FOTECHEM 2325

1. PRODUCT AND COMPANY IDENTIFICATION

PRODUCT NAME: FOTECHEM 2325
GENERAL USE: Catalyst used with adhesive for bonding screen-printing mesh to the frame
PRODUCT DESCRIPTION: Catalyst

DISTRIBUTOR
NBC Meshtec Americas
512 Kingsland Drive
Batavia, IL 60512
Emergency Contact: Shane Waltmire
Emergency Phone: 630-293-5454

2. HAZARDS IDENTIFICATION

GHS CLASSIFICATIONS
Health:
- Eye Irritation, Category 2A
- Respiratory Sensitization, Category 1
- Target Organ Toxicity (Single exposure), Category 3
- Skin Sensitization, Category 1
- Skin Irritation, Category 2
- Target Organ Toxicity (Repeated exposure), Category 1

Physical:
- Flammable Liquids, Category 2

GHS LABEL

![GHS07](image)
![GHS08](image)
![GHS02](image)

SIGNAL WORD: DANGER

HAZARD STATEMENTS

H319: Causes serious eye irritation.
H225: Highly flammable liquid and vapour.
H334: May cause allergy or asthma symptoms or breathing difficulties if inhaled.
H335: May cause respiratory irritation.
H317: May cause an allergic skin reaction.
H336: May cause drowsiness or dizziness.
H315: Causes skin irritation.
H332: Harmful if inhaled.
H372: Causes damage to organs (state all organs affected, if known) through prolonged or repeated exposure (state route of exposure if it is conclusively proven that no other routes of exposure cause the hazard).

PRECAUTIONARY STATEMENT(S)

Prevention:
- P264: Wash skin thoroughly after handling.
- P280: Wear protective gloves/protective clothing/eye protection/face protection.
- P210: Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking.
- P233: Keep container tightly closed.
P240: Ground and bond container and receiving equipment.
P241: Use explosion-proof [electrical/ventilating/lighting/...] equipment.
P242: Use non-sparking tools.
P243: Take action to prevent static discharges.
P261: Avoid breathing dust/fume/gas/mist/vapours/spray.
P285: In case of inadequate ventilation wear respiratory protection.
P271: Use only outdoors or in a well-ventilated area.
P272: Contaminated work clothing should not be allowed out of the workplace.

Response:
P305+P351+P338: IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
P337+P313: If eye irritation persists: Get medical advice/attention.
P303+P361+P353: IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water [or shower].
P370+P378: In case of fire: Use water spray, alcohol resistant foam, dry chemical or carbon dioxide to extinguish.
P304+P340: IF INHALED: Remove person to fresh air and keep comfortable for breathing.
P342+P311: If experiencing respiratory symptoms: Call a POISON CENTER/doctor/...
P302+P352: IF ON SKIN: Wash with plenty of soap and water.
P333+P313: If skin irritation or rash occurs: Get medical advice/attention.
P362: Take off contaminated clothing.

Storage:
P403+P235: Store in a well-ventilated place. Keep cool.

Disposal:
P501: Dispose of contents/container in accordance to federal/state/local regulations.

3. COMPOSITION / INFORMATION ON INGREDIENTS

<table>
<thead>
<tr>
<th>Chemical Name</th>
<th>Wt.%</th>
<th>CAS</th>
</tr>
</thead>
<tbody>
<tr>
<td>Polymeric Isocyanates</td>
<td>30 - 40</td>
<td>9016-87-9</td>
</tr>
<tr>
<td>Acetic Acid Ethyl Ester</td>
<td>20 - 40</td>
<td>141-78-6</td>
</tr>
<tr>
<td>Methylene Bisphenyl Isocyanate</td>
<td>20 - 30</td>
<td>101-68-8</td>
</tr>
<tr>
<td>Diphenylmethane-2,4'-di-isocyanate</td>
<td>2 - 5</td>
<td>5873-54-1</td>
</tr>
</tbody>
</table>

4. FIRST AID MEASURES

EYES: Rinse thoroughly with plenty of water for at least 15 minutes and consult a physician.
SKIN: Wash off with soap and plenty of water. Consult a physician.
INGESTION: Do NOT induce vomiting. Never give anything by mouth to an unconscious person. Rinse mouth with water. Consult a physician.
INHALATION: If breathed in, move person into fresh air. If not breathing, give artificial respiration. Consult a physician.

5. FIRE FIGHTING MEASURES

EXTINGUISHING MEDIA: Use water spray, alcohol-resistant foam, dry chemical or carbon dioxide.
HAZARDOUS COMBUSTION PRODUCTS: Not Available
FIRE FIGHTING EQUIPMENT: Wear self contained breathing apparatus for fire fighting if necessary.
HAZARDOUS DECOMPOSITION PRODUCTS: Not Available

6. ACCIDENTAL RELEASE MEASURES

SMALL SPILL: Soak up with inert absorbent material and dispose of as hazardous waste. Keep in suitable, closed containers for disposal. Clean surface thoroughly to remove residual contamination.
LARGE SPILL: Wear suitable protective equipment. Contain spill. Soak up with absorbent material and transfer to a container for disposal according to local/state/federal regulations.

