SAFETY DATA SHEET

Q8 Antifreeze Long Life OAT Premixed



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

Antifreeze Long Life OAT Premixed	
N0-K0EN-D001-XG2K	
substance or mixture and uses advised	d against
tifreeze and coolant for engines and indus	strial equipment
fety data sheet	
wait Petroleum Companies in the Benelux mpany Office: Desguinlei 100 - 8, 2018 A ntactaddress: Petroleumkaai 7, 2020 Ant I. +32 3 247 38 11, Fax +32 3 216 03 42	ntwerp, Belgium
wait Petroleum Belgium N.V./S.A. / troleumkaai 7 2020 Antwerp lgium	Q8Oils Italia S.r.l. Via Volpedo 2 15050 Castellar Guidobono (AL) Italy
Sinfo@Q8.com, communication preferab	
	-

1.4 Emergency telephone number

Europe	: +44 (0) 1235 239 670	CARECHEM24
Global (English only)	: +44 (0) 1865 407 333	1000 M
National advisory body/P	oison Center	
Belgium	: Poison Centre : +32 (0)70 245 245	

SECTION 2: Hazards identification

2.1 Classification of the subs	tance or mixture		
Product definition	: Mixture		
Classification according to	Regulation (EC) No. 1272/20	<u>08 [CLP/GHS]</u>	
SPECIFIC TARGET ORGAN EXPOSURE)	TOXICITY (REPEATED	Category 2	H373
The product is classified as ha	azardous according to Regulat	ion (EC) 1272/2008 as amended.	
Ingredients of unknown toxicity	: None.		
Ingredients of unknown ecotoxicity	: None.		
See Section 16 for the full tex	t of the H statements declared	above.	
See Section 11 for more deta	iled information on health effec	cts and symptoms.	

2.2 Label elements

Hazard pictograms



ż

SECTION 2: Hazards identification

Signal word	:	Warning
Hazard statements	1	H373 - May cause damage to organs through prolonged or repeated exposure.
Precautionary statements		
General	:	P103 - Read carefully and follow all instructions. P102 - Keep out of reach of children. P101 - If medical advice is needed, have product container or label at hand.
Prevention	1	P260 - Do not breathe vapor.
Response	:	P301 + P310 - IF SWALLOWED: Immediately call a POISON CENTER or doctor.
Storage	:	Not applicable.
Disposal	;	P501 - Dispose of contents and container in accordance with all local, regional, national and international regulations.
Hazardous ingredients	:	ethanediol
Supplemental label elements	:	Not applicable.
Annex XVII - Restrictions on the manufacture, placing on the market and use of certain dangerous substances, mixtures and articles	:	Not applicable.
Special packaging requirem	ner	<u>Its</u>
Containers to be fitted with child-resistant fastenings	:	Not applicable.
Tactile warning of danger	:	Yes, applicable.
2.3 Other hazards		
Product meets the criteria for PBT or vPvB according to Regulation (EC) No. 1907/2006, Annex XIII	:	This mixture does not contain any substances that are assessed to be a PBT or a vPvB.
Other hazards which do not result in classification	:	None known.

SECTION 3: Composition/information on ingredients

3.2 Mixtures	: Mixture				
Product/ingredient name	Identifiers	%	Classification	Specific Conc. Limits, M-factors and ATEs	Туре
ethanediol	REACH #: 01-2119456816-28 EC: 203-473-3 CAS: 107-21-1 Index: 603-027-00-1	≥25 - ≤50	Acute Tox. 4, H302 STOT RE 2, H373 (kidneys)	ATE [Oral] = 2000 mg/kg	[1] [2]
sodium benzoate	REACH #: 01-2119460683-35 EC: 208-534-8 CAS: 532-32-1	≤3	Eye Irrit. 2, H319	-	[1]
			See Section 16 for the full text of the H statements declared above.		

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SECTION 3: Composition/information on ingredients

There are no additional ingredients present which, within the current knowledge of the supplier and in the concentrations applicable, are classified as hazardous to health or the environment, are PBTs, vPvBs or Substances of equivalent concern, or have been assigned a workplace exposure limit and hence require reporting in this section.

Туре

[1] Substance classified with a health or environmental hazard

[2] Substance with a workplace exposure limit

Occupational exposure limits, if available, are listed in Section 8.

