1. Product and Company Identification

Product Names: **LP1202 - Clear - Resin**

Product Class: **Epoxy Resin**

Manufacturer: **Life Paint Company**
12927 Sunshine Avenue
Santa Fe Springs, CA 90670

Telephone: **562-944-6391**
Emergency: **800-424-9300 (ChemTrec)**

2. Hazard Identification

Form: **Viscous liquid.**
OSHA/HCS status: **This material is considered hazardous by the OSHA Hazard Communication Standard (29 CFR 1910.1200).**
Skin irritation – Category 2
Eye irritation – Category 2A
Skin sensitization – Sub category 1B
Acute aquatic toxicity – Category 2
Chronic aquatic toxicity – Category 2

Label Elements

Hazard pictograms:

Emergency Overview: **WARNING!**
Hazards
Causes skin irritation.
May cause an allergic skin reaction.
Causes serious eye irritation.
Toxic to aquatic life with long lasting effects.

Precautionary statements

Prevention:
Avoid breathing dust/fume/gas/mist/vapors/spray
Wash skin thoroughly after handling.
Contaminated work clothing should not be allowed out of the workplace.
Avoid release to the environment.
Wear eye protection/face protection.

Response:
IF ON SKIN: Wash with plenty of soap and water.
IF IN EYES: Rinse cautiously with water for several minutes. Remove con Tact lenses, if present and easy to do. Continue rinsing.
If skin irritation or rash occurs: Get medical advice/attention.
If eye irritation persists: Get medical advice/attention.
Take off contaminated clothing and wash before reuse.

Collect spillage.

Disposal:
Dispose of contents/ container to an approved waste disposal plant.

Other hazards:
No data available
See Section 11 for more detailed information on health effects and symptoms.

3. Composition/Information on Ingredients

Synonyms: Liquid Epoxy Resin
This product is a substance.

Ingredient Name	CAS Number	%
Propane, 2,2-bis{p-(2,3-epoxyproposy)phenyl]-, polymers	25085-99-8	85-100%
OXIRANE, MOMO [(C12-14-ALKYLOXY)METHYL] DERVIS	68609-97-2	<15%
Proprietary		< 10%

4. First Aid Measures

Eye Contact: Immediately flush eyes with plenty of water for at least 15 minutes, occasionally lifting the upper and lower eyelids. Check for and remove any contact lenses. Get medical attention.

Skin Contact: Flush contaminated skin with plenty of water. Remove contaminated clothing and shoes. Wash contaminated clothing thoroughly with water before removing it, or wear gloves. Continue to rinse for at least 10 minutes. In the event of any complaints or symptoms, avoid further exposure. Wash clothing before reuse. Clean shoes thoroughly before reuse. For contact with hot product, flush contaminated skin with large amounts of cold water to dissipate heat. Cover with clean cotton sheeting or gauze. Get medical attention immediately.

Inhalation: Move exposed person to fresh air. Keep person warm and at rest. If not breathing, if breathing is irregular or if respiratory arrest occurs, provide artificial respiration or oxygen by trained personnel. It may be dangerous to the person providing air to give mouth-to-mouth resuscitation. Ger medical attention if adverse health effects persist or are severe. If unconscious, place in recovery position and get medical attention immediately. Maintain an open airway. Loosen tight clothing such as a collar, tie, belt or waistband.

Ingestion: Wash out mouth with water. Remove dentures if any. Move exposed person to fresh air. Keep person warm and at rest. If material has been swallowed and the exposed person is conscious, give small quantities of water to drink. Stop if the exposed person feels sick as vomiting may be dangerous. Do not induce vomiting unless directed to do so by medical personnel. If vomiting occurs, the head should be kept low so that vomit does not enter the lungs. Get medical attention if adverse health effects persist or are severe. Never give anything by mouth to an unconscious person. If unconscious, place in recovery position and get medical attention immediately. Maintain an open airway. Loosen tight clothing such as a collar, tie, belt or waistband.

Protection of First Aid Personnel: In the event of body contact with molten material, immediately cook with running water; do not attempt to remove material from skin. It may be dangerous to the person providing aid to give mouth-to-mouth resuscitation.

