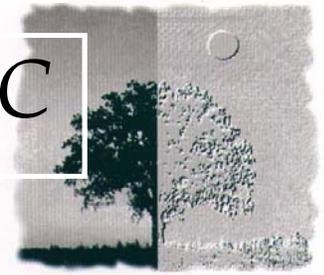


RESIN TECHNOLOGY GROUP, LLC

MATERIAL SAFETY DATA SHEET



1. MATERIAL IDENTIFICATION

Product Name: **KONA 870FTLV-DP RESIN**

EMERGENCY PHONE: For product emergency involving spill, leak, fire, exposure, or accident call CHEMTREC at (800) 424-9300. For all other inquiries please call Resin Technology Group, LLC. at (508) 230-8070.

2. COMPOSITION

HAZARDOUS COMPONENTS	CAS NO.	PERCENT	Exposure Limits	
			ACGIH TLV-TWA	OSHA PEL
Epoxy Resin	25068-38-6	<50	N.E	N.E.
N - Butyl Glycidyl Ether	2426-08-6	<5	133 mg/m ³	133 mg/m ³

Abbreviations: N.E.: Not Established

3. HEALTH HAZARDS IDENTIFICATION

Routes of Exposure: Eyes: Yes Skin: Yes Inhalation: Yes

Eye Contact: Contact can cause moderate irritation.

Skin Contact: Contact can cause moderate irritation; contact with this product at elevated temperatures can result in thermal burns.

Inhalation: May cause irritation to the respiratory tract.

Ingestion: May be slightly toxic and may be harmful if swallowed.

4. FIRST AID MEASURES

Eyes: Flush eyes with plenty of water for 15 minutes while holding eyelids open. Obtain prompt medical attention.

Skin: Remove contaminated clothing and wipe excess from skin. Flush skin with water. Follow by washing with soap and water. If irritation occurs get immediate medical attention. Do not reuse clothing until laundered.

Inhalation: If vapor is inhaled, remove to fresh air. Administer oxygen if there is difficulty breathing. Give artificial respiration if breathing has stopped. Obtain medical attention.

Ingestion: Give no more than 2 glasses of water and induce vomiting by giving 30 cc (2 tablespoons) syrup of Ipecac, or by sticking finger to back of victim's throat. Seek medical attention promptly.

5. FIRE FIGHTING MEASURES

FLAMMABLE PROPERTIES

Flash Point:	174 °F (PMCC)
Explosive Limits:	Not available.
Auto-Ignition Temperature:	Not available.
Hazardous Decomposition Products:	Carbon monoxide, aldehydes, acids and other organic substances may be formed during combustion or elevated (>500 °F) temperature degradation.

Fire Fighting Instructions: Fire fighters and others who may be exposed to the products of combustion should be equipped with NIOSH approved positive-pressure self-contained breathing apparatus and full protective clothing.

Extinguishing Media: Use water fog, foam, dry chemical, or carbon dioxide. Cool fire exposed containers with water.

6. ACCIDENTAL RELEASE MEASURES

Wear respirator and protective clothing as appropriate. Shut off source of leak if safe to do so. Soak up spilled material with a suitable absorbent material and dispose of properly. Flush area with water to remove trace residue.

7. HANDLING AND STORAGE

Store in a cool dry place. Keep away from open flames and high temperatures. Heating this resin above 300 °F in the presence of air may cause slow oxidative decomposition above 500 °F, polymerization may occur. Some curing agents can produce exothermic reactions; can cause runaway polymerization and charring of the reactants. Fumes and vapors from these thermal and chemical decompositions vary widely in composition and toxicity. Do not breathe fumes.

8. EXPOSURE CONTROLS, PERSONNEL PROTECTION

Ventilation Controls: General ventilation and local exhaust may be required to maintain airborne concentrations below the established exposure limits exposure when generating vapors or mists.

Respiratory Protection: Where exposure exceeds established airborne limits, use a NIOSH approved respirator, or a self-contained breathing apparatus, or a supplied air respirator as necessary to control exposure.

Skin Protection: Wear impervious gloves and protective clothing as necessary to prevent skin contact.

Eye Protection: Wear chemical splash goggles or safety glasses with side shields.

