Safety Data Sheet
NOVOLAC COATING RESIN

SECTION 1: PRODUCT AND COMPANY INFORMATION

Manufacturer: Indcon, Inc. P.O. Box 8357, Greenville, SC 29604
Telephone: 864-298-8300
Fax: Not Applicable
Product Name(s): NOVOLAC COATING RESIN
Product ID #: 2402
Chemical Family: Epoxy Resin
CAS Number: Mixture
Emergency Contact / Number: 24 HOUR CHEMTREC 800-424-9300

SECTION 2: HAZARD IDENTIFICATION

Hazard
- Sensitization, Skin: Category 1 – May cause an allergic skin reaction
- Skin Corrosion/Irritation: Category 2 – Causes skin irritation
- Serious Eye Damage/Eye Irritation: Category 2A – Causes serious eye irritation
- Hazardous to the aquatic environment, acute hazard: Category 2 – Toxic to aquatic life
- Hazardous to the aquatic environment, long-term hazard: Category 2 – Toxic to aquatic life with long lasting effects

Signal Word: WARNING

Precautionary Statements
Avoid breathing fumes, vapors or spray. Wash hands thoroughly after handling. Contaminated work clothing should not be allowed out of the workplace. Avoid release to the environment. Wear protective eye and face protection, gloves and clothing.

If on Skin:
Wash with soap and water.

If in Eyes:
Rinse cautiously with water for several minutes. Remove contact lenses if easy to do so - continue rinsing. If eye irritation persists: Get medical advice or attention.

If skin irritation or a rash occurs:
Get medical advice/attention.

Take off contaminated clothing and wash before reuse. Collect spillage. Dispose of contents/container to an approved waste disposal plant.

SECTION 3: COMPOSITION/INFORMATION ON INGREDIENTS

Component Name: Epoxy Novolac Resin
CAS#: 28064-14-4
Component Range: 80 – 90%

Component Name: Alkyl (C_{12-14}) glycidyl ether
CAS#: 68609-97-2
Component Range: 5 – 10%

SECTION 4: FIRST AID MEASURES

Eye Contact:
Flush eyes thoroughly with water for several minutes. Remove contact lenses after the initial 1-2 minutes and continue flushing for several additional minutes. If effects occur, consult a physician, preferably an ophthalmologist.

Skin Contact:
Remove material from skin immediately by washing with soap and plenty of water. Remove contaminated clothing and shoes while washing. Seek medical attention if irritation persists. Wash clothing before reuse. Discard items which cannot be decontaminated, including leather articles such as shoes, belts and watchbands.

Ingestion:
Remove victim to fresh air. If unconscious, place in a comfortable position and get medical attention immediately. Never give anything by mouth to an unconscious person. If conscious wash out mouth with water and give small quantities of water to drink. Stop if the exposed person feels sick. Do not induce vomiting unless directed to do so by medical personnel because of the danger of aspiration into the lungs. If vomiting occurs, the head should be kept low so that vomit does not enter the lungs. Get medical attention if adverse health effects persist or are severe.
Inhalation
Remove victim to fresh air and keep at rest in a comfortable position for breathing. If it is suspected that fumes are still present, the rescuer should wear an appropriate mask or self-contained breathing apparatus. Provide artificial respiration by trained personnel if victim is not breathing, breathing is irregular or respiratory arrest occurs. It may be dangerous for the rescuer to give mouth-to-mouth resuscitation. Get medical attention or advice.

SECTION 5: FIREFIGHTING MEASURES

Suitable Extinguishing Media
Alcohol resistant foams (AIC type) are preferred. Water fog or fine spray, dry chemical or carbon dioxide fire extinguishers. General purpose synthetic foams (including AFFF) or protein foams may function, but will be less effective. Use water fog to cool fire-exposed containers, structures and to protect personnel. Do not use a direct water stream which may spread fire.

Special Firefighting Procedures
Clear fire area of unprotected and untrained personnel. Do not enter confined fire space without full equipment and a positive pressure NIOSH approved self-contained breathing apparatus.

Unusual Firefighting Hazards
Smoke from the fire may contain the original material in addition to combustion products of varying composition which may be toxic and/or irritating. Combustion products may include carbon dioxide, carbon monoxide and toxic gases.

SECTION 6: ACCIDENTAL RELEASE MEASURES

Personal Precautions
Isolate release area and keep unnecessary or untrained people away. Spilled material may be slippery. Avoid contact with spilled material.

Environmental Precautions
Contain spill if it can be done with minimal risk. Prevent liquid from entering drains, sewers or waterways. Advise EPA, state or local agencies as required.

