## SECTION 1: Identification

### 1.1. Identification
- **Product form**: Mixture
- **Product name**: All-Bond Universal

### 1.2. Relevant identified uses of the substance or mixture and uses advised against
- **Use of the substance/mixture**: For RX only

### 1.3. Details of the supplier of the safety data sheet
- **Bisco, Inc.**
  - 1100 W. Irving Park Rd.
  - Schaumburg, IL 60193
  - T 847.534.6000 - F 847.891.5049
  - sales@bisco.com - www.bisco.com
- **Emergency number**: CHEMTREC - 24-Hour Hazmat Emergency Communications Center
  - Domestic: 1-800-424-9300 Outside the U.S.: 1-703-527-3887, collect calls accepted

### 1.4. Emergency telephone number

## SECTION 2: Hazard(s) identification

### 2.1. Classification of the substance or mixture
- **GHS-US classification**
  - Flammable liquids Category 2: H225
  - Skin corrosion/irritation Category 2: H315
  - Serious eye damage/eye irritation Category 2A: H319
  - Skin sensitization Category 1: H317
- Full text of H statements: see section 16

### 2.2. Label elements
- **GHS-US labeling**
  - **Hazard pictograms (GHS-US)**: ![GHS02](image) ![GHS07](image)
  - **Signal word (GHS-US)**: Danger
  - **Hazard statements (GHS-US)**: H225 - Highly flammable liquid and vapor, H315 - Causes skin irritation, H317 - May cause an allergic skin reaction, H319 - Causes serious eye irritation
  - **Precautionary statements (GHS-US)**: P333+P313 - If skin irritation or rash occurs: Get medical advice/attention, P210 - Keep away from heat/sparks/open flames/hot surfaces. - No smoking, P233 - Keep container tightly closed, P264 - Wash hands thoroughly after handling, P337+P313 - If eye irritation persists: Get medical advice/attention, P403+P235 - Store in a well-ventilated place. Keep cool, P501 - Dispose in a safe manner in accordance with local/national regulations

### 2.3. Other hazards
- No additional information available

### 2.4. Unknown acute toxicity (GHS-US)
- Not applicable

## SECTION 3: Composition/Information on ingredients

### 3.1. Substance
- Not applicable

### 3.2. Mixture
- Not applicable
**All-Bond Universal**

**Safety Data Sheet**

generated according to Federal Register / Vol. 77, No. 58 / Monday, March 26, 2012 / Rules and Regulations

<table>
<thead>
<tr>
<th>Name</th>
<th>Product identifier</th>
<th>%</th>
<th>GHS-US classification</th>
</tr>
</thead>
<tbody>
<tr>
<td>Bisphenol A Diglycidyl/methacrylate</td>
<td>(CAS No) 1565-94-2</td>
<td>20 - 50</td>
<td>Skin Irrt. 2, H315&lt;br&gt;Eye Irrt. 2A, H319</td>
</tr>
<tr>
<td>Ethanol</td>
<td>(CAS No) 64-17-5</td>
<td>30 - 50</td>
<td>Flam. Liq. 2, H225&lt;br&gt;Eye Irrt. 2A, H319</td>
</tr>
<tr>
<td>MDP</td>
<td>(CAS No) 85590-00-7</td>
<td>5 - 25</td>
<td>Acute Tox. 4 (Oral), H302&lt;br&gt;Skin Corr. 1B, H314&lt;br&gt;Aquatic Acute 3, H402</td>
</tr>
<tr>
<td>2-Hydroxyethyl Methacrylate</td>
<td>(CAS No) 868-77-9</td>
<td>5 - 25</td>
<td>Skin Irrt. 2, H315&lt;br&gt;Eye Irrt. 2A, H319&lt;br&gt;Skin Sens. 1, H317</td>
</tr>
</tbody>
</table>

Full text of H-phrases: see section 16

### SECTION 4: First aid measures

#### 4.1. Description of first aid measures

**First-aids measures after skin contact**: Rinse skin with water/shower. Remove/Take off immediately all contaminated clothing. Wash with plenty of soap and water. If skin irritation or rash occurs: Get medical advice/attention. Specific treatment (see First aid measures on this label). Wash contaminated clothing before reuse.

**First-aids measures after eye contact**: Rinse cautiously with water for several minutes. If eye irritation persists: Get medical advice/attention. Remove contact lenses, if present and easy to do. Continue rinsing.

