

UNICO TEC (PTY) LTD

COOLANT CONCENTRATE	SAFETY DATA SHEET	Date of issue	03/02/2017
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IDENTIFICATION OF THE SUBSTANCE/PREPARATION AND COMPANY DESCRIPTION

Trade name	: Engman's Super Antifreeze
Product name	: GLYSANTIN G48 blue-green (Glystantin G 48-24)
Product type	: Coolant concentrate
Supplier	: Unico Manufacturing Co. (PE) (Pty) Ltd.
Address	: 6 Celebes Road, Island View, Durban, South Africa
Contact number	: +27 (31) 466 1541
Emergency contacts	: Vishen Kanhai +27(64) 752 2197 / +27(82) 340 3521

Other means of identification /Use : engine coolant

2. Hazard identification

Classification of the substance and mixture:

Acute toxicity: Cat. 4 (oral)

Specific target organ toxicity — repeated exposure (Kidney): Cat. 2

Label elements and precautionary statement:

Pictogram:



Signal Word:

Warning

Hazard Statement:

H302

Harmful if swallowed.

H373

May cause damage to organs (Kidney) through prolonged or repeated exposure.

Precautionary Statements (Prevention):

P260

Do not breathe dust/gas/mist/vapours.

P270

Do not eat, drink or smoke when using this product.

P264

Wash contaminated body parts thoroughly after handling.

Precautionary Statements (Response):

P314

Get medical advice/attention if you feel unwell.

P301 + P312

IF SWALLOWED: Call a POISON CENTER or doctor/physician if you feel unwell.

P330

Rinse mouth

Precautionary Statements (Disposal):

P501

Dispose of contents and container to hazardous or special waste collection point.

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Other hazards which do not result in classification:

No specific dangers known, if the regulations/notes for storage and handling are considered. The product does not contain a substance fulfilling the PBT (persistent/bioaccumulative/toxic) criteria or the vPvB (very persistent/very bioaccumulative) criteria.

3. Composition/information on ingredients

State of matter: liquid

Chemical nature

Substance nature: mixture

ethyleneglycol

inhibitors

Hazardous ingredients

ethyleneglycol

Other means of identification: /

Content (W/W): > 90 %
CAS Number: 107-21-1

Acute Tox.: Cat. 4 (oral)
STOT RE (Kidney): Cat. 2

2-ethylhexanoic acid, sodium salt

Other means of identification: /

Content (W/W): > 2 % - < 3 %
CAS Number: 19766-89-3

Acute Tox.: Cat. 5 (oral)
Repr.: Cat. 2 (unborn child)

Decanedioic acid, disodium salt

Other means of identification: /

Content (W/W): >= 1 % - < 2 %
CAS Number: 17265-14-4

Eye Dam./Irrit.: Cat. 2A
Aquatic Acute: Cat. 3

Boron sodium oxide (B₄Na₂O₇)

Other means of identification: /

Content (W/W): >= 0.3 % - <= 1 %
CAS Number: 1330-43-4

Eye Dam./Irrit.: Cat. 2A
Repr.: Cat. 1B (fertility)
Repr.: Cat. 1B (unborn child)

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4. First-Aid Measures

General advice:

Immediately remove contaminated clothing.

If inhaled:

Keep patient calm, remove to fresh air, seek medical attention.

On skin contact:

Wash thoroughly with soap and water

On contact with eyes:

Wash affected eyes for at least 15 minutes under running water with eyelids held open.

On ingestion:

Immediately rinse mouth and then drink 200-300 ml of water, seek medical attention. Administer 50 ml of pure ethanol in a drinkable concentration.

Note to physician:

Symptoms: Information, i.e. additional information on symptoms and effects may be included in the GHS labeling phrases available in Section 2 and in the Toxicological assessments available in Section 11.

(Further) symptoms and / or effects are not known so far

Treatment: Symptomatic treatment (decontamination, vital functions).

Antidote: Administer ethanol.

5. Fire-Fighting Measures

Suitable extinguishing media:

water spray, dry powder, alcohol-resistant foam, carbon dioxide

Specific hazards:

harmful vapours

Evolution of fumes/fog. The substances/groups of substances mentioned can be released in case of fire.

Special protective equipment:

Wear a self-contained breathing apparatus.

Special extinguishing Procedure:

The degree of risk is governed by the burning substance and the fire conditions.

Contaminated extinguishing water must be disposed of in accordance with official regulations.

