The information contained herein is based on data available to us and is believed to be correct. Since this information may have been obtained in part from independent laboratories or other sources not under our direct supervision, no representation is made that the information is accurate, reliable, complete or representative and buyer may rely thereon only at buyers risk. We make no guarantee that the health and safety precautions we have suggested will be adequate for all individuals and/or situations involving its handling and use. No warranty is expressed or implied regarding the accuracy of these data or the results to be obtained from the use thereof. Vendor assumes no responsibility for injury to vendee or third person proximately caused by the material if responsible safety procedures are not adhered to as stipulated in the data sheet.

I. CHEMICAL PRODUCT AND COMPANY IDENTIFICATION

MANUFACTURER
No. 1 Shan pu zhong road, Qing deng town
Kunshan city, jiangsu Province China
Tel : +86-512-5747 2000
Fax : +86-512-5746 0886

DISTRIBUTER
KUKDO Chemical Co., Ltd.
345-35, Kasan-dong, Kumchon-gu, Seoul
153-802, Korea
Tel : +82-2-3282-1508
(Polyurethane Business Division)
Fax : +82-2-3282-1588

Chemical Name : Polyether Polyol
CAS No. :
EC No. :
UN No. :

Trade Name : POLYDO
ID Code No. : SC-4508
Formula : COMPLEX

Acute Health : 1
Fire : 1
Reactivity : 0

Hazard Rating
Least-0 Slight-1
Moderate-2 High-3
Extreme-4
II. COMPOSITION AND INFORMATION ON INGREDIENTS

<table>
<thead>
<tr>
<th>No</th>
<th>INGREDIENTS</th>
<th>CAS No</th>
<th>WT%</th>
<th>ACUTE ORAL TOXICITY DATA</th>
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</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>LD50</td>
</tr>
<tr>
<td>1</td>
<td>Polyether Polyol</td>
<td>&lt; 100</td>
<td>ND</td>
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<td>2</td>
<td>Trace Components</td>
<td>None</td>
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</tbody>
</table>

III. HEALTH INFORMATION

POTENTIAL HEALTH EFFECTS:

A. EYE CONTACT
   Direct contact may cause mild irritation.

B. SKIN CONTACT
   Direct contact may cause mild irritation.

C. INHALATION
   Vapor, especially upon heating may cause irritation of the respiratory tract.

D. INGESTION
   Not a probable route of entry into the body

E. SIGNS AND SYMPTOMS
   Repeated and/or prolonged contact with the skin may cause allergic reaction/sensitization.

F. AGGRAVATED MEDICAL CONDITIONS
   Preexisting eye, skin and respiratory disorders may be aggravated by exposure to this product. Preexisting skin or respiratory tract allergies may increase the chance of developing increased allergy symptoms from exposure to this product.

G. OTHER HEALTH EFFECTS
   Not available

IV. OCCUPATIONAL EXPOSURE LIMITS

NO 1     Not applicable
NO 2     Not applicable

V. EMERGENCY AND FIRST AID

A. EYE CONTACT
   Flush eyes with plenty of water for at least 15 minutes while holding eyelids open. Call a physician if signs of irritation appear.
B. SKIN CONTACT
Immediately remove contaminated clothing or shoes, wipe excess from skin and flush with plenty of water for at least 15 minutes. Use soap if readily available, or follow by thoroughly washing with soap and water. Do not reuse clothing until thoroughly decontaminated.

C. INHALATION
Remove victim to fresh air and provide oxygen if breathing is difficult. Get medical attention.

D. INGESTION
Do not induce vomiting. Give one glass of water unless victim is drowsy, convulsing, or unconscious. Seek medical attention immediately.

VI. SUPPLEMENTAL HEALTH INFORMATION
Animal experiments have shown distributed blood formation. The degree of toxicity of uncured resins varies and is partly dependent on the extent of unreacted curing agent. When heated to decomposition it emits acrid smoke and fumes.

