MATERIAL SAFETY DATA SHEET
PERMA-LINER POINT REPAIR RESIN PART B

24 HOUR EMERGENCY ASSISTANCE: 1-800-424-9300

COMPANY NAME AND ADDRESS:
PERMA-LINER INDUSTRIES, INC.
13000 Automobile Blvd., Suite 3000
Clearwater, Florida 33762

SECTION I  NAME
PRODUCT: PERMA-LINER POINT REPAIR RESIN PART B
CHEM NAME: MIXTURE
CHEM FAMILY: ALIPHATIC AMINE

HEALTH HAZARD: 3  FIRE HAZARD: 1  REACTIVITY: 0

SECTION II  INGREDIENTS

<table>
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<th>NO.</th>
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<td>2</td>
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<td>BISPHENOL A</td>
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SECTION II-B  ACUTE TOXICITY DATA

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<td>2</td>
<td>1.66G/KG (RAT)</td>
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<td>3</td>
<td>4.2G/KG (RAT)</td>
<td>3.0G/KG (RABBIT)</td>
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SECTION III  HEALTH INFORMATION

THE HEALTH EFFECTS NOTED BELOW ARE CONSISTENT WITH REQUIREMENTS UNDER THE OSHA HAZARD COMMUNICATION STANDARD (29 CFR 1910.1200)

EYE CONTACT: CORROSIVE TO THE EYES AND MAY CAUSE SEVERE DAMAGE INCLUDING BLINDNESS. VAPORS MAY BE IRRITATING.

SKIN CONTACT: CORROSIVE TO THE SKIN. MAY CAUSE SKIN SENSITIZATION. MAY BE TOXIC IF ABSORBED THROUGH SKIN. VAPOR MISTS MAY BE CORROSIVE TO UPPER RESPIRATORY TRACT. REPEATED OR PROLONGED EXPOSURE CAN RESULT IN LUNG DAMAGE.
INGESTION: NOT EXPECTED TO BE A RELEVANT ROUTE OF EXPOSURE, HOWEVER, CORROSIVE AND MAY CAUSE SEVERE AND PERMANENT DAMAGE TO MOUTH, THROAT AND STOMACH.

SIGNS AND SYMPTOMS: IRRITATION AS NOTED ABOVE. LUNG DAMAGE (SCARRING, BRONCHITIS, EMPHYSEMA) MAY BE EVIDENCED BY SHORTNESS OF BREATH, ESPECIALLY ON EXERTION, AND MAY BE ACCOMPANIED BY CHRONIC COUGH. SKIN SENSITIZATION (ALLERGY) MAY BE EVIDENCED BY RASHES, ESPECIALLY HIVES.

AGGRAVATED MEDICAL CONDITIONS: PRE-EXISTING EYE, SKIN AND RESPIRATORY DISORDERS MAY BE AGGRAVATED BY EXPOSURE TO THIS PRODUCT.

OTHER HEALTH EFFECTS: SEE SECTION VI FOR SUPPLEMENTAL HEALTH INFORMATION.

SECTION IV OCCUPATIONAL EXPOSURE LIMITS

NONE ESTABLISHED

SECTION V EMERGENCY AND FIRST AID PROCEDURES

EYE CONTACT: IMMEDIATELY FLUSH EYES WITH PLENTY OF WATER FOR AT LEAST 15 MINUTES WHILE HOLDING EYELIDS OPEN. RINSE CONTINUOUSLY WITH WATER WHILE WAITING FOR MEDICAL ATTENTION.

SKIN CONTACT: IMMEDIATELY REMOVE CONTAMINATED CLOTHING OR SHOES, WIPE EXCESS FROM SKIN AND FLUSH WITH PLENTY OF WATER FOR 15 MINUTES. USE SOAP IF READILY AVAILABLE, OR FOLLOW BY THROUGHLY WASHING WITH SOAP AND WATER. DO NOT REUSE CLOTHING UNTIL THOROUGHLY DECONTAMINATED. GET MEDICAL ATTENTION.

INHALATION: REMOVE VICTIM TO FRESH AIR AND PROVIDE OXYGEN IF BREATHING IS DIFFICULT. GIVE ARTIFICIAL RESPIRATION IF NOT BREATHING. GET MEDICAL ATTENTION.