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6. Accidental Release Measures

Personal precautions:

Use personal protective clothing.

Environmental precautions:

Contain contaminated water/firefighting water. Do not discharge into drains/surface waters/groundwater.

Methods for cleaning up or taking up:

For large amounts: Pump off product.

For residues: Pick up with suitable absorbent material. Dispose of absorbed material in accordance with regulations.

Additional information: High risk of slipping due to leakage/spillage of product.

7. Handling and Storage

Handling

Ensure thorough ventilation of stores and work areas. Shut containers immediately after taking product because product takes up the humidity of air.

Protection against fire and explosion:

No special precautions necessary.

Storage

Unsuitable materials for containers: Galvanized carbon steel (Zinc), Paper/Fibreboard

Further information on storage conditions: Containers should be stored tightly sealed in a dry place.

Storage in galvanized containers is not recommended.

8. Exposure controls and personal protection

Components with occupational exposure limits

ethyleneglycol, 107-21-1;

TWA value 25 ppm (ACGIHTLV), Vapor fraction

STEL value 50 ppm (ACGIHTLV), Vapor fraction

STEL value 10 mg/m³ (ACGIHTLV), Aerosol, inhalable.

TWA value 10 mg/m³ (OEL (TW)), Mist

CLV 127 mg/m³ ; 50 ppm (OEL (TW)), vapour

STEL value 15 mg/m³ (OEL (TW)), Mist

Personal protective equipment

Respiratory protection:

Suitable respiratory protection for higher concentrations or long-term effect: Combination filter for gases/vapours of organic compounds and solid and liquid particles (f.e. EN 14387 Type A-P2)

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Hand protection:

Chemical resistant protective gloves (EN ISO 374-1)

Suitable materials also with prolonged, direct contact (Recommended: Protective index 6, corresponding > 480 minutes of permeation time according to EN ISO 374-1): nitrile rubber (NBR) - 0.4 mm coating thickness

Manufacturer's directions for use should be observed because of great diversity of types.

Eye protection:

Safety glasses with side-shields (frame goggles) (e.g. EN 166)

Body protection:

Body protection must be chosen depending on activity and possible exposure, e.g. apron, protecting boots, chemical-protection suit (according to EN 14605 in case of splashes or EN ISO 13982 in case of dust).

General safety and hygiene measures:

Do not inhale gases/vapours/aerosols. Handle in accordance with good industrial hygiene and safety practice. Wearing of closed work clothing is required additionally to the stated personal protection equipment. No eating, drinking, smoking or tobacco use at the place of work.

9. Physical and Chemical Properties

Form:	liquid
Colour:	blue-green
Odour:	product specific
Odour threshold:	not determined

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pH value:	7.1 - 7.3	
solidification temperature:	< -18 °C	(DIN ISO 3016)
Boiling point:	>= 165 °C	(ASTM D1120)
Flash point:	> 126.5 °C	(ISO 2719)
Evaporation rate:	not determined	
Flammability (solid/gas):	hardly combustible	(derived from flash point)
Lower explosion limit:	For liquids not relevant for classification and labelling., The lower explosion point may be 5 - 15 °C below the flash point.	
Upper explosion limit:	For liquids not relevant for classification and labelling.	
Ignition temperature:	> 440 °C	(DIN 51794)
Thermal decomposition:	No decomposition if correctly stored and handled.	
Self ignition:	not self-igniting	
Explosion hazard:	not explosive	
Fire promoting properties:	not fire-propagating	
Vapour pressure:	0.2 hPa (20 °C)	
Density:	1.122 g/cm3 (20 °C)	(DIN 51757)
Solubility in water:	soluble, The product has not been tested. The statement has been derived from the properties of the individual components.	
Miscibility with water:	miscible in all proportions	
Hygroscopy:	hygroscopic	
Solubility (qualitative) solvent(s):	polar solvents soluble	
Partitioning coefficient n-octanol/water (log Pow):	Study scientifically not justified.	
Viscosity, kinematic:	20 - 30 mm2/s (20 °C)	(DIN 51562)

Other Information:

If necessary, information on other physical and chemical parameters is indicated in this section.

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10. Stability and Reactivity

Conditions to avoid:
No conditions to avoid anticipated.

Thermal decomposition: No decomposition if correctly stored and handled.

Substances to avoid:
strong oxidizing agents

Corrosion to metals: No corrosive effect on metal.

Hazardous reactions:
No hazardous reactions when stored and handled according to instructions.

