I. IDENTIFICATION OF THE SUBSTANCE/PREPARATION AND OF THE COMPANY/UNDERTAKING

- **Product details**
- **Trade name:** AEGIS® Polymer II
- **Application of the substance/preparation**
  Adhesives
- **Manufacturer/Supplier**
  AEGIS® Tools International, Inc.
  2810 Syene Road
  Madison, WI  53713 USA
- **For further information contact:**
  AEGIS® Tools International, Inc. @ 1-608-274-9254
- **Information in case of emergency:**
  North America: AEGIS® Tools International, Inc. @
  1-888-247-6000
  International: AEGIS® Tools International, Inc. @
  1-608-274-9254

II. HAZARDS IDENTIFICATION

- **Hazard description:** Xi Irritant
- **Information concerning particular Hazards for human and environment:**
  The product has to labeled do to the calculation procedure of the “General Classification guideline for preparations of the EU” in the latest valid version.
  R 36/37/38  Irritating to eyes, respiratory system and skin.
  R 43      May cause sensitization by skin contact.
  R 52/53   Harmful to aquatic organisms, may cause long-term adverse effects in the aquatic environment.
- **Classification system:**
  The classification is according to the latest editions of the EU-lists, and extended by company and literature data.

III. COMPOSITION/INFORMATION ON INGREDIENTS

- **Chemical characterization**
- **Description:**
  Mixture of substances listed below with nonhazardous additions.
- **Hazardous components:**

<table>
<thead>
<tr>
<th>CAS: 8687-77-9</th>
<th>Urethane (Meth)acrylate Oligomer</th>
<th>Xi; R 36/38</th>
<th>15-25%</th>
</tr>
</thead>
<tbody>
<tr>
<td>EINECS: 212-782-2</td>
<td>Benzyl methacrylate</td>
<td>Xi; R 36/37/38</td>
<td>15-25%</td>
</tr>
<tr>
<td>CAS: 5888-33-5</td>
<td>2-Hydroxyethyl methacrylate</td>
<td>Xi; R 36/38-43</td>
<td>15-25%</td>
</tr>
<tr>
<td>EINECS: 227-561-6</td>
<td>Isobornyl acrylate</td>
<td>Xi, N; R 36/37/38-51/53</td>
<td>10-15%</td>
</tr>
<tr>
<td>CAS: 79-10-7</td>
<td>Urethane acrylate Oligomer</td>
<td>Xi; R 36/37/38</td>
<td>10-15%</td>
</tr>
<tr>
<td>EINECS: 201-177-9</td>
<td>Urethane (Meth)acrylate Oligomer</td>
<td>Xi; R 36</td>
<td>1-5%</td>
</tr>
<tr>
<td>CAS: 42978-66-5</td>
<td>Acrylic Acid</td>
<td>C, Xn, N; R10-20/21/22-35-50</td>
<td>1-5%</td>
</tr>
<tr>
<td>DINECS: 256-032-2</td>
<td>Photoinitiator</td>
<td>Xi, N; R 36/37/38-51</td>
<td>1-5%</td>
</tr>
<tr>
<td>CAS: 42978-66-5</td>
<td>Tripropylene Glycol Diacrylate</td>
<td>Xi, N; R 36/37/38-43-51/53</td>
<td>&lt;1%</td>
</tr>
</tbody>
</table>

- **Additional information:**
  For the wording of the listed risk phrases refer to section 16.
IV. FIRST AID MEASURES

- After inhalation
  Of mists or aerosol: Remove to fresh air and contact a doctor.
  Of vapors: Remove to fresh air. If symptoms develop, seek medical attention.

- After skin contact: Immediately wash with water and soap and rinse thoroughly.

- After eye contact: Rinse opened eye for several minutes under running water. If symptoms persist, consult a doctor.


V. FIRE-FIGHTING MEASURES

- Suitable extinguishing agents: CO₂, powder or water spray. Fight larger fires with water spray or alcohol resistant foam.

- Special hazards caused by the substance, its products of combustion or resulting gases: During heating or in case of fire poisonous gases are produced.