INGESTION: DO NOT INDUCE VOMITING. GIVE ONE GLASS OF WATER UNLESS VICTIM IS DROWSY, CONVULSING OR UNCONSCIOUS. SEEK MEDICAL ATTENTION IMMEDIATELY.

NOTE TO PHYSICIAN: NONE IDENTIFIED

SECTION VI SUPPLEMENTAL HEALTH INFORMATION

COMPONENT 1 AND 2: IT HAS BEEN GENERALLY OBSERVED IN ANIMAL STUDIES THAT ALIPHATIC AMINES CAN CAUSE CHANGE IN THE LUNGS, LIVER, KIDNEYS, AND HEART.

COMPONENT 3: IN A REPRODUCTIVE STUDY OF RATS, BISPHENOL A (BPA) CAUSED PATERNAL TOXICITY, REPRODUCTIVE, KIDNEY AND LIVER EFFECTS AND FETOTOXICITY.
AT DOES OG .5% AND 1% OF THE DIET. NO SIGNIFICANT TREATMENT RELATED EFFECTS WERE SEEN AT .25% OF THE DIET. IN OTHER REPRODUCTIVE STUDIES, BPA PRODUCED FETOTOXICITY IN MICE AT MATERNALLY TOXIC DOSES, BUT NOT IN RATS. A DUST INHALATION STUDY IN RATS AT DOSES UP TO 150 MG/M3 BPA FOR 6H/D FOR 9 EXPOSURES DID NOT RESULT IN ANY SIGNIFICANT TREATMENT RELATED SYSTEMIC TOXICITY.

BISPHENOL A AT HIGH ORAL DOSES AND BY INTRAPERITONEAL INJECTION PRODUCED SLIGHT ESTROGENIC EFFECTS (OVARIAN ENLARGEMENT) IN LAB ANIMALS. THE SIGNIFICANCE OF THIS INFORMATION IN HUMANS IS UNKNOWN.

SECTION VI PHYSICAL DATA

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<tr>
<td>SPECIFIC GRAVITY (H2O=1)</td>
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<td>VAPOR PRESSURE (MM HG)</td>
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</tr>
<tr>
<td>MELTING POINT (F)</td>
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<tr>
<td>SOLUBILITY IN WATER</td>
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<tr>
<td>VAPOR DENSITY (AIR=1)</td>
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</table>

EVAPORATION RATE (NORMAL BUTYL ACETATE = 1): <1

APPERANCE AND ODOR: CLEAR LIGHT COLORED CISCOUS LIQUID WITH AMINE

SECTION VIII FIRE AND EXPLOSION HAZARD

FLASH POINT AND METHOD: >200f (>93C) (SETAFLASH)

FLAMMABLE LIMITS/PERCNT VOLUME IN AIR: LOWER: NA UPPER: NA

EXTINGUISHING MEDIA: USE WATER FOG, “ALCOHOL” FOAM, DRY CHEMICAL OR CO2. DO NOT USE A DIRECT STREAM OF WATER. PRODUCT MAY FLOAT. WATER OR FOG MAY CAUSE FROTHING WHICH CAN BE VIOLENT, ESPECIALLY IF SPRAYED INTO CONTAINERS OF HOT OR BURNING LIQUID.

SPECIAL FIRE FIGHTING PROCEDURES AND PRECAUTIONS: MATERIAL WILL NOT BURN UNLESS PREHEATED. DO NOT ENTER CONFINED FIRE SPACE WITHOUT FULL BUNKER GEAR (HELMET WITH FACE SHIELD, BUNKEROATS, GLOVES AND RUBBER BOOTS), INCLUDING A POSITIVE PRESSURE NIOSH APPROVED SELF-CONTAINED BREATHING APPARATUS. COOL FIRE EXPOSED CONTAINERS WITH WATER.

UNUSUAL FIRE AND EXPLOSION HAZARDS: DELAYED LUNG DAMAGE (PULMONARY EDEMA) CAN BE EXPERIENCED AFTER EXPOSURE TO COMBUSTION PRODUCTS, SOMETIMES HOURS AFTER THE EXPOSURE. NITROGEN OXIDES AND NITROGEN CONTAINING ORGANIC COMPOUNDS MAY BE RELEASED UPON COMBUSTION. SEE SECTION XII.

