



## IOI OLEOCHEMICALS

# MATERIAL SAFETY DATA SHEET

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<b>Group of Chemicals:</b>	Glycerine	MSDS no :016
<b>Commercial Name :</b>	Refined Glycerine	Date issue : 18 December 2010
<b>Common Name/Other Name:</b>	Glycerine 99%/1,2,3-Propanetriol	

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### **SECTION 1. IDENTIFICATION OF THE SUBSTANCE OR MIXTURE AND OF SUPPLIER**

**Product name:**

Glycerine 99.5%, Glycerine 99.7% (USP/BP)

**Trade name**

Glycerine 99.5%, Glycerine 99.7% (USP/BP)

**Recommended uses:**

Raw material for manufacturing oleochemical derivatives for Pharmaceutical, food, cosmetic and industrial use.

**Supplier name:**

Acidchem International Sdn Bhd.  
2411 Lorong Perusahaan Satu,  
Prai Industrial Complex.  
13600. Prai.  
Penang, Malaysia

Pan Century Oleochemicals Sdn Bhd  
Lot 231, Jalan Pekeliling,  
Pasir Gudang Industrial Estate,  
81700 Pasir Gudang.  
Johor, Malaysia

**Emergency contact:**

Acidchem International Sdn Bhd  
+604 3907818

Pan Century Oleochemicals Sdn Bhd  
+607-2512298

**Contact Person :**

- 1) Safety and Health Manager / Officer
- 2) Quality Control Manager / Chemist

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### **SECTION 2. HAZARDS IDENTIFICATION**

Product is non-hazardous

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### **SECTION 3. COMPOSITION/INFORMATION ON INGREDIENTS**

**General chemical description:**

Glycerine , 1,2,3 –Propanetriol , formula  $C_3 H_8 O_3$

**CAS-number:**  
56-81-5

**EINECS- number:**  
200-289-5

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### **SECTION 4. FIRST-AID MEASURES**

**When inhaled:**

Remove to fresh air. If suffocation is serious take to a doctor

**When in contact with skin:**

Use gloves

Absorb water from skin/body if contacted for too long

Remove contaminated clothing, wash skin with water and soap

**When in contact with eyes:**

Use face shield

Flush with water, take to a doctor if necessary

**When ingested:**

Diarrhoea, headache, nausea

Rinse mouth, drink plenty of water, see physician

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### **SECTION 5. FIRE-FIGHTING MEASURES**

**Suitable fire-fighting agents:**

Use dry powder, foam, carbon dioxide for extinguishing

**Extinguishing media which must not be used for safety reasons:**

None

**Specific hazards in the event of fire:**

Combustible, keep away from open flame, no smoking



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**Protection of fire-fighters (use of protective equipment, etc.):**

Use self-contained breathing equipment if in confined place

### **SECTION 6. ACCIDENT RELEASE MEASURES**

**Personal precautions, protective equipment and emergency procedures:**

Use gloves, face shield

**Environmental precautions:**

Do not allow to flow into drainage system.

**Methods and materials for containment and cleaning up:**

Collect leakage in sealable containers, soak up with sand or other inert absorbent and remove to safe place. Flush away remainder with water.

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### **SECTION 7. HANDLING AND STORAGE**

**Precautions for safe handling:**

Use gloves and wear goggles when handling.

**Conditions for safe storage, including any incompatibilities:**

Keep in a cool and dry place, avoid extreme heat and cold.

Avoid direct fire. Keep separate from oxidants.

Store in clean, dry, preferably stainless steel vessels.

In bulk, store at ambient temperature. For pumping, heat up to above 60 deg C.

Temperature higher than necessary degrades quality at rate dependent on time and temperature of exposure. Exposure to ultraviolet light, especially sunlight must be minimised to prevent quality loss.

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### **SECTION 8. EXPOSURE CONTROLS /PERSONAL PROTECTION**

**Control parameters:**

None

**Appropriate engineering controls:**

No special measures required.

**Individual protection measures, such as personal protective equipment (PPE):**

Immediately remove soiled or soaked clothing.

Hand protection : suitable protective gloves.