#### 4.2. Most important symptoms and effects, both acute and delayed

**Symptoms/injuries after inhalation**: May cause an allergic skin reaction.

**Symptoms/injuries after skin contact**: Causes skin irritation.

**Symptoms/injuries after eye contact**: Causes serious eye irritation.

#### 4.3. Indication of any immediate medical attention and special treatment needed

No additional information available

### SECTION 5: Firefighting measures

#### 5.1. Extinguishing media

No additional information available

#### 5.2. Special hazards arising from the substance or mixture

**Fire hazard**: Highly flammable liquid and vapor.

**Explosion hazard**: May form flammable/explosive vapor-air mixture.

#### 5.3. Advice for firefighters

No additional information available

### SECTION 6: Accidental release measures

#### 6.1. Personal precautions, protective equipment and emergency procedures

**General measures**: Remove ignition sources. Use special care to avoid static electric charges. No naked lights. No smoking.

##### 6.1.1. For non-emergency personnel

No additional information available

##### 6.1.2. For emergency responders

No additional information available

#### 6.2. Environmental precautions

No additional information available

#### 6.3. Methods and material for containment and cleaning up

No additional information available

#### 6.4. Reference to other sections

No additional information available

### SECTION 7: Handling and storage

#### 7.1. Precautions for safe handling

**Additional hazards when processed**: Handle empty containers with care because residual vapors are flammable.
Precautions for safe handling: Avoid shock and friction. Keep away from naked flames/heat. Take precautions against electrostatic charges. Take precautionary measures against static discharge. No naked lights. No smoking. Use only non-sparking tools. Avoid breathing mist, vapors.

Hygiene measures: Wash hands thoroughly after handling. Contaminated work clothing should not be allowed out of the workplace. Wash contaminated clothing before reuse.

7.2. Conditions for safe storage, including any incompatibilities
Storage conditions: Keep in fireproof place. Keep container tightly closed.
Incompatible materials: Heat sources.

SECTION 8: Exposure controls/personal protection
8.1. Control parameters
Bisphenol A Dicyclidymethacrylate (1565-94-2)
Not applicable

Ethanol (64-17-5)
<table>
<thead>
<tr>
<th>ACGIH</th>
<th>ACGIH STEL (ppm)</th>
<th>1000 ppm (Ethanol; USA; Short time value; TLV - Adopted Value)</th>
</tr>
</thead>
</table>

MDP (85590-00-7)
Not applicable

2-Hydroxyethyl Methacrylate (868-77-9)
Not applicable

8.2. Exposure controls
Skin and body protection: Wear suitable protective clothing.

SECTION 9: Physical and chemical properties
9.1. Information on basic physical and chemical properties
Physical state: Liquid
Color: Pale Yellow
Odor: Ethanol odor
Odor threshold: No data available
pH: 2.5 - 3.5
Melting point: No data available
Freezing point: No data available
Boiling point: > 78 °C
Flash point: > 14 °C, Closed Cup
Relative evaporation rate (butyl acetate=1): No data available
Flammability (solid, gas): Flammable liquid and vapor
Explosion limits: 3.3% (V) - 19% (V)
Explosive properties: No data available
Oxidizing properties: No data available
Vapor pressure: No data available
Relative density: 0.9 - 1.1
Relative vapor density at 20 °C: No data available
Solubility: No data available
Log Pow: No data available
Auto-ignition temperature: No data available
Decomposition temperature: No data available
Viscosity: No data available
Viscosity, kinematic: No data available
Viscosity, dynamic: No data available

9.2. Other information
No additional information available
## SECTION 10: Stability and reactivity

### 10.1. Reactivity
No additional information available

### 10.2. Chemical stability
Highly flammable liquid and vapor. May form flammable/explosive vapor-air mixture.

### 10.3. Possibility of hazardous reactions
No additional information available

### 10.4. Conditions to avoid
Open flame. Direct sunlight.

### 10.5. Incompatible materials
No additional information available

### 10.6. Hazardous decomposition products
May release flammable gases.

## SECTION 11: Toxicological information

### 11.1. Information on toxicological effects

#### Acute toxicity
- Not classified

#### Ethanol (64-17-5)
- LD50 oral rat: 10740 mg/kg (Rat; Experimental value, Rat; Experimental value)
- LD50 dermal rabbit: > 16000 mg/kg (Rabbit; Literature study)
- ATE US (oral): 10740.000 mg/kg body weight

#### MDP (85590-00-7)
- LD50 oral rat: 1000 - 2000 mg/kg
- ATE US (oral): 500.000 mg/kg body weight

#### 2-Hydroxyethyl Methacrylate (868-77-9)
- LD50 oral rat: 5564 mg/kg body weight (Rat; Experimental value)
- LD50 dermal rabbit: > 5000 mg/kg body weight (Rabbit; Experimental value)
- ATE US (oral): 5564.000 mg/kg body weight