SECTION IX REACTIVITY

STABILITY: STABLE HAZARDOUS POLYMERIZATION: WILL NOT OCCUR
CONDITIONS AND MATERIALS TO AVOID: AVOID HEAT, FLAME AND CONTACT WITH STRONG OXIDIZING AGENTS

HAZARDOUS DECOMPOSITION PRODUCTS: NITROGEN OXIDES, CARBON MONOXIDE AND UNIDENTIFIED ORGANIC COMPOUNDS MAY BE FORMED DURING COMBUSTION.

SECTION X   EMPLOYEE PROTECTION

RESPIRATORY PROTECTION: DO NOT BREATHE VAPOR/MISTS. USE A NIOSH-APPROVED RESPIRATOR AS REQUIRED TO PREVENT OVEREXPOSURE. IN ACCORD WITH 29 CFR 1910.134, USE A FULL FACE, ATMOSPHERE-SUPPLYING RESPIRATOR OR AN AIR-PURIFYING RESPIRATOR FOR ORGANIC VAPORS. AVOID BREATHING VAPORS THAT MAY BE PRODUCED UNDER SOME CONDITIONS SUCH AS HEATING OR APPLICATIONS OF UNCURED MATERIAL IN LARGE SURFACE AREAS (E.G., FLOORING AND PAINTING). AVOID BREATHING AEROSOLS AND MISTS THAT MAY BE FORMED BY VARIOUS METHODS OF APPLICATION.

PROTECTIVE CLOTHING: DO NOT GET IN EYES. WEAR CHEMICAL GOGGLES IF THERE IS POTENTIAL CONTACT WITH EYES. DO NOT GET ON SKIN OR CLOTHING. WEAR CHEMICAL RESISTANT CLOTHING SUCH AS GLOVES, OUTER CLOTHING OR APRON, OVERSHOES AND A FACE SHIELD SUITABLE TO POTENTIAL EXPOSURE.

ADDITIONAL PROTECTIVE MEASURES: USE VENTILATION AS REQUIRED TO CONTROL VAPOR CONCENTRATIONS. EYE WASH FOUNTAINS AND SAFETY SHOWERS SHOULD BE AVAILABLE FOR EMERGENCY USE.

SECTION XI   ENVIRONMENTAL PROTECTION

SPILL OR LEAK PROCEDURES: DANGER. CORROSIVE. PREVENT ALL BODILY CONTACT WITH SPILLED MATERIAL. WEAR APPROPRIATE RESPIRATOR AND FULL BODY PROTECTIVE CLOTHING. ***LARGE SPILLS*** SHUT OFF LEAK ONLY IF SAFE TO DO SO. ELIMINATE POTENTIAL FIRE HAZARDS. DIKE AND CONTAIN. REMOVE WITH VACUUM TRUCK OR PUMP TO STORAGE/SUPPLY VESSELS. SOAK UP RESIDUE WITH AN ABSORBENT SUCH AS CLAY, SAND OR OTHER SUITABLE MATERIAL; PLACE IN NON-LEAKING CONTAINERS FOR PROPER DISPOSAL. FLUSH AREA WITH WATER TO REMOVE LAST TRACES OF RESIDUE; DISPOSE OF FLUSH SOLUTIONS BY ABSORPTION AS ABOVE. ***SMALL LEAKS*** TAKE UP WITH AN ABSORBENT MATERIAL AND PLACE IN NON-LEAKING CONTAINERS; SEAL TIGHTLY FOR PROPER DISPOSAL.

