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

1.1. Product identifier

<table>
<thead>
<tr>
<th>Product form</th>
<th>:</th>
<th>Mixture</th>
</tr>
</thead>
<tbody>
<tr>
<td>Product name</td>
<td>:</td>
<td>ArtResin - Hardener</td>
</tr>
</tbody>
</table>

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

1.2.1. Relevant identified uses

Intended for general public

- Main use category : Consumer use, Professional use
- Use of the substance/mixture : Fixing agents

1.2.2. Uses advised against

No additional information available

1.3. Details of the supplier of the safety data sheet

ResinVentures Inc.
2300 Apollo Circle, Carrollton, TX 75006, USA
1-877-401-4001
www.artresin.com

1.4. Emergency telephone number

<table>
<thead>
<tr>
<th>Country</th>
<th>Organisation/Company</th>
<th>Address</th>
<th>Emergency number</th>
<th>Comment</th>
</tr>
</thead>
<tbody>
<tr>
<td>New Zealand</td>
<td>National Poisons Centre</td>
<td>University of Otago PO Box 56, Dunedin 9054, New Zealand</td>
<td>0800 764 766 (0800 POISON)</td>
<td></td>
</tr>
</tbody>
</table>

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
- Hazardous to the aquatic environment — Chronic Hazard, Category 3 — H412

Full text of H statements : see section 16
Adverse physicochemical, human health and environmental effects
Causes skin irritation. Causes serious eye irritation. Harmful to aquatic life with long lasting effects.

2.2. Label elements

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

<table>
<thead>
<tr>
<th>Hazard pictograms (CLP)</th>
<th>GHS07</th>
</tr>
</thead>
<tbody>
<tr>
<td>Signal word (CLP)</td>
<td>Warning</td>
</tr>
</tbody>
</table>
| Hazard statements (CLP) | H315 - Causes skin irritation.  
|                         | H319 - Causes serious eye irritation.  
|                         | H412 - Harmful to aquatic life with long lasting effects. |
| Precautionary statements (CLP) | P101 - If medical advice is needed, have product container or label at hand.  
|                         | P102 - Keep out of reach of children.  
|                         | P264 - Wash hands thoroughly after handling.  
|                         | P305+P351+P338 - IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.  
|                         | P501 - Dispose of contents and container to a licensed hazardous-waste disposal contractor or collection site except for empty clean containers which can be disposed of as non-hazardous waste. |

Child-resistant fastening: Not applicable
Tactile warning: Not applicable

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>PPG-70 BIS-(2-AMINOPROPYL) ETHER</td>
<td>(CAS-No.) 9046-10-0 (EC-No.) 618-561-0</td>
<td>≥ 80</td>
<td>Skin Corr. 1C, H314 Eye Dam. 1, H318 Aquatic Chronic 3, H412</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 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.
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.

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: Ensure good ventilation of the work station. Avoid contact with skin and eyes. Wear personal protective equipment.

Hygiene measures: Wash contaminated clothing before reuse. 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 in a well-ventilated place. Keep cool.
Storage temperature: 2 – 40 °C

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.

<table>
<thead>
<tr>
<th>Hand protection:</th>
</tr>
</thead>
<tbody>
<tr>
<td>Protective gloves</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Type</th>
<th>Material</th>
<th>Permeation</th>
<th>Thickness (mm)</th>
<th>Penetration</th>
<th>Standard</th>
</tr>
</thead>
<tbody>
<tr>
<td>Disposable gloves (NBR)</td>
<td>Nitrile rubber</td>
<td>&gt;0.13</td>
<td></td>
<td></td>
<td>EN ISO 374</td>
</tr>
</tbody>
</table>
ArtResin - Hardener
Safety Data Sheet

Skin and body protection:
Wear suitable protective clothing

Respiratory protection:
In case of insufficient ventilation, wear suitable respiratory equipment

Personal protective equipment symbol(s):

Environmental exposure controls:
Avoid release to the environment.

