

**GHS COMPLIANT SAFETY DATA SHEET**

TO COMPLY WITH OSHA HAZARD COMMUNICATION STANDARD 29 CFR.1910.1200  
& THE GLOBALLY HARMONIZED SYSTEM OF CLASSIFICATION AND LABELLING OF CHEMICALS

**SECTION 1: IDENTIFICATION**

PRODUCT NAME	Adheron™ EA-470
MFR.'S CODE ID/SYNONYMS	Adheron™ EA-470, TH4-94
CAS NUMBER	Proprietary
PRODUCT USE	Additive for adhesives, encapsulants, potting and coatings
RESTRICTIONS ON USE	For industrial use only
MANUFACTURER/SUPPLIER	Estron Chemical, Inc.
ADDRESS	807 North Main Street, Calvert City, KY 42029 USA
GENERAL INFORMATION	(270) 395-4195
EMERGENCY TELEPHONE	CHEMTREC (800) 424-9300


**SECTION 2: HAZARDS IDENTIFICATION**

**Signal Word:** *Warning*

**GHS Classification**

Physical	Health	Environmental
None	Skin Corrosion/Irritation – Category 2 Eye Damage/Irritation – Category 2A Skin Sensitization – Category 1	Hazardous to the Aquatic Environment, Acute & Chronic Hazard – Category 2

**GHS Label**

<p><b>Symbols:</b> Exclamation Point </p>	
<p><b>Hazard Statements</b> H315: Causes skin irritation H317: May cause an allergic skin reaction H319: Causes serious eye irritation H411: Toxic to aquatic life with long lasting effects</p>	<p><b>Precautionary Statements</b></p> <p><i>Prevention</i> P261: Avoid breathing dust/fume/gas/mist/vapours/spray. P264: Wash exposed skin thoroughly after handling. P272: Contaminated work clothing should not be allowed out of the workplace. P273: Avoid release to the environment. P280: Wear protective gloves/protective clothing/eye protection/face protection.</p> <p><i>Response</i> P302+352: IF ON SKIN: Wash with soap and water. P305+351+338+310: IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses if present and easy to do – continue rinsing. Immediately call a POISON CENTER or doctor/physician. P321: Specific treatment (see supplemental first aid instructions on this label) P333+313: If skin irritation or a rash occurs: Get medical advice/attention. P337+313: If eye irritation persists get medical advice/attention. P362+P364: Take off contaminated clothing and wash it before reuse. P391: Collect spillage.</p> <p><i>Disposal</i> P501: Dispose of contents/container to an authorized hazardous waste handler.</p>

HAZARDS NOT OTHERWISE CLASSIFIED: None identified.

### **SECTION 3: COMPOSITION/ INFORMATION ON INGREDIENTS**

<b>HAZARDOUS INGREDIENTS</b>	<b>CAS #</b>	<b>%</b>	<b>CLASSIFICATION</b>	<b>H CODES</b>
Unreacted epoxy polymer	25068-38-6	0 – 50	Skin Corrosion/Irritation – Category 2 Eye Damage/Irritation – Category 2A Skin Sensitization – Category 1 Hazardous to the Aquatic Environment, Acute & Chronic Hazard – Category 2	H315 H319 H317 H411

*(See Section 8 for Exposure Limits)*

<b>NON-HAZARDOUS INGREDIENTS</b>	<b>CAS #</b>	<b>%</b>
Fatty acid dimer/epoxy polymer	Proprietary	50 – 100

### **SECTION 4: FIRST-AID MEASURES**

#### SYMPTOMS OF EXPOSURE

ACUTE	Skin irritation. Serious eye irritation. Skin rash.
DELAYED	Stinging, tearing, redness and swelling of the eyes. Dryness, redness or burning of the skin.
INHALATION	Not applicable, unless heated. If symptoms present themselves, remove to fresh air.
SKIN CONTACT	Causes skin irritation. May cause an allergic skin reaction. Wash thoroughly with soap and water. If skin irritation persists, consult a doctor.
EYE CONTACT	Causes serious eye irritation. Wash with plenty of water for 15 minutes. Consult a physician.
INGESTION	If ingested, seek medical attention.
SPECIFIC TREATMENT	No other specific treatments are known or have been identified.

