



# All-Bond 3 Resin

## Safety Data Sheet

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

Date of issue: 01/02/2018

Version: 1.0

### SECTION 1: Identification

#### 1.1. Identification

Product form : Mixture  
Product name : All-Bond 3 Resin

#### 1.2. Recommended use and restrictions on use

Use of the substance/mixture : For Rx Only

#### 1.3. Supplier

##### Manufacturer

Bisco, Inc.  
1100 W. Irving Park Rd.  
Schaumburg, IL 60193  
T 847.534.6000 - F 847.891.5049  
[sales@bisco.com](mailto:sales@bisco.com) - [www.bisco.com](http://www.bisco.com)

#### 1.4. Emergency telephone number

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

### SECTION 2: Hazard(s) identification

#### 2.1. Classification of the substance or mixture

##### GHS-US classification

|   |      |                                     |
|---|------|-------------------------------------|
| Skin corrosion/irritation Category 2                        | H315 | Causes skin irritation              |
| Serious eye damage/eye irritation Category 2                | H319 | Causes serious eye irritation       |
| Skin sensitization, Category 1                              | H317 | May cause an allergic skin reaction |
| Specific target organ toxicity (single exposure) Category 3 | H335 | May cause respiratory irritation    |

Full text of H statements : see section 16

#### 2.2. GHS Label elements, including precautionary statements

##### GHS-US labeling

Hazard pictograms (GHS-US) :



Hazard statements (GHS-US) : H315 - Causes skin irritation  
H317 - May cause an allergic skin reaction  
H319 - Causes serious eye irritation  
H335 - May cause respiratory irritation

Precautionary statements (GHS-US) : P261 - Avoid breathing vapors  
P264 - Wash hands thoroughly after handling  
P271 - Use only outdoors or in a well-ventilated area  
P272 - Contaminated work clothing must not be allowed out of the workplace  
P280 - Wear eye protection, face protection, protective gloves  
P302+P352 - If on skin: Wash with plenty of Wash skin with soap and water  
P304+P340 - If inhaled: Remove person to fresh air and keep comfortable for breathing  
P305+P351+P338 - If in eyes: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing  
P312 - Call a POISON CENTER, Call a doctor if you feel unwell  
P321 - Specific treatment (see First aid measures on this label)  
P332+P313 - If skin irritation occurs: Get medical advice/attention  
P337+P313 - If eye irritation persists: Get medical advice/attention  
P362+P364 - Take off contaminated clothing and wash it before reuse  
P363 - Wash contaminated clothing before reuse  
P403+P233 - Store in a well-ventilated place. Keep container tightly closed  
P405 - Store locked up

# All-Bond 3 Resin

## Safety Data Sheet

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

P501 - Dispose in a safe manner in accordance with local/national regulations

### 2.3. Other hazards which do not result in classification

No additional information available

### 2.4. Unknown acute toxicity (GHS US)

Not applicable

## SECTION 3: Composition/Information on ingredients

### 3.1. Substances

Not applicable

### 3.2. Mixtures

| Name                        | Product identifier    | %       | GHS-US classification  |
|-----------------------------|-----------------------|---------|--|
| Ytterbium Fluoride          | (CAS-No.) 13760-80-0  | 10 - 30 | Skin Irrit. 2, H315<br>Eye Irrit. 2, H319<br>STOT SE 3, H335     |
| BisGMA                      | (CAS-No.) 1565-94-2   | 10 - 30 | Skin Irrit. 2, H315<br>Eye Irrit. 2B, H320<br>Skin Sens. 1, H317 |
| 2-Hydroxyethyl Methacrylate | (CAS-No.) 868-77-9    | 10 - 30 | Skin Irrit. 2, H315<br>Eye Irrit. 2, H319<br>Skin Sens. 1, H317  |
| Urethane Dimethacrylate     | (CAS-No.) Proprietary | 10 - 30 | Skin Irrit. 2, H315<br>Eye Irrit. 2B, H320<br>STOT SE 3, H336    |

Full text of hazard classes and H-statements : see section 16

## SECTION 4: First-aid measures

### 4.1. Description of first aid measures

- First-aid measures general : Call a poison center/doctor/physician if you feel unwell.
- First-aid measures after inhalation : Remove person to fresh air and keep comfortable for breathing. Call a poison center/doctor/physician if you feel unwell.
- First-aid measures after skin contact : Wash skin with plenty of water. Take off contaminated clothing. If skin irritation or rash occurs: Get medical advice/attention.
- First-aid measures after eye contact : Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. If eye irritation persists: Get medical advice/attention.
- First-aid measures after ingestion : Call a poison center/doctor/physician if you feel unwell.

