SAFETY DATA SHEET

SECTION 1: Identification of the substance/mixture and of the company/undertaking

1.1. Product identifier

Trade name or designation of the mixture	Freecor PGC
Registration number	-
UFI:	Y8HM-XV1T-Y20G-V86V
Synonyms	None.
Product code	1003259
Issue date	10-November-2016
Version number	04
Revision date	21-November-2022
Supersedes date	21-January-2019

1.2. Relevant identified uses of the substance or mixture and uses advised against

Identified uses	Antifreeze / Coolant.
Uses advised against	None known.

1.3. Details of the supplier of the safety data sheet

Supplier	ARTECO NV Metropoolstraat 25 B-2900 Schoten (Antwerpen) Belgium
e-mail	customerservice@arteco-coolants.com
Product information	Technical Information: +32 (0) 9 397 06 00

1.4. Emergency telephone number

Transportation emergency	Europe: +44 20 35147487 (24hr) Access code: 335087
Health Emergency	Europe: +44 20 35147487 (24hr) Access code: 335087
General emergency	112 or 999 SDS/Product information may not be available for the Emergency Service.

SECTION 2: Hazards identification

2.1. Classification of the substance or mixture

The mixture has been assessed and/or tested for its physical, health and environmental hazards and the following classification applies.

Classification according to Regulation (EC) No 1272/2008 as amended

This mixture does not meet the criteria for classification according to Regulation (EC) 1272/2008 as amended.

2.2. Label elements

Label according to Regulation (EC) No. 1272/2008 as amended

Hazard pictograms	None.
Signal word	None.
Hazard statements	The mixture does not meet the criteria for classification.

Precautionary statements

Prevention	Not assigned.
Response	Not assigned.
Storage	Not assigned.
Disposal	Not assigned.
Supplemental information on the label	EUH210 - Safety data sheet available on request.

2.3. Other hazards This mixture does not contain substances assessed to be vPvB / PBT according to Regulation (EC) No 1907/2006, Annex XIII.

SECTION 3: Composition/information on ingredients

3.2. Mixtures

General information

Chemical name	%	CAS-No. / EC No.	REACH Registration No.	Index No.	Notes
Propane-1,2-diol	80 - 98	57-55-6 200-338-0	01-2119456809-23-XXXX	-	#
Classification: -					
Sodium 2-ethylhexanoate	0.1 - < 3	19766-89-3 243-283-8	Exempt	-	
Classification: Repr. 2;H361d					E
Methyl-1H-benzotriazole	0.1 - < 1	29385-43-1 249-596-6	01-2119979081-35-XXXX	-	
Classification: Acute Tox. 4;H302, Repr. 2;H361d, Aquatic Chronic 2;H411					

List of abbreviations and symbols that may be used above

#: This substance has workplace exposure limit(s).

Composition comments The full text for all H-statements is displayed in section 16. All concentrations are in percent by weight.
Exempted from registration as per Annex V of the Regulation No (EC) 1907/2006 concerning the Registration, Evaluation, Authorisation and Restriction of Chemicals (REACH), as amended for Great Britain.

SECTION 4: First aid measures

General information Ensure that medical personnel are aware of the material(s) involved, and take precautions to protect themselves.

4.1. Description of first aid measures

Inhalation Move to fresh air. Call a physician if symptoms develop or persist.

Skin contact Wash off with soap and water. Get medical attention if irritation develops and persists.

Eye contact Remove contact lenses, if present and easy to do.

Ingestion Rinse mouth. Get medical attention if symptoms occur.

4.2. Most important symptoms and effects, both acute and delayed Exposure may cause temporary irritation, redness, or discomfort.

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

SECTION 5: Firefighting measures

General fire hazards No unusual fire or explosion hazards noted.

5.1. Extinguishing media

Suitable extinguishing media Alcohol resistant foam. Powder. Carbon dioxide (CO_2).

Unsuitable extinguishing media Do not use water jet as an extinguisher, as this will spread the fire.