- Protective equipment: See Section 8 for further information. Mouth respiratory protective device.

VI. ACCIDENTAL RELEASE MEASURES

- Person-related safety precautions: Mouth respiratory protective device. Wear protective clothing. Wear suitable gloves and eye/face protection.

- Measures for environmental protection: Inform respective authorities in case of seepage into water course or sewage system. Do not allow to enter sewers/surface or ground water.

- Measures for cleaning/collection:
  Absorb with liquid-binding material (sand, diatomite, acid binders, universal binders, sawdust).
  Ensure adequate ventilation.

VII. HANDLING AND STORAGE

- Handling:
  Information for safe handling: Keep away from heat and direct sunlight. Ensure good ventilation/exhaustion at the workplace. Prevent formation of aerosols.

  Information about fire- and explosion protection: Keep respiratory protective device available.

- Storage:
  Requirements to be met by storerooms and receptacles: Store only in unopened original receptacles. Avoid storage above 100°F, exposure to light, loss of dissolved air, loss of inhibitor, and contamination with incompatible materials.

  Information about storage in one common storage facility: None required.
VIII. EXPOSURE CONTROLS/PERSONAL PROTECTION

- Additional information about design of technical facilities:
  No further data; see item 7.

- Ingredients with limit values that require monitoring at the workplace:

<table>
<thead>
<tr>
<th>Substance</th>
<th>MAK (Germany)</th>
<th>AGW (Germany)</th>
</tr>
</thead>
<tbody>
<tr>
<td>2-Hydroxyethyl methacrylate</td>
<td>vg.Abschn.Ilb</td>
<td>30 mg/m³, 10ppm, 1(1); DFG, Y</td>
</tr>
</tbody>
</table>

- Additional information: The lists valid during the making of the preparation were used as a basis.

- Personal protective equipment:
  - General protective and hygienic measures:
    - Keep away from foodstuffs, beverages and feed.
    - Immediately remove all soiled and contaminated clothing.
    - Wash hands before breaks and at the end of work.
    - Do not inhale gases/fumes/aerosols.
    - Avoid contact with the eyes and skin.

- Respiratory protection:
  - In case of brief exposure or low pollution use respiratory filter device. In case of intensive or longer exposure use self-contained respiratory protective device.

- Protection of hands:
  - Protective gloves
    - The glove materials has to be impermeable and resistant to the product/substance/preparation.
    - Selection of the glove material on consideration of the penetration times, rates of diffusion and the degradation.

- Material of gloves:
  - Nitrile rubber, NBR
    - The selection of the suitable gloves does not only depend on the material, but also on further marks of quality and varies from manufacturer to manufacturer. As the product is a preparation of several substances, the resistance of the glove material cannot be calculated in advance and has to be checked prior to the application.

- Penetration time of glove material:
  - The exact break through time has to be found out by the manufacturer of the protective gloves and has to be observed.

- Eye protection:
  - Eye protection with side shield. When there is a potential for a splash hazard, chemical goggles should be used.
IX. PHYSICAL AND CHEMICAL PROPERTIES

- **General Information**
  - **Form:** Fluid
  - **Color:** According to product specification
  - **Odor:** Characteristic

- **Change in condition**
  - **Melting point/Melting range:** Undetermined.
  - **Boiling point/Boiling range:** 120°C/Undetermined

- **Flash point:** >55°C
- **Ignition temperature:** 214°C
- **Self-igniting:** Product is not self-igniting.
- **Danger of Explosion:** Product does not present an explosion hazard.
- **Density:** Not determined.
- **Solubility in/Miscibility with water:** Not miscible or difficult to mix.
- **Solids content:** 2.2%

X. STABILITY AND REACTIVITY

- **Thermal decomposition/conditions to be avoided:** No decomposition if used according to specifications.
- **Materials to be avoided:** Oxidizers, amines, strong Lewis acids, mineral acids, and thiosulfates.
- **Dangerous reactions**
  - **No dangerous reactions known.**
- **Dangerous decomposition products**
  - **No dangerous decomposition products known.**
- **Additional information:** Smoke and toxic fumes may be evolved as a result of uncontrolled exothermic chemical reactions caused by large masses of materials interacting with curing agents (peroxides, amines, etc.) and/or exposure to ultraviolet light.