Notes to Physician:	**No specific treatment. Treat symptomatically. Contact poison treatment specialist immediately if large quantities have been ingested or inhaled.**

5. Fire-Fighting Measures

Flammability of Product:	**In a fire or if heated, a pressure increase will occur and the container may burst.**
Extinguishing Media:	
Suitable	**Water fog or fine spray. Dry chemical fire extinguishers. Carbon dioxide fire extinguishers. Foam. Alcohol resistant foams (ATC type) are preferred. General purpose synthetic foams (including AFFF) or protein foams may function, but will be less effective. Water fog, applied gently may be used as a blanket for fire extinguishment.**
Not Suitable	**Do not use direct water stream. May spread fire.**
Special Exposure Hazards:	**Promptly isolate the scene by removing all persons from the vicinity of the incident if there is a fire. Smoke may contain the original material in addition to combustion products of varying compositions which may be toxic and/or irritating. Combustion products may include and are not limited to: Phenolics, Carbon monoxide, Carbon dioxide. No action shall be taken involving any personal risk or without suitable training.**
Hazardous Combustion Products	**Decomposition products may include the following materials: carbon oxides. Container may rupture from gas generation in a fire situation. Violent steam generation or eruption may occur upon application of direct water stream to hot liquids. Dense smoke is emitted when burned without sufficient oxygen.**
Special Protective Equipment for Fire Fighters:	**Fire-Fighters should wear appropriate protective equipment and self-contained breathing apparatus (SCBA) with a full face-piece operated in positive pressure mode.**

6. Accidental Release Measures

Personal Precautions:	**No action shall be taken involving any personal risk or without suitable training. Evacuate surrounding areas. Keep unnecessary and unprotected personnel from entering. Do not ouch or walk through spilled material. Avoid breathing vapor or mist. Provide adequate ventilation. Wear appropriate respirator when ventilation is inadequate. Put on appropriate personal protective equipment (see section 8).**
Environmental Precautions:	**Avoid dispersal of spilled material and runoff and contact with soil, waterways, drains and sewers. Inform the relevant authorities if the product has caused environmental pollution (sewers, waterways, soil or air).**
Large Spill:	**Stop leak if without risk. Move containers from spill area. Approach release from upwind. Prevent entry into sewers, water courses, basements or confined areas. For molten material, allow the product to cool and solidify. Vacuum or sweep up material and place in a designated, labeled waste container. Dispose of via a licensed waste disposal contractor. Contaminated absorbent material may pose the same hazard as the spilled product.**
Small Spill:	**Stop leak if without risk. Move containers from spill area. For molten material, allow the product to cool and solidify. Vacuum or sweep up material and place in a designated, labeled waste container. Dispose of**

via a licensed waste disposal contractor.

7. Handling and Storage

Handling:	**Avoid prolonged or repeated contact with skin. Put on appropriate personal protective equipment (see section 8). Eating, drinking and smoking should be prohibited in areas where this material is handled, stored and processed. Workers should wash hands and face before eating, drinking and smoking. Persons with a history of skin sensitization problems should not be employed in any process in which this product is used. Do not get in eyes or on skin or clothing. Do not breathe vapor or mist. Do not ingest. Use only with adequate ventilation. Wear appropriate respirator when ventilation is inadequate. Keep in the original container or an approved alternative made from a compatible material, kept tightly closed when not is use. Empty containers retain product residue and can be hazardous. Do not reuse container. Avoid use of electric band heaters. Failures of electric band heaters have been reported to cause drums of liquid epoxy resin to explode and catch fire. Application of a direct flame to a container of liquid epoxy resin can also cause explosion and/or fire. See Section 8, Exposure Controls and Personal Protection**
Storage:	**Store in accordance with local regulations. Store in original container protected from direct sunlight in a dry, cool and well-ventilated area, away from incompatible materials (see section 10) and food and drink. Keep container tightly closed and sealed until ready for use. Containers that have been opened must be carefully resealed and kept upright to prevent leakage. Do not store in unlabeled containers. Use appropriate containment to avoid environmental contamination. Note: This resin may be handled, shipped and stored at elevated temperature in bulk. Recommended pumping and storage temperature for bulk shipments if 60 degrees C (140 degrees F). Storage temperature: 2 – 43 degrees C (36 – 109 degrees F) Shelf Life – Use within 24 months**