5.2. Special hazards arising from the substance or mixture Thermal decomposition may produce smoke, oxides of carbon and lower molecular weight organic compounds whose composition have not been characterised.

5.3. Advice for firefighters

Special protective equipment for firefighters Self-contained breathing apparatus and full protective clothing must be worn in case of fire.

Special fire fighting procedures Move containers from fire area if you can do so without risk.

Specific methods Use standard firefighting procedures and consider the hazards of other involved materials.

SECTION 6: Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures

For non-emergency personnel Keep unnecessary personnel away. Keep people away from and upwind of spill/leak. Wear appropriate protective equipment and clothing during clean-up. Do not breathe mist or vapour. Ensure adequate ventilation. Local authorities should be advised if significant spillages cannot be contained.

For emergency responders	Keep unnecessary personnel away. Use personal protection recommended in Section 8 of the SDS.
6.2. Environmental precautions	Avoid discharge into drains, water courses or onto the ground.
6.3. Methods and material for containment and cleaning up	Use water spray to reduce vapours or divert vapour cloud drift. Large Spills: Stop the flow of material, if this is without risk. Dike the spilled material, where this is possible. Absorb in vermiculite, dry sand or earth and place into containers. Following product recovery, flush area with water. Small Spills: Wipe up with absorbent material (e.g. cloth, fleece). Clean surface thoroughly to remove residual contamination. Never return spills to original containers for re-use.
6.4. Reference to other sections	For personal protection, see section 8 of the SDS. For waste disposal, see section 13 of the SDS.

SECTION 7: Handling and storage

7.1. Precautions for safe handling	Observe good industrial hygiene practices.
7.2. Conditions for safe storage, including any incompatibilities	Store in original tightly closed container. Store away from incompatible materials (see Section 10 of the SDS).
7.3. Specific end use(s)	Antifreeze / Coolant.

SECTION 8: Exposure controls/personal protection

8.1. Control parameters

Occupational exposure limits

UK. EH40 Workplace Exposure Limits (WELs)

Components	Type	Value	Form
Propane-1,2-diol (CAS 57-55-6)	TWA	474 mg/m3	Total vapour and particulates.
		10 mg/m3	Particulate.
		150 ppm	Total vapour and particulates.

Biological limit values	No biological exposure limits noted for the ingredient(s).
Recommended monitoring procedures	Follow standard monitoring procedures.

Derived no effect levels (DNELs)

General population

Components	Value	Assessment factor	Notes
Methyl-1H-benzotriazole (CAS 29385-43-1)			
Long-term, Systemic, Dermal	0.01 mg/kg bw/day	3000	developmental toxicity / teratogenicity
Long-term, Systemic, Inhalation	350 µg/m3	750	developmental toxicity / teratogenicity
Long-term, Systemic, Oral	0.01 mg/kg bw/day	3000	developmental toxicity / teratogenicity
Propane-1,2-diol (CAS 57-55-6)			
Long-term, Local, Inhalation	10 mg/m3	15	Repeated dose toxicity
Long-term, Systemic, Inhalation	50 mg/m3	5	Repeated dose toxicity

Workers

Components	Value	Assessment factor	Notes
Methyl-1H-benzotriazole (CAS 29385-43-1)			
Long-term, Systemic, Dermal	0.3 mg/kg bw/day	300	developmental toxicity / teratogenicity
Long-term, Systemic, Inhalation	21.2 mg/m3	75	developmental toxicity / teratogenicity
Propane-1,2-diol (CAS 57-55-6)			
Long-term, Local, Inhalation	10 mg/m3	9	Repeated dose toxicity
Long-term, Systemic, Inhalation	168 mg/m3	3	Repeated dose toxicity

Predicted no effect concentrations (PNECs)

