1. CHEMICAL PRODUCT AND COMPANY IDENTIFICATION

MANUFACTURED BY:
VON ROLL USA, INC.
200 VON ROLL DRIVE
SOCHESTER, NY 12345
PHONE: (518) 345-7100
EMERGENCY: (518) 395-3310

PRODUCT ID: 7031
CHEMICAL FAMILY: COMPOUNDS AND ADHESIVES
CHEMICAL NAME: PHENOLIC BUTVAR RESIN
FORMULA: MIXTURE
SYNONYM: N/A

2. COMPOSITION/INFORMATION ON INGREDIENTS

<table>
<thead>
<tr>
<th>HAZARDOUS PRODUCT</th>
<th>APPROX. WEIGHT</th>
<th>AETHAL.</th>
<th>AETHAL.</th>
<th>OSMA</th>
<th>OSMA</th>
</tr>
</thead>
<tbody>
<tr>
<td>COMPOSITION/CAS NUMBER</td>
<td>PERCENT</td>
<td>0 HR. TWA</td>
<td>8 HR. TWA</td>
<td>PEL-TWA</td>
<td>PEL-TWA</td>
</tr>
<tr>
<td>Ethyl Alcohol</td>
<td>10 - 20</td>
<td>1000</td>
<td>PPM</td>
<td>1000</td>
<td>PPM</td>
</tr>
<tr>
<td>Acetone</td>
<td>10 - 30</td>
<td>500</td>
<td>PPM</td>
<td>1000</td>
<td>PPM</td>
</tr>
<tr>
<td>Ethylene Glycol</td>
<td>10 - 30</td>
<td>100</td>
<td>PPM</td>
<td>100</td>
<td>PPM</td>
</tr>
<tr>
<td>Ethyl Acetate</td>
<td>5 - 10</td>
<td>100</td>
<td>PPM</td>
<td>100</td>
<td>PPM</td>
</tr>
<tr>
<td>Methyl Alcohol</td>
<td>5 - 10</td>
<td>200</td>
<td>PPM</td>
<td>200</td>
<td>PPM</td>
</tr>
<tr>
<td>Formaldehyde</td>
<td>5 ppm</td>
<td>MAXIMUM: 0.3 ppm</td>
<td>0.75</td>
<td>ppm</td>
<td></td>
</tr>
<tr>
<td>Benzene</td>
<td>5 ppm</td>
<td>MAXIMUM: 0.2 ppm</td>
<td>0.5</td>
<td>ppm</td>
<td></td>
</tr>
<tr>
<td>Butylbenzene</td>
<td>5 ppm</td>
<td>MAXIMUM: 5 ppm</td>
<td>5</td>
<td>ppm</td>
<td></td>
</tr>
<tr>
<td>Propylene Glycol</td>
<td>5 ppm</td>
<td>MAXIMUM: 5 ppm</td>
<td>5</td>
<td>ppm</td>
<td></td>
</tr>
<tr>
<td>Styrene</td>
<td>5 ppm</td>
<td>MAXIMUM: 5 ppm</td>
<td>5</td>
<td>ppm</td>
<td></td>
</tr>
</tbody>
</table>

3. HAZARDS IDENTIFICATION

4. FIRST AID MEASURES

INGESTION:
Seek medical attention immediately.

OTHER:

Refer to other MSDS sections for detailed information.

TARGET ORGANS:

EFFECTS FROM ACUTE EXPOSURE:
Ingestion:
Harmful if swallowed. Causes vomiting, nausea, and diarrhea. May cause severe damage of gastrointestinal tract. Aspiration can be a hazard if this material is swallowed. May cause pulmonary edema.

Skin Contact:
Causes moderate skin irritation. Will cause skin decoluring. Can dry skin.

Inhalation:
Causes irritation of the mouth, nose, and throat. Irritates mucous membranes. Excessive inhalation causes headache, dizziness, nausea, and incoordination. Dust hazards would only exist if the volatiles have evaporated.

Eye Contact:
May cause moderate eye irritation.

AGGRAVATED MEDICAL CONDITIONS:

EFFECTS OF CHRONIC EXPOSURE:

CARCINOGENICITY COMMENT:
This product or one of its ingredients present at 0.1% or more is listed as a carcinogen or potential carcinogen by IARC, NTP or OSHA.