SECTION 4: First aid measures

4.1 Description of first aid r	neasures
Eye contact	: Immediately flush eyes with plenty of water, occasionally lifting the upper and lower eyelids. Check for and remove any contact lenses. Continue to rinse for at least 10 minutes. Get medical attention following exposure or if feeling unwell.
Inhalation	: Remove victim to fresh air and keep at rest in a position comfortable for breathing. If not breathing, if breathing is irregular or if respiratory arrest occurs, provide artificial respiration or oxygen by trained personnel. It may be dangerous to the person providing aid to give mouth-to-mouth resuscitation. Get medical attention following exposure or if feeling unwell. If unconscious, place in recovery position and get medical attention immediately. Maintain an open airway. Loosen tight clothing such as a collar, tie, belt or waistband.
Skin contact	: Flush contaminated skin with plenty of water. Remove contaminated clothing and shoes. Continue to rinse for at least 10 minutes. Get medical attention following exposure or if feeling unwell. Wash clothing before reuse. Clean shoes thoroughly before reuse.
Ingestion	: Wash out mouth with water. Remove dentures if any. The product contains bitrex. Have conscious person drink several glasses of water or milk. Induce vomiting by sticking finger in throat. If material has been swallowed and the exposed person is conscious, give small quantities of water to drink. Stop if the exposed person feels sick as vomiting may be dangerous. Do not induce vomiting unless directed to do so by medical personnel. If vomiting occurs, the head should be kept low so that vomit does not enter the lungs. Get medical attention. Never give anything by mouth to an unconscious person. If unconscious, place in recovery position and get medical attention immediately. Maintain an open airway. Loosen tight clothing such as a collar, tie, belt or waistband.
Protection of first-aiders	: No action shall be taken involving any personal risk or without suitable training. It may be dangerous to the person providing aid to give mouth-to-mouth resuscitation.

4.2 Most important symptoms and effects, both acute and delayed

Over-exposure signs/symptoms

Eye contact	: No specific data.
Inhalation	: No specific data.
Skin contact	: No specific data.
Ingestion	: No specific data.

4.3 Indication of any immediate medical attention and special treatment needed

Notes to physician	: Treat symptomatically. Contact poison treatment specialist immediately if large
	quantities have been ingested or inhaled.
Specific treatments	: No specific treatment.

SECTION 5: Firefighting measures

5.1 Extinguishing media			
Suitable extinguishing media	:	Use dry chemical, CO ₂ , alcohol-resistant foam or water spray (fog).	
Unsuitable extinguishing media	:	Do not use water jet.	
5.2 Special hazards arising f	ron	the substance or mixture	
Hazards from the substance or mixture	:	In a fire or if heated, a pressure increase will occur and the container may burst.	
Hazardous combustion products	:	Decomposition products may include the following materials: carbon dioxide carbon monoxide metal oxide/oxides	
5.3 Advice for firefighters			
Special protective actions for fire-fighters	:	Promptly isolate the scene by removing all persons from the vicinity of the incident if there is a fire. No action shall be taken involving any personal risk or without suitable training.	
Special protective equipment for fire-fighters	:	Fire-fighters should wear appropriate protective equipment and self-contained breathing apparatus (SCBA) with a full face-piece operated in positive pressure mode. Clothing for fire-fighters (including helmets, protective boots and gloves) conforming to European standard EN 469 will provide a basic level of protection for chemical incidents.	

