

M A T E R I A L S A F E T Y D A T A S H E E T

SECTION 1 - CHEMICAL PRODUCT AND COMPANY IDENTIFICATION

PRODUCT NAME : THOROBOND
 IDENTIFICATION NUMBER: T020000 DATE PRINTED: 04/02/01
 PRODUCT USE/CLASS : Coating
 SUPPLIER: MANUFACTURER:
 ChemRex Inc.
 Commercial Construction
 Products Division
 889 Valley Park Drive
 Shakopee, MN 55379

 EMERGENCY TELEPHONE: EMERGENCY TELEPHONE: (800)424-9300
 24 HOURS A DAY, 7 DAYS A WEEK

 PREPARER: Regulatory Affairs, PHONE: 952-496-6000, PREPARE DATE: 04/02/01

SECTION 2 - COMPOSITION/INFORMATION ON INGREDIENTS

| ITEM | CHEMICAL NAME | CAS NUMBER | WT/WT % LESS THAN |
|------|----------------------------|------------|----------------------|
| 01 | ethylene glycol | 107-21-1 | 5.0 % |
| 02 | 2-(2-ethoxyethoxy) ethanol | 111-90-0 | 5.0 % |
| 03 | dibutyl phthalate | 84-74-2 | 5.0 % |

| ITEM | EXPOSURE LIMITS | | | | | SKIN |
|------|-----------------|------------|---------|-------------|---------|------|
| | ACGIH | | OSHA | | COMPANY | |
| | TLV-TWA | TLV-STEL | PEL-TWA | PEL-CEILING | TLV-TWA | |
| 01 | N.E. | 127 mg/m3* | N.E. | 125 mg/m3 | | NO |
| 02 | N.E. | N.E. | N.E. | N.E. | N.E. | NO |
| 03 | 5 mg/m3 | N.E. | 5 mg/m3 | N.E. | N.E. | NO |

(See Section 16 for abbreviation legend), * - Ceiling Value

SECTION 3 - HAZARDOUS IDENTIFICATION

EFFECTS OF OVEREXPOSURE - EYE CONTACT: Irritating, but will not permanently injure eye tissue.

 EFFECTS OF OVEREXPOSURE - SKIN CONTACT: Causes skin irritation. Allergic reactions are possible.

 EFFECTS OF OVEREXPOSURE - INHALATION: May cause respiratory tract irritation.

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| SECTION 3 - HAZARDS IDENTIFICATION |
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EFFECTS OF OVEREXPOSURE - INGESTION: Moderately toxic.

EFFECTS OF OVEREXPOSURE - CHRONIC HAZARDS: Chronic overexposure may cause kidney damage. No known components of this product are listed as known or suspected carcinogens per NIOSH, NTP, IARC, or OSHA. Preexisting respiratory or skin condition(s) may be aggravated by exposure.

PRIMARY ROUTE(S) OF ENTRY: SKIN CONTACT INHALATION INGESTION EYE CONTACT

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| SECTION 4 - FIRST AID MEASURES |
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FIRST AID - EYE CONTACT: Flush eye with water for 15 minutes. Get medical attention.

FIRST AID - SKIN CONTACT: Remove contaminated clothing and shoes. Wash affected area(s) thoroughly with soap and water. If irritation persists, seek medical attention.

FIRST AID - INHALATION: Remove to fresh air. If not breathing, give artificial respiration. If breathing is difficult, give oxygen. Get immediate medical attention.

FIRST AID - INGESTION: Get medical attention immediately. If swallowed, 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. Should vomiting occur, be sure to keep victim's head below hips to avoid aspiration of vomitus into lungs.

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| SECTION 5 - FIRE FIGHTING MEASURES |
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FLASH POINT: 212 F

LOWER EXPLOSIVE LIMIT: 1.2 %

UPPER EXPLOSIVE LIMIT: 23.5 %

AUTOIGNITION TEMPERATURE: N.D.

EXTINGUISHING MEDIA: ALCOHOL FOAM CO2 DRY CHEMICAL WATER FOG

UNUSUAL FIRE AND EXPLOSION HAZARDS: Fire produces irritating or poisonous gas. Solid stream of water or foam may cause frothing.