9. PHYSICAL AND CHEMICAL PROPERTIES

Appearance:	Light Yellow
Odor:	Mild epoxy odor
Boiling Point:	Not available
Specific Gravity:	2.14
Vapor Pressure:	Not available
Vapor Density (air=1):	Not available
Evaporation Rate:	Not available
Solubility in Water:	Negligible

10. STABILITY AND REACTIVITY

Chemical Stability:	Stable under normal conditions and use.
Conditions to Avoid:	Can react with strong oxidizing agents, strong acids, and strong bases, especially primary and secondary aliphatic amines. Reaction with some curing agents may produce considerable heat.
Hazardous Decomposition Products:	Carbon monoxide, aldehydes, acids, and other organic substances may be formed during combustion or elevated (>500 °F) temperature degradation.
Hazardous Polymerization:	Will not occur.

11. TOXICOLOGICAL INFORMATION

This section provides toxicological information with regard to the pure form of the components indicated. This information can be subject to misinterpretation. It is therefore suggested that persons trained in its evaluation interpret this information.

Epoxy Resin:

LD ₅₀ Acute Oral Rat:	11.4 g/kg
LD ₅₀ Acute Dermal Rabbit:	> 20 ml/kg
Eye Irritation:	Driaze – 2 Rabbit
Skin Irritation:	Driaze – 1.6 Rabbit

N-Butyl Glycidyl Ether:

LD ₅₀ Acute Oral Rat:	2.26 g/kg
LD ₅₀ Acute Dermal Rabbit:	788 mg/kg
LC ₅₀ Acute Inhalation Rat:	1030 ppm/8H

N-Butyl Glycidyl Ether has tested positive in a number of in vitro genetic toxicity assays with and without metabolic activation. Mixed results were observed in the dominant lethal and the mouse micronucleus tests.

Note: Due to this product's physical composition, the release or generation of dust is not expected to occur under normal conditions of use.

12. ECOLOGICAL INFORMATION

No data found.

13. DISPOSAL CONSIDERATIONS

Disposal must be made in accordance with applicable governmental regulations.

14. TRANSPORT INFORMATION

D.O.T. Classification: Resin Solution**

Hazard Class: Combustible Liquid **UN #:** UN1866 **PG:** III **ERG #:** None **Hazard Labels:** Flammable

**Not regulated by D.O.T. if in a container of 119 gallons or less.

I.A.T.A. Classification: Not Regulated

Hazard Class: None **UN #:** None **PG:** None **ERG #:** None **Hazard Labels:** None

15. REGULATORY INFORMATION

U.S. FEDERAL REGULATIONS

TSCA:

The chemical components of this product are contained on section 8(B) of the chemical substance inventory list (40CFR710).

SARA Title III Information

Section 302 - Extremely Hazardous Substances

Pursuant to section 302 of SARA Title III, this product does not contain an extremely hazardous substance.

Section 313 - Toxic Chemicals:

Pursuant to section 313 of SARA Title III, this product does not contain a toxic chemical in a concentration in excess of 1 percent of the mixture, or 0.1 percent if a carcinogen.

Section 311 / 312 - Hazard Categories

Pursuant to section 311/312 of SARA title III, the physical and health hazard categories for this product are as follows:

Immediate (Acute) Health Hazard:	Yes	Fire Hazard:	No
Delayed (Chronic) Health Hazard:	No	Sudden Release of Pressure Hazard:	No
Reactivity Hazard:	No		

STATE REGULATIONS / RIGHT TO KNOW

California Proposition 65: This product contains a chemical or chemicals known to the State of California to cause cancer, birth defects, or reproductive toxicity.

Pennsylvania: All of the materials in this product requiring identification by the Commonwealth of Pennsylvania are listed in section 2.

16. OTHER INFORMATION

HMIS Hazards: Health: 2 Flammability: 1 Reactivity: 0

NFPA Hazards: Health: 2 Flammability: 1 Reactivity: 0

This information is intended solely for the use of individuals trained in the use of this particular system.

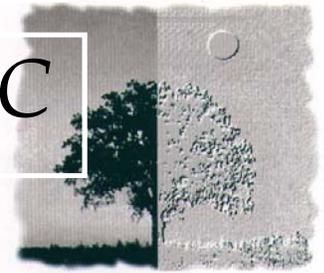
Resin Technology Group, LLC urges each customer or recipient of this MSDS to study it carefully in order to become aware of and understand the hazards associated with the product. The reader should consider consulting reference works or individuals that are experts in ventilation, toxicology, and fire prevention, as necessary or appropriate in order to use and understand the data contained in this MSDS.

To promote safe handling, each customer or recipient should: 1 - notify its employees, agents, contractors, and others whom it knows or believes will use this material or the information in this MSDS and any other information regarding hazards or safety. 2 - furnish this same information to each of its customers for the product. 3 - request its customers to notify their employees, customers, and other users of the product of this information.