### **SECTION 5: FIRE FIGHTING MEASURES**

FLAMMABILITY CLASSIFICATION	Not regulated
FLAMMABLE LIMITS	No test data available
HAZARDOUS COMBUSTION PRODUCTS	Carbon monoxide and carbon dioxide.
EXTINGUISHING MEDIA	Dry Chemical, Water Fog, CO <sub>2</sub>
UNUSUAL FIRE AND EXPLOSION HAZARDS	None known.
SPECIAL FIRE FIGHTING PROCEDURES	None known.
SPECIAL PROTECTIVE EQUIPMENT AND PRECAUTIONS FOR FIRE FIGHTERS	As in any fire, wear self-contained positive-pressure breathing apparatus, (MSHA/NIOSH approved or equivalent) and full (Bunker) protective gear.

### **SECTION 6: ACCIDENTAL RELEASE MEASURES**

PERSONAL PRECAUTIONS	Prevent contact with skin, eyes and clothing.
PROTECTIVE EQUIPMENT	See Personal Protective Equipment in Section 8.
EMERGENCY PROCEDURES	Avoid unnecessary exposure to bystanders, prevent contact with open flames or other ignition sources.
ENVIRONMENTAL PRECAUTIONS	Obey relevant local, state, provincial and federal laws and regulations. Do not allow the product to enter public drainage systems or open water courses.
METHODS AND MATERIALS FOR CLEANING UP	Absorb the product onto vermiculite, floor absorbent or other absorbent materials, such as dry-lime, sand, or soda ash. Sweep or scoop into a suitable container for disposal. Ventilate area and wash spill site after material pickup is complete.

### **SECTION 7: HANDLING AND STORAGE**

PRECAUTIONS FOR SAFE HANDLING	Prevent contact with the eyes, skin and clothing. Wash thoroughly after handling. Avoid breathing vapors. Do not eat, drink or smoke when using this product. Use with adequate ventilation. Handle in accordance with good industrial hygiene and safety practice.
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**CONDITIONS FOR SAFE STORAGE**

Store in a dry, cool area and avoid excessive heat. Keep containers tightly closed. The product shelf life is three years from date of manufacture in an unopened container stored at 20 °C.

**SECTION 8: EXPOSURE CONTROLS/PERSONAL PROTECTION**

INGREDIENTS	CAS #	%	ACGIH TLV	OSHA PEL
Fatty acid dimer/epoxy polymer	Proprietary	50 – 100	<i>None established</i>	<i>None established</i>
Unreacted epoxy polymer	25068-38-6	0 – 50	<i>None established</i>	<i>None established</i>

APPROPRIATE ENGINEERING CONTROLS None required.

**PERSONAL PROTECTIVE EQUIPMENT**

EYE/FACE Safety glasses or goggles.

SKIN Impervious protective gloves and clothing as appropriate to avoid skin contact.

RESPIRATORY Not required

HYGIENE MEASURES Handle in accordance with good industrial hygiene and safety practices. When using, do not eat, drink or smoke. Wash face and hands before breaks and at the end of work. Wash contaminated clothing before re-use.

**SECTION 9: PHYSICAL AND CHEMICAL PROPERTIES**

APPEARANCE	Clear to Slightly Hazy Liquid	ODOR	No test data available
ODOR THRESHOLD	No test data available	pH	No test data available
MELTING POINT	No test data available	BOILING POINT/RANGE	No test data available
FLASH POINT	No test data available	EVAPORATION RATE	No test data available
FLAMMABILITY	Not flammable		
FLAMMABLE LIMITS	LOWER No test data available	UPPER	No test data available
VAPOR PRESSURE	No test data available	VAPOR DENSITY	No test data available
RELATIVE DENSITY	No test data available	SOLUBILITY IN H <sub>2</sub> O	Not readily soluble
PARTITION COEFFICIENT (n-octanol/water)	No test data available	AUTOIGNITION TEMPERATURE	No test data available
DECOMPOSITION TEMPERATURE	> 250 °C	VISCOSITY	2500 – 6000 cps
% VOLATILE	2 Maximum	SOFTENING POINT	No test data available

**SECTION 10: STABILITY AND REACTIVITY**

REACTIVITY	This product does not pose a significant reactivity hazard when stored appropriately (see Section 7).
STABILITY	This product is stable when stored appropriately (see Section 7).
CONDITIONS TO AVOID	Excessive heat and open flame.
INCOMPATIBLE PRODUCTS	Strong oxidizing or reducing agents.
HAZARDOUS DECOMPOSITION PRODUCTS	Carbon dioxide and carbon monoxide.
POSSIBILITY OF HAZARDOUS REACTIONS	Will not occur

**SECTION 11: TOXICOLOGICAL INFORMATION****SYMPTOMS OF EXPOSURE**

ACUTE Skin irritation. Serious eye irritation. Skin rash.

