1 Identification

- Product identifier
- Trade name: Therolink 1000
- Article number: Therolink 1000
- Details of the supplier of the safety data sheet
  Manufacturer/Supplier:
  Resin Designs, LLC
  11 State Street
  WOBURN, MA 01801
  USA
  eponzysz@resindesigns.com
- Information department: Product safety department
- Emergency telephone number: During normal opening times: +1 (781) 935-3133

2 Hazard(s) identification

- Classification of the substance or mixture
  The product is not classified according to the Globally Harmonized System (GHS).

- Classification according to Directive 67/548/EEC or Directive 1999/45/EC
  Very toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment.

- Information concerning particular hazards for human and environment:
  The product has to be labeled due to the calculation procedure of international guidelines.

- Classification system:
  The classification was made according to the latest editions of international substances lists, and expanded upon from company and literature data.

- Labelling according to EU guidelines:
  The product has been classified and marked in accordance with directives on hazardous materials.

- Code letter and hazard designation of product:
  Dangerous for the environment

- Risk phrases:
  Very toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment.

- Safety phrases:
  Do not empty into drains, dispose of this material and its container at hazardous or special waste collection point.
  Use appropriate container to avoid environmental contamination.
  This material and its container must be disposed of as hazardous waste.

- Classification system:
  NFPA ratings (scale 0 - 4)
  Health = 0
  Fire = 1
  Reactivity = 0

(Contd. on page 2)
Trade name: Therolink 1000

- HMIS-ratings (scale 0 - 4)
  - HEALTH 0 Health = 0
  - FIRE 1 Fire = 1
  - REACTIVITY 0 Reactivity = 0

- Other hazards
- Results of PBT and vPvB assessment
  - PBT: Not applicable.
  - vPvB: Not applicable.

3 Composition/information on ingredients

- Chemical characterization: Mixtures
- Description: Mixture of the substances listed below with nonhazardous additions.

- Dangerous components:
  - 1314-13-2 zinc oxide 50-100%

4 First-aid measures

- Description of first aid measures
- After inhalation: Supply fresh air; consult doctor in case of complaints.
- After skin contact: Generally the product does not irritate the skin.
- After eye contact: Rinse opened eye for several minutes under running water.
- After swallowing: If symptoms persist consult doctor.
- Information for doctor:
  - Most important symptoms and effects, both acute and delayed: No further relevant information available.
  - Indication of any immediate medical attention and special treatment needed: No further relevant information available.

5 Fire-fighting measures

- Extinguishing media
- Suitable extinguishing agents: Use fire fighting measures that suit the environment.
- Special hazards arising from the substance or mixture: No further relevant information available.
- Advice for firefighters
- Protective equipment: No special measures required.

6 Accidental release measures

- Personal precautions, protective equipment and emergency procedures: Not required.
- Environmental precautions:
  - Do not allow product to reach sewage system or any water course.
  - Inform respective authorities in case of seepage into water course or sewage system.
  - Do not allow to enter sewers/ surface or ground water.
- Methods and material for containment and cleaning up:
  - Absorb with liquid-binding material (sand, diatomite, acid binders, universal binders, sawdust).
- Reference to other sections
  - See Section 7 for information on safe handling.
  - See Section 8 for information on personal protection equipment.
7 Handling and storage

· Handling:
· Precautions for safe handling: No special precautions are necessary if used correctly.
· Information about protection against explosions and fires: No special measures required.
· Conditions for safe storage, including any incompatibilities
· Storage:
· Requirements to be met by storerooms and receptacles: No special requirements.
· Information about storage in one common storage facility: Not required.
· Further information about storage conditions: None.
· Specific end use(s): No further relevant information available.

8 Exposure controls/personal protection

· Additional information about design of technical systems: No further data; see item 7.
· Control parameters
· Components with limit values that require monitoring at the workplace:
The product does not contain any relevant quantities of materials with critical values that have to be monitored at the workplace.
· Additional information: The lists that were valid during the creation were used as basis.
· Exposure controls
· Personal protective equipment:
· General protective and hygienic measures: Wash hands before breaks and at the end of work.
· Breathing equipment: Not required.
· Protection of hands:
The glove material has to be impermeable and resistant to the product/ the substance/ the preparation.
Due to missing tests no recommendation to the glove material can be given for the product/ the preparation/ the chemical mixture.
Selection of the glove material on consideration of the penetration times, rates of diffusion and the degradation
· Material of gloves
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 can not be calculated in advance and has therefore 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: Goggles recommended during refilling.