The information contained herein is based on the data available to us and is believed to be correct. However, Resin Technology Group, LLC makes no warranty, expressed or implied regarding the accuracy of this data or the results to be obtained from the use thereof. Resin Technology Group, LLC assumes no responsibility for injury from the use of the product described herein.

RESIN TECHNOLOGY GROUP, LLC

MATERIAL SAFETY DATA SHEET



1. MATERIAL IDENTIFICATION

Product Name: **KONA 870 FTLV-DP HARDENER**

EMERGENCY PHONE: For product emergency involving spill, leak, fire, exposure, or accident call CHEMTREC at (800) 424-9300. For all other inquiries please call Resin Technology Group, LLC. at (508) 230-8070.

2. COMPONENTS

HAZARDOUS COMPONENTS	CAS #	PERCENT	Exposure Limits	
			ACGIH TLV-TWA	OSHA PEL
N-Aminoethylpiperazine	140-31-8	< 50	N.E.	N.E.
Nonylphenol	25154-52-3	> 30	N.E.	N.E.

Abbreviations: N.E.: Not Established.

3. HEALTH HAZARDS IDENTIFICATION

Routes of Exposure: Eyes: Yes Skin: Yes Inhalation: Yes

Eye Contact: Contact can cause severe eye irritation.

Skin Contact: Corrosive to skin. Contact can cause severe skin irritation. May cause skin sensitization.

Inhalation: May cause harm and irritation of the respiratory tract if inhaled.

Ingestion: May cause malaise, headache, discomfort, bleeding of the gastrointestinal tract and the vomiting of blood unless treated promptly.

4. FIRST AID MEASURES

Eyes: Flush eyes thoroughly with water for at least 15 minutes. Seek medical attention immediately.

Skin: Remove the uncured product with a dry cloth or towel. Flush affected area with water for at least 15 minutes. Seek medical attention. Launder contaminated clothing prior to reuse.

Inhalation: Remove to fresh air. Prevent aspiration of vomit. Turn victim's head to the side. Assure mucous does not obstruct airway. Consult a physician.

Ingestion: DO NOT induce vomiting. Give 3-4 glasses of water or milk. Seek medical attention immediately.

5. FIRE FIGHTING MEASURES

FLAMMABLE PROPERTIES

Flash Point: 212 °F (PMCC)

Explosive Limits: Not available.

Auto - Ignition Temperature: Not available.

Hazardous Decomposition Products: Carbon monoxide, carbon dioxide, and nitrogen oxides in fire. Ammonia when heated.

Fire Fighting Instructions: Retain expended liquids from fire fighting for later disposal. Firefighters should wear butyl rubber boots, gloves, body suit, and a NIOSH approved self-contained breathing apparatus. Use water spray to cool fire-exposed tanks and to disperse vapors.

Extinguishing Media: Use water spray, alcohol foam, dry chemical, or carbon dioxide.

6. ACCIDENTAL RELEASE MEASURES

Cover with sodium bisulfate to neutralize and reduce vapors. Spray with water. Place in metal containers for recovery or disposal. Clean-up personnel must be equipped with self-contained breathing apparatus and butyl rubber protective clothing.

7. HANDLING AND STORAGE

Keep away from oxidizers, heat or flames. Store in a cool, dry, well ventilated area. Keep container closed. Avoid breathing vapors. Handle in well-ventilated workspace. Wear nitrile rubber gloves and eye goggles when handling.

8. EXPOSURE CONTROLS, PERSONNEL PROTECTION

Ventilation Controls: General ventilation and local exhaust may be required to maintain airborne concentrations below the established exposure limits exposure when generating vapors or mists.

Respiratory Protection: Where exposure exceeds established airborne limits, use a NIOSH approved respirator, or a self-contained breathing apparatus, or a supplied air respirator as necessary to control exposure.

Skin Protection: Wear impervious gloves and protective clothing as necessary to prevent skin contact.

Eye Protection: Wear chemical splash goggles or safety glasses with side shields.

9. PHYSICAL AND CHEMICAL PROPERTIES

Appearance:	Amber liquid
Odor:	Ammoniacal, fishy odor
Boiling Point:	No data
Specific Gravity:	0.97
Vapor Pressure:	<1 @ 25 °C
Vapor Density (air = 1):	No data
Evaporation Rate:	No data
Solubility in Water:	Completely

10. STABILITY AND REACTIVITY

Chemical Stability:	Stable under normal conditions and use.
Conditions to Avoid:	Oxidizing agents, cleaning solutions, such as chromerge and aqua regia. A reaction accompanied by large heat release occurs when the product is mixed with acids. Heat generated may be sufficient to cause vigorous boiling creating a hazard due to splashing or splattering of hot material. Product slowly corrodes copper, aluminum, zinc and galvanized surfaces. Materials for containment should be constructed of iron steel.
Hazardous Decomposition Products:	Carbon monoxide, carbon dioxide, and nitrogen oxides in fire. Ammonia when heated.
Hazardous Polymerization:	Will not occur.