Hazardous decomposition products:
No hazardous decomposition products if stored and handled as prescribed/indicated.

11. Toxicological Information**Acute toxicity**

Assessment of acute toxicity:
Of moderate toxicity after single ingestion. Of low toxicity after short-term skin contact.

Experimental/calculated data:
LD (human) (oral): approx. 1,600 mg/kg

LD50 rabbit (dermal): > 2,000 mg/kg
Literature data.

Irritation

Experimental/calculated data:
Skin corrosion/irritation rabbit: non-irritant

Serious eye damage/irritation rabbit: non-irritant

Respiratory/Skin sensitization

Assessment of sensitization:
Skin sensitizing effects were not observed in animal studies. Human data do not fully exclude a skin sensitizing potential.

Germ cell mutagenicity

Assessment of mutagenicity:
Based on the ingredients, there is no suspicion of a mutagenic effect.

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Carcinogenicity

Assessment of carcinogenicity:

The whole of the information assessable provides no indication of a carcinogenic effect.

Developmental toxicity

Information on: ethyleneglycol

Assessment of teratogenicity:

Developmental toxicity was observed after oral ingestion of high doses in studies with rats and mice, but this effect was not seen in a study with rabbits. Mechanistic studies show that the rabbit is the relevant species for the classification for human health. As such, and since ethylene glycol is not a developmental toxicant in the rabbit, no classification is warranted.

Repeated dose toxicity and Specific target organ toxicity (repeated exposure)

Information on: ethyleneglycol

Assessment of repeated dose toxicity:

The substance may cause damage to the kidney after repeated ingestion. The substance may cause damage to the kidney after repeated skin contact with high doses.

Aspiration hazard

No aspiration hazard expected.

Other relevant toxicity information

The product has not been tested. The statements on toxicology have been derived from the properties of the individual components.

12. Ecological Information

Ecotoxicity

Toxicity to fish:

LC50 (96 h) > 100 mg/l, *Leuciscus idus*

Aquatic invertebrates:

EC50 (48 h) > 100 mg/l, *Daphnia magna*

Aquatic plants:

EC50 (72 h) > 100 mg/l, algae

Microorganisms/Effect on activated sludge:

Inhibition of degradation activity in activated sludge is not to be anticipated during correct introduction of low concentrations.

Mobility

Assessment transport between environmental compartments:

The substance will not evaporate into the atmosphere from the water surface.

Adsorption to solid soil phase is not expected.

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Persistence and degradability

Elimination information:
 > 70 % DOC reduction (28 d) (OECD 301 A (new version)) Readily biodegradable.

Bioaccumulation potential

Bioaccumulation potential:
 Accumulation in organisms is not to be expected.

Additional information

Other ecotoxicological advice:
 Do not release untreated into natural waters.

The product has not been tested. The statements on ecotoxicology have been derived from the properties of the individual components.

13. Disposal Considerations

Must be disposed of or incinerated in accordance with local regulations.
 The waste codes are manufacturer's recommendations based on the designated use of the product.
 Other use and special waste disposal treatment on customer's location may require different waste-code assignments.

Contaminated packaging:
 Untaminated packaging can be re-used.
 Packs that cannot be cleaned should be disposed of in the same manner as the contents.

14. Transport Information

Domestic transport:
 Not classified as a dangerous good under transport regulations

Further information
 Domestic regulations for transport: Please follow Road Safety Rule

Sea transport
 IMDG
 Not classified as a dangerous good under transport regulations

Air transport
 IATA/ICAO
 Not classified as a dangerous good under transport regulations

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15. Regulatory Information

Hazard determining component(s) for labelling: ETHYLENEGLYCOL

Other regulations

OCCUPATIONAL SAFETY AND HEALTH ACT, REGULATION OF ROAD SAFETY, and METHODS AND FACILITIES STANDARDS FOR THE STORAGE, CLEARANCE AND DISPOSAL OF INDUSTRIAL WASTE always need to be followed

16. Other Information

The data contained in this safety data sheet are based on our current knowledge and experience and describe the product only with regard to safety requirements. This safety data sheet is neither a Certificate of Analysis (CoA) nor technical data sheet and shall not be mistaken for a specification agreement. Identified uses in this safety data sheet do neither represent an agreement on the corresponding contractual quality of the substance/mixture nor a contractually designated use. It is the responsibility of the recipient of the product to ensure any proprietary rights and existing laws and legislation are observed.