Methods for Cleaning Up
Contain spilled material if possible to do safely. Absorb with materials such as sand, polypropylene or polyethylene fiber products. Remove residual with soap and hot water. Collect in suitable and properly labeled containers. Residual can be removed with solvent. Use of large amounts of solvents is not recommended for clean-up unless the recommended exposure guidelines and safe handling practices for the specific solvent are known and followed. Consult solvent Safety Data Sheet for handling information and exposure guidelines.

SECTION 7: HANDLING AND STORAGE

Handling
Keep in closed, marked containers. Avoid contact with eyes. Avoid prolonged or repeated contact with skin. Do not smoke, eat or drink while using product. Wash thoroughly after handling, before use of restroom or end of work assignment. Avoid use of electric band heaters. Failures of electric band heaters have been reported to cause drums of liquid epoxy resin to explode and catch fire. Application of a direct flame to a container of liquid epoxy resin can also cause explosion and/or fire.

Storage
Keep away from heat, sparks and flame. Keep container closed when not in use.

SECTION 8: EXPOSURE CONTROL AND PERSONAL PROTECTION

Exposure Limits

<table>
<thead>
<tr>
<th>Component Name</th>
<th>ACGIH TLV-TWA</th>
<th>OSHA PEL-TWA</th>
</tr>
</thead>
<tbody>
<tr>
<td>Not Applicable</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Engineering Controls
Use appropriate ventilation to maintain good quality air conditions. Have eye wash stations and safety showers readily available.

Eye and Face Protection
Wear safety glasses with side shields (or goggles) and a face shield.

Skin Protection
Where contact is likely, wear chemical resistant gloves, a chemical suit, rubber boots, and chemical safety goggles plus a face shield as appropriate to the work assignment.
Respiratory Protection
Use NIOSH/MSHA approved air purifying respirator with an organic vapor cartridge or canister where airborne concentrations are unknown or expected to be high. Protection provided by air purifying respirators is limited. Use a positive pressure air supplied respirator if there is any potential for an uncontrolled release, exposure levels are not known, or any other circumstances where air purifying respirators may not provide adequate protection.

SECTION 9: PHYSICAL AND CHEMICAL PROPERTIES

<table>
<thead>
<tr>
<th>Property</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Appearance/Physical State</td>
<td>Clear viscous liquid</td>
</tr>
<tr>
<td>Specific Gravity [Water=1]</td>
<td>1.16</td>
</tr>
<tr>
<td>Evaporation Rate</td>
<td>Not Determined</td>
</tr>
<tr>
<td>pH</td>
<td>Not Applicable</td>
</tr>
<tr>
<td>Solubility in Water</td>
<td>Negligible</td>
</tr>
<tr>
<td>Odor</td>
<td>Slightly aromatic</td>
</tr>
<tr>
<td>Melting/Freezing Point</td>
<td>Not Determined</td>
</tr>
<tr>
<td>Boiling Range</td>
<td>560 – 570 °F</td>
</tr>
<tr>
<td>Initial Boiling Point</td>
<td>Not Determined</td>
</tr>
<tr>
<td>Flash Point</td>
<td>200 °F</td>
</tr>
<tr>
<td>Upper Flammability Limits</td>
<td>Not Determined</td>
</tr>
<tr>
<td>Lower Flammability Limits</td>
<td>Not Determined</td>
</tr>
<tr>
<td>Auto-ignition Temperature</td>
<td>Not Determined</td>
</tr>
<tr>
<td>Decomposition Temperature</td>
<td>Not Determined</td>
</tr>
<tr>
<td>Vapor Pressure</td>
<td>Not Determined</td>
</tr>
<tr>
<td>Vapor Density (Air=1)</td>
<td>&gt;1</td>
</tr>
<tr>
<td>Partition Coefficient (n-octanol/water)</td>
<td>Not Determined</td>
</tr>
<tr>
<td>Viscosity (cSt, 40 °C)</td>
<td>Not Determined</td>
</tr>
<tr>
<td>Critical Temperature</td>
<td>Not Determined</td>
</tr>
</tbody>
</table>

Note: Physical and chemical properties are provided for safety, health and environmental considerations and do not fully represent product specifications. Those should be requested separately.

SECTION 10: STABILITY AND REACTIVITY

Stability
Stable under normal conditions of storage and handling.

Conditions to Avoid
Avoid contact with amines, anhydrides, acids and oxidizers.

Hazardous Decomposition / Byproducts
Unlikely to occur except in the event of fire. Expected by-products in incomplete pyrolysis or combustion are mainly phenolics, carbon monoxide and water. Thermal decomposition products should therefore be treated as potentially hazardous substances and appropriate precautions should be taken.