7. HANDLING AND STORAGE

HANDLING: Avoid contact with eyes, skin, and clothing. Avoid inhalation of vapors. Wash thoroughly after handling.
STORAGE: Keep container tightly closed.
SHELF LIFE: 24 months

8. EXPOSURE CONTROLS / PERSONAL PROTECTION
EXPOSURE GUIDELINES

OSHA HAZARDOUS COMPONENTS (29 CFR1910.1200)

<table>
<thead>
<tr>
<th>Chemical Name</th>
<th>Type</th>
<th>ppm</th>
<th>mg/m³</th>
</tr>
</thead>
<tbody>
<tr>
<td>Acetic Acid Ethyl Ester</td>
<td>OSHA PEL</td>
<td>TWA</td>
<td>400</td>
</tr>
<tr>
<td>Acetic Acid Ethyl Ester</td>
<td>ACGIH TLV</td>
<td>TWA</td>
<td>400</td>
</tr>
<tr>
<td>Supplier OEL</td>
<td>TWA</td>
<td></td>
<td>NL</td>
</tr>
<tr>
<td>Supplier OEL</td>
<td>STEL</td>
<td></td>
<td>NL</td>
</tr>
<tr>
<td>Methylene Bisphenyl Isocyanate</td>
<td>ACGIH TLV</td>
<td>TWA</td>
<td>0.005</td>
</tr>
</tbody>
</table>

ENGINEERING CONTROLS: Handle in accordance with good industrial hygiene and safety practice. Wash hands before breaks and at the end of workday.

PERSONAL PROTECTIVE EQUIPMENT

EYES AND FACE: Safety glasses. Use equipment for eye protection tested and approved under appropriate government standards such as NIOSH (US).

SKIN: Handle with gloves. Gloves must be inspected prior to use. Use proper glove removal technique (without touching glove's outer surface) to avoid skin contact with this product. Dispose of contaminated gloves after use in accordance with applicable laws and good laboratory practices. Wash and dry hands.

RESPIRATORY: Where risk assessment shows air-purifying respirators are appropriate use a full-face respirator with multipurpose combination (US) respirator cartridges as a backup to engineering controls. If the respirator is the sole means of protection, use a full-face supplied air respirator. Use respirators and components tested and approved under appropriate government standards such as NIOSH (US).

PROTECTIVE CLOTHING: Apron recommended.

WORK HYGIENIC PRACTICES: Personal hygiene is an important work practice exposure control measure and the following general measures should be taken when handling this material: (1) Do not store, use, and/or consume foods, beverages, tobacco products, or cosmetics areas with this material stored. (2) Wash hands and face carefully before eating, drinking, using tobacco, applying cosmetics, or using the restrooms. (3) Wash exposed skin promptly to remove accidental splashes of contact with this material.

9. PHYSICAL AND CHEMICAL PROPERTIES

PHYSICAL STATE: Liquid
COLOR: Brown
pH: Not Available
PERCENT VOLATILE: Not Available
FLASH POINT AND METHOD: (50°F) Not Available
FLAMMABLE LIMITS: Not Available
AUTOIGNITION TEMPERATURE: Not Available
VAPOR PRESSURE: Not Available
VAPOR DENSITY: Not Available
BOILING POINT: Not Available
FREEZING POINT: Not Available
POUR POINT: Not Available
THERMAL DECOMPOSITION: Not Available
SOLUBILITY IN WATER: partial
EVAPORATION RATE: Not Available
SPECIFIC GRAVITY: 1.124
VISCOsITY: Not Available
(VOC): 336 g/L

10. STABILITY AND REACTIVITY

REACTIVITY: Yes
STABILITY: Stable under recommended storage conditions.
CONDITIONS TO AVOID: Exposure to air. Exposure to moisture.
HAZARDOUS DECOMPOSITION PRODUCTS: Not Available
INCOMPATIBLE MATERIALS: Water, amines, strong alkalis, alcohols
11. TOXICOLOGICAL INFORMATION

ACUTE TOXICITY

<table>
<thead>
<tr>
<th>Chemical Name</th>
<th>ORAL LD$_{50}$ (rat)</th>
<th>DERMAL LD$_{50}$ (rabbit)</th>
<th>INHALATION LC$_{50}$ (rat)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Polymeric Isocyanates</td>
<td></td>
<td></td>
<td>0.49 mg/L [Rat] 4 h</td>
</tr>
<tr>
<td>Acetic Acid Ethyl Ester</td>
<td>&gt; 4934 mg/kg</td>
<td>&gt; 20000 mg/kg</td>
<td>&gt; 22.5 mg/L</td>
</tr>
<tr>
<td>Methylene Bisphenyl Isocyanate</td>
<td>9200 mg/kg [Rat]</td>
<td></td>
<td>&gt; 2.24 mg/L [rat] 1 h</td>
</tr>
</tbody>
</table>

**DERMAL LD$_{50}$**: Not yet determined for this product

**ORAL LD$_{50}$**: Not yet determined for this product

**INHALATION LC$_{50}$**: Not yet determined for this product

SERIOUS EYE DAMAGE/IRRITATION: CAS # 101-68-8 Serious eye damage/eye irritation

- Eyes - Rabbit
  - Result: Moderate eye irritation

RESPIRATORY OR SKIN SENSITISATION: CAS # 101-68-8 Respiratory or skin sensitisation

- In vivo assay - Guinea pig
  - Result: May cause sensitisation by inhalation.
- Invivo assay - Mouse
  - Result: May cause sensitisation by skin contact.