9 Physical and chemical properties

· Information on basic physical and chemical properties
· General Information
· Appearance:
  Form: Pasty
  Color: White
  Odor: Characteristic
**Trade name: Therolink 1000**

<table>
<thead>
<tr>
<th>Property</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Odour threshold</td>
<td>Not determined.</td>
</tr>
<tr>
<td>pH-value</td>
<td>Not determined.</td>
</tr>
<tr>
<td>Change in condition</td>
<td></td>
</tr>
<tr>
<td>Melting point/Melting range</td>
<td>Undetermined.</td>
</tr>
<tr>
<td>Boiling point/Boiling range</td>
<td>66 °C (151 °F)</td>
</tr>
<tr>
<td>Flash point</td>
<td>301 °C (574 °F)</td>
</tr>
<tr>
<td>Flammability (solid, gaseous)</td>
<td>Not applicable.</td>
</tr>
<tr>
<td>Ignition temperature</td>
<td></td>
</tr>
<tr>
<td>Decomposition temperature</td>
<td>Not determined.</td>
</tr>
<tr>
<td>Auto igniting</td>
<td>Product is not selfigniting.</td>
</tr>
<tr>
<td>Danger of explosion</td>
<td>Product does not present an explosion hazard.</td>
</tr>
<tr>
<td>Explosion limits</td>
<td></td>
</tr>
<tr>
<td>Lower</td>
<td>Not determined.</td>
</tr>
<tr>
<td>Upper</td>
<td>Not determined.</td>
</tr>
<tr>
<td>Vapor pressure</td>
<td>Not determined.</td>
</tr>
<tr>
<td>Density at 20 °C (68 °F):</td>
<td>4.215 g/cm³ (35.174 lbs/gal)</td>
</tr>
<tr>
<td>Relative density</td>
<td>Not determined.</td>
</tr>
<tr>
<td>Vapour density</td>
<td>Not determined.</td>
</tr>
<tr>
<td>Evaporation rate</td>
<td>Not determined.</td>
</tr>
<tr>
<td>Solubility in / Miscibility with Water</td>
<td>Not miscible or difficult to mix.</td>
</tr>
<tr>
<td>Partition coefficient (n-octanol/water)</td>
<td>Not determined.</td>
</tr>
<tr>
<td>Viscosity</td>
<td></td>
</tr>
<tr>
<td>Dynamic</td>
<td>Not determined.</td>
</tr>
<tr>
<td>Kinematic</td>
<td>Not determined.</td>
</tr>
<tr>
<td>Solvent content</td>
<td></td>
</tr>
<tr>
<td>Organic solvents</td>
<td>0.0 %</td>
</tr>
<tr>
<td>Other information</td>
<td>No further relevant information available.</td>
</tr>
</tbody>
</table>

**10 Stability and reactivity**

- Reactivity
- Chemical stability
- **Thermal decomposition / conditions to be avoided:** No decomposition if used according to specifications.
- **Possibility of hazardous reactions** No dangerous reactions known.
- **Conditions to avoid** No further relevant information available.
- **Incompatible materials:** No further relevant information available.
- **Hazardous decomposition products:** No dangerous decomposition products known.
11 Toxicological information

- Information on toxicological effects
  - Acute toxicity:
    - LD/LC50 values that are relevant for classification:
      - 1314-13-2 zinc oxide
        - Oral [LD50] > 5000 mg/kg (rat)
    - Primary irritant effect:
      - on the skin: No irritant effect.
      - on the eye: No irritating effect.
    - Sensitization: No sensitizing effects known.
  - Additional toxicological information:
    - Carcinogenic categories
      - IARC (International Agency for Research on Cancer)
        - None of the ingredients is listed.
      - NTP (National Toxicology Program)
        - None of the ingredients is listed.
      - OSHA-Ca (Occupational Safety & Health Administration)
        - None of the ingredients is listed.

12 Ecological information

- Toxicity
  - Aquatic toxicity: No further relevant information available.
  - Persistence and degradability: No further relevant information available.
  - Behavior in environmental systems:
    - Bioaccumulative potential: No further relevant information available.
    - Mobility in soil: No further relevant information available.
  - Ecotoxicological effects:
    - Remark: Very toxic for fish
  - Additional ecological information:
    - General notes:
      - Water hazard class 2 (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.
      - Very toxic for aquatic organisms
      - Results of PBT and vPvB assessment
        - PBT: Not applicable.
        - vPvB: Not applicable.
      - Other adverse effects: No further relevant information available.