Components	Value	Assessment factor	Notes
Methyl-1H-benzotriazole (CAS 29385-43-1)			
Freshwater	0.008 mg/l	50	
Marine water	20 µg/l	500	
Sediment (freshwater)	0.117 mg/l	10	
Sediment (marine water)	0.292 mg/l	10	
Soil	18.7 µg/kg	10	
STP	39.4 mg/l	10	
Propane-1,2-diol (CAS 57-55-6)			
Freshwater	260 mg/l	50	
Intermittent releases	183 mg/l		
Marine water	26 mg/l	500	
Sediment (freshwater)	572 mg/kg		
Sediment (marine water)	57.2 mg/kg		
Soil	50 mg/kg		
STP	20000 mg/l	1	

8.2. Exposure controls

Appropriate engineering controls Good general ventilation should be used. Ventilation rates should be matched to conditions. If applicable, use process enclosures, local exhaust ventilation, or other engineering controls to maintain airborne levels below recommended exposure limits. If exposure limits have not been established, maintain airborne levels to an acceptable level.

Individual protection measures, such as personal protective equipment

General information Personal protection equipment should be chosen according to the CEN standards and in discussion with the supplier of the personal protective equipment.

Eye/face protection Wear safety glasses with side shields (or goggles). Eye protection should meet standard EN 166.

Skin protection

- Hand protection Not normally needed. Wear suitable protective clothing as protection against splashing or contamination. Wear suitable gloves tested to EN374.

- Other Wear suitable protective clothing.

Respiratory protection In case of insufficient ventilation, wear suitable respiratory equipment.

Thermal hazards Wear appropriate thermal protective clothing, when necessary.

Hygiene measures Always observe good personal hygiene measures, such as washing after handling the material and before eating, drinking, and/or smoking. Routinely wash work clothing and protective equipment to remove contaminants.

Environmental exposure controls Emissions from ventilation or work process equipment should be checked to ensure they comply with the requirements of environmental protection legislation. Fume scrubbers, filters or engineering modifications to the process equipment may be necessary to reduce emissions to acceptable levels.

SECTION 9: Physical and chemical properties

9.1. Information on basic physical and chemical properties

Appearance

Physical state Liquid.

Form Clear liquid.

Colour Colourless.

Odour Mild.

Odour threshold Not determined.

pH 8.8 (50%, 20°C) (Typical)

Melting point/freezing point Not applicable. / -32 °C (-25.6 °F) 50% (Typical)

Initial boiling point and boiling range 162 °C (323.6 °F) (Typical)

Flash point 103 °C (217.4 °F) Pensky-Martens Closed Cup (Approximate)

Evaporation rate Not determined.

Flammability (solid, gas) Not applicable.

Upper/lower flammability or explosive limits

Explosive limit - lower (%) Not determined.

Explosive limit – upper (%) Not determined.

Vapour pressure Not determined.

Vapour density	Not determined.
Relative density	Not determined.
Solubility(ies)	
Solubility (water)	Miscible.
Partition coefficient (n-octanol/water)	Not applicable, product is a mixture.
Auto-ignition temperature	700 °C (1292 °F) (Propane-1,2-diol)
Decomposition temperature	Not determined.
Viscosity	Not determined.
Explosive properties	Not explosive.
Oxidising properties	Not oxidising.
9.2. Other information	
Density	1.042 kg/l (20 °C) (Typical)
Kinematic viscosity	Not determined.

SECTION 10: Stability and reactivity

10.1. Reactivity	The product is stable and non-reactive under normal conditions of use, storage and transport.
10.2. Chemical stability	Material is stable under normal conditions.
10.3. Possibility of hazardous reactions	No dangerous reaction known under conditions of normal use.
10.4. Conditions to avoid	Contact with incompatible materials.
10.5. Incompatible materials	Strong acids. Strong oxidising agents. Nitrates. Peroxides. Chlorates.
10.6. Hazardous decomposition products	At elevated temperatures: Ketones. Aldehydes.

SECTION 11: Toxicological information

General information	Occupational exposure to the substance or mixture may cause adverse effects.
Information on likely routes of exposure	
Inhalation	In high concentrations, mists/vapours may irritate throat and respiratory system and cause coughing.
Skin contact	Prolonged or repeated contact may dry skin and cause irritation.
Eye contact	Direct contact with eyes may cause temporary irritation.
Ingestion	May cause discomfort if swallowed.
Symptoms	Exposure may cause temporary irritation, redness, or discomfort.

