

UNICO TEC (PTY) LTD

COOLANT PREMIX	SAFETY DATA SHEET	Date of issue	03/02/2017
		Date Revised	26/05/2022
		Revision no	03
		Page 1 of 16	

SECTION 1: IDENTIFICATION OF THE SUBSTANCE/PREPARATION AND COMPANY

Trade name	: Engman's Super RTU Antifreeze
Product name	: Glysantin G48 Premix
Product type	: Premix coolant
Supplier	: Unico Manufacturing Co. (PE) (Pty) Ltd.
Address	: 6 Celebes Road, Island View, Durban, South Africa
Contact number	: +27 (31) 466 1541/2
Emergency contacts	: Vishen Kanhai +27(64) 752 2197 / +27(82) 340 3521

SECTION 2: HAZARD IDENTIFICATION

2.1. Classification of the substance or mixture

According to Regulation (EC) No 1272/2008 [CLP]

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

According to Directive 67/548/EEC or 1999/45/EC

Possible Hazards:

Harmful if swallowed.

Harmful: danger of serious damage to health by prolonged exposure if swallowed.

For the classifications not written out in full in this section the full text can be found in section 16.

2.2. Label elements

Globally Harmonized System, EU (GHS)

Pictogram:



Signal Word:
Warning

Hazard Statement:
H302
H373

Harmful if swallowed.

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

Precautionary Statements (Prevention):

P260
P270
P264

Do not breathe dust/gas/mist/vapours.

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

Wash with plenty of water and soap thoroughly after handling.

UNICO TEC (PTY) LTD

COOLANT PREMIX	SAFETY DATA SHEET	Date of issue	03/02/2017
		Date Revised	26/05/2022
		Revision no	03
		Page 2 of 16	

Precautionary Statements (Response):

P311 Call a POISON CENTER or doctor/physician.
P301 + P330 IF SWALLOWED: rinse mouth.

Precautionary Statements (Disposal):

P501 Dispose of contents/container to hazardous or special waste collection point.

According to Regulation (EC) No 1272/2008 [CLP]

Hazard determining component(s) for labelling: ETHANE-1,2-DIOL/ETHYLENEGLYCOL

According to Directive 67/548/EEC or 1999/45/EC

Directive 1999/45/EC ('Preparation Directive')

Hazard symbol(s)

Xn Harmful.



R-phrase(s)

R22 Harmful if swallowed.
R48/22 Harmful: danger of serious damage to health by prolonged exposure if swallowed.

S-phrase(s)

S2 Keep out of the reach of children.
S24/25 Avoid contact with skin and eyes.
S46 If swallowed, seek medical advice immediately and show this container or label.

Hazard determining component(s) for labelling: ETHANE-1,2-DIOL/ETHYLENEGLYCOL

2.3. Other hazards

According to Regulation (EC) No 1272/2008 [CLP]

High risk of slipping due to leakage/spillage of product.

UNICO TEC (PTY) LTD

COOLANT PREMIX	SAFETY DATA SHEET	Date of issue	03/02/2017
		Date Revised	26/05/2022
		Revision no	03
		Page 3 of 16	

SECTION 3: COMPOSITION/INFORMATION ON INGREDIENTS

3.1. Substances

Not applicable

3.2. Mixtures

Chemical nature

ethanediol; ethylene glycol

inhibitors

This product contains (a) substance(s) included on the candidate list according to article 59 (1,10) of regulation EC No. 1907/2006 ('REACH') in a concentration equal or above 0.1% w/w: disodium tetraborate pentahydrate; borax pentahydrate

Hazardous ingredients (GHS)

according to Regulation (EC) No. 1272/2008

ethanediol; ethylene glycol

Content (W/W): > 90 %
CAS Number: 107-21-1
EC-Number: 203-473-3
REACH registration number: 01-2119456816-28
INDEX-Number: 603-027-00-1

Acute Tox. 4 (oral)
STOT RE (Kidney) 2
H302, H373

2-ethylhexanoic acid, sodium salt

Content (W/W): > 2 % - < 3 %
CAS Number: 19766-89-3
EC-Number: 243-283-8

Repr. 2 (unborn child)
H361d

disodium tetraborate pentahydrate; borax pentahydrate

Content (W/W): >= 0.3 % - < 1 %
CAS Number: 12179-04-3
EC-Number: 215-540-4
REACH registration number: 01-2119490790-32

Eye Dam./Irrit. 2
Repr. 1B (fertility)
Repr. 1B (unborn child)
H319, H360FD

Specific concentration limit:
Repr. 1B: >= 6.5 %

UNICO TEC (PTY) LTD

COOLANT PREMIX	SAFETY DATA SHEET	Date of issue	03/02/2017
		Date Revised	26/05/2022
		Revision no	03
		Page 4 of 16	

