1. CHEMICAL PRODUCT AND COMPANY IDENTIFICATION

MANUFACTURED BY:
VON ROLL USA, INC.
200 VON ROLL DRIVE
SCHENECTADY, NY 12306
BUSINESS: (518) 344-7100
EMERGENCY: (518) 395-3310

PRODUCT ID: 74035

CHEMICAL FAMILY: INSULATING VARNISH

CHEMICAL NAME: CATALYZED EPOXY/ RESIN

FORMULA: MIXTURE

SYNONYMS: NONE

2. COMPOSITION/INFORMATION ON INGREDIENTS

<table>
<thead>
<tr>
<th>HAZARDOUS PRODUCT COMPOSITION/CAS NUMBER</th>
<th>APPROX. WEIGHT PERCENT</th>
<th>ACGIH 8 HR. TWA</th>
<th>ACGIH UNIT</th>
<th>OSHA PEL-TWA</th>
<th>OSHA UNIT</th>
</tr>
</thead>
<tbody>
<tr>
<td>Bisphenol A-Epichlorohydrin Polymer 25068-38-6</td>
<td>50 - 60</td>
<td>NA</td>
<td>PPM</td>
<td>NA</td>
<td>PPM</td>
</tr>
<tr>
<td>p-tert-Butylphenyl Glycidyl Ether 3101-60-8</td>
<td>50 - 60</td>
<td>NA</td>
<td>PPM</td>
<td>NA</td>
<td>PPM</td>
</tr>
<tr>
<td>Trade Secret Component TS000001</td>
<td>1 - 5</td>
<td>NA</td>
<td>PPM</td>
<td>NA</td>
<td>PPM</td>
</tr>
</tbody>
</table>

3. HAZARDS IDENTIFICATION

EMERGENCY OVERVIEW: Refer to other MSDS sections for detailed information.


EFFECTS FROM ACUTE EXPOSURE:

INGESTION: Harmful if swallowed.
SKIN CONTACT: May cause an allergic skin reaction. May cause a rash and itching of the skin. May cause moderate skin irritation. Contains a component which is a known or suspected skin sensitizer.

INHALATION: Causes irritation of the mouth, nose, and throat. May cause allergic respiratory reaction. Vapors that are toxic as well as irritating to the respiratory tract may be produced upon heating this material.

EYE CONTACT: May cause moderate eye irritation.


CARCINOGENICITY COMMENT: This product or one of its ingredients present at 0.1% or more is NOT listed as a carcinogen or suspected carcinogen by NTP, IARC, or OSHA.

CARCINOGENICITY: This space reserved for special use.

ROUTES OF ENTRY: Dermal - skin. Eyes. Inhalation.

OTHER: None known.

4. FIRST AID MEASURES

INGESTION: Seek medical attention immediately.

SKIN CONTACT: Remove contaminated clothing and launder before reuse. Wash with soap and water. Get medical attention if irritation persists.

INHALATION: If inhaled, remove to fresh air. If not breathing give artificial respiration using a barrier device. If breathing is difficult give oxygen. Get medical attention.

EYE CONTACT: In case of contact, or suspected contact, immediately flush eyes with plenty of water for at least 15 minutes and get medical attention immediately after flushing.

NOTES TO PHYSICIAN: None known.

5. FIRE FIGHTING MEASURES

FLASH POINT (F): >220 (C): >104

FLASH POINT METHOD: Pensky-Martens Closed Cup (PMCC)

IGNITION TEMP (F): Unknown (C): Unknown

OSHA FLAMMABILITY CLASSIFICATION: Combustible Liquid, Class IIIB

FLAMMABLE LIMITS IN AIR - LOWER (%): Not Determined

FLAMMABLE LIMITS IN AIR - UPPER (%): Not Determined

SENSITIVITY TO MECHANICAL IMPACT (Y/N): No

SENSITIVITY TO STATIC DISCHARGE: Sensitivity to static discharge is not expected.


FIRE FIGHTING PROCEDURES: Positive pressure, self-contained breathing apparatus. Polymerization may take place during a fire due to elevated temperature where closed containers could violently rupture. Evacuate area and fight fire from a safe distance. Toxic vapors are emitted in a fire condition.