DELAYED Stinging, tearing, redness and swelling of the eyes. Dryness, redness or burning of the skin.

**ACUTE TOXICITY**

INHALATION May be mildly irritating.

SKIN Causes skin irritation. May cause an allergic skin reaction.

EYES	Causes serious eye irritation.		
INGESTION	Not likely to have harmful effects in normal exposures, may cause nausea or gastric distress if ingested in quantity.		
INHALATION TOXICITY	LC <sub>50</sub> Rat		Not established
DERMAL TOXICITY	LD <sub>50</sub> Rat	Residual Epoxy Polymers	2,000 mg/kg Not established
SKIN IRRITATION	Draize, Rabbit, 24 hours	Residual Epoxy Polymers	Severe irritant Not established
EYE IRRITATION	Draize, Rabbit, 24 hours	Residual Epoxy Polymers	Mild irritant Not established
ORAL TOXICITY	LD <sub>50</sub> Rat	Residual Epoxy Polymers	11,400 mg/kg Not established
SENSITIZATION	Draize, Rabbit		Not established
CHRONIC EFFECTS			
CARCINOGENICITY	Not listed as a carcinogen by ACGIH, IARC, NTP, or CA Prop 65, although the epoxy component contains less than 0.1% of a chemical, 2-(phenoxyethyl)-oxirane, known to the State of California to cause cancer.		
MUTAGENIC EFFECTS	None known		
REPRODUCTIVE TOXICITY	None known		
TARGET ORGAN EFFECTS	None known		

**SECTION 12: ECOLOGICAL INFORMATION**

ECOTOXICITY	Toxic to aquatic life with long lasting effects.		
TOXICITY TO FISH	LC <sub>50</sub> , 96 h	Residual Epoxy Polymers	1.3 mg/l Not established
TOXICITY TO DAPHNIA	EC <sub>50</sub> Daphnia magna, 48 h	Residual Epoxy Polymers	2.1 mg/l Not established
TOXICITY TO ALGAE	LC <sub>50</sub> , 72 h	Residual Epoxy Polymers	> 11 mg/l Not established
PERSISTANCE AND DEGRADABILITY	No data available		
BIOACCUMULATIVE POTENTIAL	Epoxy BCF = 3 – 31, low potential Epoxy Log P <sub>ow</sub> = 2.64 – 3.78		
MOBILITY IN SOIL	No data available		
OTHER ADVERSE EFFECTS	None known		

**SECTION 13: DISPOSAL CONSIDERATIONS**

WASTE DISPOSAL Dispose of in accordance with local, state and federal regulations. This product, as supplied, is not a hazardous waste according to Federal regulations (40 CFR 261). This product could become a hazardous waste, if chemical additions are made or if the product is processed or otherwise altered. Consult 40 CFR 261 to determine whether the altered material is a hazardous waste.

US EPA WASTE NUMBER & DESCRIPTION No information available

## **SECTION 14: TRANSPORT INFORMATION**

This section provides basic shipping classification information. Refer to appropriate transportation regulations for specific requirements.

DOT	Not regulated	TDG	Not regulated	MEX	Not regulated
ICAO	Not regulated	IATA	Not regulated	IMDG/IMO	Not regulated
RID	Not regulated	ADR	Not regulated	ADN	Not regulated

## **SECTION 15: REGULATORY INFORMATION**

The components in this product are either listed or exempt from listing due to polymer exemption criteria for the following chemical listing inventories as indicated by an "X":

AIIC	Australian Inventory of Industrial Chemicals	X
DSL	Canadian Domestic Substances List	X
ECL	Korean Existing Chemicals List	X
ENCS	Japanese Existing and New Chemical Substances	X
IECSC	Inventory of Existing Chemical Substances in China	X
NDSL	Canadian Non-Domestic Substances List	
NZIoC	New Zealand Inventory of Chemicals	X
PICCS	Philippines Inventory of Chemicals and Chemical Substances	X
TCSI	Taiwan Chemical Substances List	X
TSCA	US Toxic Substances Control Act	X
VNECI	Vietnam National Existing Chemical Inventory	X