Hazardous ingredients

according to Directive 1999/45/EC

ethanediol; ethylene glycol

Content (W/W): > 90 %
CAS Number: 107-21-1
EC-Number: 203-473-3
REACH registration number: 01-2119456816-28
INDEX-Number: 603-027-00-1
Hazard symbol(s): Xn
R-phrases: 22, 48/22

2-ethylhexanoic acid, sodium salt

Content (W/W): > 2 % - < 3 %
CAS Number: 19766-89-3
EC-Number: 243-283-8
Hazard symbol(s): Xn
R-phrases: 63

disodium tetraborate pentahydrate; borax pentahydrate

Content (W/W): $\geq 0.3\%$ - $\leq 1\%$
CAS Number: 12179-04-3
EC-Number: 215-540-4
REACH registration number: 01-2119490790-32
Hazard symbol(s): T
R-phrases: 36, 60, 61
Repr. Cat. 2

For the classifications not written out in full in this section, including the indication of danger, the hazard symbols, the R phrases, and the hazard statements, the full text is listed in section 16.

UNICO TEC (PTY) LTD

COOLANT PREMIX	SAFETY DATA SHEET	Date of issue	03/02/2017
		Date Revised	26/05/2022
		Revision no	03
		Page 5 of 16	

SECTION 4: FIRST AID MEASURES

4.1. Description of first aid measures

Remove contaminated clothing.

If inhaled:

If difficulties occur after vapour/aerosol has been inhaled, remove to fresh air and 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:

Rinse mouth immediately and then drink plenty of water, seek medical attention. Administer 50 ml of pure ethanol in a drinkable concentration.

4.2. Most important symptoms and effects, both acute and delayed

Symptoms: The most important known symptoms and effects are described in the labelling (see section 2) and/or in section 11.

Further important symptoms and effects are so far not known.

4.3. Indication of any immediate medical attention and special treatment needed

Treatment: Symptomatic treatment (decontamination, vital functions).

SECTION 5: FIREFIGHTING MEASURES

5.1. Extinguishing media

Suitable extinguishing media:

water spray, dry powder, alcohol-resistant foam

5.2. Special hazards arising from the substance or mixture

harmful vapours

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

5.3. Advice for fire-fighters

Special protective equipment:

Wear a self-contained breathing apparatus.

Further information:

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.

UNICO TEC (PTY) LTD

COOLANT PREMIX	SAFETY DATA SHEET	Date of issue	03/02/2017
		Date Revised	26/05/2022
		Revision no	03
		Page 6 of 16	

SECTION 6: ACCIDENTAL RELEASE MEASURES

High risk of slipping due to leakage/spillage of product.

6.1. Personal precautions, protective equipment and emergency procedures

Use personal protective clothing.

6.2. Environmental precautions

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

6.3. Methods and material for containment and cleaning up

For large amounts: Pump off product.

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

6.4. Reference to other sections

Information regarding exposure controls/personal protection and disposal considerations can be found in section 8 and 13.

SECTION 7: HANDLING AND STORAGE

7.1. Precautions for safe 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.

7.2. Conditions for safe storage, including any incompatibilities

Further information on storage conditions: Containers should be stored tightly sealed in a dry place. Storage in galvanized containers is not recommended.

7.3. Specific end use(s)

For the relevant identified use(s) listed in Section 1 the advice mentioned in this section 7 is to be observed.

UNICO TEC (PTY) LTD

COOLANT PREMIX	SAFETY DATA SHEET	Date of issue	03/02/2017
		Date Revised	26/05/2022
		Revision no	03
		Page 7 of 16	

SECTION 8: EXPOSURE CONTROLS/PERSONAL PROTECTION

8.1. Control parameters

Components with occupational exposure limits

107-21-1: ethanediol; ethylene glycol

TWA value 52 mg/m³ ; 20 ppm (OEL (EU))
indicative

STEL value 104 mg/m³ ; 40 ppm (OEL (EU))
indicative

Skin Designation (OEL (EU))

The substance can be absorbed through the skin.

12179-04-3: disodium tetraborate pentahydrate; borax pentahydrate

8.2. Exposure controls

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)

Hand protection:

Chemical resistant protective gloves (EN 374)

Suitable materials also with prolonged, direct contact (Recommended: Protective index 6, corresponding > 480 minutes of permeation time according to EN 374):

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 recommended. No eating, drinking, smoking or tobacco use at the place of work.