Hazardous Polymerization
Will not occur under normal conditions.

Polymerization Conditions to Avoid
Not Applicable

SECTION 11: TOXICOLOGICAL INFORMATION

Specific toxicity tests have not been conducted on this mixture. In accordance with OSHA’s Hazard Communication Standard 1910.1200, this mixture is assumed to have the same health hazards as its significant components.

Eye Contact
May cause irritation, watering or redness.

Skin Contact
Prolonged or repeated contact may cause skin irritation with local redness.

Ingestion
The toxicity based on that of the major ingredients is expected to be low.

Inhalation
Room temperature material has a low vapor pressure and little likelihood of being inhaled; heated material may cause respiratory irritation.

Target Organ Effects
None expected.

Chronic Effects
None known

Carcinogenicity
Components at levels above 0.1% are not found to be carcinogens by NTP, OSHA or IARC.
SECTION 12: ECOLOGICAL INFORMATION

Do not allow material to contact soil, enter sewers or any body of water.

Ecotoxicity  The major ingredient is moderately toxic to aquatic organisms on an acute basis; also potentially toxic to aquatic organisms with long term adverse effects.

Mobility  Not Determined

Degradability  Components of this product may persist in the environment.

Bioaccumulation  Not Determined

SECTION 13: DISPOSAL CONSIDERATION

Dispose of this product in compliance with all applicable federal, state and local regulations. Empty containers may contain residues.

SECTION 14: TRANSPORT INFORMATION

Proper Shipping Name  Not Regulated

SECTION 15: REGULATORY INFORMATION

Federal

TSCA Status  All components are listed in the TSCA inventory

SARA 311/312 Reporting Categories

Acute hazard

SARA 313 Reportable Ingredients

Alkyl (C12-14) glycidyl ether  CAS 68609-97-2  5 – 10 %

State Lists

Pennsylvania Right-to-Know – Components not listed

California Proposition 65 – Components not listed

SECTION 16: OTHER INFORMATION

HMIS Rating  2-1-1

Department Issuing SDS  Health and Safety

Disclaimer
This information is correct and accurate to the best of Indcon’s knowledge; however, Indcon Co. assumes no liability whatsoever for the continued accuracy and completeness of the information contained herein. For specific information regarding occupational safety health standards please refer to the Code of Federal Regulations Title 29 and all relevant state regulations and laws. The user has the sole responsibility for the final determination of suitability of any material. All materials may present known and unknown health hazards and should be used with caution. With regard to his or her particular use the user should be sure that he or she has all current and relevant data for their particular use. CAUTION: Always keep out of the reach of children.
Safety Data Sheet
NOVOLAC COATING HARDENER

SECTION 1: PRODUCT AND COMPANY INFORMATION

Manufacturer: Indcon, Inc. P.O. Box 8357, Greenville, SC 29604
Telephone: 864-289-8300
Fax: Not Applicable
Product Name(s): NOVOLAC COATING HARDENER
Product ID #: 2403
Chemical Family: Epoxy Hardener
CAS Number: Mixture
Emergency Contact / Number: 24 HOUR CHEMTREC 800-424-9300

SECTION 2: HAZARD IDENTIFICATION

Hazard Categories:
- Acute Toxicity, oral: Category 4 – Harmful if swallowed
- Acute Toxicity, skin: Category 3 – Toxic in contact with skin
- Skin Corrosion/Irritation: Category 1B – Causes severe skin burns and eye damage
- Serious Eye Damage/Eye Irritation: Category 1 – Causes serious eye damage
- Sensitization, Skin: Category 1 – May cause an allergic skin reaction
- Hazardous to the aquatic environment, long-term hazard: Category 3 – Harmful to aquatic life with long lasting effects

Signal Word: DANGER

Precautionary Statements:
Obtain special instructions before use. Do not handle until all safety precautions have been read and understood. Do not breathe fumes or vapors. Wash hands thoroughly after handling. Do not eat, drink or smoke when using this product. Contaminated work clothing should not be allowed out of the workplace. Avoid release to the environment. Wear protective gloves and clothing, eye and face protection. Use personal protective equipment as required.

If exposed or concerned: get medical advice/attention. Call a POISON CENTER or doctor/physician if you feel unwell.

IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses if present and easy to do so - continue rinsing. Immediately call a POISON CENTER or doctor/physician.

IF ON SKIN (or hair): Remove/Take off immediately all contaminated clothing. Rinse skin with water, shower. If skin irritation or a rash occurs: Get medical advice/attention.

