1. CHEMICAL PRODUCT AND COMPANY IDENTIFICATION

PRODUCT IDENTIFIER: .......................................................... WEST SYSTEM® 105 Epoxy Resin
APPLICABLE PRODUCT CODES: .......................... 105, 105-A, 105-B, 105-C, 105-E, C 105-A, C 105-B, C 105-C, C 105-E
CHEMICAL FAMILY: .......................................................... Epoxy resin mixture.
INTENDED PRODUCT USES: .................................. Resin for coatings or adhesives.
PRODUCT USE RESTRICTIONS: .............................. None identified.

2. HAZARDS IDENTIFICATION

Classification of Substance or Mixture
- Skin corrosion/irritation, Category 2
- Skin sensitizer, Category 1
- Eye damage/irritation, Category 2A
- Chronic aquatic toxicity, Category 2

Label Elements

Hazard Pictogram(s):

Signal Word
WARNING

Hazard Statements
- 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.

Precautionary Statements
Prevention
- P261 Avoid breathing dust/fume/gas/mist/vapors/spray.
- P264 Wash hands 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.

Response
- P302 + P352 IF ON SKIN: Wash with plenty of soap and water.
- P305 + P351 + P338 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
- P333 + P313 If skin irritation or rash occurs: Get medical attention/advice.
- P337 + P313 If eye irritation persists: Get medical attention/advice.
- P362 + P364 Take off contaminated clothing and wash it before re-use.
- P391 Collect spillage.
Disposal
- P501 Dispose of contents/container in accordance with local, regional and international regulations.

3. COMPOSITION/INFORMATION ON HAZARDOUS INGREDIENTS

<table>
<thead>
<tr>
<th>INGREDIENT NAME</th>
<th>CAS #</th>
<th>CONCENTRATION (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Propane, 2,2-bis[p-(2,3-epoxypropoxy)phenyl]- polymers</td>
<td>25085-99-8</td>
<td>60-100</td>
</tr>
<tr>
<td>Benzyl alcohol</td>
<td>100-51-6</td>
<td>10-30</td>
</tr>
</tbody>
</table>
WEST SYSTEM® 105 Resin

Phenol-formaldehyde polymer glycidyl ether 28064-14-4 1-10

The exact chemical identity and/or exact percentage (concentration) of each ingredient has been held as confidential business information (CBI). Refer to Section 15 for additional information regarding this CBI claim.

4. FIRST AID MEASURES

FIRST AID FOR EYES: SYMPTOMS: Causes serious irritation and redness. RESPONSE: Flush immediately with water for at least 15 minutes. Remove contact lenses if present and easy to do. Consult a physician as precautionary measure.

FIRST AID FOR SKIN: SYMPTOMS: Causes skin irritation. May cause allergic skin reaction and sensitization. RESPONSE: Remove contaminated clothing. Wipe excess from skin. Apply waterless skin cleaner and then wash with soap and water. Consult a physician if effects occur.

FIRST AID FOR INHALATION: SYMPTOMS: Not a likely route of exposure under normal conditions of use. RESPONSE: Remove to fresh air if respiratory irritation occurs and keep comfortable for breathing.

FIRST AID FOR INGESTION: SYMPTOMS: No acute adverse health effects expected from amounts ingested under normal conditions of use. RESPONSE: Seek medical attention if a significant amount is ingested.

5. FIRE FIGHTING MEASURES

EXTINGUISHING MEDIA: SUITABLE: Foam, carbon dioxide (CO₂), dry chemical. NON-SUITABLE: Direct water stream.

FIRE AND EXPLOSION HAZARDS: During a fire, smoke may contain the original materials in addition to combustion products of varying composition which may be toxic and/or irritating. Combustion products may include, but are not limited to: phenolics, carbon monoxide, and carbon dioxide.

SPECIAL FIRE FIGHTING PROCEDURES: Wear a self-contained breathing apparatus and complete full-body personal protective equipment. Closed containers may rupture (due to buildup of pressure) when exposed to extreme heat.

6. ACCIDENTAL RELEASE MEASURES

PERSONAL PRECAUTIONS AND PROTECTIVE EQUIPMENT: Keep unnecessary and unprotected personnel from entering area. Use appropriate safety and personal protective equipment as indicated in Section 8.

MITIGATION AND CLEAN UP PROCEDURES: Stop leak without additional risk. Isolate area. Dike and absorb with inert material (e.g., sand) and collect in a suitable, closed container. Warm, soapy water or non-flammable, safe solvent may be used to clean residual.

ENVIRONMENTAL PRECAUTIONS: Prevent from entering into soil, ditches, sewers, waterways and groundwater. See Section 12 for environmental impact information.