8. Exposure Controls/Personal Protection

Control Parameters:	**None established**
Recommended Monitoring Procedures:	**If this product contains ingredients with exposure limits, personal, workplace atmosphere or biological monitoring may be required to determine the effectiveness of the ventilation or other control measures and/or the necessity to use respiratory protective equipment.**
Engineering Measures:	**Use only with adequate ventilation. If user operations generate dust, fumes, gas, vapor or mist, use process enclosures, local exhaust ventilation or other engineering controls to keep worker exposure to airborne contaminants below any recommended or statutory limits.**
Hygiene Measures:	**Wash hands, forearms and face thoroughly after handling chemical products, before eating, smoking and using the lavatory and at the end of the working period. Appropriate techniques should be used to remove potentially contaminated clothing. Wash contaminated clothing before reusing. Ensure that eyewash stations and safety showers are close to the workstation location.**
Respiratory:	**Use a properly fitted, air-purifying or air-fed respirator complying with an approved standard if a risk assessment indicates this is necessary. Respirator selection must be based on known or anticipated exposure levels, the hazards of the product and the safe working limits of the**

	selected respirator. In most conditions, no respiratory protection should be needed; however, if material is heated or sprayed, use an approved air-purifying respirator. The following should be effective types of air-purifying respirators: Organic vap or cartridge with a particulate pre-filter.
Eyes:	**Safety eyewear complying with an approved standard should be used when a risk assessment indicates this is necessary to avoid exposure to liquid splashes, mists, gases or dusts.**
Skin:	**Personal protective equipment for the body should be selected based on the task being performed and the risks involved and should be approved by a specialist before handling this product.**
Environmental Exposure Controls:	**Emissions from ventilation or work process equipment should be checked to ensure they comply with the requirements of environmental protection legislation. In some cases, fume scrubbers, filters or engineering modifications to the process equipment will be necessary to reduce emissions to acceptable levels.**

9. Physical and Chemical Properties

Appearance	**Viscous liquid**
Flash Point	**Closed cup 264-268 degree C (507-514 degrees F) at 102.89 hPaEC Method A9**
Auto-Ignition Temperature	**Not Available**
Flammable limits	
Lower:	**Not applicable**
Upper:	**Not applicable**
Color	**Colorless to yellow**
pH	**Not available**
Boiling Point	**320 degrees C (608 degrees F) Differential Scanning Calorimetry (DSC) Decomposition**
Relative Density	**1.16 at 20 degrees C (68 degrees F)/20 degrees C Literature**
Vapor Pressure	**<0.0000001 Pa EC Method A4**
Odor Threshold	**Not available**
Viscosity	**Dynamic – 11,000 – 14,000 mPa.s at 25 degrees C (77 degrees F) ASTM D 445**
Water Solubility	**5.4 – 8.4 mg/l at 20 degree C (68 degrees F) EU Method A.6**
Partition coefficient: n-Octonaol/water	**Log Pow: 3.242 Estimated**
Evaporation rate	**Not available**
Vapor Density	**Not available**

10. Stability and Reactivity

Chemical Stability	**The product is stable. Under normal conditions of storage and use, hazardous polymerization will not occur.**
Conditions to Avoid	**Avoid short term exposes to temperatures above 300 degrees C. Potentially violent decomposition can occur above 350 degrees C. Avoid prolonged exposure to temperatures above 250 degrees C. Generation of gas during decomposition can cause pressure in closed systems. Pressure build up can be rapid. Avoid contact with oxidizing materials. Avoid contact with: Acids, Bases. Avoid unintended contact with amines.**
Materials to Avoid	**Reactive or incompatible with the following materials: oxidizing materials, strong acids, strong alkalis**
Other Hazards	**Reacts with considerable hot release with some curing agents**
Hazardous	**Decomposition products depend upon temperature, air supply and the**

Decomposition Products	**presence of other materials. Gases are released during decomposition. Uncontrolled exothermic reaction of epoxy resins release phenolics, carbon monoxide, and water.**
Reactivity	**No data available**

11. Toxicological Information

Acute toxicity

Very low toxicity if swallowed. Harmful effects not anticipated from swallowing small amounts.

LD50 Oral	**Rat**	**30,000 mg/kg**
LD50 Oral	**Mouse**	**20,000 mg/kg**
LD50 Oral	**Rabbit**	**19.8 mg/kg**

Acute dermal toxicity

Prolonged skin contact is unlikely to result in absorption of harmful amounts.

LD50 Dermal	**Rabbit**	**23,000 mg/kg**
LD50 Dermal	**Rat**	**>1,200 mg/kg**
LD50 Dermal	**Mouse**	**> 1,270 mg/kg**

Acute inhalation toxicity

At room temperature, exposure to vapor is minimal due to low volatility. Vapor from heated material, mist or aerosols may cause respiratory irritation. The LC50 has not been determined.

