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**MATERIAL SAFETY DATA SHEET (ChemShield 1641 Topcoat Resin)**

**EMERGENCY CONTACT: (864) 680-1547**

**SECTION I. IDENTIFICATION**

**PRODUCT NAME:** *ChemShield 1641 Topcoat Resin*

**CHEMICAL FAMILY:** EPOXY PHENOLIC NOVOLAC RESIN.

**PRODUCT TYPE:** LIQUID EPOXY RESIN

**IMPORTANT:** THIS MATERIAL WILL NOT BE SOLD FOR USE IN PRODUCTS FOR WHICH PROLONGED CONTACT WITH MUCOUS MEMBRANES, ABRADED SKIN, OR IMPLANTATION WITHIN THE HUMAN BODY IS SPECIFICALLY INTENDED. BECAUSE OF THE WIDE RANGE OF SUCH POTENTIAL USES, WOLVERINE COATINGS CORPORATION IS NOT ABLE TO RECOMMEND THIS MATERIAL AS SAFE AND EFFECTIVE FOR SUCH USES AND ASSUMES NO LIABILITY FOR ANY SUCH USES.

**HAZARD STATEMENT:** THIS MATERIAL SAFETY DATA SHEET (MSDS) HAS BEEN PREPARED IN COMPLIANCE WITH THE FEDERAL OSHA HAZARD COMMUNICATION STANDARD 29 CFR 1910.1200. THIS PRODUCT IS CONSIDERED TO BE A HAZARDOUS CHEMICAL UNDER THAT STANDARD.

**SECTION II. HAZARDOUS INGREDIENTS**

**SPECIFIC CHEMICAL NAME:** PHENOL 4,4'-(METHYLETHYLIDENE) BISPOLYMER WITH (CHLOROMETHYL) OXIRANE)

**COMMON NAME:** BISPHENOL-A DIGLYCIDYL ETHER POLYMER, EPN POLYMER  
CAS#. CONFIDENTIAL

**EXPOSURE LIMITS:**

OSHA PEL - NOT ESTABLISHED

ACGIH TLV - NOT ESTABLISHED

CARCINOGENICITY: THIS CHEMICAL IS NOT CONSIDERED TO BE A CARCINOGENIC BY NTP., IARC, OR OSHA.

**SECTION III. PHYSICAL DATA**

**APPEARANCE AND ODOR:** BLUE, THIXATROPIC LIQUID, MODERATE ODOR.

**DECOMPOSITION TEMP:** > 150 F

**PERCENT VOLATILE:** > NIL

**SOLUBILITY IN WATER:** INSOLUBLE

**SPECIFIC GRAVITY:** > 1.0

**SECTION IV. FIRE AND EXPLOSION DATA**

**FLASHPOINT:** > 150 F.

**EXTINGUISHING MEDIA:** CARBON DIOXIDE, FOAM, DRY CHEMICAL, WATER SPRAY.

**SPECIAL FIRE FIGHTING PROCEDURES:** USE SELF-CONTAINED BREATHING APPARATUS.

**UNUSUAL FIRE AND EXPLOSION HAZARDS:** DECOMPOSITION AND COMBUSTION PRODUCTS MAY BE TOXIC.

**SECTION V. REACTIVITY DATA**

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**STABILITY:** STABLE

**INCOMPATIBILITY (MATERIALS TO AVOID):** STRONG OXIDIZERS AND ACIDS.

**HAZARDOUS DECOMPOSITION PRODUCTS:** CARBON MONOXIDE AND/OR CARBON DIOXIDE.

**HAZARDOUS POLYMERIZATION:** WILL NOT OCCUR.

**CONDITIONS TO AVOID:** MASSES OF AMINES WILL CAUSE AN IRREVERSIBLE POLYMERIZATION WITH CONSIDERABLE HEAT BUILD UP.

STRONG ACIDS OR BASES.

