean-up methods- small spillage:	Absorb or contain liquid with sand, earth or spill control material. Shovel material to labelled sealable container for safe disposal.
Large spillage:	Transfer to a labelled container for product recovery or safe disposal. Otherwise treat as for small spillage.
Waste Disposal:	At this time, this material or its containers would not be considered hazardous wastes as defined under the federal RCRA regulations (40 CFR 261) if discarded. Care should be taken to ensure that the material or its containers are disposed of in an approved facility in accordance with current federal, state, and local regulations.

For further information, contact your state or local waste agency or the U.S. Environmental Protection Agency's RCRA hot line (1-800-424-9346 or 202-382-3000).

7. HANDLING AND STORAGE

Handling and Handling:	Avoid contact with skin, eyes and clothing. Store in sealed containers at 0°F (-18°C) to prolong shelf life. Prior to use, allow contents to come to ambient temperature before opening container to avoid absorption of moisture.
Storage temperatures:	0°F (-18°C)

8. EXPOSURE CONTROLS/ personal protection

Occupational exposure standards:	None established.
Respiratory protection:	Not normally required. In a confined space wear half mask respirator with organic vapour cartridge and build-in particular filter NPF 20 (gas only). If product is applied by spraying wear self contained breathing apparatus.
Hand protection:	Nitrile rubber gloves or butyl rubber gloves, gauntlet type.
Eye protection:	Monogoggles.
Body protection:	Standard issue work clothes, safety boots.

9. PHYSICAL AND CHEMICAL PROPERTIES

Physical state:	Translucent film in rki j v'dtqy p'hkpg'hkdt
Color:	Clear / Pale tgf
Odor:	Slight
Density:	1100 - 1200 kg/m ³ @ 25 °C (typical)
Flash point:	Over 200 °C
Solubility in water	Negligible
N-octanol/water partition coefficient Data not available	

10. STABILITY/REACTIVITY

Stability:	Stable under normal use conditions. Reacts with strong oxidising agents. Polymerises exothermically with amines, mercaptens and Lewis acids at ambient temperature and above. Polymerises in contact with bases (eg caustic soda), ammonia, primary and secondary amines, alcohol's and acids.
Conditions to avoid:	Caustic soda can induce a vaporous polymerisation at temperatures over 150 °C.
Materials to avoid:	Strong oxidising agents. Caustic soda.
Hazardous decomposition products:	Hazardous decomposition products are not expected to form during normal storage.

11. TOXICOLOGICAL INFORMATION

Acute toxicity

Acute toxicity - oral:	LD50 > 10000 mg/kg (rat)
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Eye irritation:	Irritant.
Skin irritation:	Irritant.
Respiratory irritation:	Not irritating.
Skin sensitisation:	Skin sensitizer.
Carcinogenicity:	A recent review of the available data by the International Agency for Research on Cancer (IARC), has concluded that DGEBA is not classified as a carcinogen.
Mutagenicity:	DGEBA in animal mutagenicity studies were negative. In vitro mutagenicity tests were negative in some cases and positive in others.

12. ECOLOGICAL INFORMATION

Prevent entry into sewers and natural waters. May cause localized fish kill.

Movement and Partitioning:	Bioconcentration potential is moderate (BCF between 100 and 3000 or Log Kow between 3 and 5).
Degradation and Transformation:	Theoretical oxygen demand is calculated to be 2.35 p/p. 20-day biochemical oxygen demand is <2.5%.
Ecotoxicology:	Material is moderately toxic to aquatic organisms on an acute basis. LC50/EC50 between 1 and 10 mg/L in most sensitive species.

13. DISPOSAL CONSIDERATIONS

Precautions:	See section 8. Refer to section 7 before handling the product or containers.
Waste disposal:	Recover or recycle if possible. Otherwise incineration or dispose to licensed contractor.
Product disposal:	Drain container thoroughly. Rinse three times with suitable solvent. Treat rinses as for product disposal. After Draining, vent in a safe place away from sparks and re. Send to drum recovered or metal reclaimed.
Local legislation:	Control of Pollution Act 1974. Control of Pollution (Special waste) Regulations 1980. Environmental Protection Act 1990.

14. TRANSPORT INFORMATION

49 CFR / Highway and Rail:.....Not Regulated per 49 CFR Regulation 171.4, Paragraph C and 172.101 Appendix B
IATA / Air Transport:..... Not Regulated per 49 CFR Regulation 171.4, Paragraph C and 172.101 **Appendix B**

15. REGULATORY INFORMATION

OSHA STATUS:.....Slight irritant; possible sensitizer.
TSCA STATUS:.....All components are listed on TSCA inventory or otherwise comply with TSCA requirements.
SARA TITLE III:
SECTION 313 TOXIC CHEMICALS.....None (deminimus).
SARA HAZARD CLASSIFICATION: This material has been categorized as having the following hazard(s) as defined by SARA title III regulations (40 CFR 370): acute, chronic.

16. OTHER INFORMATION

Uses and restrictions:	- Compositions for the building and civil engineering industries e.g. flooring compounds, primers, adhesives, mortars, joints and grouts - Offshore & Marine applications
SDS distribution:	This document contains important information to ensure the safe storage, handling and use of this product. The information in this document should be brought to the attention of the person in your organisation responsible for advising on safety matters.

USER'S RESPONSIBILITY / DISCLAIMER OF LIABILITY: This information is based on our current knowledge and is intended to describe the product for the purposes of health, safety and environmental requirements only. It should not therefore be construed as a guarantee of any specific property of the product.

As the conditions or methods of use are beyond our control, we do not assume any responsibility and expressly disclaim any liability for any use of this product. Information contained herein is believed to be true and accurate but all statements or suggestions made without warranty, expressed or implied, regarding accuracy of the information, the hazards connected with the use of the material or the results to be obtained from the use thereof. Compliance with all applicable federal, state, and local laws and local regulations remains the responsibility of the user.

This bulletin cannot cover all possible situations that the user may experience during processing. Each aspect of your operation should be examined to determine if, or where, additional precautions may be necessary. All health and safety information contained in this bulletin should be provided to your employees or customers. It is your responsibility to develop appropriate work practice guidelines and employee instructional programs for your operation.