#### Skin corrosion/irritation
- Causes skin irritation.
  - pH: 2.5 - 3.5

#### Serious eye damage/irritation
- Causes serious eye irritation.
  - pH: 2.5 - 3.5

#### Respiratory or skin sensitization
- May cause an allergic skin reaction.

#### Germ cell mutagenicity
- Not classified

#### Carcinogenicity
- Not classified

#### Ethanol (64-17-5)
- IARC group: 1 - Carcinogenic to Humans

#### MDP (85590-00-7)
- IARC group: 4 - Probably Not Carcinogenic

#### Reproductive toxicity
- Not classified

#### Specific target organ toxicity (single exposure)
- Not classified

#### Specific target organ toxicity (repeated exposure)
- Not classified

#### Aspiration hazard
- Not classified

#### Symptoms/injuries after inhalation
- May cause an allergic skin reaction.

#### Symptoms/injuries after skin contact
- Causes skin irritation.

#### Symptoms/injuries after eye contact
- Causes serious eye irritation.
## SECTION 12: Ecological information

### 12.1. Toxicity

<table>
<thead>
<tr>
<th>Chemical</th>
<th>LC50 fish 1</th>
<th>EC50 Daphnia 1</th>
<th>NOEC chronic fish</th>
</tr>
</thead>
<tbody>
<tr>
<td>Ethanol (64-17-5)</td>
<td>14200 mg/l (LC50; US EPA; 96 h; Pimephales promelas; Flow-through system; Fresh water; Experimental value)</td>
<td>&gt; 100 mg/l</td>
<td>48h 10 mg/l</td>
</tr>
<tr>
<td>MDP (85590-00-7)</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>EC50 Daphnia 1</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>NOEC chronic fish</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>2-Hydroxyethyl Methacrylate (868-77-9)</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>LC50 fish 1</td>
<td>227 mg/l (LC50; 96 h)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>EC50 Daphnia 1</td>
<td>171 mg/l (NOEC; OECD 202: Daphnia sp. Acute Immobilization Test; 48 h; Daphnia magna; Static system; Fresh water; Experimental value)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>EC50 Daphnia 2</td>
<td>380 mg/l (EC50; OECD 202: Daphnia sp. Acute Immobilization Test; 48 h; Daphnia magna; Static system; Fresh water; Experimental value)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Threshold limit algae 1</td>
<td>836 mg/l (ErC50; OECD 201: Alga, Growth Inhibition Test; 72 h; Pseudokirchneriella subcapitata; Static system; Fresh water; Experimental value)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Threshold limit algae 2</td>
<td>345 mg/l (EbC50; OECD 201: Alga, Growth Inhibition Test; 72 h; Pseudokirchneriella subcapitata; Static system; Fresh water; Experimental value)</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

### 12.2. Persistence and degradability

<table>
<thead>
<tr>
<th>Chemical</th>
<th>Persistence and degradability</th>
</tr>
</thead>
<tbody>
<tr>
<td>Bisphenol A Dicycildimethacrylate (1565-94-2)</td>
<td>Biodegradability in water: no data available.</td>
</tr>
<tr>
<td>Ethanol (64-17-5)</td>
<td>Readily biodegradable in water. Biodegradable in the soil. Highly mobile in soil.</td>
</tr>
<tr>
<td>Biochemical oxygen demand (BOD)</td>
<td>0.8 - 0.967 g O₂/g substance</td>
</tr>
<tr>
<td>Chemical oxygen demand (COD)</td>
<td>1.70 g O₂/g substance</td>
</tr>
<tr>
<td>ThOD</td>
<td>2.10 g O₂/g substance</td>
</tr>
<tr>
<td>BOD (% of ThOD)</td>
<td>0.43</td>
</tr>
</tbody>
</table>

### 12.3. Bioaccumulative potential

<table>
<thead>
<tr>
<th>Chemical</th>
<th>Log Pow</th>
<th>Bioaccumulative potential</th>
</tr>
</thead>
<tbody>
<tr>
<td>Bisphenol A Dicycildimethacrylate (1565-94-2)</td>
<td>4.94 (Estimated value)</td>
<td>No bioaccumulation data available.</td>
</tr>
<tr>
<td>Ethanol (64-17-5)</td>
<td>-0.31 (Experimental value)</td>
<td>Low potential for bioaccumulation (Log Kow &lt; 4).</td>
</tr>
<tr>
<td>2-Hydroxyethyl Methacrylate (868-77-9)</td>
<td>-0.55 - 0.49 (0.42; Experimental value; OECD 107: Partition Coefficient (n-octanol/water): Shake Flasks Method; 25 °C)</td>
<td>Low potential for bioaccumulation (BCF &lt; 500).</td>
</tr>
</tbody>
</table>