Skin Corrosion/irritation

Prolonged contact may cause skin irritation with local redness. Repeated contact may cause skin irritation with local redness

Serious eye damage/eye irritation

May cause eye irritation. Corneal injury is unlikely.

Sensitization

For similar material(s: Has caused allergic skin reactions in humans. Has demonstrated the potential for contact allergy in mice.
For respiratory sensitization: No relevant data found.

Specific Target Organ Systemic Toxicity (single Exposure)

Evaluation of available data suggests that this material is not an STOT-SE toxicant.

Specific Target Organ Systemic Toxicity (Repeated Exposure)

Except for skin sensitization, repeated exposures to low molecular weight epoxy resins of this type are not anticipated to cause any significant adverse effects.

Teratogenicity

Resins based on the diglycidyl ether of bisphenol A (DGEBPA) did not cause birth defects or other adverse effects on the fetus when pregnant rabbits were exposed by skin contact, the most likely route of exposure, or when pregnant rats or rabbits were exposed orally.

Reproductive toxicity

In animal studies, did not interfere with reproduction.

Mutagenicity

In vitro genetic toxicity studies were negative in some cases and positive in other cases. Animal genetic toxicity studies were negative.

Aspiration Hazard

Based on physical properties, not likely to be an aspiration hazard.

Other Toxicological Information

Carcinogenicity Classification

Many studies have been conducted to assess the potential carcinogenicity of diglycidyl ether of bisphenol A (DGEBPA). The most recent review of the available data by the International Agency for Research on Cancer (IARC) has concluded that GDEBPA is not classified as a carcinogen. Although some weak evidence of carcinogenicity has been reported in animals, when all of the data are considered, the weight of evidence does not show that DGEBPA is carcinogenic.

ACGIH	**Not Classified**
IARC	**Not Classified**
NTP	**Not Classified**
OSHA	**Not Classified**
EEC	**Not Classified**

12. Ecological Information

Toxicity

Acute toxicity to fish. Material is moderately toxic to aquatic organisms on an acute basis (LC50/EC50) between 1 and 10 mg/L in the most sensitive species tested)
LC50, Oncorhynchus mykiss (rainbow trout), semi-static test, 96 Hour, 2 mg/l.

Acute toxicity to aquatic invertebrates.
EC50, Daphnia magna (Water flea), static test, 48 hour, 1.8 mg/l

Acute toxicity to algae/aquatic plants
C50, Scenedesmus capricornutum (fresh water algae, static test, 72 Hour, Growth rate inhibition, 1 mg/l

Toxicity to bacteria
IC50, Bacteria, 18 Hour, Respiration rates, >42.6 mg/l

Chronic aquatic toxicity
Chronic toxicity to aquatic invertebrates
MATC (Maximum Acceptable Toxicant Level), Daphnia magna (Water flea), semi-static test, 21 d, number of offspring, 0.55 mg/l

Persistence and degradability

Biodegradability: Based on stringent OECD test guidelines, this material cannot be considered as readily biodegradable; however, these results do not necessarily mean that the material is not biodegradable under environmental conditions.
10-day Window: Not applicable
Biodegradation: 12%
Exposure time: 28d
Method: OECD Test Guideline 302B or Equivalent.

Theoretical Oxygen Demand: 2.35 mg/mg Estimated.

Photodegradation
Test Type: Half-life (indirect pohotolysis)
Sensitizer: OH radicals
Atmospheric half-life: 1.92 hour
Method: Estimated.

Bioaccumulative

Bioaccumulation: Bioconcentration potential is moderate (BCF between

potential	**100 and 3000 or Lo Pow between 3 and 5** **Partician coefficient: n-octanol/water(log Pow): 3.242 at 25 degrees C Estimated.**
Mobility in soil	**Potential for mobility in soil is low (Koc between 500 and2000)** **Given its very low Henry's constant, volatilization from natural bodies of water or moist soil is not expected to be an important fate process.** **Partition coefficient (Koc): 1800-4400 Estimated.**
Other Adverse effects	**No known significant effects or critical hazards**

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 licensed waste disposal contractor. Disposal of this product, solutions and any by-products should at 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.
As your supplier, we have no control over the management practices or manufacturing processes of parties handling or using this material. The information presented here pertains only to the product as shipped in its intended condition as described in the SDS Section: Composition Information. For unused and uncontaminated product, the preferred options include sending to a licensed, permitted: Incinerator or other thermal destruction device.