SECTION XII   SPECIAL PRECAUTIONS

STORE IN A COOL, DRY PLACE WITH ADEQUATE VENTILATION. KEEP AWAY FROM OPEN FLAMES AND HIGH TEMPERATURES. DO NOT PRESSURIZE DRUM CONTAINERS TO EMPTY THEM. HEATING THIS CURING AGENT IN THE PRESENCE OF AIR MAY CAUSE THERMAL AND OXIDATIVE DECOMPOSITION. WITH SOME EPOXY RESINS, IT MAY PRODUCE EXOTHERMIC REACTIONS THAT IN LARGE MASSES CAN CAUSE RUNAWAY POLYMERIZATION AND CHARRING OF THE REACTANTS. FUMES AND VAPORS FROM THESE THERMAL AND CHEMICAL DECOMPOSITIONS VARY WIDELY IN COMPOSITION AND
TOXICITY. DO NOT BREATHE FUMES. USE A NIOSH-APPROVED RESPIRATOR AS REQUIRED TO PREVENT OVER EXPOSURE. IN ACCORD WITH 29 CFR 1910.134, USE EITHER AN ATMOSPHERE-SUPPLYING RESPIRATOR OR AN AIR-PURIFYING RESPIRATOR FOR ORGANIC VAPORS. DANGER! CORROSIVE. CAUSES BURNS TO EYE, SKIN AND RESPIRATORY TRACT. MAY BE A SKIN SENSITIZER. MAY BE TOXIC IF ABSORBED THROUGH SKIN. DO NOT GET IN EYES, SKIN OR CLOTHING. DO NOT BREATHE VAPORS OR MISTS. CONTAINERS, EVEN THOSE THAT HAVE BEEN EMPTIED, CAN CONTAIN HAZARDOUS PRODUCT RESIDUES. WASH WITH SOAP AND WATER BEFORE EATING, DRINKING SMOKING, APPLYING COSMETIC OR USING TOILET FACILITIES. LAUNDER CONTAMINATED CLOTHING BEFORE REUSE. CONTAMINATED LEATHER ARTICLES INCLUDING SHOES CANNOT BE DECONTAMINATED AND SHOULD BE DESTROYED TO PREVENT REUSE.

SECTION XIII TRANSPORTATION REQUIREMENTS

DEPARTMENT OF TRANSPORTATION CLASSIFICATION:
CLASS 8 (CORROSIVE MATERIAL), PG III

DOT PROPER SHIPPING NAME:
POLYAMINES, LIQUID, CORROSIVE, N.O.S. (CONTAINS TRIDECYLOXYPROPYL-1, 3-PROPANEDIAMINE, POLYOXYPROPYLENEDIAMINE)

OTHER REQUIREMENTS:
UN2735, GUIDE 153

SECTION XIV OTHER REGULATORY CONTROLS

THE COMPONENTS OF THIS PRODUCT ARE LISTED ON THE EPA/TSCA INVENTORY OF CHEMICAL SUBSTANCES. PROTECTIN OF STRATOSPHERIC OZONE (PURSUANT TO SECTION 611 OF THE CLEAN AIR ACT AMENDMENTS OF 1990): PER 40 CFR PART 82, THIS PRODUCT DOES NOT CONTAIN NOR WAS IT DIRECTLY MANUFACTURED WITH ANY CLASS I OR CLASS II OZONE DEPLETING SUBSTANCES. IN ACCORDANCE WITH SARA TITLE III, SECTION 313, THE ATTACHED ENVIRONMENTAL DATA SHEET (EDS) SHOULD ALWAYS BE COPIED AND SENT WITH THE MSDS.

SECTION XV STATE REGULATORY INFORMATION

THE FOLLOWING CHEMICALS ARE SPECIFICALLY LISTED BY INDIVIDUAL STATES; OTHER PRODUCT SPECIFIC HEALTH AND SAFETY DATA IN OTHER SECTION OF THE MSDS MAY ALSO BE APPLICABLE FOR STATE REQUIREMENTS. FOR DETAILS ON YOUR REGULATORY REQUIREMENTS YOU SHOULD CONTACT THE APPROPRIATE AGENCY IN YOUR STATE.

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<th>STATE LISTED COMPONENT</th>
<th>CAS#</th>
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<tr>
<td>BISPHENOL A</td>
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CA=CALIFORNIA HAZ. SUBST LIST; CA65C, CA65R, CA65C/R = CALIFORNIA SAFE DRINKING WATER AND TOXICS ENFORCEMENT ACT OF 1986 OR PROPOSITION 65 LIST; CT=CONNECTICUT TOXIC SUBST. LIST; FL=FLORIDA SUBST. LIST; IL=ILLINOIS TOX. SUBST. LIST; LA=LOUISIANA HAZ. SUBST. LIST; MA=MASSACHUSETTS SUBST. LIST; ME=MAINE HAZ. SUBST. LIST; MN=MINNESOTA HAZ. SUBST. LIST; NJ=NEW JERSEY HAZ. SUBST. LIST; PA=PENNSYLVANIA HAZ. SUBST. LIST; RI=RHODE ISLAND HAZ. SUBST. LIST