SECTION 1: Identification of the substance/mixture and of the company/undertaking

1.1. Product identifier

<table>
<thead>
<tr>
<th>Product form</th>
<th>Mixture</th>
</tr>
</thead>
<tbody>
<tr>
<td>Product name</td>
<td>Duo-Link Base</td>
</tr>
</tbody>
</table>

1.2. Relevant identified uses of the substance or mixture and uses advised against

1.2.1. Relevant identified uses

Use of the substance/mixture: For Rx Only

1.2.2. Uses advised against

No additional information available

1.3. Details of the supplier of the safety data sheet

**Manufacturer:**
Bisco, Inc. 1100 W Irving Park Road, Schaumburg, IL 60193 USA
1-847-534-6000, during normal business hours
www.bisco.com

**EC Representative:**
Bisico France, 208, allée de la Coudoulette, 13680 Lançon de Provence, France
Telephone: 33-4-90-42-02-02

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: Hazards identification

2.1. Classification of the substance or mixture

**Classification according to Regulation (EC) No. 1272/2008 [CLP]**

- Skin corrosion/irritation, Category 2: H315
- Serious eye damage/eye irritation, Category 2: H319
- Skin sensitisation, Category 1: H317

Full text of H statements: see section 16

**Adverse physicochemical, human health and environmental effects**

Causes skin irritation. May cause an allergic skin reaction. Causes serious eye irritation.

2.2. Label elements

**Labelling according to Regulation (EC) No. 1272/2008 [CLP]**

- Hazard pictograms (CLP): ![GHS07]

- **Signal word (CLP):** Warning

- **Hazardous ingredients:** Bisphenol A Diglycidylmethacrylate

- **Hazard statements (CLP):**
  - H315 - Causes skin irritation
  - H317 - May cause an allergic skin reaction
  - H319 - Causes serious eye irritation

- **Precautionary statements (CLP):**
  - P261 - Avoid breathing vapours
  - P264 - Wash hands thoroughly after handling
  - P272 - Contaminated work clothing should not be allowed out of the workplace
  - P280 - Wear protective gloves, face protection, eye protection
  - P302+P352 - IF ON SKIN: Wash with plenty of soap and water
  - P305+P351+P338 - IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing
  - P321 - Specific treatment (see First aid measures on this label)
  - P332+P313 - If skin irritation occurs: Get medical advice/attention
  - P333+P313 - If skin irritation or rash occurs: Get medical advice/attention
2.3. Other hazards
No additional information available

SECTION 3: Composition/information on ingredients

3.1. Substances
Not applicable

3.2. Mixtures

<table>
<thead>
<tr>
<th>Name</th>
<th>Product identifier</th>
<th>%</th>
<th>Classification according to Regulation (EC) No. 1272/2008 [CLP]</th>
</tr>
</thead>
<tbody>
<tr>
<td>Bisphenol A Diglycidylmethacrylate</td>
<td>(CAS-No.) 1565-94-2 (EC-No.) 216-367-7</td>
<td>10 - 30</td>
<td>Skin Irrit. 2, H315 Eye Irrit. 2, H319 Skin Sens. 1, H317</td>
</tr>
<tr>
<td>Urethane Dimethacrylate</td>
<td>(CAS-No.) Proprietary</td>
<td>10 - 30</td>
<td>Eye Irrit. 2, H319 STOT SE 3, H336</td>
</tr>
<tr>
<td>Tetrahydrofurfuryl Methacrylate</td>
<td>(CAS-No.) 2455-24-5</td>
<td>1 - 5</td>
<td>Skin Irrit. 2, H315 Eye Irrit. 2, H319 STOT SE 3, H335</td>
</tr>
<tr>
<td>Trimethylolpropane Trimethacrylate</td>
<td>(CAS-No.) 3290-92-4 (EC-No.) 221-950-4</td>
<td>1 - 5</td>
<td>Skin Irrit. 2, H315 Eye Irrit. 2, H319</td>
</tr>
</tbody>
</table>

Full text of H-statements: see section 16

SECTION 4: First aid measures

4.1. Description of first aid measures

First-aid measures after inhalation  : Remove person to fresh air and keep comfortable for breathing.
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 or a doctor if you feel unwell.

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

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

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

Treat symptomatically.

SECTION 5: Firefighting measures

5.1. Extinguishing media


5.2. Special hazards arising from the substance or mixture

Hazardous decomposition products in case of fire : Toxic fumes may be released.

5.3. Advice for firefighters

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 contact with skin and eyes. Avoid breathing mist, vapours.
### 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:** Mechanically recover the product.
- **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:** Ensure good ventilation of the work station. Wear personal protective equipment. Avoid contact with skin and eyes. Avoid breathing mist, vapours.

- **Hygiene measures:** Do not eat, drink or smoke when using this product. Always wash hands after handling the product. Wash contaminated clothing before reuse. Contaminated work clothing should not be allowed out of the workplace.

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

- **Storage conditions:** Store in a well-ventilated place. Keep cool.