6. ACCIDENTAL RELEASE MEASURES

ACTION TO BE TAKEN IF MATERIAL IS RELEASED OR SPILLED: Wipe, scrape or soak up in an inert material and put in a container for disposal. Wear proper protective equipment as specified in the protective equipment section. Remove sources of ignition. Warn other workers of spill. Increase area ventilation. Persons not trained should evacuate area.

7. HANDLING AND STORAGE
PRECAUTIONS TO BE TAKEN IN HANDLING AND STORAGE: Recommended storage in original container at temperature below 30 C (85 F). Avoid contact with skin and eyes. Use only in a well ventilated area. Keep container closed when not in use to prevent contact with acidic, basic or oxidizing materials. Keep away from food and smoking materials. Wash hands before eating and smoking.

8. EXPOSURE CONTROLS / PERSONAL PROTECTION

Von Roll recommends evaluation and selection of appropriate engineering controls (such as ventilation and eyewash/safety shower) as well as appropriate personal protective equipment (such as respiratory protection, protective gloves, eye protection) for safely handling this material. The following guidelines should be considered in this process.


RESPIRATORY PROTECTION: Use in a well ventilated area. Use approved NIOSH respiratory protection if TLV exceeded, or over exposure is likely.

GLOVES: Butyl rubber gloves.

EYE PROTECTION: Splash Goggles.

OTHER PERSONAL PROTECTION DATA: Rubber apron or other chemical-resistant apron. Face shield.

VENTILATION: Use only in well ventilated area. Localized mechanical ventilation.

9. PHYSICAL AND CHEMICAL PROPERTIES

COMPONENT INFORMATION:

<table>
<thead>
<tr>
<th>HAZARDOUS PRODUCT COMPOSITION/CAS NUMBER</th>
<th>APPROX. WEIGHT PERCENT</th>
<th>BOILING POINT (F):</th>
<th>BOILING POINT (C):</th>
<th>VAPOR PRESSURE @ 20 C (mmHg):</th>
<th>VAPOR DENSITY (AIR=1):</th>
</tr>
</thead>
<tbody>
<tr>
<td>Bisphenol A-Epichlorohydrin Polymer 25068-38-6</td>
<td>30 - 60</td>
<td>&gt; 500</td>
<td>&gt; 260</td>
<td>&lt; 0.03</td>
<td>NOT DETERMINED</td>
</tr>
<tr>
<td>p-tert-Butylphenyl Glycidyl Ether 3101-60-8</td>
<td>30 - 60</td>
<td>NOT DETERMINED</td>
<td>NOT DETERMINED</td>
<td>&lt; 1</td>
<td>NOT DETERMINED</td>
</tr>
<tr>
<td>Trade Secret Component TS000001</td>
<td>1 - 5</td>
<td>NOT DETERMINED</td>
<td>NOT DETERMINED</td>
<td>&lt;0.001</td>
<td>NOT DETERMINED</td>
</tr>
<tr>
<td>Epichlorohydrin 106-89-8</td>
<td>&lt;5 PPM</td>
<td>244</td>
<td>118</td>
<td>10 @ 16.6 C</td>
<td>3.30</td>
</tr>
<tr>
<td>Phenyl Glycidyl Ether 122-60-1</td>
<td>&lt;5 PPM</td>
<td>NOT DETERMINED</td>
<td>NOT DETERMINED</td>
<td>0.01 @ 25 C</td>
<td>NOT DETERMINED</td>
</tr>
</tbody>
</table>

PRODUCT INFORMATION:

BOILING POINT (F): NOT DETERMINED (C): NOT DETERMINED

FREEZING POINT (F): NOT DETERMINED (C): NOT DETERMINED

MELTING POINT (F): NOT DETERMINED (C): NOT DETERMINED

PHYSICAL STATE: LIQUID

DESCRIPTION: MILKY

ODOR: MILD EPOXY

ODOR THRESHOLD (PPM): UNKNOWN

% VOLATILE BY WEIGHT: NOT DETERMINED

EVAPORATION RATE (BUTYL ACETATE = 1): NOT DETERMINED

VAPOR PRESSURE (mmHg @ 20 C): NOT DETERMINED

VAPOR DENSITY (AIR=1): NOT DETERMINED

SPECIFIC GRAVITY @ 25 C (WATER = 1): 1.09

ACID/ALKALINITY (MEG/G): NOT DETERMINED

pH: NOT DETERMINED
SOLUBILITY IN WATER DESCRIPTION: NEGLIGIBLE
SOLUBILITY IN ORGANIC SOLVENT (STATE SOLVENT): NOT DETERMINED