11.1. Information on toxicological effects

Acute toxicity

Components	Species	Test Results
Methyl-1H-benzotriazole (CAS 29385-43-1)		
Acute		
Dermal		
LD50	Rabbit	> 2000 mg/kg, 24 Hours
Oral		
LD50	Rat	720 mg/kg
Propane-1,2-diol (CAS 57-55-6)		
Acute		
Dermal		
LD50	Rabbit	20800 mg/kg
Oral		
LD50	Rat	20000 mg/kg

Skin corrosion/irritation	Based on available data, the classification criteria are not met.
Serious eye damage/eye irritation	Based on available data, the classification criteria are not met.
Respiratory sensitisation	Due to partial or complete lack of data the classification is not possible.
Skin sensitisation	Based on available data, the classification criteria are not met.
Germ cell mutagenicity	Based on available data, the classification criteria are not met.

Carcinogenicity Due to partial or complete lack of data the classification is not possible.

Reproductive toxicity Based on available data, the classification criteria are not met.

Reproductivity

Methyl-1H-benzotriazole (CAS 29385-43-1)	30 mg/kg bw/day OECD 414 Result: LOAEL Species: Rat

Specific target organ toxicity - single exposure Based on available data, the classification criteria are not met.

Specific target organ toxicity - repeated exposure Based on available data, the classification criteria are not met.

Aspiration hazard Due to partial or complete lack of data the classification is not possible.

Mixture versus substance information No information available.

Other information No data available.

SECTION 12: Ecological information

12.1. Toxicity Based on available data, the classification criteria are not met for hazardous to the aquatic environment.

Components		Species	Test Results
Methyl-1H-benzotriazole (CAS 29385-43-1)			
Aquatic			
Acute			
Algae	ECr50	Pseudokirchneriella subcapitata	75 mg/l, 72 hours
Crustacea	EC50	Daphnia galeata	8.58 mg/l, 48 hours
	LC50	Arcartia tonsa	55 mg/l, 48 hours
Fish	LC50	Danio rerio	180 mg/l, 72 hours
Chronic			
Crustacea	EC10	Daphnia galeata	0.4 mg/l, 21 days
Propane-1,2-diol (CAS 57-55-6)			
Aquatic			
Algae	EC50	Pseudokirchneriella subcapitata	19000 mg/l, 96 Hours
Crustacea	EC50	Daphnia magna	> 10000 mg/l, 48 Hours
Fish	LC50	Fathead minnow (Pimephales promelas)	> 710 - < 55770 mg/l, 96 Hours

12.2. Persistence and degradability Propane-1,2-diol: 98.3% / 28 days (OECD 301F). Readily biodegradable.

12.3. Bioaccumulative potential No data available.

Partition coefficient n-octanol/water (log Kow)

Propane-1,2-diol (CAS 57-55-6)	-0.92

Bioconcentration factor (BCF) Not available.

12.4. Mobility in soil No data available.

12.5. Results of PBT and vPvB assessment This mixture does not contain substances assessed to be vPvB / PBT according to Regulation (EC) No 1907/2006, Annex XIII.

12.6. Other adverse effects No data available.

SECTION 13: Disposal considerations

13.1. Waste treatment methods

Residual waste Dispose in accordance with local regulations. Empty containers or liners may retain some product residues. This material and its container must be disposed of in a safe manner (see: Disposal instructions).

Contaminated packaging Since emptied containers may retain product residue, follow label warnings even after container is emptied. Empty containers should be taken to an approved waste handling site for recycling or disposal.

EU waste code EWC: 16 01 14

Disposal methods/information Collect and reclaim or dispose in sealed containers at licensed waste disposal site.

Special precautions Dispose in accordance with all applicable regulations.

SECTION 14: Transport information

ADR

14.1. - 14.6.: Not regulated as dangerous goods.

