### Section 1. Chemical Product and Company Identification

<table>
<thead>
<tr>
<th>Common Name/Trade Name</th>
<th>Catalog Number(s)</th>
<th>Chemical Name</th>
<th>Chemical Family</th>
<th>Chemical Formula</th>
</tr>
</thead>
<tbody>
<tr>
<td>2-(2-Ethoxyethoxy)ethanol</td>
<td>E1022, E1265</td>
<td>Ethoxy Diglycol</td>
<td>Not available.</td>
<td>Not available.</td>
</tr>
</tbody>
</table>

**Manufacturer:**
SPECTRUM LABORATORY PRODUCTS INC.
14422 S. SAN PEDRO STREET
GARDENA, CA 90248

**CAS#:** 111-90-0

**RTECS:** KK8750000

**TSCA:** TSCA 8(b) inventory: Ethoxy Diglycol

**IN CASE OF EMERGENCY CHEMTREC (24hr) 800-424-9300**

**CALL (310) 516-8000**

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### Section 2. Composition and Information on Ingredients

#### Toxicological Data on Ingredients

- **2-(2-Ethoxyethoxy)ethanol:**
  - **ORAL (LD50):** Acute: 5500 mg/kg [Rat]. 6600 mg/kg [Mouse]. 1920 mg/kg [Rat].
  - **DERMAL (LD50):** Acute: 6000 mg/kg [Rat]. 4200 mg/kg [Rabbit]. 6000 mg/kg [Mouse].
  - **VAPOR (LC50):** Acute: >5240 mg/m³ 4 hours [Rat].

#### Exposure Limits

<table>
<thead>
<tr>
<th>Name</th>
<th>CAS #</th>
<th>TWA (mg/m³)</th>
<th>STEL (mg/m³)</th>
<th>CEIL (mg/m³)</th>
<th>% by Weight</th>
</tr>
</thead>
<tbody>
<tr>
<td>1) Ethoxy Diglycol</td>
<td>111-90-0</td>
<td>25</td>
<td></td>
<td></td>
<td>100</td>
</tr>
</tbody>
</table>

Continued on Next Page
Section 3. Hazards Identification

Potential Acute Health Effects: Hazardous in case of eye contact (irritant). Slightly hazardous in case of skin contact (irritant, permeator), of ingestion, inhalation.

Potential Chronic Health Effects:
- CARCINOGENIC EFFECTS: Not available.
- MUTAGENIC EFFECTS: Mutagenic for bacteria and/or yeast.
- TERATOGENIC EFFECTS: Not available.
- DEVELOPMENTAL TOXICITY: Not available.

The substance may be toxic to kidneys, liver, central nervous system (CNS). Repeated or prolonged exposure to the substance can produce target organs damage.

Section 4. First Aid Measures

Eye Contact: Check for and remove any contact lenses. In case of contact, immediately flush eyes with plenty of water for at least 15 minutes. Cold water may be used. Get medical attention.

Skin Contact: In case of contact, immediately flush skin with plenty of water. Cover the irritated skin with an emollient. Remove contaminated clothing and shoes. Cold water may be used. Wash clothing before reuse. Thoroughly clean shoes before reuse. Get medical attention.

Serious Skin Contact: Not available.

Inhalation: If inhaled, remove to fresh air. If not breathing, give artificial respiration. If breathing is difficult, give oxygen. Get medical attention.

Serious Inhalation: Not available.

Ingestion: Do NOT induce vomiting unless directed to do so by medical personnel. Never give anything by mouth to an unconscious person. If large quantities of this material are swallowed, call a physician immediately. Loosen tight clothing such as a collar, tie, belt or waistband.

Serious Ingestion: Not available.

Section 5. Fire and Explosion Data

Flammability of the Product: Combustible.

Auto-Ignition Temperature: 204-218°C (399.2-424.4°F)

Flash Points: CLOSED CUP: 91-96°C (195.8-204.8°F).

Flammable Limits: LOWER: 1.2%  UPPER: 23.5%

Products of Combustion: Not available.

Fire Hazards in Presence of Various Substances: Slightly flammable to flammable in presence of open flames and sparks, of heat.