7. HANDLING AND STORAGE

STORAGE TEMPERATURE (min./max.): 40°F (4°C) / 120°F (49°C)

STORAGE: Store in cool, dry place. Store in tightly sealed containers to prevent moisture absorption and loss of volatiles. Excessive heat over long periods of time will degrade the resin.

HANDLING PRECAUTIONS: Avoid all skin and eye contact. Wash thoroughly after handling. Launder contaminated clothing before reuse. Avoid inhalation of vapors from heated product. Precautionary steps should be taken when curing product in large quantities. When mixed with epoxy curing agents this product causes an exothermic, which in large masses, can produce enough heat to damage or ignite surrounding materials and emit fumes and vapors that vary widely in composition and toxicity.

8. EXPOSURE CONTROLS/PERSONAL PROTECTION

EYE PROTECTION GUIDELINES: Safety glasses with side shields or chemical splash goggles.

SKIN PROTECTION GUIDELINES: Wear liquid-proof, chemical resistant gloves (nitrile-butyl rubber, neoprene, butyl rubber or natural rubber) and full body-covering clothing.

RESPIRATORY/VENTILATION GUIDELINES: Use with adequate general ventilation and/or local ventilation to keep exposures below established limits. When ventilation cannot be made adequate enough to keep exposures below established limits, use a NIOSH approved respirator with an organic vapor cartridge, or organic vapor cartridge + P100 particulate filter, depending on specific workplace conditions. Consult with your respirator and cartridge supplier to ensure proper selection of respirator and cartridge based on ingredients listed in Section 3 and specific workplace conditions. Use and select a respirator according the guidelines established in OSHA 1910.134 or other applicable respiratory protection standard.

ADDITIONAL PROTECTIVE MEASURES: Practice good caution and personal cleanliness to avoid skin and eye contact. Avoid skin contact when removing gloves and other protective equipment. Wash thoroughly after handling. Generally speaking, working
cleanly and following basic precautionary measures will greatly minimize the potential for harmful exposure to this product under normal use conditions.

**OCCUPATIONAL EXPOSURE LIMITS:** Exposure limits may not be established for this product as a whole. For established exposure limits of specific ingredients in this product, or other available exposure limit information, refer to the table below.

<table>
<thead>
<tr>
<th>Ingredient Name</th>
<th>CAS#</th>
<th>Exposure Limit Information</th>
</tr>
</thead>
<tbody>
<tr>
<td>Propane, 2,2-bis[p-(2,3-epoxypropoxy)phenyl]- polymers</td>
<td>25085-99-8</td>
<td>No data available</td>
</tr>
<tr>
<td>Benzyl alcohol</td>
<td>100-51-6</td>
<td>10 ppm (AIHA-WEEL)</td>
</tr>
<tr>
<td>Phenol-formaldehyde polymer glycidyl ether</td>
<td>28064-14-4</td>
<td>No data available</td>
</tr>
</tbody>
</table>

**9. PHYSICAL AND CHEMICAL PROPERTIES**

**PHYSICAL FORM:** Viscous liquid.  
**COLOR:** Colorless.  
**ODOR:** Mild.  
**ODOR THRESHOLD:** No data available  
**pH:** No data available  
**MELTING POINT / FREEZING POINT:** No data available  
**BOILING POINT (760mm/Hg):** > 400°F (204°C).  
**FLASH POINT:** >200°F (93°C). Estimated based on ingredient data.  
**FLAMMABILITY (solids or gasses):** No data available  
**AUTO IGNITION TEMPERATURE:** No data available  
**LOWER EXPLOSIVE LIMIT (LEL):** No data available  
**UPPER EXPLOSIVE LIMIT (UEL):** No data available  
**VAPOR PRESSURE:** No data available  
**SPECIFIC GRAVITY/DENSITY (water = 1):** 1.15  
**BULK DENSITY:** 9.6 lb./gal. (1.15 kg/L)  
**VAPOR DENSITY (air = 1):** Heavier than air. Estimated based on ingredient data.  
**EVAPORATION RATE (Butyl Acetate = 1):** No data available  
**WATER SOLUBILITY (% BY WT.):** No data available  
**PARTITION COEFFICIENT, n-OCTANOL/WATER (log Pow)):** No data available  
**KINETIC VISCOSITY:** 869.5 mm²/s @ 20°C  
**DECOMPOSITION TEMPERATURE:** No data available.  
**% VOLATILE BY WEIGHT:** ASTM D 2369-07 was used to determine the Volatile Content of mixed epoxy resin and hardener. Refer to the hardener SDS for information about the total volatile content of the resin/hardener system.