### 7.3. Specific end use(s)

No additional information available

#### SECTION 8: Exposure controls/personal protection

### 8.1. Control parameters

No additional information available

### 8.2. Exposure controls

**Appropriate engineering controls:**

Ensure good ventilation of the work station.

**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

**Environmental exposure controls:**

Avoid release to the environment.

#### SECTION 9: Physical and chemical properties

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

- **Physical state:** Solid
- **Appearance:** Paste.
- **Colour:** Light yellow
- **Odour:** No data available
- **Odour threshold:** No data available
- **pH:** No data available
- **Relative evaporation rate (butylacetate=1):** No data available
- **Melting point:** No data available
- **Freezing point:** Not applicable
- **Boiling point:** No data available
- **Flash point:** Not applicable
Duo-Link Base
Safety Data Sheet
according to Regulation (EC) No. 1907/2006 (REACH) with its amendment Regulation (EU) 2015/830

12/5/2017 EN (English) 4/7

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 (oral) : Not classified
Acute toxicity (dermal) : Not classified
Acute toxicity (inhalation) : Not classified

Urethane Dimethacrylate (Proprietary)

<table>
<thead>
<tr>
<th>Parameter</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>LD50 oral rat</td>
<td>N/A</td>
</tr>
<tr>
<td>LD50 dermal rat</td>
<td>N/A</td>
</tr>
<tr>
<td>LD50 dermal rabbit</td>
<td>N/A</td>
</tr>
<tr>
<td>LC50 inhalation rat (ppm)</td>
<td>N/A</td>
</tr>
<tr>
<td>LC50 inhalation rat (Dust/Mist - mg/l/4h)</td>
<td>N/A mg/l/4h</td>
</tr>
<tr>
<td>LC50 inhalation rat (Vapours - mg/l/4h)</td>
<td>N/A mg/l/4h</td>
</tr>
</tbody>
</table>

Trimethylolpropane Trimethacrylate (3290-92-4)

<table>
<thead>
<tr>
<th>Parameter</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>LD50 oral rat</td>
<td>5660 mg/kg (Rat)</td>
</tr>
<tr>
<td>LD50 dermal rabbit</td>
<td>17120 mg/kg (Rabbit)</td>
</tr>
</tbody>
</table>

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

STOT-single exposure : Not classified
Urethane Dimethacrylate (Proprietary)

| LOAEL (oral, rat) | N/A mg/kg bodyweight |
| LOAEL (dermal, rat/rabbit) | N/A mg/kg bodyweight |
| 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 |

STOT-repeated exposure: Not classified

| 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

**SECTION 12: Ecological information**

12.1. Toxicity

Ecology - general: The product is not considered harmful to aquatic organisms nor to cause long-term adverse effects in the environment.

Acute aquatic toxicity: Not classified

Chronic aquatic toxicity: Not classified

Tetrahydrofurfuryl Methacrylate (2455-24-5)

| LC50 fish 1 | 34.7 mg/l (LC50; 96 h; Pimephales promelas) |

12.2. Persistence and degradability

Bisphenol A Diglycidylmethacrylate (1565-94-2)

Persistence and degradability: Biodegradability in water: no data available.

Tetrahydrofurfuryl Methacrylate (2455-24-5)

Persistence and degradability: Biodegradability in water: no data available. No (test)data on mobility of the substance available.

Trimethylolpropane Trimethacrylate (3290-92-4)

Persistence and degradability: Not readily biodegradable in water.

12.3. Bioaccumulative potential

Bisphenol A Diglycidylmethacrylate (1565-94-2)

Log Pow: 4.94 (Estimated value)

Bioaccumulative potential: No bioaccumulation data available.

Tetrahydrofurfuryl Methacrylate (2455-24-5)

Log Pow: 1.3

Bioaccumulative potential: Low potential for bioaccumulation (Log Kow < 4).

Trimethylolpropane Trimethacrylate (3290-92-4)

Log Pow: 4.39

12.4. Mobility in soil

No additional information available

12.5. Results of PBT and vPvB assessment

No additional information available

12.6. Other adverse effects

No additional information available

**SECTION 13: Disposal considerations**

13.1. Waste treatment methods

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

**SECTION 14: Transport information**

In accordance with ADR / RID / IMDG / IATA / ADN
**Duo-Link Base**  
Safety Data Sheet  
according to Regulation (EC) No. 1907/2006 (REACH) with its amendment Regulation (EU) 2015/830

