

Material Safety Data Sheet

1. PRODUCT AND COMPANY IDENTIFICATION

Product Name: : **Super Sap[®] CCR Epoxy**

Product Use Description: : Modified Liquid Epoxy Resin

Company: : Entropy Resins Inc
30621 San Antonio St.
Hayward, CA 94544

Contact numbers / Emergency: : Los Angeles: (310) 882-2582
: 24/7 Emergency Hotline: (760) 476-3962
: Global Response Access Code: 333178

2. COMPOSITION/ INFORMATION ON INGREDIENTS

Description – The exact chemical identity of this component is trade secret. This component is composed of Epoxidized Pine Oils, Bisphenol A/F type epoxy resin, Benzyl Alcohol, and proprietary reactive epoxy diluents.

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

Super Sap CCR Epoxy Resin

MSDS Number: MSDS_11_CCR01_v3_US Version No.: 03 Revision date: 29_Mar_2013

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:	Avoid contact with skin, eyes and clothing
Storage:	Keep container tightly closed and dry. Palletised loads should be stacked to a maximum of 4 high.
Storage temperatures:	Ambient.

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:	Liquid
Colour:	Clear / Pale yellow
Odour:	Slight
Density:	1100 - 1200 kg/m ³ @ 25 °C (typical)
Dynamic viscosity:	8.0-13.0 Pa.s @ 25 °C
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, mercaptans 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

Super Sap CCR Epoxy Resin

MSDS Number: MSDS_11_CCR01_v3_US Version No.: 03 Revision date: 29_Mar_2013

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Acute toxicity - oral: LD50 > 10000 mg/kg (rat)

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 DGE BPA is not classified as a carcinogen.
 Mutagenicity: DGE BPA 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
Air Transport:..... Not Regulated per 49 CFR Regulation 171.4, Paragraph C and 172.101 **Appendix B**

IMDG

Sea Vessel:

Name:	Environmentally hazardous substance, liquid n.o.s. (Reaction product: bisphenol-A-(epichlorhydrin); epoxy resin (number average molecular weight < 700))
Classification:	9
UN Number:	3082
Packaging group:	III

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.

Material Safety Data Sheet

1. PRODUCT AND COMPANY IDENTIFICATION

Product Name: : **Super Sap® CCS Slow Hardener**

Product Use Description: : Curing Agent for Epoxy Resins

Company: : Entropy Resins, Inc.
30621 San Antonio St.
Hayward, CA 94544

Contact numbers / Emergency: : Los Angeles: (310) 882-2120
: 24/7 Emergency Hotline: (760) 476-3962
: Global Response Access Code: 333178

2. COMPOSITION/ INFORMATION ON INGREDIENTS

<u>NAME</u>	<u>CAS Number</u>	<u>%</u>
Polyoxypropylenediamine	9046-10-0	50-100

Chemical Family: Polyetheramine

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

Emergency Overview: DANGER! Aspiration hazard if swallowed – can enter lungs and cause damage. Corrosive to eyes and skin. Causes burns. Causes severe irritation if inhaled, severe skin irritation, severe eye irritation, and may cause skin and eye burns. Do not breathe vapor or mist. Do not ingest. Do not get in eyes or on skin or clothing. Use only with adequate ventilation. Keep container tightly closed and sealed until ready to use. Wash thoroughly after handling. Can cause allergic respiratory reaction and allergic skin reaction.

Physical State : Liquid
Odor : Ammoniacal
OSHA/HCS status : This material is considered hazardous by the OSHA Hazard Communication Standard (29 CFR 1910.1200).

4. FIRST AID MEASURES

Symptoms and effects: Irritation of the skin and eyes.

First Aid - Inhalation: Remove to fresh air. Seek medical attention immediately.

First Aid - Skin: For skin contact, under a safety shower, immediately remove contaminated clothing and shoes. Wash affected areas thoroughly with large amounts of water, and soap if available, for at least 15 minutes. Seek immediate medical attention. Discard or decontaminate clothing before re-use and destroy contaminated shoes.

First Aid - Eye: For eye contact, immediately flush eyes for at least 15 minutes with running water. Hold eyelids apart to ensure rinsing of the entire eye surface and lids with water. If physician is not available, flush for an additional 15 minutes. Seek immediate medical attention.

First Aid - Ingestion: If swallowed, wash out mouth with water. Move exposed person to fresh air. Aspiration hazard if swallowed. Do not induce vomiting. Do not give anything by mouth to an unconscious or convulsing person. Seek immediate medical attention.

Overexposure Effects: Causes severe irritation if inhaled, severe skin irritation, severe eye irritation, and may cause skin and eye burns. Can cause allergic respiratory reaction and allergic skin reaction.

Advice to Physicians: If skin sensitisation has developed and a causal relationship has been confirmed, further exposure should not be allowed. Symptomatic and supportive therapy as needed. Following severe exposure medical follow-up should be monitored for at least 49 hours.