### INTERNATIONAL REGULATIONS

EU REGULATION	(EC) No. 1907/2006 (REACH) Annex XIV - List of substances subject to authorization, <i>Substances of Very High Concern</i> : This product does not contain any SVHC listed substances.
REACH	One or more components of this product are not REACH registered. Import quantities may be subject to limitation.
C.D. 96/82/EC	Council Directive 96/82/EC, Annex I not mentioned by name. With regard to possibly appropriate decomposition products see Chapter 10.

### FEDERAL REGULATIONS

SARA 313	This product does not contain any chemicals which are subject to the reporting requirements of Section 313 of Title III of the Superfund Amendments and Reauthorization Act (SARA) (40 CFR 355).  <u>SARA Section 311/312 (40 CFR 370) Hazard Categories</u> <table><tr><td>Acute Health Hazard</td><td>Yes</td></tr><tr><td>Chronic Health Hazard</td><td>Yes</td></tr><tr><td>Fire Hazard</td><td>No</td></tr><tr><td>Pressure Hazard</td><td>No</td></tr><tr><td>Reactivity Hazard</td><td>No</td></tr></table>	Acute Health Hazard	Yes	Chronic Health Hazard	Yes	Fire Hazard	No	Pressure Hazard	No	Reactivity Hazard	No
Acute Health Hazard	Yes										
Chronic Health Hazard	Yes										
Fire Hazard	No										
Pressure Hazard	No										
Reactivity Hazard	No										
CERCLA	This product, as supplied, does not contain any substances regulated as hazardous substances under the Comprehensive Environmental Response Compensation and Liability Act (CERCLA) (40 CFR 302) or the Superfund Amendments and Reauthorization Act (SARA) (40 CFR 355). There may be specific reporting requirements at the local, regional or state level pertaining to releases of this product.										
CLEAN WATER ACT	This product does not contain any substances regulated as pollutants pursuant to the Clean Water Act (40 CFR 122.21 and 40 CFR 122.42).										
CLEAN AIR ACT	This product does not contain any substances regulated as hazardous air pollutants (HAPS under Section 112 of the Clean Air Act Amendments of 1990.										
OTHER FEDERAL	None known										

U.S. STATE REGULATIONS

**RIGHT TO KNOW** The Listing requirements of the Right to Know (RTK) legislation varies by state. All information for NJ, PA, MA and other states can be derived from the listing of hazardous and non-hazardous components in Sections 2 and 15 of this Safety Data Sheet.

**CALIFORNIA PROP 65** This product contains less than 0.1% of a substance known to the state of California to cause cancer.

<b>Ingredient Name</b>	<b>Cancer</b>	<b>Reproductive</b>	<b>No significant risk level</b>	<b>Maximum acceptable dosage level</b>
2-(phenoxyethyl)-oxirane	Yes	No	5 µg/day	No

**SECTION 16: OTHER INFORMATION**

**DISCLAIMER** This product is intended for industrial use only and should be used in accordance with the manufacturer’s recommendations. Some of the information presented and conclusions drawn herein are from sources other than direct test data on the product itself. The information in this SDS was obtained from sources which we believe are reliable. However, the information is provided without any warranty, express or implied, regarding its correctness. The conditions or methods of handling, storage, use and disposal of the product are beyond our control and may be beyond our knowledge. For this and other reasons, we do not assume responsibility and expressly disclaim liability for loss, damage or expense arising out of or in any way connected with the handling, storage, use or disposal of the product. This SDS was prepared and is to be used only for this product. If the product is used as a component in another product, this SDS information may not be applicable. This SDS has been prepared in accordance with the requirements of the OSHA Hazard Communication Standard (29 CFR 1910.1200).

**DATE OF REVISION** December 29, 2025, *replaces the September 17, 2025 version.*

**REASON FOR REVISION** Changed the Viscosity in Section 9 in accordance with PCF25-040.

**SDS PREPARED BY** Glen Pearson

**SDS APPROVED BY** Robert Auerbach