10. STABILITY AND REACTIVITY

CHEMICAL STABILITY: Stable.
HAZARDOUS POLYMERIZATION: May occur.
MATERIALS TO AVOID: Avoid contact with acidic, basic or oxidizing agents. Do not expose to amines.
CONDITIONS TO AVOID: Keep away from heat, sparks and flame. Temperatures above 85 F.

11. TOXICOLOGICAL INFORMATION

COMPONENT INFORMATION:

ACUTE ORAL LD50 (MG/KG):

<table>
<thead>
<tr>
<th>Component Information</th>
<th>Acute Oral LD50 (mg/kg)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Bisphenol A-Epichlorohydrin Polymer 25068-38-6</td>
<td>&gt;1,000 (RAT)</td>
</tr>
<tr>
<td>p-tert-Butylphenyl Glycidyl Ether 3101-60-8</td>
<td>&gt;10,000 (RAT)</td>
</tr>
<tr>
<td>Trade Secret Component TS000001</td>
<td>&gt;5,000 (RAT)</td>
</tr>
<tr>
<td>Epichlorohydrin 106-89-8</td>
<td>&gt;20 ML / MG (RABBIT)</td>
</tr>
<tr>
<td>Phenyl Glycidyl Ether 122-60-1</td>
<td>&gt;2,500 (RAT)</td>
</tr>
</tbody>
</table>

ACUTE DERMAL LD50 (MG/KG):

<table>
<thead>
<tr>
<th>Component Information</th>
<th>Acute Dermal LD50 (mg/kg)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Bisphenol A-Epichlorohydrin Polymer 25068-38-6</td>
<td>&gt;20 ML / MG (RABBIT)</td>
</tr>
<tr>
<td>p-tert-Butylphenyl Glycidyl Ether 3101-60-8</td>
<td>NOT DETERMINED</td>
</tr>
<tr>
<td>Trade Secret Component TS000001</td>
<td>&gt;2,500 (RAT)</td>
</tr>
<tr>
<td>Epichlorohydrin 106-89-8</td>
<td>515 (RABBIT)</td>
</tr>
<tr>
<td>Phenyl Glycidyl Ether 122-60-1</td>
<td>1,500 (RABBIT)</td>
</tr>
</tbody>
</table>

ACUTE INHALATION:

| Component Information | Acute Inhalation | LC50: 250 PPM / 8H (RAT) |
|------------------------|------------------|
| Bisphenol A-Epichlorohydrin Polymer 25068-38-6 | NO DEATHS: SATURATED AIR / 8H (RAT) |
| p-tert-Butylphenyl Glycidyl Ether 3101-60-8 | NOT DETERMINED |
| Trade Secret Component TS000001 | NOT DETERMINED |
| Epichlorohydrin 106-89-8 | LC50: >100 PPM / 8H (RAT) |
| Phenyl Glycidyl Ether 122-60-1 | LC50: >100 PPM / 8H (RAT) |

OTHER:

<table>
<thead>
<tr>
<th>Component Information</th>
<th>Acute Inhalation</th>
</tr>
</thead>
<tbody>
<tr>
<td>Bisphenol A-Epichlorohydrin Polymer 25068-38-6</td>
<td>Eye and skin irritant.</td>
</tr>
<tr>
<td>p-tert-Butylphenyl Glycidyl Ether 3101-60-8</td>
<td>Eye and skin irritant.</td>
</tr>
</tbody>
</table>
### 12. ECOLOGICAL INFORMATION

**ECOTOXICOLOGICAL INFORMATION:** No data at this time.  
**CHEMICAL FATE INFORMATION:** No data at this time.  
**PERSISTENCE:** Not determined.  
**APPRAISAL:** Not determined.  
**MOBILITY:** Not determined.