SECTION 9: Physical and chemical properties

9.1. Information on basic physical and chemical properties

<table>
<thead>
<tr>
<th>Property</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Physical state</td>
<td>Liquid</td>
</tr>
<tr>
<td>Colour</td>
<td>light yellow.</td>
</tr>
<tr>
<td>Odour</td>
<td>Ammoniacal.</td>
</tr>
<tr>
<td>Odour threshold</td>
<td>No data available</td>
</tr>
<tr>
<td>pH</td>
<td>11.2</td>
</tr>
<tr>
<td>Relative evaporation rate (butylacetate=1)</td>
<td>No data available</td>
</tr>
<tr>
<td>Melting point</td>
<td>Not applicable</td>
</tr>
<tr>
<td>Freezing point</td>
<td>No data available</td>
</tr>
<tr>
<td>Boiling point</td>
<td>&gt; 260 °C</td>
</tr>
<tr>
<td>Flash point</td>
<td>163 °C</td>
</tr>
<tr>
<td>Auto-ignition temperature</td>
<td>No data available</td>
</tr>
<tr>
<td>Decomposition temperature</td>
<td>No data available</td>
</tr>
<tr>
<td>Flammability (solid, gas)</td>
<td>Not applicable</td>
</tr>
<tr>
<td>Vapour pressure</td>
<td>1.3</td>
</tr>
<tr>
<td>Relative vapour density at 20 °C</td>
<td>1</td>
</tr>
<tr>
<td>Relative density</td>
<td>No data available</td>
</tr>
<tr>
<td>Solubility</td>
<td>No data available</td>
</tr>
<tr>
<td>Partition coefficient n-octanol/water (Log Pow)</td>
<td>No data available</td>
</tr>
<tr>
<td>Viscosity, kinematic</td>
<td>No data available</td>
</tr>
<tr>
<td>Viscosity, dynamic</td>
<td>No data available</td>
</tr>
<tr>
<td>Explosive properties</td>
<td>No data available</td>
</tr>
<tr>
<td>Oxidising properties</td>
<td>No data available</td>
</tr>
<tr>
<td>Explosive limits</td>
<td>No data available</td>
</tr>
</tbody>
</table>
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

Acids.

10.6. Hazardous decomposition products

Carbon dioxide. Carbon monoxide.

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

PPG-70 BIS-(2-AMINOPROPYL) ETHER (9046-10-0)

<table>
<thead>
<tr>
<th>Parameter</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>LD50 oral rat</td>
<td>2885 mg/kg</td>
</tr>
<tr>
<td>LD50 dermal rabbit</td>
<td>2980 mg/kg</td>
</tr>
<tr>
<td>LC50 inhalation rat (mg/l)</td>
<td>&gt; 740 mg/m³</td>
</tr>
</tbody>
</table>

Skin corrosion/irritation : Causes skin irritation.

pH: 11.2
Additional information: In vitro test data on mixture itself
Causes skin irritation.
Causes eye irritation (OECD 435 method)

Serious eye damage/irritation: Causes serious eye irritation.
PpH: 11.2

Respiratory or skin sensitisation: Not classified
Germ cell mutagenicity: Not classified
Carcinogenicity: Not classified

Reproductive toxicity: Not classified
STOT—single exposure: Not classified
STOT—repeated exposure: Not classified
Aspiration hazard: Not classified

SECTION 12: Ecological information

12.1. Toxicity

Ecology - general: Harmful to aquatic life with long lasting effects.
Hazardous to the aquatic environment, short-term (acute): Not classified
Hazardous to the aquatic environment, long-term (chronic): Harmful to aquatic life with long lasting effects.

<table>
<thead>
<tr>
<th>PPG-70 BIS-(2-AMINOPROPYL) ETHER (9046-10-0)</th>
</tr>
</thead>
<tbody>
<tr>
<td>LC50 fish 1</td>
</tr>
<tr>
<td>EC50 Daphnia 1</td>
</tr>
<tr>
<td>EC50 72h algae (1)</td>
</tr>
<tr>
<td>NOEC chronic algae</td>
</tr>
</tbody>
</table>

12.2. Persistence and degradability

Art Resin – Hardener
Biodegradation: < 60 %

12.3. Bioaccumulative potential

No additional information available
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.
European List of Waste (LoW) code: 20 01 27* - paint, inks, adhesives and resins containing dangerous substances