13 Disposal considerations

- Waste treatment methods
  - Recommendation:
    - Must not be disposed of together with household garbage. Do not allow product to reach sewage system.
### 14 Transport information

- **UN-Number**
  - DOT, IMDG, IATA: UN3082

- **DOT proper shipping name**
  - Environmentally hazardous substances, liquid, n.o.s. (zinc oxide)

- **IMDG proper shipping name**
  - ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (zinc oxide), MARINE POLLUTANT

- **IATA proper shipping name**
  - ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (zinc oxide)

- **Transport hazard class(es)**
  - DOT, IMDG, IATA

- **Class**
  - 9 Miscellaneous dangerous substances and articles

- **Label**
  - 9

- **Packing group**
  - DOT, IMDG, IATA: III

- **Environmental hazards:**
  - Product contains environmentally hazardous substances: zinc oxide

- **Marine pollutant:**
  - Yes
  - Symbol (fish and tree)

- **Special marking (IATA):**
  - Symbol (fish and tree)

- **Special precautions for user**
  - Warning: Miscellaneous dangerous substances and articles

- **Danger code (Kemler):**
  - 90

- **EMS Number:**
  - F-A,S-F

- **Transport in bulk according to Annex II of MARPOL73/78 and the IBC Code**
  - Not applicable.

- **Transport/Additional information:**

  - **DOT**
    - Quantity limitations:
      - On passenger aircraft/rail: No limit
      - On cargo aircraft only: No limit
  
  - **Remarks:**
    - Special marking with the symbol (fish and tree).

  - **IMDG**
    - Limited quantities (LQ): 5L
    - Exempted quantities (EQ): Code: E1
    - Maximum net quantity per inner packaging: 30 ml
    - Maximum net quantity per outer packaging: 1000 ml
Trade name: Therolink 1000

15 Regulatory information

- Safety, health and environmental regulations/legislation specific for the substance or mixture
  - Sara
    - Section 355 (extremely hazardous substances): None of the ingredients is listed.
    - Section 313 (Specific toxic chemical listings):
      - 1314-13-2 zinc oxide
    - TSCA (Toxic Substances Control Act): All ingredients are listed.
    - Proposition 65
      - Chemicals known to cause cancer: None of the ingredients is listed.
      - Chemicals known to cause reproductive toxicity for females: None of the ingredients is listed.
      - Chemicals known to cause reproductive toxicity for males: None of the ingredients is listed.
      - Chemicals known to cause developmental toxicity: None of the ingredients is listed.

- Carcinogenic categories
  - EPA (Environmental Protection Agency)
    - 1314-13-2 zinc oxide D, I, II
  - TLV (Threshold Limit Value established by ACGIH)
    - None of the ingredients is listed.
  - NIOSH-Ca (National Institute for Occupational Safety and Health)
    - None of the ingredients is listed.

- Product related hazard informations:
  The product has been classified and marked in accordance with directives on hazardous materials.

- Hazard symbols:
  - Dangerous for the environment

- Risk phrases:
  - Very toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment.

- Safety phrases:
  - Do not empty into drains, dispose of this material and its container at hazardous or special waste collection point. Use appropriate container to avoid environmental contamination. This material and its container must be disposed of as hazardous waste.
Trade name: Therolink 1000

- **Chemical safety assessment:** A Chemical Safety Assessment has not been carried out.

### 16 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.
- **Department issuing SDS:** Environment protection department.
- **Contact:** Mr. Edward Poznysz, VP of Technologies: epoznysz@resindesigns.com
- **Date of preparation / last revision** 06/15/2015 / -
- **Abbreviations and acronyms:**
  - ADR: Accord européen sur le transport des marchandises dangereuses par Route (European Agreement concerning the International Carriage of Dangerous Goods by Road)
  - IMDG: International Maritime Code for Dangerous Goods
  - DOT: US Department of Transportation
  - IATA: International Air Transport Association
  - ACGIH: American Conference of Governmental Industrial Hygienists
  - EINECS: European Inventory of Existing Commercial Chemical Substances
  - ELINCS: European List of Notified Chemical Substances
  - CAS: Chemical Abstracts Service (division of the American Chemical Society)
  - NFPA: National Fire Protection Association (USA)
  - HMIS: Hazardous Materials Identification System (USA)
  - LC50: Lethal concentration, 50 percent
  - LD50: Lethal dose, 50 percent