5. FIRE FIGHTING MEASURES

Flash Point: Closed Cup: > 325.4 °F (> 163 °C)
Fire Fighting Extinguishing Media: Dry chemical powder, carbon dioxide, foam, water spray or fog, sand or earth.
Fire Fighting Equipment: Use full protective clothing and self-contained breathing apparatus.
Fire and Explosion Hazards: Decomposition and combustion products may be toxic.

6. ACCIDENTAL RELEASE MEASURES

Personal precautions: Avoid all personal 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 material enters 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 other absorbent spill control material. Shovel material to labelled sealable container for safe disposal. Do not use sawdust, wood chips or other cellulosic materials to absorb the spill, as the possibility for spontaneous combustion exists. Wash spill residue with warm, soapy water if necessary.
Large spillage: Transfer to a labelled container for product recovery or safe disposal. Otherwise treat as for small spillage.

7. HANDLING AND STORAGE

Signal Word: Danger!
Precautions: Do not ingest. Causes severe irritation if inhaled, severe skin irritation, severe eye irritation, and may cause skin and eye burns. Can cause allergic respiratory reaction and allergic skin reaction. Do not breath vapor mist. Do not get in eyes, on skin, or on clothing. Keep clothing
Handling: Avoid contact with skin, eyes and clothing
Storage: Keep container tightly closed and dry to prevent moisture absorption and contamination. Keep in a cool, well-ventilated area.

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.
Skin protection: Wear impervious nitride 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: Liquid
Color: Colorless to light yellow
Odor: Ammoniacal. (Slight.)
Vapor Density: >1 [air=1]
Boiling Point: > 260 °C (>500 °F)
Flash point: >163 °C (325.4 °F)
Melting point: Not available.
Solubility: Soluble in cold water
pH: 11.65 [Basic.]

10. STABILITY/REACTIVITY

Stability: This product is stable.
Materials to avoid: Acids.
Hazardous Polymerization: Will not occur.
Hazardous decomposition products: May include carbon dioxide, carbon monoxide, nitrogen oxides.

11. TOXICOLOGICAL INFORMATION

Eye irritation: Corrosive to eyes.
Skin irritation: Harmful in contact with skin. Corrosive to the skin.
Super Sap CCS Hardener

Respiratory irritation: Irritating to the respiratory system.
Sensitization: Causes allergic skin and respiratory sensitivity in some people.
Ingestion: Harmful if swallowed. May cause burns to mouth, throat and stomach.

12. ECOLOGICAL INFORMATION

Mobility: No data available
Persistence/degradability: No data available
Bioaccumulation: No data available
Acute toxicity - fish: Harmful to aquatic organisms. May cause long-term adverse effects in the aquatic environment.

13. DISPOSAL CONSIDERATIONS

Precautions: See section 8. Refer to section 7 before handling the product or containers.
Waste disposal: Recover or recycle product and container, if possible. Otherwise incineration or dispose to licensed contractor in accordance with federal, state and local regulations.
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.
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:.....49 CFR 173.154 paragraph 2, subparagraph C

5 Liters or less =

Consumer Commodity ORM-D

More than 5 Liters =

Name: Amines, liquid, corrosive, n.o.s. (Polyoxypropylenediamine)
Classification: 8
UN Number: 2735
Packing group: III

IATA

Name: Amines, liquid, corrosive, n.o.s. (Polyoxypropylenediamine)
Classification: 8
UN Number: 2735
Packing group: III
Passenger Aircraft: Packing Instruction 852 per IATA DGR
Cargo Only: Packing Instruction 856 per IATA DGR

IMDG

Name: Amines, liquid, corrosive, n.o.s. (Polyoxypropylenediamine)
Classification: 8
UN Number: 2735
Packing group: III

15. REGULATORY INFORMATION

US Federal Regulations:

OSHA: This material safety data sheet (MSDS) has been prepared in compliance with the federal OSHA Hazard Communication Standard 29 CFR 1910.1200. This product is considered to be a hazardous chemical under that standard.

Resource Conservation and Recovery Act (RCRA): Not a hazardous waste under RCRA (40 CFR 261)

SARA Title III: Section 304 – CERCLA: Not Listed

SARA Title III: Section 313 Toxic Chemical List (TCL): This product does not contain any chemicals for routine annual toxic chemical release reporting under Section 313 (40 CFR 372). This information must be included in all MSDS's that are copied and distributed for this material.

TSCA Section 8(b) – Inventory Status: Chemical components listed or exempted on TSCA Inventory.

TSCA Section 12(b) – Export Notification: This product contains chemical(s) which is (are) regulated by TSCA 12(b) Regulation and it is required that proper export notification shall be sent to EPA prior to shipping out of the United States of America.

International Regulations:

Canadian Inventory Status: The product contains components included on the Domestic Substances List (DSL) and the Non-Domestic Substances List (NDSL)

State Regulations:

California Prop 65: No ingredients listed.

16. OTHER INFORMATION

Uses: - Compositions for the building and civil engineering industries e.g. flooring compounds, primers, adhesives, mortars, joints and grouts
- Offshore & Marine applications

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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.

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