

# K & R International

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## MATERIAL SAFETY DATA SHEET

**Item No. E-05, E-058**

**PRODUCT NAME: Hardener**

### 1 HAZARDOUS INGREDIENTS

CAS#	Chemical Names	TLV/PEL
60-56-0	Catalyst	None

### 2 PHYSICAL & CHEMICAL CHARACTERISTICS

Boiling Point: N/A  
Vapor Pressure: N/A  
Vapor Density: N/A  
Solubility in water: Slight  
Specific gravity(H<sub>2</sub>O=1): 1.15  
Percent volatile by volume(%): 0%  
Evaporation rate: N/A  
Percent solid by weight(%): 100%  
Appearance and odor: Clear amber liquid with slight sassafras odor.  
Analytical: 8.66lbs/gal

### 3 FIRE AND EXPLOSION DATA

Flammable Limits: LEL not established UEL not established  
Extinguishing Media: Water, fog, dry. Chemical, CO<sub>2</sub>.  
Special Fire: Do not enter confined fire space without full protective gear.  
Fighting Procedures: Including a positive pressure. Self-contained. NIOSH approved breathing apparatus.  
Cool fire exposed container with water.  
Unusual fire and explosion hazard: Container areas exposed to intense heat or flame should be cooled with H<sub>2</sub>O to prevent pressure build-up and weakening of container structure.

### 4 REACTIVITY DATA

Stability: Stable  
Conditions to Avoid : Avoid high temperatures, Open flames and unscheduled  
Contact with curing agents

Incompatibility: Incompatible with strong oxidizing agents. Strong acids and bases, secondary aliphatic Amines and mercaptans.

Hazardous Decomposition Products: Carbon dioxide (CO<sub>2</sub>) Carbon monoxide (CO), by products  
May include oxides of nitrogen(Nox) when burned.

Hazardous Polymerization: Will not occur.  
Conditions to Avoid : Avoid mixing resin and hardener in uncontrollable quantities.

## **5 HEALTH HAZARD DATA**

Chemical Listed as Carcinogen or Potential Carcinogen in NTP or OSHA : This material is neither Carcinogenic or potentially carcinogenic

## **6 EFFECTS OF OVEREXPOSURE**

Skin Contact: Skin contact may result in irritation or chemical burn.  
Eye Contact: Product can cause severe eye irritation. Swelling and chemical burn. Contact lenses  
Should not be worn when working with this material.  
Inhalation: Vapor is irritating to the upper respiratory system and mucous.  
Ingestion: Liquid causes damage to mucous membrane if swallowed.

## **7 EMERGENCY AND FIRST AID PROCEDURES**

Inhalation: Remove victim to fresh air.  
Eyes: Flush eyes with generous amounts of water for a least 15 minutes. GET MEDICAL ATTENTION IMMEDIATELY.  
Skin : Immediately wash skin with soap and water. Wash contaminated clothing before reuse  
Ingestion: If swallowed do not induce vomiting. Give Large amounts of water or mild if available.  
Call a physician. Treatment based on judgment of the physician in response to reactions  
Of the patient.

## **8 OCCUPATIONAL EXPOSURE LIMITS**

OSHA Permissible Exposure Limit: OSHA limits have not been established for this product.  
ACGIH Threshold limit Value: ACGIH limits have not been established for this product.

## **9 SPECIAL PROTECTION INFORMATION**

Respiratory Protection: Wear NIOSH approved respiratory protection where exposure limits are  
Exceeded or in the absence of proper environmental control  
Ventilation: Use only with adequate ventilation. Local exhaust is recommended. Mechanical exhaust  
Can be used as a back up system.  
Protective Gloves : Chemical resistant gloves such as PVA.  
Eye Protection : NIOSH approved safety glasses or goggles with side shields.  
Other Protective Clothing or Equipment: Chemical resistant clothing as required to minimize skin contact

## **10 SPILL OR LEAK PROCEDURE**

Steps to be Taken in Case Material is Released or Spilled: Use cautious judgment when cleaning spills.  
Small spills may be collected with absorbent  
Material. Such as clay or sand. Large spills  
Should be diked and contained with absorbent  
Materials. Flush area with water spray to remove  
Residue. Dispose of flush legally.

## **11 SPECIAL PRECAUTIONS**

Precaution to be Taken in Handling and Storage: Store at ambient temperatures in well ventilated area.  
Avoid sparks, open flames and extreme heat. Store Separately from amine curing agents. Protect container From physical damage.

Other Precautions: Container, even those that have been emptied, can contain product residues.  
Handle in accordance with good industrial practices. Avoid prolonged or repeated Contact with skin. Wash with soap and water before eating. Drinking. Smoking.  
Applying cosmetics, or using toilet facilities. Launder contaminate clothing before use.

