

# MATERIAL SAFETY DATA SHEET

C.D. PRODUCTS, INC.                      emergency telephone #  
918 N. Union St..                      (920)-739-8685  
Appleton, WI 54911                      ISSUE DATE- 7/20/90

## SECTION I: PRODUCT IDENTIFICATION

PRODUCT NAME- NOVOLAC EPOXY RESIN

PRODUCT #- 1400A

PRODUCT CLASS- EPOXY RESIN SOLUTION COMBUSTABLE LIQUID

HMS CODE HEALTH-1 , FIRE-2, REACTIVITY-0

HAZARD RATING: 0=LEAST, 1=SLIGHT, 2= MODERATE, 3=HIGH, 4= EXTREME

## SECTION II: HAZARDOUS INGREDIENTS      CAS      %      PEL      TLV

ETHELENE GLYCHOL MONOPROPYLEETHER	002807-30-9	<55	NA	(1)Skin
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(1) Skin absorption may potentially contribute to the overall exposure to this material. Appropriate measures should be taken to prevent absorbtion.

## SECTION III: PHYSICAL DATA

BOILING RANGE: > 280F

EVAPORATION RATE VS BUTYL ACETATE - slower

VAPOR DENSITY VS AIR: heavier

SOLUBILITY IN WATER: slightly soluble

APPEARANCE AND ODOR: clear thin liquid, strong solvent odor

PERCENT VOLATILE BY VOLUME: 50

WEIGHT PER GALLON: 8.2b/gal

## SECTION IV: FIRE AND EXPLOSION HAZARD DATA

FLASH POINT ( F ): +120F

LEL: <1.1%

UEL: na

EXTINGUISHING MEDIA: water spray, dry chemical, foam or carbon dioxide

HAZARDOUS DECOMPOSITION PRODUCTS: carbon dioxide, carbon monoxide,

SPECIAL FIRE FIGHTING PROCEDURES: water spray to keep containers cool, and to protect persons attempting to stop leaks. Wear self contained breathing apparatus with a full face piece operated in the positive pressure demand mode, goggles and full protective clothing. Water or foam may cause frothing which can be violent and possibly endanger the life of the firefighter, especially is sprayed into containers of hot, burning liquid.

UNUSUAL FIRE ANDEXPLOSION HAZARDS: closed containers may explode due to build up of pressure from excessive heat. vapors are heavier than air and may travel along the ground or may be moved by ventilation and ignited by pilot lights or other ignition sources at locations distant from the material handling point. Never weld on or near drum. Liquids or residues may ignite explosively.

## SECTION V: HEALTH HAZARD DATA - EFFECTS OF OVER EXPOSURE

INGESTION: can cause gastrointestinal irritation, nausea, vomiting and diarrhea. Aspiration of material into the lungs can cause chemical pneumonitis which can be fatal.

INHALATION: excessive inhalation of vapors can cause nasal and respiratory irritation, central nervous system effects including dizziness, weakness, fatigue, nausea, headache and possible unconsciousness, and even death.

SKIN ABSORPTION: prolonged or repeated contact can cause moderate irritation, defatting, dermatitis.

SKIN CONTACT: above

EYE CONTACT: can cause severe irritation, redness, tearing, blurred vision.

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EFFECTS OF CHRONIC OVER EXPOSURE: NA

### EMERGENCY FIRST AID PROCEDURES

EYE CONTACT: flush with water for 15 minutes and seek medical attention

SKIN CONTACT: wash immediately with soap and water, remove contaminated clothing and launder before reuse.

INGESTION: do not induce vomiting, keep person warm and quiet and seek medical attention

INHALATION: remove to fresh air. If breathing is difficult administer oxygen. If breathing has stopped administer artificial respiration. Keep person warm and quiet and seek medical attention.

### SECTION VI: REACTIVITY DATA

STABILITY: stable

HAZARDOUS POLYMERIZATION: may occur-if in contact with amines or strong oxidizing agents.

