Material Safety Data Sheet
Crude Glycerin

Section 1: Product And Company Identification

Product Name: Crude Glycerin
Chemical Name: Mixture Of Glycerin And Fatty Acid Esters
Company Identification: Tradeasia International Pte Ltd
Address: 133 Cecil Street # 12-03 Keck Seng Tower, Singapore
Tel: +65-6227 6365
Fax: +65-6225 6286
Email: contact@chemtradeasia.com

Section 2: Composition/Information On Ingredients

<table>
<thead>
<tr>
<th>Name</th>
<th>CAS #</th>
<th>% by Weight</th>
</tr>
</thead>
<tbody>
<tr>
<td>Glycerin</td>
<td>56-81-5</td>
<td>75</td>
</tr>
<tr>
<td>Fatty acid esters</td>
<td>67701-03-5</td>
<td>25</td>
</tr>
</tbody>
</table>

Section 3: Hazards Identification

Eyes: May cause irritation characterized by burning sensation, redness, tearing, or inflammation.
Skin: May cause skin irritation.
Ingestion: May cause irritation of digestive tract. May cause headache.
Inhalation: May cause respiratory tract irritation.

Section 4: First Aid Measures

Eyes: Flush eyes gently with water for at least 15 minutes while holding eyelids apart. If irritation develops, seek medical attention.
Skin: Remove contaminated clothing and shoes and flush affected area with water for at least 15 minutes. If irritation persists seek medical attention. Wash clothing and before reuse.
Ingestion: Never give anything by mouth to an unconscious person. Do NOT induce vomiting. Seek medical attention if irritation or symptoms occur.

Inhalation: Remove from exposure to fresh air immediately. If not breathing, give artificial respiration. If breathing is difficult, give oxygen. Seek medical attention if cough or other symptoms appear.

Section 5: Fire Fighting Measures

Flash Point: >62°C (143°F)

Extinguishing Media: Use water spray to cool containers exposed to fire. Use agent most appropriate to extinguish fire usually dry chemical or carbon dioxide.

General Fire Fighting Procedures: As in any fire, wear a self-contained breathing apparatus in pressure-demand, MSHA/NIOSH (approved or equivalent) and full protective gear. During a fire, irritating and highly toxic gases may be generated by thermal decomposition or combustion. Use water spray to keep fire-exposed containers cool. Vapors may be heavier than air and may spread along the ground and collect in low or confined areas.

Section 6: Accidental Release Measures

Spills: Absorb spill with inert material (e.g. clay, vermiculite, sand or earth) then place in suitable container. Avoid runoff into storm sewers and ditches which lead to waterways. Clean up spills immediately, observing precautions in the Protective Equipment section. Remove all sources of ignition. Provide ventilation.

Waste Disposal Method: Dispose of in accordance with local, state and federal regulations.

Section 7: Handling And Storage

Handling And Storage: Wash thoroughly after handling. Wash hands before eating. Use with adequate ventilation. Avoid contact with eyes, skin and clothing. Keep container tightly closed. Avoid ingestion and inhalation. Wash clothing before reuse. Store in tightly closed container. Store in a cool, dry, well-ventilated area away from incompatible substances.

Other Precautions: No special precautions indicated.
Section 8: Exposure Controls And Personal Protection

**Eye Protection**: Wear appropriate protective eyeglasses or chemical safety goggles as described by OSHA’s eye and face protection regulations in 29 CFR 1910.133.

**Protective Gloves**: Wear appropriate protective gloves to prevent skin exposure.

**Respiratory Protection**: Follow the OSHA respirator regulations in 29 CFR 1910.133.

**Ventilation**: Always store and use all chemicals in well ventilated areas.

**Other Protective Equipment**: Provide eye wash and safety shower stations.

Section 9: Physical And Chemical Properties

**Boiling Point**: >62°C

**Specific Gravity**: Approx. 1.2 @ 20°C

**Evaporation Rate**: Not available

**Vapor Density**: .0025 mm Hg @ 5°C

**Ph Of Neat Solution**: Approx. 10

**Appearance/Odor**: brown; musty odor

Section 10: Stability And Reactivity

**Stability**: Stable.

**Hazardous Polymerization**: Will not occur.

**Incompatibility (Materials/Conditions To Avoid)**: Reactive with strong oxidizers. Acetic anhydride, potassium permanganate, strong acids, caustics (e.g. ammonia, ammonium hydroxide, calcium hydroxide, potassium hydroxide, sodium hydroxide), isocyanates, oxidizing agents, aliphatic amines. Avoid ignition sources, excess heat.

**Hazardous Decomposition Products**: Carbon monoxide, irritating and toxic fumes and gases, carbon dioxide.

Section 11: Toxicological Information

**LD50/LC50**:

Draize test, rabbit, eye: 126 mg Mild; Draize test, rabbit, eye: 500 mg/24H Mild; Draize test, rabbit, skin: 500 mg/24H Mild

Inhalation, rat: LC50= >570 mg/m3/1H
Oral, mouse, LD50 = 4090 mg/kg; Oral, rabbit: LD50 = 27 gm/kg; Oral, rat: LD50 = 12600 mg/kg
Skin, rabbit: LD50 = >10 gm/kg

**Carcinogenicity:**
Not listed by ACGIH, IARC, NIOSH, NTP OR OSHA

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**Section 12: Ecological Information**
No information available.

**Section 13: Disposal Considerations**
Dispose of in accordance with federal, state, and local environmental laws.

**Section 14: Transport Information**
This product is not regulated by the U.S. Department of Transportation (DOT) and is therefore not considered a hazardous material/substance.

**Section 15: Regulatory Information**

**Comprehensive Environmental Response, Compensation and Liability Act of 1980 (CERCLA):**
Requires notification to the National Response Center of releases of quantities of Hazardous Substances equal to or greater than the reportable quantities (RQ) in 40 CFR 302.4.

**Superfund Amendments and Reauthorization Act of 1986 (SARA) Title III:**
Requires emergency planning based on Threshold Planning Quantities (TPQs) and release reporting based on Reportable Quantities (RQ) in 40 CFR 355 (SARA 302, 304, 311 and 312) Components present in this product at a level which could require reporting under the statute are: NONE

**Toxic Substances Control Act (TSCA) Status:**
All components of this product are on the TSCA inventory

**EPA Priority Pollutants:** NONE

**RCRA Hazard Class:** If discarded - non-hazardous.
Section 16: Other Information

The information contained herein is accurate to the best of our knowledge. No liability can be accepted arising out of the use, application or processing of this product. It is the User's responsibility to determine safe conditions for the use of this material.