### 4.2. Most important symptoms and effects (acute and delayed)

- Symptoms/effects after inhalation : May cause respiratory irritation.
- Symptoms/effects after skin contact : Irritation. May cause an allergic skin reaction.
- Symptoms/effects after eye contact : Eye irritation.

### 4.3. Immediate medical attention and special treatment, if necessary

Treat symptomatically.

## SECTION 5: Fire-fighting measures

### 5.1. Suitable (and unsuitable) extinguishing media

Suitable extinguishing media : Water spray. Dry powder. Foam. Carbon dioxide.

### 5.2. Specific hazards arising from the chemical

Reactivity : The product is non-reactive under normal conditions of use, storage and transport.

### 5.3. Special protective equipment and precautions for fire-fighters

Protection during firefighting : Do not attempt to take action without suitable protective equipment. Self-contained breathing apparatus. Complete protective clothing.

## SECTION 6: Accidental release measures

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

#### 6.1.1. For non-emergency personnel

Emergency procedures : Ventilate spillage area. Avoid breathing mist, vapors. Avoid contact with skin and eyes.

# All-Bond 3 Resin

## Safety Data Sheet

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

### 6.1.2. For emergency responders

Protective equipment : Do not attempt to take action without suitable protective equipment. For further information refer to section 8: "Exposure controls/personal protection".

### 6.2. Environmental precautions

Avoid release to the environment.

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

Methods for cleaning up : Take up liquid spill into absorbent material.  
Other information : Dispose of materials or solid residues at an authorized site.

### 6.4. Reference to other sections

For further information refer to section 13.

## SECTION 7: Handling and storage

### 7.1. Precautions for safe handling

Precautions for safe handling : Use only outdoors or in a well-ventilated area. Avoid breathing mist, vapors. Avoid contact with skin and eyes. Wear personal protective equipment.  
Hygiene measures : Wash contaminated clothing before reuse. Contaminated work clothing should not be allowed out of the workplace. Do not eat, drink or smoke when using this product. Always wash hands after handling the product.

### 7.2. Conditions for safe storage, including any incompatibilities

Storage conditions : Store locked up. Store in a well-ventilated place. Keep container tightly closed. Keep cool.

## SECTION 8: Exposure controls/personal protection

### 8.1. Control parameters

| Urethane Dimethacrylate (Proprietary)  |
|--|
| Not applicable                         |
| Ytterbium Fluoride (13760-80-0)        |
| Not applicable                         |
| BisGMA (1565-94-2)                     |
| Not applicable                         |
| 2-Hydroxyethyl Methacrylate (868-77-9) |
| Not applicable                         |

### 8.2. Appropriate engineering controls

Appropriate engineering controls : Ensure good ventilation of the work station.  
Environmental exposure controls : Avoid release to the environment.

### 8.3. Individual protection measures/Personal protective equipment

#### Hand protection:

Protective gloves

#### Eye protection:

Safety glasses

#### Skin and body protection:

Wear suitable protective clothing

#### Respiratory protection:

In case of insufficient ventilation, wear suitable respiratory equipment

## SECTION 9: Physical and chemical properties

### 9.1. Information on basic physical and chemical properties

Physical state : Liquid  
Appearance : Flowable paste.

# All-Bond 3 Resin

## Safety Data Sheet

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

|   |                     |
|---|---------------------|
| Color                                       | : Yellow            |
| Odor  | : Acrylic           |
| Odor threshold                              | : No data available |
| pH  | : No data available |
| Melting point                               | : Not applicable    |
| Freezing point                              | : No data available |
| Boiling point                               | : No data available |
| Flash point                                 | : No data available |
| Relative evaporation rate (butyl acetate=1) | : No data available |
| Flammability (solid, gas)                   | : Not applicable.   |
| Vapor pressure                              | : No data available |
| Relative vapor density at 20 °C             | : No data available |
| Relative density                            | : No data available |
| Solubility                                  | : No data available |
| Log Pow                                     | : No data available |
| Auto-ignition temperature                   | : No data available |
| Decomposition temperature                   | : No data available |
| Viscosity, kinematic                        | : No data available |
| Viscosity, dynamic                          | : No data available |
| Explosion limits                            | : No data available |
| Explosive properties                        | : No data available |
| Oxidizing properties                        | : No data available |

### 9.2. Other information

No additional information available

## SECTION 10: Stability and reactivity

### 10.1. Reactivity

The product is non-reactive under normal conditions of use, storage and transport.