SECTION 6: Accidental release measures

6.1 Personal precautions, protective equipment and emergency procedures

For non-emergency personnel	:	No action shall be taken involving any personal risk or without suitable training. Evacuate surrounding areas. Keep unnecessary and unprotected personnel from entering. Do not touch or walk through spilled material. Avoid breathing vapor or mist. Provide adequate ventilation. Wear appropriate respirator when ventilation is inadequate. Put on appropriate personal protective equipment.
For emergency responders	:	If specialized clothing is required to deal with the spillage, take note of any information in Section 8 on suitable and unsuitable materials. See also the information in "For non-emergency personnel".
6.2 Environmental precautions	:	Avoid dispersal of spilled material and runoff and contact with soil, waterways, drains and sewers. Inform the relevant authorities if the product has caused environmental pollution (sewers, waterways, soil or air).
6.3 Methods and materials for	۲ C	ontainment and cleaning up
Small spill	:	Stop leak if without risk. Move containers from spill area. Absorb with an inert material and place in an appropriate waste disposal container. Dispose of via a licensed waste disposal contractor.
Large spill	:	Stop leak if without risk. Move containers from spill area. Approach release from upwind. Prevent entry into sewers, water courses, basements or confined areas. Wash spillages into an effluent treatment plant or proceed as follows. Dispose of via a licensed waste disposal contractor. Contaminated absorbent material may pose the same hazard as the spilled product. Contain and collect spillage with non-combustible, absorbent material e.g. sand, earth, vermiculite or diatomaceous earth and place in container for disposal according to local regulations.
6.4 Reference to other sections	:	See Section 1 for emergency contact information. See Section 8 for information on appropriate personal protective equipment. See Section 13 for additional waste treatment information.

SECTION 7: Handling and storage

The information in this section contains generic advice and guidance. The list of Identified Uses in Section 1 should be consulted for any available use-specific information provided in the Exposure Scenario(s).

7.1 Precautions for safe handling

Protective measures	: Put on appropriate personal protective equipment (see Section 8). Do not breathe vapor or mist. Do not ingest. Avoid contact with eyes, skin and clothing. Keep in the original container or an approved alternative made from a compatible material, kept tightly closed when not in use. Empty containers retain product residue and can be hazardous. Do not reuse container.
Advice on general occupational hygiene	: Eating, drinking and smoking should be prohibited in areas where this material is handled, stored and processed. Workers should wash hands and face before eating, drinking and smoking. Remove contaminated clothing and protective equipment before entering eating areas. See also Section 8 for additional information on hygiene measures.

7.2 Conditions for safe storage, including any incompatibilities

Store in accordance with local regulations. Store in original container protected from direct sunlight in a dry, cool and well-ventilated area, away from incompatible materials (see Section 10) and food and drink. Keep container tightly closed and sealed until ready for use. Containers that have been opened must be carefully resealed and kept upright to prevent leakage. Do not store in unlabeled containers. Use appropriate containment to avoid environmental contamination. See Section 10 for incompatible materials before handling or use.

7.3 Specific end use(s)

Recommendations	: Not available.
Industrial sector specific solutions	: Not available.

SECTION 8: Exposure controls/personal protection

The information in this section contains generic advice and guidance. Information is provided based on typical anticipated uses of the product. Additional measures might be required for bulk handling or other uses that could significantly increase worker exposure or environmental releases.

8.1 Control parameters

Occupational exposure limits

Exposure limit values
Limit values (Belgium, 12/2023) Absorbed through skin.
TWA 8 hours: 20 ppm. Form: aerosol.
TWA 8 hours: 52 mg/m ³ . Form: aerosol.
Limit value - M: 40 ppm. Form: aerosol.
Limit value - M: 104 mg/m ³ . Form: aerosol.
EU OEL (Europe, 1/2022) Absorbed through skin.
TWA 8 hours: 20 ppm.
TWA 8 hours: 52 mg/m ³ .
STEL 15 minutes: 40 ppm.
STEL 15 minutes: 104 mg/m ³ .

Biological exposure indices

No exposure indices known.

Recommended monitoring procedures	: Reference should be made to monitoring standards, such as the following: European Standard EN 689 (Workplace atmospheres - Guidance for the assessment of exposure by inhalation to chemical agents for comparison with limit values and measurement strategy) European Standard EN 14042 (Workplace atmospheres - Guide for the application and use of procedures for the assessment of exposure to chemical and biological agents) European Standard EN 482 (Workplace atmospheres - General requirements for the performance of procedures for the measurement of chemical agents) Reference to national guidance documents for methods for the determination of hazardous substances will also be required.
	required.