SPECIAL FIREFIGHTING PROCEDURES: Containers exposed to fire should be kept cool with water spray. Containers can build up pressure if exposed to heat (fire). As in any fire, wear self-contained breathing apparatus pressure-demand (MSHA/NIOSH approved or equivalent) and full protective gear.

(Continued on Page 3)

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| SECTION 6 - ACCIDENTAL RELEASE MEASURES |
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STEPS TO BE TAKEN IN CASE MATERIAL IS RELEASED OR SPILLED: Ventilate the area. Evacuate unnecessary personnel. Large spills should be handled carefully. Put on respiratory protection and necessary personal protective equipment. Dike or impound spilled liquid. Absorb spill with inert material (e.g. dry sand or earth), then place in a chemical waste container. Repeat sorbent/sweep cycle until the spill has dried up. Avoid runoff into storm sewers and ditches which lead to waterways.

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| SECTION 7 - HANDLING AND STORAGE |
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HANDLING: Use only in a well ventilated area. Keep out of reach of children.

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

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| SECTION 8 - EXPOSURE CONTROLS/PERSONAL PROTECTION |
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ENGINEERING CONTROLS: Local exhaust ventilation may be necessary to control any air contaminants to within their TLVs during the use of this product.

RESPIRATORY PROTECTION: Wear NIOSH/MSHA approved respiratory protection when the product is mixed or applied in a poorly ventilated area or if workplace levels of ingredients exceed the TLV. Follow applicable federal, state, and local regulations.

OTHER PROTECTIVE EQUIPMENT: Where contact is likely, wear chemical resistant gloves, chemical safety goggles with a face shield, and clean protective clothing to cover arms and legs to keep exposure to a minimum.

HYGIENIC PRACTICES: Do not take internally. Remove contaminated clothing and wash before reuse. Avoid contact with eyes, skin, and clothing.

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| SECTION 9 - PHYSICAL AND CHEMICAL PROPERTIES |
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|---|-----------------|-------------------|------------------------------|
| BOILING RANGE | : 360 - 644 F | VAPOR DENSITY | : Is heavier than air |
| ODOR | : Sweet | ODOR THRESHOLD | : N.D. |
| APPEARANCE | : Opaque liquid | EVAPORATION RATE: | Is slower than Butyl Acetate |
| SOLUBILITY IN H2O | : Insoluble | SPECIFIC GRAVITY: | 1.0200 |
| FREEZE POINT | : N.D. | pH @ 100.0 % | : 4 - 5 |
| VAPOR PRESSURE | : N.D. | VISCOSITY | : N.D. |
| PHYSICAL STATE | : Liquid | | |
| COEFFICIENT OF WATER/OIL DISTRIBUTION: N.D. | | | |

(See Section 16 for abbreviation legend)

(Continued on Page 4)

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| SECTION 10 - STABILITY AND REACTIVITY |
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CONDITIONS TO AVOID: Long term exposure to elevated temperatures.

INCOMPATIBILITY: Avoid contact with oxidizing material.

HAZARDOUS DECOMPOSITION PRODUCTS: Acrid fumes.

HAZARDOUS POLYMERIZATION: Will not occur under normal conditions.

STABILITY: This product is stable under normal storage conditions.

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| SECTION 11 - TOXICOLOGICAL PROPERTIES |
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PRODUCT DERMAL LD50: No Information PRODUCT ORAL LD50: No Information
PRODUCT LC50: No Information

COMPONENT TOXICOLOGICAL INFORMATION:

| ---- CHEMICAL NAME ---- | -- DERMAL LD50 -- | --- ORAL LD50 --- | ---- LC50 ---- |
|-------------------------|-------------------|-------------------|----------------|
| ethylene glycol | 9530 uL/kg | 4700 mg/kg | 10876 mg/kg |
| 2-(2-ethoxyethoxy) etha | 6000 mg/kg | 5540 mg/kg | >5240 mg/m3/4H |
| dibutyl phthalate | >20 mg/kg | 8 g/kg | 4250 mg/kg |

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| SECTION 12 - ECOLOGICAL INFORMATION |
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ECOLOGICAL INFORMATION: No Information.

