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### SAFETY DATA SHEET

According to 1907/2006/EC (REACH), 1272/2008/EC (CLP), OSHA GHS

## 1. Chemical Product and Company Identification

a. Product name : Refined Glycerine

b. Product code : WILFARIN USP/ EP / BP 995 / 997

c. CAS No. : 56-81-5 d. EC no. : 200-289-5

e. Recommended use : Raw material for manufacturing oleochemical derivatives

f. Manufacturing Site : 1. Natural Oleochemical Sdn. Bhd.

PLO 428. Jalan Besi Satu, Pasir Gudang Industrial Estate,

81700 Pasir Gudang, Malaysia.

2. Wilmar Nabati Indonesia

Jl. Kapten Darmo Sugondo No. 56, Gresik-61124, East Java,

Indonesia

3. Wilmar Nabati Indonesia Oleochemical

Jl. Pulau Sumatera, Kawasan Industri Dumai, Kelurahan Pelintung, Medang Kampai Dumai-28816, Riau, Indonesia

4. Wilmar Bioenergi Indonesia

Jl. P. Belitung, Kawasan Industri Dumai, Kelurahan

Pelintung, Medang Kampai Dumai-28882, Riau, Indonesia

5. Adani Wilmar Limited

Village Dhrub Navinal Island, Adani Port Road Mundra – Kutch

(Gujarat), India.

Emergency contact : Phone: (800) 658-7716, Fax: (877) 209-1556, ChemTel: 1 800-255-3924

2. Hazards Identification

a. Hazard classification:

Classification according to Regulation (EC) No 1272/2008

The substance is not classified as hazardous according to the CLP regulation.

Classification according to Directive 67/548/EEC or Directive 1999/45/EC Not applicable.

**Information concerning particular hazards for human and environment** Not applicable.

b. Label elements including precautionary statements

PictogramsSignal wordsNo Symbol RequiredNon Hazardous



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• WHMIS-symbols : Not hazardous under WHMIS.

• NFPA ratings (scale 0 - 4) :



• HIMS-ratings (scale 0 - 4) :



HMIS Long Term Health Hazard Substances

Substance is not listed.

Other hazards

Results of PBT and vPvB assessment

**PBT:** Not applicable. **vPvB:** Not applicable.

• Precautionary statements :

Wear protective gloves, protective clothing, eye protection, face protection.

If skin irritation occurs: Get medical advice and attention.

Wash hands thoroughly after handling.

Take off contaminated clothing and wash before reuse.

c. Other hazards which do not result in classification (e.g. dust explosion hazard):

Depending on practical size and concentration explosive dust/air mixture can be formed.

# 3. Composition/Information on Ingredients

Chemical Name	Synonyms	Formula	CAS No	EC No
1,2,3-Propanetriol	Glycerine	C <sub>3</sub> H <sub>8</sub> O <sub>3</sub>	56-81-5	200-289-5
Aqua	Water	H <sub>2</sub> O	7732-18-5	231-791-2

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#### 4. First-aid Measures

#### a. Eye contact

Immediately flood the eye with plenty of water for at least 15 minutes, holding the eye open. Obtain medical attention urgently.

#### b. Skin contact

Wash skin thoroughly with soap and water. Remove contaminated clothing as washing proceeds.

#### c. Inhalation

Remove from exposure. Keep warm and at rest. Seek medical Attention if you feel unwell.

#### d. Ingestion

Wash out mouth with water. Do not induce vomiting. Keep warm and at rest. Seek medical.

# e. Most important acute and delayed symptoms/effects

None

### 5. Fire Fighting Measures

# a. Suitable (and unsuitable) extinguishing media

Use dry powder, water spray, foam, carbon dioxide for extinguishing. Avoid using large quantities of water.

- b. Specific hazards arising from the chemical (e.g. hazardous combustion products)
  Irritating and highly toxic gases may be generated by thermal decomposition or combustion.
- c. Special protective equipment and precautions for fire-fighters Wear a self-containing breathing apparatus and full protective gear.

# 6. Accidental Release Measures

#### a. Measures required for personal protection and protective equipment

Use rubber gloves, air respirator, goggles, safety shoes and lab coat. Remove contaminated clothing and wash hands between breaks and at end of duty hours. Locate eye washes and emergency showers in all work and storage areas.

#### b. Measures required for environment protection

Not available

#### c. Clean-up and removal method

Remove all potential ignition sources. Contain spilled material. Cover with an inert or non-combustible inorganic absorbent material, sweep up and remove to an approved disposal container. Clean with hot water & detergents. Observe state, federal & local disposal regulations.

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#### 7. Handling and Storage

#### a. Precautions for safe handling

Use in well ventilated areas. Avoid creating dust. Avoid inhaling dust. Avoid contact with skin eyes and clothes. Wear personal protective equipment (see section 8). Wear respiratory protection. Material can be slippery underfoot.

b. Conditions for safe storage (including incompatibilities)

Keep away from drains, soils, surface & ground waters. Store in tightly closed original container when not in use. Storage area should be cool and dry. Keep away from ignition sources & naked flames. Store according to hazard classification.

c. **Recommended handling temperature**: Refer to Heating Instruction

# 8. Exposure Controls and Personal Protective Equipment

 Exposure limits of the chemical substance, biological exposure limits and etc. Ingredients with limit values that require monitoring at the workplace: 56-81-5 glycerol