SECTION 14: Transport information

In accordance with ADR / RID / IMDG / IATA / ADN

<table>
<thead>
<tr>
<th>ADR</th>
<th>IMDG</th>
<th>IATA</th>
<th>ADN</th>
<th>RID</th>
</tr>
</thead>
<tbody>
<tr>
<td>14.1. UN number</td>
<td>Not applicable</td>
<td>Not applicable</td>
<td>Not applicable</td>
<td>Not applicable</td>
</tr>
<tr>
<td>14.2. UN proper shipping name</td>
<td>Not applicable</td>
<td>Not applicable</td>
<td>Not applicable</td>
<td>Not applicable</td>
</tr>
<tr>
<td>14.3. Transport hazard class(es)</td>
<td>Not applicable</td>
<td>Not applicable</td>
<td>Not applicable</td>
<td>Not applicable</td>
</tr>
<tr>
<td>14.4. Packing group</td>
<td>Not applicable</td>
<td>Not applicable</td>
<td>Not applicable</td>
<td>Not applicable</td>
</tr>
<tr>
<td>14.5. Environmental hazards</td>
<td>Not applicable</td>
<td>Not applicable</td>
<td>Not applicable</td>
<td>Not applicable</td>
</tr>
<tr>
<td></td>
<td>No supplementary information available</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

14.6. Special precautions for user

Overland transport
Not applicable

Transport by sea
Not applicable

Air transport
Not applicable
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- **Inland waterway transport**
  Not applicable

- **Rail transport**
  Not applicable

---

### 14.7. Transport in bulk according to Annex II of Marpol and the IBC Code

Not applicable

---

### 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**
  **United Kingdom**

#### 15.2. Chemical safety assessment

No chemical safety assessment has been carried out

---

### SECTION 16: Other information

| Abbreviations and acronyms: | 
|-----------------------------|----------------------------------|
| **ADN**                     | European Agreement concerning the International Carriage of Dangerous Goods by Inland Waterways |
| **ADR**                     | European Agreement concerning the International Carriage of Dangerous Goods by Road |
| **ATE**                     | Acute Toxicity Estimate |
| **BLV**                     | Biological limit value |
| **CAS-No.**                 | Chemical Abstract Service number |
| **CLP**                     | Classification Labelling Packaging Regulation; Regulation (EC) No 1272/2008 |
| **DMEL**                    | Derived Minimal Effect level |
| **DNEL**                    | Derived-No Effect Level |
| **EC50**                    | Median effective concentration |
ArtResin - Hardener

Safety Data Sheet

EC-No. | European Community number
---|---
EN | European Standard
IATA | International Air Transport Association
IMDG | International Maritime Dangerous Goods
LC50 | Median lethal concentration
LD50 | Median lethal dose
LOAEL | Lowest Observed Adverse Effect Level
NOAEC | No-Observed Adverse Effect Concentration
NOAEL | No-Observed Adverse Effect Level
NOEC | No-Observed Effect Concentration
OEL | Occupational Exposure Limit
PBT | Persistent Bioaccumulative Toxic
PNEC | Predicted No-Effect Concentration
RID | Regulations concerning the International Carriage of Dangerous Goods by Rail
SDS | Safety Data Sheet
vPvB | Very Persistent and Very Bioaccumulative
WGK | Water Hazard Class

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

<table>
<thead>
<tr>
<th>Class</th>
<th>Label</th>
<th>Full Text</th>
</tr>
</thead>
<tbody>
<tr>
<td>Skin Irrit. 2</td>
<td>H315</td>
<td>Causes severe skin burns and eye damage.</td>
</tr>
<tr>
<td>Eye Irrit. 2</td>
<td>H319</td>
<td>Causes skin irritation.</td>
</tr>
<tr>
<td>Aquatic Chronic 3</td>
<td>H412</td>
<td>Harmful to aquatic life with long lasting effects.</td>
</tr>
</tbody>
</table>

**Full text of H- and EUH-statements:**

Aquatic Chronic 3 | Hazardous to the aquatic environment — Chronic Hazard, Category 3
Eye Dam. 1 | Serious eye damage/eye irritation, Category 1
Skin Corr. 1C | Skin corrosion/irritation, Category 1C
H314 | Causes severe skin burns and eye damage.
H315 | Causes skin irritation.
H318 | Causes serious eye damage.
H319 | Causes serious eye irritation.
H412 | Harmful to aquatic life with long lasting effects.

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.