11. TOXICOLOGICAL INFORMATION

This section provides toxicological information with regard to the pure form of the components indicated. This information can be subject to misinterpretation. It is therefore suggested that persons trained in its evaluation interpret this information.

Acute Effects of Exposure: Product vapor in low concentrations can cause lacrimation, conjunctivitis and corneal edema when absorbed into the tissue of the eye from the atmosphere. Corneal edema may give rise to a perception of "blue haze" or fog around lights. The effect is transient and has no known residual effect. Inhalation of aerosol, mist or fog may cause harm if inhaled. Ingestion may cause malaise, headache, discomfort, bleeding of the gastrointestinal tract and the vomiting of blood.

Acute Toxicity Effects: No Data.

Chronic/Subchronic Data: No delayed, subchronic or chronic test data are known.

Note: Due to this product's physical composition, the release or generation of dust is not expected to occur under normal conditions of use.

12. ECOLOGICAL INFORMATION

No data found.

13. DISPOSAL CONSIDERATIONS

Incineration is acceptable and the preferred method of disposal. However, emission controls may be required to meet specifications. Chemical and/or biological degradation is feasible. A suitable industrial or municipal waste treatment system can be used depending on the quality and quantity of waste to be treated, the treatment plant capability and discharge water quality standards. Dispose of in an approved landfill if allowed locally. Dispose of in accordance with all State, Federal, and Local regulations.

14. TRANSPORT INFORMATION

D.O.T. Classification: Amines, Liquid, Corrosive, N.O.S. (N-Aminoethylpiperazine / Nonylphenol)

Hazard Class: 8 **UN #:** UN2735 **PG:** III **ERG #:** 153 **Hazard Labels:** Corrosive

I.A.T.A. Classification: Amines, Liquid, Corrosive, N.O.S. (N-Aminoethylpiperazine / Nonylphenol)

Hazard Class: 8 **UN #:** UN2735 **PG:** III **ERG #:** 153 **Hazard Labels:** Corrosive

15. REGULATORY INFORMATION

U.S. FEDERAL REGULATIONS

OSHA HAZARD CLASS:

Corrosive

TSCA:

The chemical components of this product are contained on section 8(B) of the chemical substance inventory list (40CFR710).

SARA Title III Information

Section 313 - Toxic Chemicals:

Pursuant to section 313 of SARA Title III, this product does not contain a toxic chemical in a concentration in excess of 1 percent of the mixture, or 0.1 percent if a carcinogen.

Section 311 / 312 - Hazard Categories

Pursuant to section 311/312 of SARA title III, the physical and health hazard categories for this product are identified as follows:

Immediate (Acute) Health Hazard:	Yes	Fire Hazard:	No
Delayed (Chronic) Health Hazard:	No	Sudden Release of Pressure Hazard:	No
Reactivity Hazard:	No		

STATE REGULATIONS / RIGHT TO KNOW

California Proposition 65: This product does not contain a chemical or chemicals known to the State of California to cause cancer, birth defects, or reproductive toxicity.

Pennsylvania: All of the materials in this product requiring identification by the Commonwealth of Pennsylvania are listed in section 2.

16. OTHER INFORMATION

HMIS Hazards: Health: 3 Flammability: 1 Reactivity: 0

NFPA Hazards: Health: 3 Flammability: 1 Reactivity: 0

This information is intended solely for the use of individuals trained in the use of this particular system.

Resin Technology Group, LLC urges each customer or recipient of this MSDS to study it carefully in order to become aware of and understand the hazards associated with the product. The reader should consider consulting reference works or individuals that are experts in ventilation, toxicology, and fire prevention, as necessary or appropriate in order to use and understand the data contained in this MSDS.

To promote safe handling, each customer or recipient should: 1 - notify its employees, agents, contractors, and others whom it knows or believes will use this material or the information in this MSDS and any other information regarding hazards or safety. 2 - furnish this same information to each of its customers for the product. 3 - request its customers to notify their employees, customers, and other users of the product of this information.

The information contained herein is based on the data available to us and is believed to be correct. However, Resin Technology Group, LLC makes no warranty, expressed or implied regarding the accuracy of this data or the results to be obtained from the use thereof. Resin Technology Group, LLC assumes no responsibility for injury from the use of the product described herein.