CARCINOGENICITY:

Ethyl Benzene: The International Agency for Research on Cancer (IARC) has determined that there is inadequate evidence in humans and sufficient evidence in experimental animals for the carcinogenicity of ethyl benzene. IARC has given ethyl benzene an overall evaluation of 2B possibly carcinogenic to humans.

ROUTES OF ENTRY:

Contact, Absorption, Inhalation, Ingestion.

OTHER:

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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:**
Aspiration may cause severe lung damage. Evacuate stomach in a way which avoids aspiration.

### 5. FIRE FIGHTING MEASURES

**FLASH POINT (F):**
-4

**FLASH POINT METHOD:**
Tagliabue Open Cup (TOC)

**IGNITION TEMPERATURE (F):**
Unknown

**FLAMMABILITY LIMITS IN AIR - LOWER (%):** 1.0

**FLAMMABILITY LIMITS IN AIR - UPPER (%):** 12.3

**SENSITIVITY TO MECHANICAL IMPACT (I/N):** No

**SENSITIVITY TO STATIC DISCHARGE:** Sensitivity to static discharge is expected; material has a flash point below 200 F (93 C).

**EXTINGUISHING MEDIA:** Alcohol foam. Carbon dioxide. Dry chemical.

**FIRE FIGHTING PROCEDURES:** Vapors may form explosive mixture with air. Extremely flammable. Positive pressure, self-contained breathing apparatus. Evacuate area and fight fire from a safe distance. Containers can build up pressure if exposed to heat (fire).

### 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. Wash walking surfaces with detergent and water to reduce slipping hazard. Wear proper protective equipment as specified in the protective equipment section. Remove sources of ignition. Warn other workers of spill. Increase area ventilation.

### 7. HANDLING AND STORAGE

**PRECAUTIONS TO BE TAKEN IN HANDLING AND STORAGE:**
Use ground strap and appropriate precautions for dispensing flammable liquids. Recommended storage in original container at temperature below 30 C (85 F). Avoid breathing vapors, if exposed to high vapor concentration, leave area at once. Avoid contact with skin and eyes. Use only in a well ventilated area. Danger: Extremely flammable. 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. Use only spark-proof and explosion-proof tools and equipment.

### 8. EXPOSURE CONTROLS / PERSONAL PROTECTION

**ENGINEERING CONTROLS:**
Exhaust ventilation. Showers. Eyewash stations. Use in a well ventilated area.

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

**GLOVES:**
Viton rubber gloves. Polyvinyl alcohol gloves.

**EYE PROTECTION:**
Splash Goggles.

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

**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. MELTING POINT</th>
<th>BOILING POINT (F)</th>
<th>VAPOR PRESSURE @ 70 F (mmHg)</th>
<th>VAPOR DENSITY (AIR = 1)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Ethyl Alcohol</td>
<td>64-17-5</td>
<td>+6 to -40</td>
<td>172</td>
<td>86</td>
</tr>
<tr>
<td>Acetone</td>
<td>67-64-1</td>
<td>10 to 30</td>
<td>133</td>
<td>58</td>
</tr>
<tr>
<td>Xylene (Mixed Isomers)</td>
<td>106-42-3</td>
<td>10 to 30</td>
<td>91 to 139</td>
<td>5.1</td>
</tr>
<tr>
<td>Ethyl Benzene</td>
<td>100-44-3</td>
<td>277</td>
<td>136</td>
<td>7.1</td>
</tr>
</tbody>
</table>

**PRODUCT CODE:** 7021 7031

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11. TOXICOLOGICAL INFORMATION

COMPONENT INFORMATION:

Ethyl Alcohol 64-17-5
ACUTE ORAL LD50 (MG/KG): 25,000 (RAT)
ACUTE DERMAL LD50 (MG/KG): NOT DETERMINED
ACUTE INHALATION:
LC50: 20,500 PPM / 16H (RAT)
OTHER: Eye and skin irritant.

Acetone 67-64-1
ACUTE ORAL LD50 (MG/KG): NOT DETERMINED
ACUTE DERMAL LD50 (MG/KG): 20,000 (RABBIT)
ACUTE INHALATION:
LC50: 50,100 MG / 9H / 88 (RAT)
OTHER: Eye and skin irritant.