**INCOMPATIBILITY:** STRONG OXIDIZING AGENTS.

## **SECTION VI. HEALTH HAZZARD DATA**

### **PRIMARY RATES OF EXPOSURE:**

**ORAL:** LD50 RATS > 2000 MG/KG

**DERMAL:** LD50 RABBITS > 5000 MG/KG

### **IRRITATION:**

**SKIN:** (RABBIT) MODERATE

**EYE:** (RABBIT) MODERATE

**SENSITIZATION:** MODERATE SENSITIZER

**INHALATION:** MAY CAUSE SENSITIZATION.

**EFFECTS OF OVEREXPOSURE:** PRIMARY IRRITATION & SENSITIZER, HEADACHES, MAY CAUSE VERTIGO, NAUSEA, AND VOMITING.

**MEDICAL CONDITIONS AGGRAVATED BY EXPOSURE:** ASTHMA, CHRONIC RESPIRATORY DISEASE, SKIN, AND EYE CONDITIONS.

### **EMERGENCY AND FIRST AID PROCEDURES:**

**EYES** - FOR EYE CONTACT, IMMEDIATELY FLUSH EYES FOR AT LEAST FIFTEEN MINUTES WITH RUNNING WATER. HOLD EYELIDS APART TO ENSURE RINSING OF THE ENTIRE EYE SURFACE AND LIDS WITH WATER. IF PHYSICIAN IS NOT AVAILABLE, FLUSH FOR AN ADDITIONAL FIFTEEN MINUTES. GET IMMEDIATE MEDICAL ATTENTION.

**SKIN** - FOR SKIN CONTACT, IMMEDIATELY REMOVE CONTAMINATED CLOTHING AND SHOES UNDER A SAFETY SHOWER. WASH AFFECTED AREAS THOROUGHLY WITH PLENTY OF WATER AND SOAP FOR AT LEAST FIFTEEN MINUTES. DISCARD OR DECONTAMINATE CLOTHING BEFORE RE-USE, AND DESTROY CONTAMINATED SHOES.

**INGESTION** - IF SWALLOWED, IMMEDIATELY GIVE AT LEAST 3-4 GLASSES OF WATER, AND INDUCE VOMITING. IF VOMITING OCCURS, GIVE FLUIDS AGAIN. DO NOT GIVE ANYTHING BY MOUTH TO AN UNCONSCIOUS OR CONVULSING PERSON. GET IMMEDIATE MEDICAL ATTENTION.

**INHALATION** - IF INHALED, REMOVE FROM AREA TO FRESH AIR. IF NOT BREATHING, GIVE ARTIFICIAL RESPIRATION. GET IMMEDIATE MEDICAL ATTENTION IF BREATHING IS DIFFICULT, TRANSPORT TO MEDICAL CARE AND, IF AVAILABLE, GIVE SUPPLEMENTAL OXYGEN.

**OTHER** - PROMPTLY REMOVE WET CONTAMINATED NON-IMPERVIOUS CLOTHING. WASH BEFORE RE-USE.

## **SECTION VII. SPILL OR LEAK PROCEDURES**

**SPILL PROCEDURES:** AVOID ALL PERSONAL CONTACT. TAKE UP WITH ABSORBENT MATERIAL. SHOVEL INTO CLOSEABLE CONTAINER. FLUSH CONTAMINATED AREA WITH WATER.

**WASTE DISPOSAL METHODS:** DISPOSE IN ACCORDANCE WITH FEDERAL, STATE AND LOCAL REGULATIONS.

## **SECTION VIII. SPECIAL PROTECTION**

**VENTILATION:** GOOD GENERAL MECHANICAL VENTILATION AND LOCAL EXHAUST IS REQUIRED.

**PROTECTIVE GLOVES:** WEAR IMPERVIOUS GLOVES.

**EYE PROTECTION:** WEAR SPLASH-PROOF CHEMICAL RESISTANT GOGGLES.

**RESPIRATORY PROTECTION:** USE OSHA, NIOSH APPROVED AMINE ORGANIC CARTRIDGE VAPOR RESPIRATOR.

**OTHER PROTECTIVE EQUIPMENT:** WEAR PROTECTIVE EQUIPMENT TO PREVENT EXPOSURE AND PERSONAL CONTACT.

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## SECTION IX. SPECIAL PRECAUTIONS