XI. TOXICOLOGICAL INFORMATION

- **Acute toxicity**
  - **LD/LC50 values relevant for classification:**
    - Dermal LD50 >5000 mg/kg (rabbit)
    - Oral LD50 250 mg/kg (rat)
    - Dermal LD50 280 mg/kg (rabbit)

- **Primary irritant effect:**
  - **Irritant to skin and mucous membranes.**
  - **Irritating effect.**
  - **May cause sensitization by skin contact.**
- **Additional toxicological information:** The product shows the following dangers according to the calculation method of the General EU Classification Guidelines for Preparations as issued in the latest version: Irritant
XII. ECOLOGICAL INFORMATION

- Ecotoxical effects:
- Aquatic toxicity:

<table>
<thead>
<tr>
<th>5888-33-5</th>
<th>Isobornyl acrylate</th>
</tr>
</thead>
<tbody>
<tr>
<td>EC50/ 48 h</td>
<td>0.9 mg/L (daphnia)</td>
</tr>
</tbody>
</table>

- Remark: Harmful to fish.
- General notes: Water hazard class 2 (German Regulation) (Self-assessment); hazardous for water. Do not allow product to reach ground water, water course or sewage system. Danger to drinking water if even small quantities leak into the ground. Also poisonous for fish and plankton in water bodies. Harmful to aquatic organisms.

XIII. DISPOSAL CONSIDERATIONS

- Product:
  - Recommendation: Must not be disposed together with household garbage. Do not allow product to reach sewage system.

- Uncleaned packaging:
  - Recommendation: Disposal must be made according to official regulations.

XIV. TRANSPORT INFORMATION

- Land transport ADR/RID (cross-border)
  - ADR/RID class: -

- Maritime transport IMDG:
  - IMDG Class: -
  - Marine pollutant: No

- Air Transport ICAO-TI and IATA-DGR:
  - ICAO/IATA Class: -

XV. REGULATOR INFORMATION

- Labeling according to EU guidelines: The product has been classified and marked in accordance with EU Directives/Ordinance on Hazardous Materials

- Code letter and hazard designation of product:
  - Xi Irritant

- Hazard-determining components of labeling: 2-Hydroxyethyl methacrylate

- Risk phrases:
  - 36/37/38: Irritating to eyes, respiratory system and skin.
  - 43: May cause sensitization by skin contact.
  - 52/53: Harmful to aquatic organisms, may cause long-term adverse effects in the aquatic environment.
• Safety phrases:
  23  Do not breathe gas/fumes/vapor/spray.
  24  Avoid contact with skin.
  26  In case of contact with eyes, rinse immediately with plenty of water and seek medical advice.
  37  Wear suitable gloves.
  41  In case of fire and/or explosion do not breathe fumes.
  61  Avoid release to the environment. Refer to special instructions/safety data sheets.

• National regulations:
• Class Share in %
  0
  NK  1-5

XVI. OTHER INFORMATION
This information is based on our present knowledge. However, this shall not constitute a guarantee for any specific product features and shall not establish a legally valid contractual relationship.

• Relevant R-phrases:
  20/21/22  Harmful by inhalation, in contact with skin and if swallowed.
  35  Causes severe burns.
  36  Irritating to eyes.
  36/37/38  Irritating to eyes, respiratory system and skin.
  36/38  Irritating to eyes and skin.
  43  May cause sensitization by skin contact.
  50  Very toxic to aquatic organisms.
  51  Toxic to aquatic organisms.
  51/53  Toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment.

• Export and Import of Dangerous Chemicals (Regulation (EEC) No 304/2003) Information:
This substance is not listed in the Annex I of Council Regulation No (EC) 304/2003.

• European Priority Lists and Risk Assessment (Council Regulation (EEC) No 793/93) Information:
This substance is not listed in a priority list.

• Department issuing MSDS: AEGIS® Tools International, Inc.
• Contact: Caryn E. Birkhauser, Operations Manager
• Creation Date 09/30/2008