<table>
<thead>
<tr>
<th>14.1. UN number</th>
</tr>
</thead>
<tbody>
<tr>
<td>UN-No. (ADR) : Not applicable</td>
</tr>
<tr>
<td>UN-No. (IMDG) : Not applicable</td>
</tr>
<tr>
<td>UN-No. (IATA) : Not applicable</td>
</tr>
<tr>
<td>UN-No. (ADN) : Not applicable</td>
</tr>
<tr>
<td>UN-No. (RID) : Not applicable</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>14.2. UN proper shipping name</th>
</tr>
</thead>
<tbody>
<tr>
<td>Proper Shipping Name (ADR) : Not applicable</td>
</tr>
<tr>
<td>Proper Shipping Name (IMDG) : Not applicable</td>
</tr>
<tr>
<td>Proper Shipping Name (IATA) : Not applicable</td>
</tr>
<tr>
<td>Proper Shipping Name (ADN) : Not applicable</td>
</tr>
<tr>
<td>Proper Shipping Name (RID) : Not applicable</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>14.3. Transport hazard class(es)</th>
</tr>
</thead>
<tbody>
<tr>
<td>ADR Transport hazard class(es) (ADR) : Not applicable</td>
</tr>
<tr>
<td>IMDG Transport hazard class(es) (IMDG) : Not applicable</td>
</tr>
<tr>
<td>IATA Transport hazard class(es) (IATA) : Not applicable</td>
</tr>
<tr>
<td>ADN Transport hazard class(es) (ADN) : Not applicable</td>
</tr>
<tr>
<td>RID Transport hazard class(es) (RID) : Not applicable</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>14.4. Packing group</th>
</tr>
</thead>
<tbody>
<tr>
<td>Packing group (ADR) : Not applicable</td>
</tr>
<tr>
<td>Packing group (IMDG) : Not applicable</td>
</tr>
<tr>
<td>Packing group (IATA) : Not applicable</td>
</tr>
<tr>
<td>Packing group (ADN) : Not applicable</td>
</tr>
<tr>
<td>Packing group (RID) : Not applicable</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>14.5. Environmental hazards</th>
</tr>
</thead>
<tbody>
<tr>
<td>Dangerous for the environment : No</td>
</tr>
<tr>
<td>Marine pollutant : No</td>
</tr>
<tr>
<td>Other information : No supplementary information available</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>14.6. Special precautions for user</th>
</tr>
</thead>
<tbody>
<tr>
<td>- Overland transport No data available</td>
</tr>
<tr>
<td>- Transport by sea No data available</td>
</tr>
<tr>
<td>- Air transport No data available</td>
</tr>
<tr>
<td>- Inland waterway transport No data available</td>
</tr>
<tr>
<td>- Rail transport No data available</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>14.7. Transport in bulk according to Annex II of Marpol and the IBC Code</th>
</tr>
</thead>
<tbody>
<tr>
<td>Not applicable</td>
</tr>
</tbody>
</table>

12/5/2017 EN (English) 6/7
Duo-Link Base
Safety Data Sheet
according to Regulation (EC) No. 1907/2006 (REACH) with its amendment Regulation (EU) 2015/830

SECTION 15: Regulatory information

15.1. Safety, health and environmental regulations/legislation specific for the substance or mixture

15.1.1. EU-Regulations

Contains no REACH substances with Annex XVII restrictions
Contains no substance on the REACH candidate list
Contains no REACH Annex XIV substances

15.1.2. National regulations

Germany
VwVwS Annex reference : Water hazard class (WGK) 3, severe hazard to waters (Classification according to VwVwS, Annex 4)
12th Ordinance Implementing the Federal Immission Control Act - 12.BImSchV : Is not subject of the 12. BImSchV (Hazardous Incident Ordinance)

Netherlands
SZW-lijst van kankerverwekkende stoffen : None of the components are listed
SZW-lijst van mutagene stoffen : None of the components are listed
NIET-limitatieve lijst van voor de voortplanting giftige stoffen – Borstvoeding : None of the components are listed
NIET-limitatieve lijst van voor de voortplanting giftige stoffen – Vruchtbaarheid : None of the components are listed
NIET-limitatieve lijst van voor de voortplanting giftige stoffen – Ontwikkeling : None of the components are listed

Denmark
Recommendations Danish Regulation : Young people below the age of 18 years are not allowed to use the product

15.2. Chemical safety assessment

No chemical safety assessment has been carried out

SECTION 16: Other information

Revision date : 07/13/2018
Full text of H- and EUH-statements:

<table>
<thead>
<tr>
<th>H315</th>
<th>Causes skin irritation</th>
</tr>
</thead>
<tbody>
<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>H335</td>
<td>May cause respiratory irritation</td>
</tr>
<tr>
<td>H336</td>
<td>May cause drowsiness or dizziness</td>
</tr>
<tr>
<td>STOT SE 3</td>
<td>Specific target organ toxicity — Single exposure, Category 3, Narcosis</td>
</tr>
<tr>
<td>STOT SE 3</td>
<td>Specific target organ toxicity — Single exposure, Category 3, Respiratory tract irritation</td>
</tr>
<tr>
<td>Skin Sens. 1</td>
<td>Skin sensitisation, Category 1</td>
</tr>
<tr>
<td>Skin Irrit. 2</td>
<td>Skin corrosion/irritation, Category 2</td>
</tr>
<tr>
<td>Eye Irrit. 2</td>
<td>Serious eye damage/eye irritation, Category 2</td>
</tr>
</tbody>
</table>

SDS EU (REACH Annex II)
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.

12/5/2017 EN (English)