GERM CELL MUTAGENICITY: CAS # 101-68-8 Laboratory experiments have shown mutagenic effects.

- Ames test S. typhimurium
  - Result: negative
- Mutagenicity (micronucleus test) Rat - male
  - Result: negative

CARCINOGENICITY

- IARC: CAS # 9016-87-9 3 - Group 3: Not classifiable as to its carcinogenicity to humans (Isocyanic acid, polymethylenepolyphenylene ester)
- CAS # 101-68-8 3 - Group 3: Not classifiable as to its carcinogenicity to humans (Diphenylmethane-4,4'-diisocyanate)

- NTP: Not listed
- OSHA: Not listed

REPRODUCTIVE TOXICITY: CAS # 101-68-8 Reproductive toxicity - Rat - Inhalation Maternal Effects: Other effects. Specific Developmental Abnormalities: Musculoskeletal system.

12. ECOLOGICAL INFORMATION

BIOACCUMULATION/ACCUMULATION: Not Available

AQUATIC TOXICITY (ACUTE)

- Notes: CAS # 101-68-8 Toxicity to daphnia and other aquatic invertebrates EC50 - Daphnia magna (Water flea) - 0.35 mg/l - 24 h

13. DISPOSAL CONSIDERATIONS

DISPOSAL METHOD: Offer surplus and non-recyclable solutions to a licensed disposal company. Contact a licensed professional waste disposal service to dispose of this material. Dissolve or mix the material with a combustible solvent and burn in a chemical incinerator equipped with an afterburner and scrubber.

EMPTY CONTAINER: Dispose of as unused product.

14. TRANSPORT INFORMATION

DOT (DEPARTMENT OF TRANSPORTATION)

- PROPER SHIPPING NAME:
### DOT CLASSIFICATION

<table>
<thead>
<tr>
<th>UN number</th>
<th>UN 1133</th>
</tr>
</thead>
<tbody>
<tr>
<td>UN proper</td>
<td>Adhesives containing flammable liquid</td>
</tr>
<tr>
<td>shipping name</td>
<td></td>
</tr>
<tr>
<td>Transport hazard class</td>
<td>3</td>
</tr>
<tr>
<td>Packing group</td>
<td>II</td>
</tr>
</tbody>
</table>
| Label | ![Flammable Label](image)

### AIR (ICAO/IATA)

**SHIPPING NAME:**

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<tr>
<td>Passenger air max</td>
<td>5 L</td>
</tr>
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</table>
| Label | ![Flammable Label](image)

### 15. REGULATORY INFORMATION

#### UNITED STATES

**SARA TITLE III (SUPERFUND AMENDMENTS AND REAUTHORIZATION ACT)**

- **311/312 HAZARD CATEGORIES:** FIRE HAZARD, ACUTE HEALTH HAZARD, CHRONIC HEALTH HAZARD

- **FIRE:** Yes
- **PRESSURE GENERATING:** No
- **REACTIVITY:** No
- **ACUTE:** Yes
- **CHRONIC:** Yes

**EPCRA SECTION 313 SUPPLIER NOTIFICATION**

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**302/304 EMERGENCY PLANNING**

**EMERGENCY PLAN:** None

**CERCLA (COMPREHENSIVE RESPONSE, COMPENSATION, AND LIABILITY ACT)**

<table>
<thead>
<tr>
<th>Chemical Name</th>
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<th>CERCLA RQ</th>
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<tbody>
<tr>
<td>Acetic Acid Ethyl Ester</td>
<td>20 - 40</td>
<td>5,000</td>
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**TSCA (TOXIC SUBSTANCE CONTROL ACT)**

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<td>12b,</td>
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TSCA REGULATORY: All components of this product are listed on the TSCA Inventory.

REGULATIONS

CANADA
WHMIS HAZARD SYMBOL AND CLASSIFICATION

WHMIS (WORKPLACE HAZARDOUS MATERIALS INFORMATION SYSTEM): Controlled Product
WHMIS CLASS: B, D
DOMESTIC SUBSTANCE LIST (INVENTORY): All components of this product are listed on the Domestic Substances List.

16. OTHER INFORMATION
PREPARED BY: SDS Regulatory Specialist       Date Revised: 08/10/2017
REVISION SUMMARY: This MSDS replaces the 08/03/2017 MSDS.

HMIS RATING

<table>
<thead>
<tr>
<th>HEALTH</th>
<th>FLAMMABILITY</th>
<th>PHYSICAL HAZARD</th>
<th>PERSONAL PROTECTION</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>2</td>
<td>3</td>
<td>X</td>
</tr>
</tbody>
</table>

NFPA CODES

HMIS RATINGS NOTES: (X) - site specific
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