### 12.4. Mobility in soil

<table>
<thead>
<tr>
<th>Chemical</th>
<th>Surface tension</th>
<th>Log Koc</th>
</tr>
</thead>
<tbody>
<tr>
<td>Ethanol (64-17-5)</td>
<td>0.022 N/m (20 °C)</td>
<td>Koc,PCKOCWIN v1.66; 1; Read-across</td>
</tr>
</tbody>
</table>

### 12.5. Other adverse effects

Effect on the global warming: No known ecological damage caused by this product.
### SECTION 13: Disposal considerations

#### 13.1. Waste treatment methods

<table>
<thead>
<tr>
<th>Waste disposal recommendations</th>
<th>Dispose in a safe manner in accordance with local/national regulations.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Additional information</td>
<td>Handle empty containers with care because residual vapors are flammable.</td>
</tr>
</tbody>
</table>

### SECTION 14: Transport information

**Department of Transportation (DOT)**

In accordance with DOT

<table>
<thead>
<tr>
<th>Transport document description</th>
<th>UN1170 Ethanol solutions, 3, III</th>
</tr>
</thead>
<tbody>
<tr>
<td>UN-No.(DOT)</td>
<td>UN1170</td>
</tr>
<tr>
<td>Proper Shipping Name (DOT)</td>
<td>Ethanol solutions</td>
</tr>
<tr>
<td>Class (DOT)</td>
<td>3 - Class 3 - Flammable and combustible liquid 49 CFR 173.120</td>
</tr>
<tr>
<td>Hazard labels (DOT)</td>
<td>3 - Flammable liquid</td>
</tr>
</tbody>
</table>

| Packing group (DOT)            | III - Minor Danger               |
| DOT Packaging Non Bulk (49 CFR 173.xxx) | 203 |
| DOT Packaging Bulk (49 CFR 173.xxx)   | 242 |
| DOT Special Provisions (49 CFR 172.102) | 24 - Alcoholic beverages containing more than 70 percent alcohol by volume must be transported as materials in Packing Group II. Alcoholic beverages containing more than 24 percent but not more than 70 percent alcohol by volume must be transported as materials in Packing Group III |

| DOT Packaging Exceptions (49 CFR 173.xxx) | 4b;150 |
| DOT Quantity Limitations Passenger aircraft/rail (49 CFR 173.27) | 60 L |
| DOT Quantity Limitations Cargo aircraft only (49 CFR 175.75) | 220 L |
| DOT Vessel Stowage Location | A - The material may be stowed “on deck” or “under deck” on a cargo vessel and on a passenger vessel |
| Emergency Response Guide (ERG) Number | 127 |

**Other information**

- No supplementary information available.

**TDG**

- No additional information available

**Transport by sea**

<table>
<thead>
<tr>
<th>UN-No. (IMDG)</th>
<th>1170</th>
</tr>
</thead>
<tbody>
<tr>
<td>Class (IMDG)</td>
<td>3 - Flammable liquids</td>
</tr>
</tbody>
</table>

**Air transport**

<table>
<thead>
<tr>
<th>UN-No. (IATA)</th>
<th>1170</th>
</tr>
</thead>
<tbody>
<tr>
<td>Class (IATA)</td>
<td>3 - Flammable Liquids</td>
</tr>
</tbody>
</table>
## SECTION 15: Regulatory information

### 15.1. US Federal regulations

- **Bisphenol A Dicycylmethacrylate (1565-94-2)**
  - Listed on the United States TSCA (Toxic Substances Control Act) inventory

- **2-Hydroxyethyl Methacrylate (868-77-9)**
  - Listed on the United States TSCA (Toxic Substances Control Act) inventory

### 15.2. International regulations

- **CANADA**
  - No additional information available

- **EU-Regulations**
  - No additional information available

- **National regulations**
  - No additional information available

### 15.3. US State regulations

- No additional information available

## SECTION 16: Other information

Full text of H-phrases:

<table>
<thead>
<tr>
<th>H225</th>
<th>Highly flammable liquid and vapor</th>
</tr>
</thead>
<tbody>
<tr>
<td>H302</td>
<td>Harmful if swallowed</td>
</tr>
<tr>
<td>H314</td>
<td>Causes severe skin burns and eye damage</td>
</tr>
<tr>
<td>H315</td>
<td>Causes skin irritation</td>
</tr>
<tr>
<td>H317</td>
<td>May cause an allergic skin reaction</td>
</tr>
<tr>
<td>H319</td>
<td>Causes serious eye irritation</td>
</tr>
<tr>
<td>H402</td>
<td>Harmful to aquatic life</td>
</tr>
</tbody>
</table>

SDS US (GHS HazCom 2012)

This information is based on our current knowledge and is intended to describe the product for the purposes of health, safety and environmental requirements only. It should therefore be construed as guaranteeing any specific property of the product.