**10. STABILITY AND REACTIVITY**

**STABILITY:** Product is stable at normal temperatures and pressures.  
**REACTIVITY/HAZARDOUS REACTIONS:** Product will not react by itself. A mass of more than one pound of product mixed with an aliphatic amine will cause irreversible polymerization with significant heat build up. Strong acids, bases, amines and mercaptans can cause polymerization.  
**INCOMPATIBILITIES:** Strong acids, bases, amines and mercaptans can cause polymerization.  
**CONDITIONS TO AVOID:** Avoid excessive heat.  
**DECOMPOSITION PRODUCTS:** Carbon monoxide, carbon dioxide and phenolics may be produced during uncontrolled exothermic reactions or when otherwise heated to decomposition.

**11. TOXICOLOGICAL AND HAZARD ENDPOINT INFORMATION**

<table>
<thead>
<tr>
<th>Component Name</th>
<th>CAS#</th>
<th>LD₅₀ Oral</th>
<th>LD₅₀ Dermal</th>
<th>LC₅₀ Inhalation</th>
</tr>
</thead>
<tbody>
<tr>
<td>Propane, 2,2-bis[p-(2,3-epoxypropoxy)phenyl]- polymers</td>
<td>25085-99-8</td>
<td>&gt;15,000 mg/kg (rat)</td>
<td>&gt;23,000 mg/kg (rabbit)</td>
<td>No data</td>
</tr>
<tr>
<td>Benzyl alcohol</td>
<td>100-51-6</td>
<td>1620 mg/kg</td>
<td>No data</td>
<td>&gt;4.18 mg/l 4 h aerosol</td>
</tr>
<tr>
<td>Phenol-formaldehyde polymer glycidyl ether</td>
<td>28064-14-4</td>
<td>&gt;2,000 mg/kg (rat)</td>
<td>2,000 mg/kg (rat)</td>
<td>No data</td>
</tr>
</tbody>
</table>

**ACUTE TOXICITY:** No specific toxicity data exists for this mixture. Classification is based on acute toxicity estimation methods using ingredient data.  
**Oral:** Not classified. Does not meet acute oral toxicity criteria.  
**Dermal:** Not classified. Does not meet acute dermal toxicity criteria.  
**Inhalation:** Not classified. Does not meet acute inhalation toxicity criteria.  
**If product is heated, vapors generated can cause headache, nausea, dizziness and possible respiratory irritation if inhaled in high concentrations.**
SKIN CORROSION / IRRITATION: ......................................................... Causes skin irritation – Category 2.

SERIOUS EYE DAMAGE / IRRITATION: ......................................... Causes serious eye irritation. Category 2A.

REPRODUCTIVE TOXICITY: .............................................................. Not classified. Does not meet criteria for respiratory sensitizer. Diglycidyl ether bisphenol-A, in animal studies, has been shown not to interfere with reproduction. Diglycidyl ether bisphenol-A 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.

ESTIMATED MOBILITY IN SOIL: ......................................................... Not classified. Does not meet mobility in soil criteria.

PERSISTANCE AND BIODEGRADABILITY: ......................................... No specific test data available for the mixture.

MOBILITY IN WATER: ..................................................................... No specific test data available for the mixture.

ADDITIONAL ECOTOXICITY INFORMATION: .............................. In the liquid, uncured state, this product may be harmful to aquatic life long lasting effects. Prevent release to the environment, sewers and natural waters.

EcoToxicity Classification Information

<table>
<thead>
<tr>
<th>Ingredient</th>
<th>CAS#</th>
<th>Aquatic Chronic Category</th>
</tr>
</thead>
<tbody>
<tr>
<td>Propane, 2,2-bis[p-(2,3-epoxypropoxy)phenyl]-, polymers</td>
<td>25085-99-8</td>
<td>2</td>
</tr>
<tr>
<td>Benzyl alcohol</td>
<td>100-51-6</td>
<td>Not Classified</td>
</tr>
<tr>
<td>Phenol-formaldehyde polymer glycidyl ether</td>
<td>28064-14-4</td>
<td>2</td>
</tr>
</tbody>
</table>

13. DISPOSAL CONSIDERATIONS

WASTE DISPOSAL METHOD: ............................................................... Evaluation of this product using RCRA criteria shows that it is not a hazardous waste, either by listing or characteristics, in its purchased form. It is the responsibility of the user to determine proper disposal methods.

Incinerate, recycle (fuel blending) or reclaim may be preferred methods when conducted in accordance with federal, state and local regulations.