### 13. DISPOSAL CONSIDERATIONS

**DISPOSAL OF WASTE METHOD:** Disposal should be made in accordance with federal, state and local regulations.  
**EPA HAZARDOUS WASTE DISPOSAL CODE:** Not regulated.

### 14. TRANSPORT INFORMATION

**DOT SHIPPING NAME:** RESIN COMPOUND, LIQUID, NOT DOT REGULATED  
**DOT HAZARD CLASS:** NOT DOT REGULATED.  
**DOT PACKING GROUP:** NOT DOT REGULATED.  
**DOT LABEL(S):** NOT DOT REGULATED.  
**UN/NA NUMBER:** NOT DOT REGULATED.  
**PLACARDS:** NONE NOT DOT REGULATED.  
**ICAO/IATA:** NOT REGULATED  
**MARINE POLLUTANT:** NONE  
**NMFC CLASSIFICATION:** CLASS 55

### 15. REGULATORY INFORMATION

**HAZARD RATING SYSTEMS**

**NFPA RATING:** HEALTH 2, FLAMMABILITY 1, INSTABILITY 1  
**HMIS CLASSIFICATION:** HEALTH *2, FLAMMABILITY 1, PHYSICAL HAZARD 1  
**VOC EXCLUDING H2O & EXEMPTED VOC (LB/GL):**  
1.39 lb VOC/gal by ASTM 2369-81 (1g, 1hr @ 110C)  
1.11 lb VOC/gal by ASTM 6053 (2g, 1 hr @ 150C)  

**COUNTRY REGISTRATION**  
**TSCA INVENTORY STATUS:** The ingredients of this product are either listed on the TSCA inventory or are not subject to the notification requirements (exempt).  
**CANADIAN INVENTORY:** The ingredients of this product are listed on the Domestic Substance List, Non-Domestic Substance List or are exempt.  
**EINECS:** This product, and all its components, complies with EINECS.  
**REGULATORY INFORMATION:** CA/MA/NJ/PA RIGHT-TO-KNOW
<table>
<thead>
<tr>
<th>HAZARDOUS PRODUCT COMPOSITION/CAS NUMBER</th>
<th>APPROX. WEIGHT PERCENT</th>
<th>CALIFORNIA PROPOSITION 65</th>
<th>MASSACHUSETTS RIGHT-TO-KNOW</th>
<th>NEW JERSEY RIGHT-TO-KNOW</th>
<th>PENNSYLVANIA RIGHT-TO-KNOW</th>
</tr>
</thead>
<tbody>
<tr>
<td>Bisphenol A-Epichlorohydrin Polymer 25068-38-6</td>
<td>30 - 60</td>
<td>NOT LISTED</td>
<td>NOT LISTED</td>
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<td>YES</td>
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<td>YES</td>
<td>YES</td>
<td>YES</td>
</tr>
</tbody>
</table>

**SARA 302 EXTREMELY HAZARDOUS SUBSTANCES LIST:** No components of this product are listed as extremely hazardous substances in 40 CFR Part 355 and are present at levels which could require reporting and emergency planning.

**SARA (311, 312) HAZARD CLASS:** ACUTE HEALTH HAZARD  
CHRONIC HEALTH HAZARD

**SARA 313 CHEMICALS:** This product contains toxic chemical(s) listed below which is(are) subject to the reporting requirements of Section 313 of Title III of SARA and 40 CFR Part 372.

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**WHMIS (CANADA):**

**WHMIS HAZARD CLASS:**

D2B  TOXIC MATERIALS
F  DANGEROUSLY REACTIVE MATERIAL

**WHMIS TRADE SECRET:**

NONE

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**16. OTHER INFORMATION**

**COMPANY DISCLAIMER:**

These data are offered in good faith as typical values and not as a product specification. No warranty, either expressed or implied, is made. The recommended handling procedures are believed to be generally applicable. However, each user should review these recommendations in the specific context of the intended use.

**ABBREVIATIONS:**

EST = ESTIMATED  
NEGL. = NEGLIGIBLE  
NA = NOT APPLICABLE  
UNKN = UNKNOWN

**ADDITIONAL INFORMATION:**

NONE