Fire Fighting Media and Instructions:
- SMALL FIRE: Use DRY chemical powder.
- LARGE FIRE: Use water spray, fog or foam. Do not use water jet.

Special Remarks on Fire Hazards: Not available.

Special Remarks on Explosion Hazards: Not available.

Continued on Next Page
Section 6. Accidental Release Measures

**Small Spill**
Dilute with water and mop up, or absorb with an inert dry material and place in an appropriate waste disposal container. Finish cleaning by spreading water on the contaminated surface and dispose of according to local and regional authority requirements.

**Large Spill**
Combustible material. Keep away from heat. Keep away from sources of ignition. Stop leak if without risk. Finish cleaning by spreading water on the contaminated surface and allow to evacuate through the sanitary system. Be careful that the product is not present at a concentration level above TLV. Check TLV on the MSDS and with local authorities.

Section 7. Handling and Storage

**Precautions**
Keep locked up... Keep away from heat. Keep away from sources of ignition. Ground all equipment containing material. Do not ingest. Do not breathe gas/fumes/vapor/spray. Avoid contact with eyes. Wear suitable protective clothing. In case of insufficient ventilation, wear suitable respiratory equipment. If ingested, seek medical advice immediately and show the container or the label. Keep away from incompatibles such as oxidizing agents, acids, moisture.

**Storage**
HYGROSCOPIC. Keep container in a cool, well-ventilated area. Keep container tightly closed and sealed until ready for use. Avoid all possible sources of ignition (spark or flame). Do not store above 23° C (73.4° F).

Section 8. Exposure Controls/Personal Protection

**Engineering Controls**
Provide exhaust ventilation or other engineering controls to keep the airborne concentrations of vapors below their respective threshold limit value. Ensure that eyewash stations and safety showers are proximal to the work-station location.

**Personal Protection**
Splash goggles. Lab coat. Vapor respirator. Be sure to use an approved/certified respirator or equivalent. Gloves.

**Personal Protection in Case of a Large Spill**
Splash goggles. Full suit. Vapor respirator. Boots. Gloves. A self contained breathing apparatus should be used to avoid inhalation of the product. Suggested protective clothing might not be sufficient; consult a specialist BEFORE handling this product.

**Exposure Limits**
TWA: 25 from AIHA
TWA: 140 (mg/m³) from AIHA
TWA: 30 (ppm) [Canada]
TWA: 165 (mg/m³) [Canada]

Consult local authorities for acceptable exposure limits.

Section 9. Physical and Chemical Properties

**Physical state and appearance**
Liquid.

**Odor**
Fruity. Characteristic. Pleasant. (Slight.)

**Taste**
Bitter.

**Color**
Colorless. Clear

**Molecular Weight**
134.17 g/mole

**pH (1% soln/water)**
Not available.

**Boiling Point**
196-197°C (384.8-386.6°F)

**Melting Point**
-10°C (14°F)

**Critical Temperature**
Not available.

**Specific Gravity**
0.99 (Water = 1)

**Vapor Pressure**
1.76 kPa (@ 25°C)

**Vapor Density**
4.62 (Air = 1)

**Volatility**
Not available.

**Odor Threshold**
Not available.

**Water/Oil Dist. Coeff.**
The product is more soluble in water; log(oil/water) = -0.54 tp -0.8

**Ionicity (in Water)**
Not available.

**Dispersion Properties**
See solubility in water, diethyl ether, acetone.

**Solubility**
Soluble in cold water, diethyl ether, acetone. Miscible with ethanol, benzene, pyridine, chloroform.

*Continued on Next Page*
**Section 10. Stability and Reactivity Data**

<table>
<thead>
<tr>
<th>Property</th>
<th>Details</th>
</tr>
</thead>
<tbody>
<tr>
<td>Stability</td>
<td>The product is stable.</td>
</tr>
<tr>
<td>Instability Temperature</td>
<td>Not available.</td>
</tr>
<tr>
<td>Conditions of Instability</td>
<td>Excess heat, ignition sources, moisture, incompatible materials.</td>
</tr>
<tr>
<td>Incompatibility with various substances</td>
<td>Reactive with oxidizing agents, acids.</td>
</tr>
<tr>
<td>Corrosivity</td>
<td>Not available.</td>
</tr>
<tr>
<td>Special Remarks on Reactivity</td>
<td>Hygroscopic (moisture sensitive). Incompatible with acid chlorides, acid anhydrides, strong acids, strong oxidants</td>
</tr>
<tr>
<td>Special Remarks on Corrosivity</td>
<td>Not available.</td>
</tr>
<tr>
<td>Polymerization</td>
<td>Will not occur.</td>
</tr>
</tbody>
</table>