### 10.2. Chemical stability

Stable under normal conditions.

### 10.3. Possibility of hazardous reactions

No dangerous reactions known under normal conditions of use.

### 10.4. Conditions to avoid

None under recommended storage and handling conditions (see section 7).

### 10.5. Incompatible materials

No additional information available

### 10.6. Hazardous decomposition products

Under normal conditions of storage and use, hazardous decomposition products should not be produced.

## SECTION 11: Toxicological information

### 11.1. Information on toxicological effects

Acute toxicity : Not classified

| Urethane Dimethacrylate (Proprietary) |     |
|---------------------------------------|-----|
| LD50 oral rat                         | N/A |
| LD50 dermal rat                       | N/A |
| LD50 dermal rabbit                    | N/A |
| LC50 inhalation rat (ppm)             | N/A |
| Ytterbium Fluoride (13760-80-0)       |     |
| LD50 oral rat                         | N/A |
| LD50 dermal rat                       | N/A |
| LD50 dermal rabbit                    | N/A |

# All-Bond 3 Resin

## Safety Data Sheet

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

| <b>Ytterbium Fluoride (13760-80-0)</b> |     |
|--|-----|
| LC50 inhalation rat (ppm)              | N/A |

| <b>2-Hydroxyethyl Methacrylate (868-77-9)</b> |   |
|---|---|
| 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 mg/kg body weight                                |

Skin corrosion/irritation : Causes skin irritation.  
Serious eye damage/irritation : Causes serious eye irritation.  
Respiratory or skin sensitization : May cause an allergic skin reaction.  
Germ cell mutagenicity : Not classified  
Carcinogenicity : Not classified

| <b>Urethane Dimethacrylate (Proprietary)</b> |   |
|--|---|
| IARC group                                   | 4 - Probably not carcinogenic to humans |

| <b>Ytterbium Fluoride (13760-80-0)</b> |   |
|--|---|
| IARC group                             | 4 - Probably not carcinogenic to humans |

Reproductive toxicity : Not classified  
Specific target organ toxicity – single exposure : May cause respiratory irritation.

| <b>Urethane Dimethacrylate (Proprietary)</b> |                       |
|--|-----------------------|
| LOAEL (oral,rat)                             | N/A mg/kg body weight |
| LOAEL (dermal,rat/rabbit)                    | N/A mg/kg body weight |
| LOAEC (inhalation,rat,gas)                   | N/A ppmV/4h           |
| LOAEC (inhalation,rat,vapour )               | N/A mg/l/4h           |
| LOAEC (inhalation,rat,dust/mist/fume)        | N/A mg/l/4h           |

| <b>Ytterbium Fluoride (13760-80-0)</b> |                       |
|--|-----------------------|
| LOAEL (oral,rat)                       | N/A mg/kg body weight |
| LOAEL (dermal,rat/rabbit)              | N/A mg/kg body weight |
| LOAEC (inhalation,rat,gas)             | N/A ppmV/4h           |
| LOAEC (inhalation,rat,vapour )         | N/A mg/l/4h           |
| LOAEC (inhalation,rat,dust/mist/fume)  | N/A mg/l/4h           |