**PRODUCT NAME: Resin**

## 1 HAZARDOUS INGREDIENTS

CAS#	Chemical Names	TLV/PEL
25068-38-6	Epoxy Resin	None

## 2 PHYSICAL & CHEMICAL CHARACTERISTICS

Boiling Point: N/A  
Vapor Pressure: N/A  
Vapor Density: N/A  
Solubility in water: Slight  
Specific gravity(H<sub>2</sub>O=1): 1.17  
Percent volatile by volume(%): 0%  
Evaporation rate: N/A  
Percent solid by weight(%): 100%  
Appearance and odor: Clear amber liquid with slight odor.  
Analytical: 9.47Plbs/gal

## 3 FIRE AND EXPLOSION DATA

Flammable Limits: LEL not established UEL not established  
Extinguishing Media: Water, fog, dry. Chemical, CO<sub>2</sub>.  
Special Fire: Do not enter confined fire space without full protective gear.  
Fighting Procedures: Including a positive pressure. Self-contained. NIOSH approved breathing apparatus.  
Cool fire exposed container with water.  
Unusual fire and explosion hazard: Container areas exposed to intense heat or flame should be Cooled with H<sub>2</sub>O to prevent pressure build-up and weakening Of container structure.

## 4 REACTIVITY DATA

Stability: Stable  
Conditions to Avoid : Avoid high temperatures, Open flames and unscheduled Contact with curing agents

Incompatibility: Incompatible with strong oxidizing agents. Strong acids and bases, secondary aliphatic Amines and mercaptans.

Hazardous Decomposition Products: Carbon dioxide (CO<sub>2</sub>) Carbon monoxide (CO), by products  
May include oxides of nitrogen(Nox) when burned.

Hazardous Polymerization: Will not occur.

Conditions to Avoid : Avoid mixing resin and hardener in uncontrollable quantities.

## 5 HEALTH HAZARD DATA

Chemical Listed as Carcinogen or Potential Carcinogen in NTP or OSHA : This material is neither Carcinogenic or potentially carcinogenic

## **6 EFFECTS OF OVEREXPOSURE**

Skin Contact: Product could be moderately irritating to skin. May cause allergic skin reaction in susceptible Individuals. Avoid direct skin contact when using this material.

Eye Contact: Product could be moderately irritating to the eyes. Avoid touching eyes when using this material.

Inhalation: Because of its low volatility this product is not likely to be an inhalation hazard.

Ingestion: No adverse effects anticipated by this route of exposure incidental to proper industrial handling.

## **7 EMERGENCY AND FIRST AID PROCEDURES**

Inhalation: Remove victim to fresh air.

Eyes: Flush eyes with generous amounts of water for a least 15 minutes. GET MEDICAL ATTENTION IMMEDIATELY.

Skin : Wash thoroughly with soap and water.

Ingestion: In general, no treatment is necessary unless large quantities of product are ingested.

## **8 OCCUPATIONAL EXPOSURE LIMITS**

OSHA Permissible Exposure Limit: OSHA limits have not been established for this product.

ACGIH Threshold limit Value: ACGIH limits have not been established for this product.

## **9 SPECIAL PROTECTION INFORMATION**

Respiratory Protection: No respiratory protection should be needed.

Ventilation: Local exhaust is recommended. Mechanical exhaust can be used as a back up system.

Protective Gloves : Chemical resistant gloves such as PVA.

Eye Protection : NIOSH approved safety glasses or goggles with side shields.

Other Protective Clothing or Equipment: Chemical resistant clothing as required to minimize skin contact

## **10 SPILL OR LEAK PROCEDEURES**

Steps to be Taken in Case Material is Released or Spilled: Use cautious judgment when cleaning spills.

Small spills may be collected with absorbent Material. Such as clay or sand. Large spills Should be diked and contained with absorbent Materials. Flush area with water spray to remove Residue. Dispose of flush legally.

Waste Disposal Methods: Dispose in accordance with local, state and federal regulations.

## **11 SPECIAL PRECAUTIONS**

Precaution to be Taken in Handling and Storage: Store at ambient temperatures in well ventilated area. Avoid sparks, open flames and extreme heat. Store Separately from amine curing agents. Protect container From physical damage.

Other Precautions: Container, even those that have been emptied, can contain product residues. Handle in accordance with good industrial practices. Avoid prolonged or repeated Contact with skin. Wash with soap and water before eating. Drinking. Smoking. Applying cosmetics, or using toilet facilities. Launder contaminate clothing before use.