IF SWALLOWED: Rinse mouth. Do NOT induce vomiting.

IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing. Wash contaminated clothing before reuse. Collect spillage. Store locked up. Dispose of contents/container to an approved waste disposal plant.

SECTION 3: COMPOSITION/INFORMATION ON INGREDIENTS

<table>
<thead>
<tr>
<th>Component Name</th>
<th>CAS#</th>
<th>Component Range</th>
</tr>
</thead>
<tbody>
<tr>
<td>Isophoronediamine</td>
<td>2855-13-2</td>
<td>25 – 50</td>
</tr>
<tr>
<td>Benzyl Alcohol</td>
<td>100-51-6</td>
<td>25 - 50</td>
</tr>
<tr>
<td>Bisphenol A Epoxy Resin</td>
<td>25085-99-8</td>
<td>5 - 10</td>
</tr>
</tbody>
</table>

SECTION 4: FIRST AID MEASURES

Eye Contact
Can cause serious eye damage. Flush eyes thoroughly with water for several minutes. Remove contact lenses after the initial 1-2 minutes and continue flushing for several additional minutes. If effects occur, consult a physician, preferably an ophthalmologist.

Skin Contact
Can cause severe burns. Remove material from skin immediately by washing with soap and plenty of water. Remove contaminated clothing and shoes while washing. Seek medical attention if irritation persists. Wash clothing before reuse.
**Ingestion**
May cause burns to mouth, throat and stomach. Do NOT induce vomiting. Give victim a glass of water or milk. Call a physician or poison control center immediately. Never give anything by mouth to an unconscious person.

**Inhalation**
Vapors may be irritating or corrosive. Remove victim to fresh air and keep at rest in a comfortable position for breathing. If it is suspected that fumes are still present, the rescuer should wear an appropriate mask or self-contained breathing apparatus. Provide artificial respiration by trained personnel if victim is not breathing, breathing is irregular or respiratory arrest occurs. It may be dangerous for the rescuer to give mouth-to-mouth resuscitation. Get medical attention or advice.

### SECTION 5: FIREFIGHTING MEASURES

**Suitable Extinguishing Media**
Alcohol foam, water fog, dry chemical or carbon dioxide fire extinguishers. Use water fog to cool fire-exposed containers, structures and to protect personnel. Do not use a direct water stream which may spread fire.

**Special Firefighting Procedures**
Clear fire area of unprotected and untrained personnel. Do not enter confined fire space without full equipment and a positive pressure NIOSH approved self-contained breathing apparatus.

**Unusual Firefighting Hazards**
Smoke from the fire may contain the original material in addition to combustion products of varying composition which may be toxic and/or irritating. Combustion products may include carbon dioxide, carbon monoxide and toxic gases.

### SECTION 6: ACCIDENTAL RELEASE MEASURES

**Personal Precautions**
Isolate release area and keep unnecessary or untrained people away. Avoid contact with spilled material.

**Environmental Precautions**
Contain spill if it can be done with minimal risk. Prevent liquid from entering drains, sewers or waterways. Advise EPA, state or local agencies as required.

**Methods for Cleaning Up**
Contain spilled material if possible to do safely. Absorb with materials such as sand, polypropylene or polyethylene fiber products. Collect in suitable and properly labeled containers for disposal or reuse.

### SECTION 7: HANDLING AND STORAGE

**Handling**
Keep in closed, marked containers. Avoid contact with eyes and skin. Do not smoke, eat or drink while using product. Wash thoroughly after handling, before use of restroom or end of work assignment.

**Storage**
Keep away from heat, sparks and flame. Keep container closed when not in use.

### SECTION 8: EXPOSURE CONTROL AND PERSONAL PROTECTION

**Exposure Limits**

<table>
<thead>
<tr>
<th>Component Name</th>
<th>ACGIH TLV-TWA</th>
<th>OSHA PEL-TWA</th>
</tr>
</thead>
<tbody>
<tr>
<td>Not Applicable</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

**Engineering Controls**
Use appropriate ventilation to maintain good quality air conditions. Have eye wash stations and safety showers readily available.

**Eye and Face Protection**
Wear safety glasses with side shields (or goggles) and a face shield.

**Skin Protection**
Where contact is likely, wear chemical resistant gloves, a chemical suit, rubber boots, and chemical safety goggles plus a face shield as appropriate to the work assignment.