Specific target organ toxicity – repeated exposure : Not classified

| <b>Urethane Dimethacrylate (Proprietary)</b>  |                          |
|---|--------------------------|
| LOAEL (oral,rat,90 days)                      | N/A mg/kg bodyweight/day |
| LOAEL (dermal,rat/rabbit,90 days)             | N/A mg/kg bodyweight/day |
| LOAEC (inhalation,rat,gas,90 days)            | N/A ppmV/6h/day          |
| LOAEC (inhalation,rat,vapour,90 days)         | N/A mg/l/6h/day          |
| LOAEC (inhalation,rat,dust/mist/fume,90 days) | N/A mg/l/6h/day          |

| <b>Ytterbium Fluoride (13760-80-0)</b>        |                          |
|---|--------------------------|
| LOAEL (oral,rat,90 days)                      | N/A mg/kg bodyweight/day |
| LOAEL (dermal,rat/rabbit,90 days)             | N/A mg/kg bodyweight/day |
| LOAEC (inhalation,rat,gas,90 days)            | N/A ppmV/6h/day          |
| LOAEC (inhalation,rat,vapour,90 days)         | N/A mg/l/6h/day          |
| LOAEC (inhalation,rat,dust/mist/fume,90 days) | N/A mg/l/6h/day          |

Aspiration hazard : Not classified  
Symptoms/effects after inhalation : May cause respiratory irritation.  
Symptoms/effects after skin contact : Irritation. May cause an allergic skin reaction.  
Symptoms/effects after eye contact : Eye irritation.

# All-Bond 3 Resin

## Safety Data Sheet

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

### SECTION 12: Ecological information

#### 12.1. Toxicity

Ecology - general : The product is not considered harmful to aquatic organisms or to cause long-term adverse effects in the environment.

| Ytterbium Fluoride (13760-80-0) |          |
|---------------------------------|----------|
| EC50 Daphnia 1                  | 190 mg/l |

  

| 2-Hydroxyethyl Methacrylate (868-77-9) |   |
|--|---|
| LC50 fish 1                            | 227 mg/l (LC50; 96 h)   |
| EC50 Daphnia 1                         | 171 mg/l (NOEC; OECD 202: Daphnia sp. Acute Immobilisation Test; 48 h; Daphnia magna; Static system; Fresh water; Experimental value)           |
| EC50 Daphnia 2                         | 380 mg/l (EC50; OECD 202: Daphnia sp. Acute Immobilisation Test; 48 h; Daphnia magna; Static system; Fresh water; Experimental value)           |
| Threshold limit algae 1                | 836 mg/l (ErC50; OECD 201: Alga, Growth Inhibition Test; 72 h; Pseudokirchneriella subcapitata; Static system; Fresh water; Experimental value) |
| Threshold limit algae 2                | 345 mg/l (EbC50; OECD 201: Alga, Growth Inhibition Test; 72 h; Pseudokirchneriella subcapitata; Static system; Fresh water; Experimental value) |

#### 12.2. Persistence and degradability

| 2-Hydroxyethyl Methacrylate (868-77-9) |   |
|--|---|
| Persistence and degradability          | Readily biodegradable in water. Biodegradability in soil: no data available. Adsorbs into the soil. |

#### 12.3. Bioaccumulative potential

| 2-Hydroxyethyl Methacrylate (868-77-9) |   |
|--|---|
| BCF fish 1                             | 1.3 - 1.5 (BCF)   |
| Log Pow                                | -0.55 - 0.49 (0.42; Experimental value; OECD 107: Partition Coefficient (n-octanol/water): Shake Flask Method; 25 °C) |
| Bioaccumulative potential              | Low potential for bioaccumulation (BCF < 500).  |

#### 12.4. Mobility in soil

No additional information available

#### 12.5. Other adverse effects

Effect on the global warming : No known effects from this product.  
GWPmix comment : No known effects from this product.

### SECTION 13: Disposal considerations

#### 13.1. Disposal methods

Waste treatment methods : Dispose of contents/container in accordance with licensed collector's sorting instructions.

### SECTION 14: Transport information

#### Department of Transportation (DOT)

In accordance with DOT

Not applicable

#### TDG

Not applicable

#### Transport by sea

Not applicable

# All-Bond 3 Resin

## Safety Data Sheet

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

### Air transport

Not applicable

## SECTION 15: Regulatory information

### 15.1. US Federal regulations

#### 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

Revision date:12/13/2017

Full text of H-phrases:

|      |                                     |
|------|-------------------------------------|
| H315 | Causes skin irritation              |
| H317 | May cause an allergic skin reaction |
| H319 | Causes serious eye irritation       |
| H320 | Causes eye irritation               |
| H335 | May cause respiratory irritation    |
| H336 | May cause drowsiness or dizziness   |

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 not therefore be construed as guaranteeing any specific property of the product*