VII. PHYSICAL DATA

<table>
<thead>
<tr>
<th>Property</th>
<th>Value</th>
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<tbody>
<tr>
<td>Molecular Weight</td>
<td>490</td>
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<tr>
<td>Water Content</td>
<td>&lt;0.1%</td>
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<tr>
<td>OH Value</td>
<td>440-480 mgKOH/g</td>
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<tr>
<td>Vapor Density</td>
<td>&gt;1.0</td>
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<tr>
<td>Specific Gravity</td>
<td>&gt;1.0</td>
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<tr>
<td>Solubility</td>
<td>Slightly in Water</td>
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<tr>
<td>Viscosity</td>
<td>4,500-7,500cps(at 25°C)</td>
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<tr>
<td>Color</td>
<td>&lt;4(G)</td>
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</tbody>
</table>

Appearance and odor: Light yellowing liquid and slight sweet odor

VIII. FIRE AND EXPLOSION DATA

A. FLASH POINT AND METHOD
230°C (PCMM)

B. EXTINGUISHING MEDIA
Use water fog, foam, carbon dioxide or dry chemicals.

C. SPECIAL PRECAUTIONS
Toxic gases may be released during fire. Use positive-pressure, self-contained breathing apparatus and full protective clothing.

D. UNUSUAL FIRE AND EXPLOSION
Isolate from heat, electrical equipment, sparks and opened flame. Wear self-contained breathing apparatus.
IX. STABILITY AND REACTIVITY
A. CHEMICAL STABILITY: Stable
B. CONDITIONS AND MATERIALS TO AVOID
This product is normally stable and is not reactive with water.
C. HAZARDOUS DECOMPOSITION PRODUCTS
Will not occur.
D. HAZARDOUS POLYMERIZATION
Not available.

X. EXPOSURE CONTROLS/PERSONAL PROTECTION
A. RESPIRATORY PROTECTION
Do not breathe vapors/mists. If exposure may or does exceed occupational exposure (SEC. II) use a NIOSH-approved respirator to prevent over exposure. In accord with 29 CFR 1910. 124 use either a full-face, atmosphere-supplying respirator or air-purifying respirator for organic vapors.
B. PROTECTIVE CLOTHING
Do not get in eyes. Wear chemical goggles if there is potential content with eyes. Do not get on clothing. Wear chemical resistant protective clothing such as gloves, outer clothing or apron, overshoes and a face-shield suitable to potential exposure.
C. ENGINEERING CONTROLS
For the product at ambient temperatures use adequate ventilation. For the heated product, use exhaust ventilation to remove vapor.
D. ADDITIONAL PROTECTIVE MEASURES
Eye wash fountains and safety showers should be available for emergency use.

XI. ENVIRONMENTAL PROTECTION
A. SPILL OR LEAK PROCEDURES
Ventilate area. Avoid breathing vapor. Wear appropriate personal protective equipment, including appropriate respiratory protection. Contain spill if possible. Wipe up or absorb on suitable material and shovel up. Prevent entry into sewers and waterways. Avoid contact with skin, eyes or clothing.
XII. HANDLING AND STORAGE
Store in a cool, dry place with adequate ventilation. Keep away from open flames and high temperatures. Do not pressurize containers to empty them.

XIII. TRANSPORTATION REQUIREMENTS
A. DOT HAZARD CLASSIFICATION
B. DOT PROPER SHIPPING NAME
Polyether polyol, liquid
C. OTHER REQUIREMENTS
*DOT - DEPARTMENT OF TRANSPORTATION HAZARDOUS MATERIALS REGULATIONS

XIV. ECOLOGICAL INFORMATION
There is no data available for this product.

XV. DISPOSAL CONSIDERATIONS
Incineration is the recommended disposal method for all chemical wastes. Material collected on absorbent material may be disposed in a land fill in accordance with all applicable local, state and federal regulations.

XVI. REGULATORY INFORMATION
U.S REGULATIONS;
TSCA INVENTORY STATUS : Y
TSCA 12(b) EXPORT NOTIFICATION: Not listed
CERCLA SECTION 103 (40CFR302.4): N
SARA SECTION 302 (40CFR355.30): N
SARA SECTION 304 (40CFR355.40): N
SARA HAZARD CATEGORIES, SARA SECTIONS 311/312(40CFR370.21):
ACUTE : N
CHRONIC : N
FIRE : N
SUDDEN RELEASE : N

STATE REGULATIONS:
  California Proposition 65: N

EUROPEAN REGULATIONS:
  EC NUMBER: Not assigned

PREPARED BY: Man Seok Ko / Person in charge (R&D)

END OF MSDS