CONDITIONS TO AVOIDS excessive heat, strong bases

### SECTION VII: SPILL OR LEAK PROCEDURE

STEPS TO BE TAKEN IF MATERIAL IS RELEASED OR SPILLED: eliminate ignition sources, absorb with inert material, eg- sand, scoop up and put into disposal container. flush area with water, prevent washdowns from entering the sewers and water ways. Uncontrolled spills which exceed one gallon may be reportable to the National Response Center. For small spills, the styrene may be allowed to evaporate and the dry resin then disposed of.

WASTEDISPOSAL METHOD: Incinerate in furnace or dispose of in accordance with applicable local, state, and federal regulations.

### SECTION VIII: SPECIAL PROTECTION INFORMATION

RESPIRATORY: use with adequate ventilation. NIOSH/MSA approved respirators

should be used where ventilation is not adequate. Niosh approved air-line respirators with auxiliary escape air tanks or self contained breathing apparatus should be used in confined spaces.

VENTILATION: local exhaust recommended when appropriate to control employee exposure.

PROTECTIVE GLOVES: Neoprene, nitrile rubber -should be worn

EYE PROTECTION: chemical splash goggles

OTHER PROTECTIVE EQUIPMENT: normal work clothing covering arms and legs

### SECTION IX: SPECIAL PRECAUTIONS

PRECAUTIONS TO BE TAKEN IN HANDLING AND STORING: avoid skin contact, remove and launder contaminated clothing. Empty containers may contain residual flammable vapors so all hazard precautions should be observed.

NOTE: To the best of our knowledge, the information contained herein is accurate. However C.D. Products. Inc assumes no liability whatsoever for the accuracy or completeness of the information contained herein. The final determination of suitability of any material is the sole responsibility of the user. All materials 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 which exist.

## MATERIAL SAFETY DATA SHEET

C.D. PRODUCTS, INC. emergency telephone #  
918 N. Union St.. (414)-739-8685  
Appleton, WI 54911 ISSUE DATE- 7/13/99

### SECTION I: PRODUCT IDENTIFICATION

PRODUCT NAME- RESIN HARDENER

PRODUCT #- 1400B

PRODUCT CLASS- AMINE RESIN SOLUTION COMBUSTABLE

HMIS CODE HEALTH-3 , FIRE-2, REACTIVITY-0

HAZARD RATING: 0=LEAST, 1=SLIGHT, 2= MODERATE, 3=HIGH, 4= EXTREME

### SECTION II: HAZARDOUS INGREDIENTS

CAS	%	PEL	TLV
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ETHELENE GLYCHOL MONOPROPYL ETHER	002807-30-9	<60	NA (1)Skin
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(1) Skin absorption may potentially contribute to the overall exposure to this material. Appropriate measures should be taken to prevent absorption.

### SECTION III: PHYSICAL DATA

BOILING RANGE: > 150F

EVAPORATION RATE VS BUTYL ACETATE - slower

VAPOR DENSITY VS AIR: heavier

SOLUBILITY IN WATER: slightly soluble

APPEARANCE AND ODOR: clear thin liquid, strong solvent odor

PERCENT VOLATILE BY VOLUME: <60

WEIGHT PER GALLON: 8.5 Lb/gal

### SECTION IV: FIRE AND EXPLOSION HAZARD DATA

FLASH POINT ( F ): >120F (Setaflash) Autoignition Temperature (F): 455

LEL: <1.26%

UEL: 15.8%

EXTINGUISHING MEDIA: water spray, dry chemical, foam or carbon dioxide

HAZARDOUS DECOMPOSITION PRODUCTS: carbon dioxide, carbon monoxide, aldehydes and other organic compounds may be formed during combustion.

SPECIAL FIRE FIGHTING PROCEDURES: water spray to keep containers cool, and to protect persons attempting to stop leaks. Wear self contained breathing apparatus with a full face piece operated in the positive pressure demand mode, goggles and full protective clothing. Water or foam may cause frothing which can be violent and possibly endanger the life of the firefighter, especially is sprayed into containers of hot, burning liquid.