PEL (USA) 15\* 5\*\* mg/m<sup>3</sup>

\*total dust \*\*respirable fraction

TLV (USA) 10\* ppm

\*Mist

EL (Canada) 10\* 3\*\* mg/m³

\*mist; \*\*mist, resirable

EV (Canada) 10 mg/m<sup>3</sup>

# b. Appropriate engineering controls

Use normal precautionary measures for handling chemicals.

c. Personal protective equipment

Protection of respiratory systemEye protection: Wear air respirator: Wear goggles

• Hand protection : Wear protective gloves

Body protection : Wear protective clothing, safety shoes

Hand protection : Wear protective gloves

• Body protection : Wear protective clothing, safety shoes

#### 9. Physical and Chemical Properties

a. Appearance (physical state, color, etc.) : Colourless Hygroscopic viscous liquid

b. Melting point : about 18 °C

c. Boiling point : 290 - 295 °C @ 760mm Hg

d. Flash point : >180 °C

e. Density : about 1.24 g/ml at 45 °C

f. Particle Size Distribution : Not applicable g. Vapor Pressure : 0.0025 mbar @ 50°C

h. Partition coefficient : n-octanol/water : Not available

i. Water Solubility : Infinite g/100 ml in water @ 20 °C

j. Surface Tension : Not available

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k. Auto Flammability : Not available Flammability : Not available ١. m. Explosiveness : Not available Oxidizing Properties : Not available n. Stability in organic solvent Ω : Not available p. Dissociation constant : Not available Viscosity : Not available q.

рΗ : 6 - 7 r.

### 10. Stability and Reactivity

- a. Chemical stability: Able to polymerise above 149 deg C. Decomposes when heated above 290 deg C.
- b. Possibility of hazardous reactions: Not available
- c. Conditions to avoid (e.g. static discharge, shock, vibration, etc.): Strong oxidizing agents
- d. Incompatible materials: Strong acid
- e. Hazardous decomposition products Thermal decomposition or burning may produce carbon monoxide and/or Carbon Dioxide

#### 11. Toxicological Information

#### a. Information on toxicological effects

**Acute toxicity** 

LD50 (Oral, rat) = >12600 mg/kgLC50(Inhalation, rat) = >570mg/m3/1Hr

Skin corrosion/irritation : Not available Serious eye damage/eye irritation : Not available Respiratory or skin sensitization : Not available Germ cell mutagenaticity : Not available Carcinogenicity : Not available Reproductive toxicity : Not available Specific target organ toxicity : Not available

(single exposure)

Specific target organ toxicity : Not available

(repeated exposure)

**Aspiration Hazard** : Not available

Potential health effects

Inhalation : Not available Ingestion : Not available Skin : Not available **Eves** : Not available Signs and symptoms of exposure:

To the best of our knowledge, the chemical, physical, and toxicological properties have not

been thoroughly investigated

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# 12. Effects on the Environment

a. Toxicity

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)

b. Persistence and degradability : Readily biodegradable

: Not available c. Bioaccumulative potential d. Mobility in soil : Not available e. Other adverse effects : Not available

#### 13. Disposal Considerations

a. Disposal methods: Waste may be disposed of by a licensed waste disposal company. Follow local, state and federal disposal regulations.

b. Precautions for disposal (including the disposal method of contaminated containers and packages).

Product and packaging should be disposed of in accordance with the local, state and federal regulations.

#### 14. Transport Information

a. UN number

DOT, ADR, ADN, IMDG, IATA Not Regulated

b. UN proper shipping name

DOT, ADR, ADN, IMDG, IATA Not Regulated

c. Transport hazard classes

DOT, ADR, ADN, IMDG, IATA

Class Not Regulated

d. Packing group, if applicable: Not available

e. Transport in bulk according to Annex II of

MARPOL73/78 and the IBC Code Not Applicable

UN "Model Regulation":

Enviromental hazard

Marine pollutant (yes/no) : No

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#### 15. Regulatory Information

Safety, health and environmental regulations/legislation specific for the substance or mixture United States (USA)

**SARA** 

Section 355 (extremely hazardous substances):

Substance is not listed.

Section 313 (Specific toxic chemical listings):

Substance is not listed.

TSCA (Toxic Substances Control Act):

Substance is listed.

Proposition 65 (California):

Chemicals known to cause cancer:

Substance is not listed.

Chemicals known to cause reproductive toxicity for females:

Substance is not listed.

Chemicals known to cause reproductive toxicity for males:

Substance is not listed.

Chemicals known to cause developmental toxicity:

Substance is not listed.

**Carcinogenic Categories** 

**EPA (Environmental Protection Agency)** 

Substance is not listed.

IARC (International Agency for Research on Cancer)

Substance is not listed.

TLV (Threshold Limit Value established by ACGIH)

Substance is not listed.

NIOSH-Ca (National Institute for Occupational Safety and Health)

Substance is not listed.

Canada

**Canadian Domestic Substances List (DSL)** 

Substance is listed.

Canadian Ingredient Disclosure list (limit 0.1%)

Substance is not listed.

Canadian Ingredient Disclosure list (limit 1%)

Substance is not listed.

**National regulations:** 

Other regulations, limitations and prohibitive regulations

Substances of very high concern (SVHC) according to REACH, Article 57

Substance is not listed.

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

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#### 16. Other Information

This information presented here is believed to be accurate and pertains only to the product when stored in a sealed condition, as prescribed above. The information is to our best present knowledge correct and complete and is given in good faith but without warranty. It remains the user's own responsibility to make sure that the information is appropriate and complete for his special use of this product. Manufacturer shall in no way be liable for any claims, losses and damages of any third party, or for lost profits, or any special, indirect, incidental, consequential or exemplary damages, howsoever arising, from the use of this product.