**Section 11. Toxicological Information**

<table>
<thead>
<tr>
<th>Routes of Entry</th>
<th>Details</th>
</tr>
</thead>
<tbody>
<tr>
<td>Toxicity to Animals</td>
<td><strong>WARNING: THE LC50 VALUES HEREUNDER ARE ESTIMATED ON THE BASIS OF A 4-HOUR EXPOSURE.</strong></td>
</tr>
<tr>
<td>Acute oral toxicity (LD50):</td>
<td>1920 mg/kg [Rat].</td>
</tr>
<tr>
<td>Acute dermal toxicity (LD50):</td>
<td>4200 mg/kg [Rabbit].</td>
</tr>
<tr>
<td>Acute toxicity of the vapor (LC50):</td>
<td>&gt;5240 mg/m³ 4 hours [Rat].</td>
</tr>
<tr>
<td>Chronic Effects on Humans</td>
<td><strong>MUTAGENIC EFFECTS:</strong> Mutagenic for bacteria and/or yeast.</td>
</tr>
<tr>
<td>Other Toxic Effects on Humans</td>
<td>May cause damage to the following organs: kidneys, liver, central nervous system (CNS).R68-</td>
</tr>
<tr>
<td>Special Remarks on Toxicity to Animals</td>
<td>LD50 [Guinea pig] - Route: Oral; Dose: 3000 mg/kg</td>
</tr>
<tr>
<td>Special Remarks on Chronic Effects on Humans</td>
<td>LD50 [Rabbit] - Route: Oral; Dose: 3620 mg/kg</td>
</tr>
<tr>
<td>Special Remarks on other Toxic Effects on Humans</td>
<td>May cause adverse reproductive effects (effects on newborn (reduced weight gain) and birth defects (developmental abnormalities (central nervous system, hepatobiliary system) based on animal data (from Registery of Toxic Effects of Chemical Substances (RTECS). May affect genetic material (mutagenic)</td>
</tr>
<tr>
<td>Special Remarks on other Toxic Effects on Humans</td>
<td>Acute Potential Health Effects:</td>
</tr>
<tr>
<td>Special Remarks on other Toxic Effects on Humans</td>
<td>Skin: May cause mild skin irritation. It may be absorbed through the skin. If absorbed through the skin it may affect behavior/central nervous system (somnolence, ataxia, coma)</td>
</tr>
<tr>
<td>Special Remarks on other Toxic Effects on Humans</td>
<td>Eyes: Causes moderate eye irritation.</td>
</tr>
<tr>
<td>Special Remarks on other Toxic Effects on Humans</td>
<td>Inhalation: May cause respiratory tract irritation. It may affect the liver. There is a low hazard for usual industrial handling.</td>
</tr>
<tr>
<td>Special Remarks on other Toxic Effects on Humans</td>
<td>Ingestion: May cause digestive (gastrointestinal) tract irritation with nausea, vomiting and diarrhea. It may cause ptosis (drooping of the eyelids). May affect the brain, behavior/central nervous system (ataxia, coma, somnolence, altered sleep, excitement), peripheral nervous system (flaccid paralysis without anesthesia), liver, blood, urinary system.</td>
</tr>
<tr>
<td>Special Remarks on other Toxic Effects on Humans</td>
<td>Chronic Potential Health Effects:</td>
</tr>
<tr>
<td>Special Remarks on other Toxic Effects on Humans</td>
<td>Chronic exposure may affect the kidneys, liver, and blood.</td>
</tr>
</tbody>
</table>