**Respiratory Protection**
Use NIOSH/MSHA approved air purifying respirator with an organic vapor cartridge or canister where airborne concentrations are unknown or expected to be high. Protection provided by air purifying respirators is limited. Use a positive pressure air supplied respirator if there is any potential for an uncontrolled release, exposure levels are not known, or any other circumstances where air purifying respirators may not provide adequate protection.
SECTION 9: PHYSICAL AND CHEMICAL PROPERTIES

<table>
<thead>
<tr>
<th>Property</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Appearance/Physical State</td>
<td>Clear liquid</td>
</tr>
<tr>
<td>Flash Point (PMCC)</td>
<td>235 °F</td>
</tr>
<tr>
<td>Specific Gravity (Water=1)</td>
<td>1.01</td>
</tr>
<tr>
<td>Upper Flammability Limits</td>
<td>Not Determined</td>
</tr>
<tr>
<td>Evaporation Rate</td>
<td>&lt;Butyl acetate</td>
</tr>
<tr>
<td>Lower Flammability Limits</td>
<td>Not Determined</td>
</tr>
<tr>
<td>pH</td>
<td>Not Applicable</td>
</tr>
<tr>
<td>Auto-ignition Temperature</td>
<td>572 °F</td>
</tr>
<tr>
<td>Solubility in Water</td>
<td>Partial</td>
</tr>
<tr>
<td>Decomposition Temperature</td>
<td>Not Determined</td>
</tr>
<tr>
<td>Odor</td>
<td>Strong ammonia</td>
</tr>
<tr>
<td>Odor Threshold</td>
<td>Not Determined</td>
</tr>
<tr>
<td>Vapor Pressure</td>
<td>0.1 HPa</td>
</tr>
<tr>
<td>Melting/Freezing Point</td>
<td>Not Determined</td>
</tr>
<tr>
<td>Partition Coefficient (n-octanol/water)</td>
<td>Not Determined</td>
</tr>
<tr>
<td>Boiling Range</td>
<td>401 – 405 °F</td>
</tr>
<tr>
<td>Viscosity (cSt, 40 °C)</td>
<td>Not Determined</td>
</tr>
<tr>
<td>Initial Boiling Point</td>
<td>Not Determined</td>
</tr>
<tr>
<td>Critical Temperature</td>
<td>Not Determined</td>
</tr>
</tbody>
</table>

Note: Physical and chemical properties are provided for safety, health and environmental considerations and do not fully represent product specifications. Those should be requested separately.

SECTION 10: STABILITY AND REACTIVITY

Stability
Stable under normal conditions of storage and handling.

Conditions to Avoid
Avoid contact with epoxies, isocyanates, acids.

Hazardous Decomposition / Byproducts
Unlikely to occur except in the event of fire. Nitrogen and carbon oxides may be formed in the event of overheating or incomplete combustion.

Hazardous Polymerization
Will not occur under normal conditions.

Polymerization Conditions to Avoid
Not Applicable

SECTION 11: TOXICOLOGICAL INFORMATION

Specific toxicity tests have not been conducted on this mixture. In accordance with OSHA’s Hazard Communication Standard 1910.1200, this mixture is assumed to have the same health hazards as its significant components.

Eye Contact
Product is corrosive to the eyes.

Skin Contact
Product is corrosive to the skin.

Ingestion
Harmful if swallowed.

Inhalation
May give off gas, vapor that is very irritating or corrosive to the respiratory system. Exposure to decomposition products may cause a health hazard. Serious effects may be delayed following exposure. Vapors have a narcotic effect and may cause headache, fatigue, dizziness and nausea.

Carcinogenicity
Components at levels above 0.1% are not found to be carcinogens by NTP, OSHA or IARC.

SECTION 12: ECOLOGICAL INFORMATION

Do not allow material to contact soil, enter sewers or any body of water.

Ecotoxicity
Harmful to aquatic organisms with long term effects

Mobility
Not Determined

Degradability
Not Determined

Bioaccumulation
Not Determined
**SECTION 13: DISPOSAL CONSIDERATION**

Dispose of this product in compliance with all applicable federal, state and local regulations. Empty containers may contain residues.

**SECTION 14: TRANSPORT INFORMATION**

Proper Shipping Name

UN1719, Caustic Alkali Liquid N.O.S. (Modified Cycloaliphatic Polyamine), Class 8, PG III

**SECTION 15: REGULATORY INFORMATION**

Federal

TSCA Status
All components are listed in the TSCA inventory

SARA 311/312 Reporting Categories
Acute hazard

SARA 313 Reportable Ingredients
None

State Lists
Pennsylvania Right-to-Know – Components not listed
New Jersey Right-to-Know – Components not listed
California Proposition 65 – Components not listed

**SECTION 16: OTHER INFORMATION**

HMIS Rating
4-1-0

Department Issuing SDS
Health and Safety

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