Eye protection : protective goggles.



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Body protection : suitable protective clothing.

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### SECTION 9. PHYSICAL AND CHEMICAL PROPERTIES

Appearance	Colourless, hygroscopic & viscous liquid. (become very viscous at temperature -10 deg C and below)
Odour	Slight Milky to Odourless
Odour threshold	Not available
pH	Not available
Melting point / freezing point	18 - 22
Initial boiling point and boiling range	290 - 295 °C @ 760mm Hg
Flash point	>180 °C
Evaporation rate	Not applicable
Flammability (solid, gas)	Not applicable
Upper/lower flammability or explosive limits	Not available
Vapour pressure	0.0025 mbar @ 50°C
Vapour density	3.2 (relative, air=1)
Relative density	1.0 @ 20 °C at saturated mixture vapour/air (air=1)
Solubility	Infinite g/100 ml in water @ 20 °C
Partition coefficient: n-octanol/water	-2.6
Auto-ignition temperature	400 °C (Cleveland closed cup)
Decomposition temperature	Not available
Viscosity	Not available
Density @ 20 °C	1.2635 – 1.2651 g/ml
Relative molecular mass	92.1

### SECTION 10. STABILITY AND REACTIVITY

**Reactivity:**

Vapour mixes readily with air.

**Chemical stability:**

Able to polymerise above 149 deg C. Decomposes when heated above 290 deg C

**Possibility of hazardous reactions:**

None known

**Conditions to avoid:**

None known



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**Incompatible materials:**

Reacts violently with strong oxidants

**Hazardous decomposition products:**

Low toxicity and not considered hazardous to human beings

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### SECTION 11. TOXICOLOGICAL INFORMATION

**Acute toxicity:**

LD50 (Oral, rat) = >12600 mg/kg

LC50 (Inhalation, rat) = >570mg/m<sup>3</sup>/1Hr

**Skin corrosion/irritation:**

LD50 rabbit >10 gm/kg, not irritating (Draize test)

**Serious eye damage/irritation:**

Not irritating (OECD 405)

**Respiratory or skin sensitization:**

No sensitization reactions.

**Germ cell mutagenicity:**

Not mutagenic (Ames test)

**Carcinogenicity:**

Not available

**Reproductive toxicity:**

Not available

**STOST-single / repeated exposure:**

Not available

**Aspiration hazard:**

Not available

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### SECTION 12. ECOLOGICAL INFORMATION

**Aquatic Toxicity:**



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Acute fish toxicity: LC 50 > 10000 mg product/l.  
Carp, LC50: >1000mg/L (48h);

Acute bacteria toxicity: EC 50 > 10000 mg product/l.  
Daphnia magna, EC50: >1000mg/L (3h)

**Persistence and degradability:**

Readily biodegradable, OECD 301

**Bioaccumulative potential:**

Log P octanol /water = -2.6

**Mobility in soil:**

Not available

**Other adverse effect:**

Not available

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### **SECTION 13. DISPOSAL CONSIDERATIONS**

**Disposal method:**

Waste incineration with the approval of the responsible local authority.

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### **SECTION 14. TRANSPORT INFORMATION**

**UN Number:**

None

**UN Proper Shipping Name:**

None

**Transport Hazard Class:**

Not hazardous according to RID/ADR, GGVS/GGVE, ADN, IMDG, ICAO-TI/IATA-DGR.

**Packing Group:**

None

**Environmental Hazard:**

Marine pollutant (Yes/No): No



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MARPOL Annex II: Category Z

### **SECTION 15. REGULATORY INFORMATION**

**Classification and labelling according to GHS:**

None

**Classification and labelling according to EC:**

None

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### **SECTION 16. OTHER INFORMATION**

Always work safely around open hatches on bulk tanks. The low density makes flotation difficult for immersed person.

#### **Disclaimer**

This Material Safety Data Sheet does not constitute any warranty or guarantee as to the quality, properties, condition or otherwise of the product. It has been prepared from the best knowledge available to us and we shall not be liable for any insufficiency or inaccuracy in such information in any case whatsoever.