**Section 12. Ecological Information**

<table>
<thead>
<tr>
<th>Ecotoxicity</th>
<th>Details</th>
</tr>
</thead>
<tbody>
<tr>
<td>Ecotoxicity in water (LC50):</td>
<td>11400-15700 mg/l 96 hours [Rainbow Trout (oncorhyncus mykiss)]. 11600-16700 mg/l 96 hours [Fathead Minnow (Pimephales promelas)]. 19100-23900 mg/l 96 hours [Blue Gill (Lepomis macrochirus)]. 3940-4670 mg/l 48 hours [Daphnia (Daphnia magna (Water Flea))].</td>
</tr>
<tr>
<td>BOD5 and COD</td>
<td>Not available.</td>
</tr>
<tr>
<td>Products of Biodegradation</td>
<td>Possibly hazardous short term degradation products are not likely. However, long term degradation products may arise.</td>
</tr>
<tr>
<td>Toxicity of the Products of Biodegradation</td>
<td>Not available.</td>
</tr>
</tbody>
</table>

*Continued on Next Page*
Section 13. Disposal Considerations

Waste Disposal
Consult with local and regional (state) authorities (waste regulators). Waste must be disposed of in accordance with federal, state and local environmental control regulations.

Section 14. Transport Information

DOT Classification
Not a DOT controlled material (United States).

Identification
Not applicable.

Special Provisions for Transport
Not applicable.

DOT (Pictograms)

Section 15. Other Regulatory Information and Pictograms

Federal and State Regulations
Pennsylvania RTK: 2-(2-Ethoxyethoxy)ethanol
Minnesota: 2-(2-Ethoxyethoxy)ethanol
New Jersey: 2-(2-Ethoxyethoxy)ethanol
New Jersey spill list: 2-(2-Ethoxyethoxy)ethanol
Louisiana spill reporting: 2-(2-Ethoxyethoxy)ethanol
TSCA 8(b) inventory: 2-(2-Ethoxyethoxy)ethanol
TSCA 8(d) H and S data reporting: 2-(2-Ethoxyethoxy)ethanol: Effective: 4/13/1989; Sunset: 12/19/1995

California Proposition 65
Warnings
California prop. 65: This product contains the following ingredients for which the State of California has found to cause cancer which would require a warning under the statute: No products were found.
California prop. 65: This product contains the following ingredients for which the State of California has found to cause birth defects which would require a warning under the statute: No products were found.

Other Regulations
EINECS: This product is on the European Inventory of Existing Commercial Chemical Substances (EINECS No. 203-919-7).
Canada: Listed on Canadian Domestic Substance List (DSL).
China: Listed on National Inventory.
Japan: Listed on National Inventory (ENCS).
Korea: Listed on National Inventory (KECI).
Philippines: Listed on National Inventory (PICCS).
Australia: Listed on AICS.

Other Classifications
WHMIS (Canada)
CLASS B-3: Combustible liquid with a flash point between 37.8°C (100°F) and 93.3°C (200°F).
CLASS D-2B: Material causing other toxic effects (TOXIC).

DSCL (EEC)
R36- Irritating to eyes.
S26: In case of contact with eyes, rinse immediately with plenty of water and seek medical advice.
S39: Wear eye/face protection.

HMIS (U.S.A.)
Health Hazard 2
Fire Hazard 2
Reactivity 0
Personal Protection

WHMIS (Canada) (Pictograms)

Continued on Next Page
**Protective Equipment**

- Gloves.
- Lab coat.
- Vapor respirator. Be sure to use an approved/certified respirator or equivalent. Wear appropriate respirator when ventilation is inadequate.
- Splash goggles.

**Section 16. Other Information**

<table>
<thead>
<tr>
<th>MSDS Code</th>
<th>E3230</th>
</tr>
</thead>
</table>

**References**

Not available.

**Other Special Considerations**

Not available.

Validated by Sonia Owen on 4/12/2013.

Verified by Sonia Owen.

Printed 4/12/2013.

**CALL (310) 516-8000**

**Notice to Reader**

All chemicals may pose unknown hazards and should be used with caution. This Material Safety Data Sheet (MSDS) applies only to the material as packaged. If this product is combined with other materials, deteriorates, or becomes contaminated, it may pose hazards not mentioned in this MSDS. It shall be the user's responsibility to develop proper methods of handling and personal protection based on the actual conditions of use. While this MSDS is based on technical data judged to be reliable, Spectrum Quality Products, Inc. assumes no responsibility for the completeness or accuracy of the information contained herein.