RID

14.1. - 14.6.: Not regulated as dangerous goods.

ADN

14.1. - 14.6.: Not regulated as dangerous goods.

IATA

14.1. - 14.6.: Not regulated as dangerous goods.

IMDG

14.1. - 14.6.: Not regulated as dangerous goods.

14.7. Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code Not established.

SECTION 15: Regulatory information

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

Retained direct EU regulations

Regulation (EC) No. 1005/2009 on substances that deplete the ozone layer, Annex I and II, as amended

Not listed.

Regulation (EU) 2019/1021 On persistent organic pollutants (recast), as amended

Not listed.

Regulation (EU) No. 649/2012 concerning the export and import of dangerous chemicals, Annex I, Part 1 as amended

Not listed.

Regulation (EU) No. 649/2012 concerning the export and import of dangerous chemicals, Annex I, Part 2 as amended

Not listed.

Regulation (EU) No. 649/2012 concerning the export and import of dangerous chemicals, Annex I, Part 3 as amended

Not listed.

Regulation (EU) No. 649/2012 concerning the export and import of dangerous chemicals, Annex V as amended

Not listed.

Regulation (EC) No. 166/2006 Annex II Pollutant Release and Transfer Registry, as amended

Not listed.

Regulation (EC) No. 1907/2006, REACH Article 59(10) Candidate List as currently published by ECHA

Not listed.

Authorisations

Regulation (EC) No. 1907/2006, REACH Annex XIV Substances subject to authorization, as amended

Not listed.

Restrictions on use

Regulation (EC) No. 1907/2006, REACH Annex XVII Substances subject to restriction on marketing and use as amended

Not listed.

Other EU regulations

Directive 2012/18/EU on major accident hazards involving dangerous substances, as amended

Not listed.

Other regulations

This product is classified and labelled in accordance with the retained CLP Regulation (EU) No 1272/2008, as amended for Great Britain. This Safety Data Sheet is compiled in accordance with REACH Regulation (EC) No 1907/2006, as amended by UK REACH Regulations SI 2019/758.

All components of this product are compliant with the registration requirements of Regulation (EC) 1907/2006 on the Registration, Evaluation, Authorization and Restriction of Chemicals, as amended.

All components comply with the following chemical inventory requirements: AICS (Australia), DSL (Canada), EINECS (European Union), ENCS (Japan), IECSC (China), KECI (Korea), PICCS (Philippines), TSCA (United States), TCSI (Taiwan), NZIoC (New Zealand).

Follow the requirements of the Control of Substances Hazardous to Health Regulations 2002 [SI 2002/2677], as amended, when using this material.

15.2. Chemical safety assessment No Chemical Safety Assessment has been carried out.

SECTION 16: Other information

List of abbreviations

TWA: Time weighted average.
DNEL: Derived No-Effect Level.
PNEC: Predicted No-Effect Concentration.
STP: Sewage treatment plant.
LD50: Lethal Dose, 50%.
EC50: Effective Concentration, 50%.
LC50: Lethal Concentration, 50%.
PBT: Persistent, bioaccumulative and toxic.
vPvB: Very Persistent and very Bioaccumulative.

References

ECHA CHEM

Information on evaluation method leading to the classification of mixture

The classification for health and environmental hazards is derived by a combination of calculation methods and test data, if available.

Full text of any statements, which are not written out in full under sections 2 to 15

H302 Harmful if swallowed.
H361d Suspected of damaging the unborn child.
H411 Toxic to aquatic life with long lasting effects.

This SDS contains revisions in the following section(s):

1, 2, 3, 8, 9, 11, 12, 14, 15

Training information

Follow training instructions when handling this material.

Disclaimer

ARTECO NV cannot anticipate all conditions under which this information and its product, or the products of other manufacturers in combination with its product, may be used. It is the user's responsibility to ensure safe conditions for handling, storage and disposal of the product, and to assume liability for loss, injury, damage or expense due to improper use. The information in the sheet was written based on the best knowledge and experience currently available.