UNICO TEC (PTY) LTD

COOLANT PREMIX	SAFETY DATA SHEET	Date of issue	03/02/2017
		Date Revised	26/05/2022
		Revision no	03
		Page 8 of 16	

SECTION 9: PHYSICAL AND CHEMICAL PROPERTIES

9.1. Information on basic physical and chemical properties

Physical data	Density, 20 °C	1.072 – 1.074 g/cm ³	DIN 51 757-4
	Refractive index, 20 °C	1.385 – 1.387	DIN 51 423-2
	Boiling point	min. 105 °C	ASTM D 1120
	pH value	7.9 – 8.3	ASTM D 1287
	Reserve alkalinity	6 – 8 ml	ASTM D 1121
	Ash content	max. 1.0 %	ASTM D 1119
	Water content	47 – 51 %	DIN 51 777-1
	Kinematic viscosity		DIN 51 562
	at 0 °C	ca. 8.8 mm ² /s	
	at 20 °C	ca. 4.1 mm ² /s	
	at 80 °C	ca. 1.0 mm ² /s	
Frost protection	Freezing point	below -38 °C	ASTM D 1177
Foaming characteristics	Foam volume / break time	max. 50 ml / 3 s	ASTM D 1881
Electrical conductivity	at 23 °C	approx. 4 mS/cm	ASTM D 1125

UNICO TEC (PTY) LTD

COOLANT PREMIX	SAFETY DATA SHEET	Date of issue	03/02/2017
		Date Revised	26/05/2022
		Revision no	03
		Page 9 of 16	

SECTION 10: STABILITY AND REACTIVITY

10.1. Reactivity

No hazardous reactions if stored and handled as prescribed/indicated.

Corrosion to metals: No corrosive effect on metal.

10.2. Chemical stability

The product is stable if stored and handled as prescribed/indicated.

10.3. Possibility of hazardous reactions

No hazardous reactions when stored and handled according to instructions.

10.4. Conditions to avoid

No conditions to avoid anticipated.

10.5. Incompatible materials

Substances to avoid:
strong oxidizing agents

10.6. Hazardous decomposition products

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

SECTION 11: TOXICOLOGICAL INFORMATION

11.1. Information on toxicological effects

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.

UNICO TEC (PTY) LTD

COOLANT PREMIX	SAFETY DATA SHEET	Date of issue	03/02/2017
		Date Revised	26/05/2022
		Revision no	03
		Page 10 of 16	

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.

Carcinogenicity

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

Developmental toxicity

Information on: ethanediol; ethylene glycol

Assessment of teratogenicity:

In animal studies the substance caused malformations when given at high doses.

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

Information on: ethanediol; ethylene glycol

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.

Other relevant toxicity information

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

SECTION 12: ECOLOGICAL INFORMATION

UNICO TEC (PTY) LTD

COOLANT PREMIX	SAFETY DATA SHEET	Date of issue	03/02/2017
		Date Revised	26/05/2022
		Revision no	03
		Page 11 of 16	

12.1. Toxicity

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.

12.2. Persistence and degradability

Elimination information:

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

12.3. Bioaccumulative potential

Bioaccumulation potential:

Accumulation in organisms is not to be expected.

12.4. Mobility in soil

Assessment transport between environmental compartments:

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

Adsorption in soil: Adsorption to solid soil phase is not expected.

12.5. Results of PBT and vPvB assessment

According to Annex XIII of Regulation (EC) No.1907/2006 concerning the Registration, Evaluation, Authorisation and Restriction of Chemicals (REACH): The product does not contain a substance fulfilling the PBT (persistent/bioaccumulative/toxic) criteria or the vPvB (very persistent/very bioaccumulative) criteria.

12.6. Other adverse effects

The product does not contain substances that are listed in Annex I of Regulation (EC) 2037/2000 on substances that deplete the ozone layer.

12.7. 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.

UNICO TEC (PTY) LTD

COOLANT PREMIX	SAFETY DATA SHEET	Date of issue	03/02/2017
		Date Revised	26/05/2022
		Revision no	03
		Page 12 of 16	

SECTION 13: DISPOSAL CONSIDERATIONS

13.1. Waste treatment methods

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.

Waste key:

16 01 14^α antifreeze fluids containing dangerous substances

Contaminated packaging:

Uncontaminated packaging can be re-used.

Packs that cannot be cleaned should be disposed of in the same manner as the contents.