Xylene (Mixed Isomers) 1330-20-7
ACUTE ORAL LD50 (MG/KG): 4,300 (RAT)
ACUTE DERMAL LD50 (MG/KG): 7,500 (RABBIT)
ACUTE INHALATION:
LC50: 5,900 PPM / 6H (RAT)
OTHER: Eye and skin irritant.

Ethyl Benzene 106-42-4
ACUTE ORAL LD50 (MG/KG): 3,500 (RAT)
ACUTE DERMAL LD50 (MG/KG): 6,800 (RABBIT)
ACUTE INHALATION:
LC50: 4,400 PPM / 4H (RAT)
OTHER: Eye and skin irritant.

Methyl Alcohol 67-56-1
ACUTE ORAL LD50 (MG/KG): 5,428 (RAT)
ACUTE DERMAL LD50 (MG/KG): 15,800 (RABBIT)
ACUTE INHALATION:
LC50: 64,000 PPM / 4H (RAT)
OTHER: Eye and skin irritant.

Formaldehyde 50-00-0
ACUTE ORAL LD50 (MG/KG): 400 (RAT)
ACUTE DERMAL LD50 (MG/KG): 200 (RABBIT)
ACUTE INHALATION:
LC50: 20: 00 / 9G (RAT)
OTHER: Eye and skin irritant.

Benzene 71-43-2
ACUTE ORAL LD50 (MG/KG): 930 (RAT)
ACUTE DERMAL LD50 (MG/KG): 8,000 (RABBIT)
ACUTE INHALATION:
LC50: 10,000 PPM / 7H (RAT)
OTHER: Eye and skin irritant.

Acetaldehyde 75-07-0
ACUTE ORAL LD50 (MG/KG): 642 (RAT)
ACUTE DERMAL LD50 (MG/KG): 3,540 (RABBIT)
ACUTE INHALATION:
LC50: 11,300 PPM / 4H (RAT)

PRODUCT CODE: 7011 7011
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12. ECOLOGICAL INFORMATION

ECOTOXICOLOGICAL INFORMATION: No data at this time.

CHEMICAL PATH 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: D001, EQ = 100 lb / 45.4 kg.

14. TRANSPORT INFORMATION

DOT SHIPPIIING NAME: ADHESIVE

DOT HAZARD CLASS: 3

DOT PACKING GROUP: PG II

DOT LABEL(S): FLAMMABLE LIQUID

UN/NA NUMBER: UN1113

PLACARDS: FLAMMABLE LIQUID

ICAO/DATA: 3, II

MARINE POISON: NONE

HAZMAT CLASSIFICATION: CLASS 95

15. REGULATORY INFORMATION

HAZARDOUS PRODUCT COMPOSITION/CAS NUMBER APPROX. WEIGHT PERCENT

CALIFORNIA PROPORTION 49 MASSACHUSETTS RIGHT-TO-KNOW NEW JERSEY RIGHT-TO-KNOW PENNSYLVANIA RIGHT-TO-KNOW

Ethylene Glycol 93-10-3 50 - 60 NOT LISTED YES YES YES

Ethanol 64-17-5 30 - 30 NOT LISTED YES YES YES

Acetone 67-64-1 30 - 30 NOT LISTED YES YES YES

Xylene (Mixed Isomers) 100 - 100-7 10 - 30 NOT LISTED YES YES YES

Benzene 106-42-3 1 - 5 NOT LISTED YES YES YES

Ethanol Alcohol 64-17-5 1 - 5 NOT LISTED YES YES YES

Formaldehyde 50-05-9 <5 ppm YEA YES YES YES

Benzene 106-42-3 <5 ppm YES YES YES YES

Xylene (Mixed Isomers) 100 - 100-7 0.5% YES YES YES YES

SARA 307 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 (1) CARCINOGENIC HAZARD (3) FIRE HAZARD (0)

SARA 313 CHEMICALS: This product contains toxic chemical(s) listed below which are subject to the reporting requirements of Section 313 of Title 31 of SARA and 40 CFR Part 372.

Ethanol Alcohol 64-17-5 47-56-1

Ethylene Glycol 93-10-3 100-41-4

Xylene (Mixed Isomers) 100-20-7

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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