**UNUSUAL FIRE AND EXPLOSION HAZARDS:** closed containers may explode due to build up of pressure from excessive heat. vapors are heavier than air and may travel along the ground or may be moved by ventilation and ignited by pilot lights or other ignition sources at locations distant from the material handling point. Never weld on or near drum. Liquids or residues may ignite explosively.

#### SECTION V: HEALTH HAZARD DATA - EFFECTS OF OVER EXPOSURE

**INGESTION:** Product may be moderately toxic and may be harmful if swallowed; may produce damage to red blood cells.

**INHALATION:** Product may cause irritation to the nose, throat and respiratory tract. Product may be toxic if inhaled; may produce damage to red blood cells.

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**SKIN ABSORPTION:** prolonged or repeated contact can cause moderate irritation. Product may be toxic and may produce damage to red blood cells.

**SKIN CONTACT:** above

**EYE CONTACT:** can cause severe irritation to the eyes.

**EFFECTS OF CHRONIC OVER EXPOSURE:** It has generally been observed that aliphatic amines can cause changes in the lungs, liver, kidneys, and heart. Based on animal data, it is believed that ethylene glycol monopropyl ether may cause blood disorders.

#### EMERGENCY FIRST AID PROCEDURES

**EYE CONTACT:** flush with water for 15 minutes and seek medical attention

**SKIN CONTACT:** wash immediately with soap and water, remove contaminated clothing and launder before reuse.

**INGESTION:** do not induce vomiting, keep person warm and quiet and seek medical attention

**INHALATION:** remove to fresh air. If breathing is difficult administer oxygen. If breathing has stopped administer artificial respiration. Keep person warm and quiet and seek medical attention.

#### SECTION VI: REACTIVITY DATA

**STABILITY:** stable

**HAZARDOUS POLYMERIZATION:** may occur-if in contact with amines or strong oxidizing agents.

**CONDITIONS TO AVOIDS** excessive heat and flames; can react vigorously with strong oxidizing agents, strong Lewis or mineral acids, and strong mineral or organic bases, especially primary and secondary aliphatic amines. Reaction with some curing agents may produce considerable heat.

#### SECTION VII: SPILL OR LEAK PROCEDURE

**STEPS TO BE TAKEN IF MATERIAL IS RELEASED OR SPILLED:** eliminate ignition sources, absorb with inert material, eg- sand, scoop up and put into disposal container. flush area with water, prevent washdowns from entering the sewers and water ways.

**WASTE DISPOSAL METHOD:** Dispose of in accordance with applicable local, state, and federal regulations.

#### SECTION VIII: SPECIAL PROTECTION INFORMATION

**RESPIRATORY:** use with adequate ventilation. NIOSH/MSA approved respirators

should be used where ventilation is not adequate. Niosh approved air-line respirators with auxiliary escape air tanks or self contained breathing apparatus should be used in confined spaces.

**VENTILATION:** local exhaust recommended when appropriate to control employee exposure.

**PROTECTIVE CLOTHING:** Wear chemical resistant gloves and other clothing as required to minimize contact.

**EYE PROTECTION:** chemical splash goggles

**OTHER PROTECTIVE EQUIPMENT:** Eye wash fountains and safety showers should be available for emergency use.

#### SECTION IX: SPECIAL PRECAUTIONS

**PRECAUTIONS TO BE TAKEN IN HANDLING AND STORING:** avoid skin contact, remove and launder contaminated clothing. Empty containers may contain residual flammable vapors so all hazard precautions should be observed.

**NOTE:** To the best of our knowledge, the information contained herein is accurate. However C.D. Products. Inc assumes no liability whatsoever for the accuracy or completeness of the information contained herein. The final determination of suitability of any material is the sole responsibility of the user. All materials 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 which exist.