### HMIS CODE:

HEALTH: 2\*      FIRE: 1      REACTIVITY: 0

**HANDLING, SHIPPING, AND STORING PRECAUTIONS:** WARNING! HARMFUL IF SWALLOWED, INHALED, OR ABSORBED THROUGH THE SKIN. MAY CAUSE IRRITATION AND SENSITIZATION. DO NOT GET IN EYES, ON SKIN, OR ON CLOTHING. DO NOT BREATHE VAPOR, MIST, OR SPRAY. GOOD VENTILATION AND PERSONAL HYGIENE ARE ESSENTIAL. WASH THOROUGHLY AFTER HANDLING. KEEP CONTAINER TIGHTLY CLOSED WHEN NOT IN USE. STORE AWAY FROM FOOD, FOOD CONTAINERS, AND CLOTHING.

### FIRST AID: IN CASE OF CONTACT WITH:

**EYES-** IMMEDIATELY FLUSH EYES WITH PLENTY OF WATER FOR AT LEAST FIFTEEN MINUTES. CALL A PHYSICIAN.

**SKIN-** FLUSH SKIN WITH PLENTY OF WATER.

**CLOTHING-** WASH CLOTHING BEFORE REUSE.

## SECTION X. REGULATORY INFORMATION

**DOT CLASS:** NOT REGULATED

**DOT NUMBER:** N/A

**RCRA STATUS:** NOT A HAZARDOUS WASTE UNDER RCRA (40 CFR 261)

**CERCLA STATUS:** SARA/TITLE III - TOXIC CHEMICAL LIST: THIS PRODUCT DOES NOT CONTAIN A TOXIC CHEMICAL FOR ROUTINE ANNUAL TOXIC CHEMICAL RELEASE REPORTING" UNDER SECTION 313 (40 CFR 372) CAS #. (BISPHENOL-A), LESS THAN 2%.

THIS INFORMATION MUST BE INCLUDED IN ALL MSDS'S THAT ARE COPIED AND DISTRIBUTED FOR THIS MATERIAL.

**TSCA INVENTORY STATUS:** CHEMICAL COMPONENTS LISTED ON TSCA INVENTORY.

**ISSUE DATE:** 05/2002

FOR FURTHER INFORMATION, PLEASE CONTACT PRODUCT SAFETY DIRECTOR.

THE INFORMATION AND RECOMMENDATIONS CONTAINED HEREIN IS, TO THE BEST OF OUR KNOWLEDGE AND BELIEF, ACCURATE. HOWEVER, SINCE THE CONDITIONS OF HANDLING AND USE ARE BEYOND OUR CONTROL, WE MAKE NO GUARANTEE OF RESULTS, AND ASSUME NO LIABILITY FOR DAMAGES INCURRED BY USE OF THIS MATERIAL. ALL CHEMICALS MAY PRESENT UNKNOWN HEALTH HAZARDS AND SHOULD BE USED WITH CAUTION. ALTHOUGH CERTAIN HAZARDS ARE DESCRIBED HEREIN, WE CANNOT GUARANTEE THAT THESE ARE THE ONLY HAZARDS THAT EXIST. FINAL DETERMINATION OF SUITABILITY OF THE CHEMICAL IS THE SOLE RESPONSIBILITY OF THE USER. USERS OF ANY CHEMICAL SHOULD SATISFY THEMSELVES THAT THE CONDITIONS AND METHODS OF USE ASSURE THAT THE CHEMICAL IS USED SAFELY. NO REPRESENTATIONS OR WARRANTIES, EITHER EXPRESSED OR IMPLIED OF MERCHANTABILITY, FITNESS FOR A PARTICULAR PURPOSE, OR ANY OTHER NATURE, ARE MADE HEREUNDER WITH RESPECT TO THE INFORMATION CONTAINED HEREIN, OR TO THE CHEMICAL TO WHICH THE USER REFERS.