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| SECTION 13 - DISPOSAL CONSIDERATIONS |
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DISPOSAL METHOD: Review all local, state, and federal regulations concerning health and pollution for appropriate disposal procedures.

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| SECTION 14 - TRANSPORTATION INFORMATION |
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FOR SHIPMENTS IN CONTAINERS LESS THAN THAT 41 GALLONS: Not Regulated

DOT PROPER SHIPPING NAME: Environmentally Hazardous Substance, liquid,
n.o.s., RQ

DOT TECHNICAL NAME: Contains Dibutyl Phthalate

DOT HAZARD CLASS: ENVIRONMENTALLY HAZARDOUS SUBSTANCE HAZARD SUBCLASS: N.A.

DOT UN/NA NUMBER: UN3082 PACKING GROUP: III RESP. GUIDE PAGE:

DOT PLACARD AT: 1001 lbs.

DOT CLASS NUMBER: 9

(Continued on Page 5)

SECTION 14 - TRANSPORTATION INFORMATION

UN PROPER SHIPPING NAME: Not Regulated

UN HAZARD CLASS: N.A.

UN CLASS NUMBER: AIR N.A. MARINE N.A.

HAZARD SUBCLASS: AIR N.A. MARINE N.A.

UN UN/NA NUMBER: N.A. UN PACKING GROUP: AIR N.A. MARINE N.A.

UN PLACARD AT: N.A.

SECTION 15 - REGULATORY INFORMATION

U.S. FEDERAL REGULATIONS: AS FOLLOWS -

OSHA: Hazardous by definition of Hazard Communication Standard (29 CFR 1910.1200)

CERCLA - SARA HAZARD CATEGORY:

This product has been reviewed according to the EPA 'Hazard Categories' promulgated under Sections 311 and 312 of the Superfund Amendment and Reauthorization Act of 1986 (SARA Title III) and is considered, under applicable definitions, to meet the following categories:

IMMEDIATE HEALTH HAZARD CHRONIC HEALTH HAZARD

SARA SECTION 313:

This product contains the following substances subject to the reporting requirements of Section 313 of Title III of the Superfund Amendments and Reauthorization Act of 1986 and 40 CFR Part 372:

| CHEMICAL NAME | CAS NUMBER | WT/WT % IS LESS THAN |
|----------------------------|------------|----------------------|
| ethylene glycol | 107-21-1 | 5.0 % |
| 2-(2-ethoxyethoxy) ethanol | 111-90-0 | 5.0 % |
| dibutyl phthalate | 84-74-2 | 5.0 % |

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| SECTION 15 - REGULATORY INFORMATION |
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TOXIC SUBSTANCES CONTROL ACT:

This product contains the following chemical substances subject to the reporting requirements of TSCA 12(B) if exported from the United States:

| ----- CHEMICAL NAME ----- | CAS NUMBER |
|---------------------------|------------|
| dibutyl phthalate | 84-74-2 |

U.S. STATE REGULATIONS: AS FOLLOWS -

CALIFORNIA PROPOSITION 65:

WARNING: The chemical(s) noted below and contained in this product, are known to the state of California to cause cancer, birth defects or other reproductive harm:

| ----- CHEMICAL NAME ----- | CAS NUMBER |
|---------------------------|------------|
| Acetaldehyde | 75-07-0 |
| ethylene oxide | 75-21-8 |

INTERNATIONAL REGULATIONS: AS FOLLOWS -

CANADIAN WHMIS: This MSDS has been prepared in compliance with Controlled Product Regulations except for use of the 16 headings.

CANADIAN WHMIS CLASS: No information available.

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| SECTION 16 - OTHER INFORMATION |
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HMIS RATINGS - HEALTH: 1 FLAMMABILITY: 1 REACTIVITY: 0
PERSONAL PROTECTION: E

PREVIOUS MSDS REVISION DATE: 04/12/00

REASON FOR REVISION: Correct UN Shipping description.

VOLATILE ORGANIC COMPOUNDS (VOCS): 0.36 lbs/gal, 43 grams/ltr

LEGEND: N.A. - Not Applicable, N.E. - Not Established,
N.D. - Not Determined

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<END OF MSDS>