SECTION 14: TRANSPORT INFORMATION

Land transport

ADR

Not classified as a dangerous good under transport regulations

UN number:

Not applicable

UNICO TEC (PTY) LTD

COOLANT PREMIX	SAFETY DATA SHEET	Date of issue	03/02/2017
		Date Revised	26/05/2022
		Revision no	03
		Page 13 of 16	

UN proper shipping name: Not applicable
Transport hazard class(es): Not applicable
Packing group: Not applicable
Environmental hazards: Not applicable
Special precautions for user: None known

RID

Not classified as a dangerous good under transport regulations
UN number: Not applicable
UN proper shipping name: Not applicable
Transport hazard class(es): Not applicable
Packing group: Not applicable
Environmental hazards: Not applicable
Special precautions for user: None known

Inland waterway transport

ADN

Not classified as a dangerous good under transport regulations
UN number: Not applicable
UN proper shipping name: Not applicable
Transport hazard class(es): Not applicable
Packing group: Not applicable
Environmental hazards: Not applicable
Special precautions for user: None known
Transport in inland waterway vessel: Not evaluated

Sea transport

IMDG

Not classified as a dangerous good under transport regulations
UN number: Not applicable
UN proper shipping name: Not applicable
Transport hazard class(es): Not applicable
Packing group: Not applicable
Environmental hazards: Not applicable
Special precautions for user: None known

Air transport

UNICO TEC (PTY) LTD

COOLANT PREMIX	SAFETY DATA SHEET	Date of issue	03/02/2017
		Date Revised	26/05/2022
		Revision no	03
		Page 14 of 16	

IATA/ICAO

	Not classified as a dangerous good under transport regulations
UN number:	Not applicable
UN proper shipping name:	Not applicable
Transport hazard class(es):	Not applicable
Packing group:	Not applicable
Environmental hazards:	Not applicable
Special precautions for user	None known

14.1. UN number

See corresponding entries for "UN number" for the respective regulations in the tables above.

14.2. UN proper shipping name

See corresponding entries for "UN proper shipping name" for the respective regulations in the tables above.

14.3. Transport hazard class(es)

See corresponding entries for "Transport hazard class(es)" for the respective regulations in the tables above.

14.4. Packing group

See corresponding entries for "Packing group" for the respective regulations in the tables above.

14.5. Environmental hazards

See corresponding entries for "Environmental hazards" for the respective regulations in the tables above.

14.6. Special precautions for user

See corresponding entries for "Special precautions for user" for the respective regulations in the tables above.

14.7. Transport in bulk according to Annex II of MARPOL73/78 and the IBC Code

Regulation:	Not evaluated
Shipment approved:	Not evaluated
Pollution name:	Not evaluated
Pollution category:	Not evaluated
Ship Type:	Not evaluated

SECTION 15: REGULATORY INFORMATION

15.1. Safety, health and environmental regulations/legislation specific for the substance or mixture

15.2. Chemical Safety Assessment

UNICO TEC (PTY) LTD

COOLANT PREMIX	SAFETY DATA SHEET	Date of issue	03/02/2017
		Date Revised	26/05/2022
		Revision no	03
		Page 15 of 16	

Chemical Safety Assessment not yet performed due to registration timelines

SECTION 16: OTHER INFORMATION

Assessment of the hazard classes according to UN GHS criteria (most recent version)

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

Full text of the classifications, including the indication of danger, the hazard symbols, the R phrases, and the hazard statements, if mentioned in section 2 or 3:

Xn	Harmful.
T	Toxic.
22	Harmful if swallowed.
48/22	Harmful: danger of serious damage to health by prolonged exposure if swallowed.
63	Possible risk of harm to the unborn child.
36	Irritating to eyes.
60	May impair fertility.
61	May cause harm to the unborn child.
Acute Tox.	Acute toxicity
STOT RE	Specific target organ toxicity — repeated exposure
Repr.	Reproductive toxicity
Eye Dam./Irrit.	Serious eye damage/eye irritation
Repr. Cat. 2	Reprotoxic substances (fertility or development) Category 2: Substances which should be regarded as if they cause developmental toxicity to in humans or substances which should be regarded as if they impair fertility in humans.
H302	Harmful if swallowed.
H373	May cause damage to organs (Kidney) through prolonged or repeated exposure.
H361d	Suspected of damaging the unborn child.
H319	Causes serious eye irritation.
H360FD	May damage fertility. May damage the unborn child.

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. The data do not describe the product's properties (product specification). Neither should any agreed property nor the suitability of the product for any specific purpose be deduced from the data contained in the safety data sheet. It is the responsibility of the recipient of the product to ensure any proprietary rights and existing laws and legislation are observed.

UNICO TEC (PTY) LTD

COOLANT PREMIX	SAFETY DATA SHEET	Date of issue	03/02/2017
		Date Revised	26/05/2022
		Revision no	03
		Page 16 of 16	

DISCLAIMER: *The information contained in this publication is, to the best of our knowledge, true and accurate, but any recommendations or suggestions which may be made are without guarantee, since the conditions of use are beyond our control. Furthermore, nothing contained herein shall be construed as a recommendation to use any product in conflict with existing patents covering any material or its use.*