14. TRANSPORTATION INFORMATION

US DOT
SHIPPING NAME: ......................................................................... Not applicable.
TECHNICAL SHIPPING NAME: Not applicable.
HAZARD CLASS: Not applicable.
Packing GROUP: Not applicable.

CANADA TDG
SHIPPING NAME: Not applicable.
TECHNICAL SHIPPING NAME: Epoxy Resin.
HAZARD CLASS: Class 9.
Packing GROUP: PG III.
MARINE POLLUTANT: Yes

IMDG
U.N. NUMBER: UN3082.
SHIPPING NAME: Environmentally hazardous substance, liquid, n.o.s.
TECHNICAL SHIPPING NAME: Epoxy Resin.
HAZARD CLASS: Class 9.
Packing GROUP: PG III.
MARINE POLLUTANT: Yes

ICAO/IATA
U.N. NUMBER: UN3082.
SHIPPING NAME: Environmentally hazardous substance, liquid, n.o.s.
TECHNICAL SHIPPING NAME: Epoxy Resin.
HAZARD CLASS: Class 9.
Packing GROUP: PG III.
MARINE POLLUTANT: Yes

15. REGULATORY INFORMATION

<table>
<thead>
<tr>
<th>COUNTRY</th>
<th>INVENTORY LIST</th>
<th>STATUS</th>
</tr>
</thead>
<tbody>
<tr>
<td>United States</td>
<td>TSCA</td>
<td>All ingredients are listed or otherwise compliant.</td>
</tr>
<tr>
<td>Europe</td>
<td>EINECS or ELINCS</td>
<td>All ingredients are listed or otherwise compliant.</td>
</tr>
<tr>
<td>Canada</td>
<td>CEPA (DSL/NDSL)</td>
<td>All ingredients are listed or otherwise compliant.</td>
</tr>
<tr>
<td>Australia</td>
<td>AICS</td>
<td>All ingredients are listed or otherwise compliant.</td>
</tr>
<tr>
<td>Japan</td>
<td>ENCNS</td>
<td>Not regulated.</td>
</tr>
<tr>
<td>South Korea</td>
<td>KECI</td>
<td>All ingredients are listed or otherwise compliant.</td>
</tr>
<tr>
<td>China</td>
<td>IECSC</td>
<td>All ingredients are listed or otherwise compliant.</td>
</tr>
<tr>
<td>Philippines</td>
<td>PICCS</td>
<td>All ingredients are listed or otherwise compliant.</td>
</tr>
</tbody>
</table>

US EPA SARA TITLE III Reporting and Notification Requirements:
- Subject to Section 302 (TPQ) No data available.
- Subject to Section 304 (RQ) No data available.
- Subject to Section 311 or 312 Immediate.
- Subject to Section 313 No data available.

Canada WHMIS Confidential Business Information (CBI): The HMIRA number issued for this CBI claim is #9455. The date of filing is 2015-04-09.

STATE REGULATORY INFORMATION:
Chemicals listed below may be specifically regulated by individual states. For details on state regulatory requirements you should contact the appropriate state agency.

<table>
<thead>
<tr>
<th>COMPONENT NAME</th>
<th>STATE CODE</th>
<th>CAS NUMBER</th>
</tr>
</thead>
<tbody>
<tr>
<td>Epichlorohydrin</td>
<td>CA</td>
<td>106-89-8</td>
</tr>
</tbody>
</table>

1. These substances are known to the state of California to cause cancer or reproductive harm, or both.

16. OTHER INFORMATION

REASON FOR ISSUE: SDS prepared according to the requirements of the US OSHA 1910.1200 HazCom 2012 and Canada Hazardous Products Regulation WHMIS 2015.
PREPARED BY: G. M. House
APPROVED BY: G. M. House
SDS CONTACT: safety@gougeon.com
TITLE: Health, Safety & Environmental Manager
APPROVAL DATE: August 15, 2016
SUPERSEDES DATE: June 1, 2015
SDS VERSION: 105-2016a
OTHER HAZARD INFORMATION AND RATING SYSTEMS:

**HMIS® RATING**

<p>| | |</p>
<table>
<thead>
<tr>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>HEALTH</td>
<td>2</td>
</tr>
<tr>
<td>FLAMMABILITY</td>
<td>1</td>
</tr>
<tr>
<td>PHYSICAL HAZARD</td>
<td>1</td>
</tr>
<tr>
<td>PERSONAL PROTECTION</td>
<td></td>
</tr>
</tbody>
</table>

**NFPA® 704 CODES**

Approximate HMIS and NFPA Risk Ratings Legend:
0 = Low or None; 1 = Slight; 2 = Moderate; 3 = Serious; 4 = Severe

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