14: Transport Information

The data provided in this section is for information only and may not be specific to your package size or mode of transport. You will need to apply the appropriate regulations to properly classify your shipment for transportation.

DOT	**Not regulated for transport**

Classification for SEA transport (IMO-IMDG):

Proper shipping name:	**ENVIRONMENTALLY HAZARDOUS SUB-STANCE, LIQUID, N.O.S. (EPOXY RESIN)**
UN Number	**UN 3082**
Class	**9**
Packing group	**III**
Marine pollutant	**Epoxy Resin**
Transport in bulk According to Annex I or II of MARPOL 73/78 and the IBC or IGC Code	**Consult IMO regulations before transporting ocean bulk**

Classification for AIR transport (IATA/ICAO):

Proper Shipping name:	**ENVIRONMENTALLY HAZARDOUS SUB-STANCE, LIQUID, N.O.S. (EPOXY RESIN)**
UN Number	**UN 3082**

Class	**9**
Packing Group	**III**

CFR	**Non-Regulated**
TDG	**Non-Regulated**

15. Regulatory Information

US Regulations

OSHA Hazard Commincation Standard	**This product is a "Hazardous Chemical" as defined by the OSHA Hazard Communication Standard, 29 CFR 1910.1200.**
U.S. Federal Regulations	**Superfund Amendments and Reauthorization Act of 1986 Title III (Emergency Planning and Community Right –to-Know Act of 1986) Section 313** **This material does not contain any chemical components with known CAS numbers that exceed the threshold (De Minimis) reporting levels established by SARA Title III, Section 313.** **SARA Sections 311 and 312** **Acute Health Hazard** **United States TSCA Inventory (TSCA)** **All components of this product are in compliance with the inventory listing requirements of the U.S Toxic Substances Control Act (TSCA) Chemical Substance Inventory.**
State Regulations	**SARA 301 Extremely Hazardous Substances – None required** **Massachusetts RTK Substances – None required** **New jersey RTK Hazardous Substances – None required** **Pennsylvania RTK Hazardous Substances – To the best of our knowledge, this product does not contain chemicals at levels which require reporting under this statute.** **California Prop. 65: This product contains traces of a substance(s) known to the State of California to cause cancer, birth defects or other reproductive harm**

Canada

WHMIS (Canada)	**Class D-2B: material causing other toxic effects (Toxic)**
Canadian lists	**Canadian NPRI: None Required.**

International Regulations

Chemical Inventories	**Europe inventory – All components are listed or exempted** **Australia inventory (AICS) – All components are listed or exempted** **China inventory (IECSC) – All components are listed or exempted** **Korea inventory (KECI) – All components are listed or exempted** **Philippines inventory (PICCS) – All components are listed or exempted** **Japan inventory (ENCS) – All components are listed or exempted** **Canada inventory – All components are listed or exempted** **United States inventory (TSCA 8b)– All components are listed or exempted**

16. Other Information

Hazardous Material	**Health: 1**

Information System III (U.S.A.)
Flammability: 1
Reactivity: 0
Chronic:

Caution: HMIS ratings are based on a 0-4 rating scale, with 0 representing minimal hazards or risks, and 4 representing significant hazards or risks. Although HMIS ratings are not required on MSDSs under CFR 1910.1200, the preparer may choose to provide them. HMIS ratings are to be used with a fully implemented HMIS program. HMIS is a registered mark of the National Paint & Coatings Association (NPCA).
The customer is responsible for determining the PPE code for this material

The information provided herein was believed by Life Paint Company to be accurate at the time of preparation or prepared from sources believed to be reliable, but it is the responsibility of the user to investigate and understand other pertinent sources of information, to comply with all laws and procedures applicable to the safe handling and use of the product and to determine the suitability of the product for its intended use. All products supplied by Life Paint Company are subject to Life Paint Company's terms and conditions of sale. LIFE PAINT COMPANY MAKES NO WARRANTY, EXPRESS OR IMPLIED, CONCERNING THE PRODUCT OR THE MERCHANTABILITY OR FITNESS THEREOF FOR ANY PURPOSE OR CONCERNING THE ACCURACY OF ANY INFORMATION PROVIDED BY LIFE PAINT COMPANY, except that the product shall conform to Life Paint Company specifications. Nothing contained herein constitutes an offer for the sale of any product.