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NELs/DMELs	
Product/ingredient name	Result
ethanediol	DNEL - General population - Long term - Inhalation 7 mg/m ³ <u>Effects</u> : Local
	DNEL - Workers - Long term - Inhalation 35 mg/m³ <u>Effects</u> : Local
	DNEL - General population - Long term - Dermal 53 mg/kg bw/day <u>Effects</u> : Systemic
	DNEL - Workers - Long term - Dermal 106 mg/kg bw/day <u>Effects</u> : Systemic
sodium benzoate	DNEL - General population - Long term - Inhalation 1.5 mg/m ³ <u>Effects</u> : Systemic
	DNEL - Workers - Long term - Inhalation 3 mg/m³ <u>Effects</u> : Systemic
	DNEL - General population - Long term - Oral 16.6 mg/kg bw/day <u>Effects</u> : Systemic
	DNEL - Workers - Long term - Dermal 62.5 mg/kg bw/day <u>Effects</u> : Systemic
	DNEL - General population - Long term - Inhalation 0.06 mg/m ³ <u>Effects</u> : Local
	DNEL - Workers - Long term - Inhalation 0.1 mg/m³ <u>Effects</u> : Local
	DNEL - General population - Long term - Dermal 31.25 mg/kg bw/day <u>Effects</u> : Systemic
PNECs	
Product/ingredient name ethanediol	Result Fresh water 10 mg/l
	Marine water

1 mg/l

Fresh water sediment 20.9 mg/kg

Sewage Treatment Plant 199.5 mg/l

SECTION 8: Exposure controls/personal protection

.2 Exposure controls	
Appropriate engineering controls	: If user operations generate dust, fumes, gas, vapor or mist, use process enclosures, local exhaust ventilation or other engineering controls to keep worker exposure to airborne contaminants below any recommended or statutory limits.
Individual protection measu	<u>ires</u>
Hygiene measures	: Wash hands, forearms and face thoroughly after handling chemical products, before eating, smoking and using the lavatory and at the end of the working period. Appropriate techniques should be used to remove potentially contaminated clothing. Wash contaminated clothing before reusing. Ensure that eyewash stations and safety showers are close to the workstation location.
Eye/face protection	: Safety eyewear complying with an approved standard should be used when a risk assessment indicates this is necessary to avoid exposure to liquid splashes, mists, gases or dusts. If contact is possible, the following protection should be worn, unless the assessment indicates a higher degree of protection: safety glasses with side-shields.
Skin protection	
Hand protection	: Chemical-resistant, impervious gloves complying with an approved standard should be worn at all times when handling chemical products if a risk assessment indicates this is necessary. Considering the parameters specified by the glove manufacturer, check during use that the gloves are still retaining their protective properties. It should be noted that the time to breakthrough for any glove material may be different for different glove manufacturers. In the case of mixtures, consisting of several substances, the protection time of the gloves cannot be accurately estimated. Wear suitable gloves tested to EN374. Recommended: < 1 hour (breakthrough time): nitrile rubber 0.17 mm.
Body protection	: Personal protective equipment for the body should be selected based on the task being performed and the risks involved and should be approved by a specialist before handling this product.
Other skin protection	 Appropriate footwear and any additional skin protection measures should be selected based on the task being performed and the risks involved and should be approved by a specialist before handling this product.
Respiratory protection	: Based on the hazard and potential for exposure, select a respirator that meets the appropriate standard or certification. Respirators must be used according to a respiratory protection program to ensure proper fitting, training, and other important aspects of use. Recommended: Boiling point > 65 °C: A1; Boiling point < 65 °C: AX1; Hot material: A1P2. Gas and combination filter cartridges should comply with the European standard EN14387.
Environmental exposure controls	: Emissions from ventilation or work process equipment should be checked to ensure they comply with the requirements of environmental protection legislation. In some cases, fume scrubbers, filters or engineering modifications to the process equipment will be necessary to reduce emissions to acceptable levels.

SECTION 9: Physical and chemical properties

The conditions of measurement of all properties are at standard temperature and pressure unless otherwise indicated.

9.1 Information on basic physical and chemical properties

Appearance	
Physical state	: Liquid.
Appearance	: Clear
Color	: Orange
Odor	: Mild.
Odor threshold	: Not available.
Melting point/freezing point	: -37°C (-34.6°F)
Boiling point or initial boiling point and boiling range	: 109°C (228.2°F)
Flammability	: Not applicable.

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SECTION & Develop	l and ch	mical n	onortice			
SECTION 9: Physica Lower and upper explosion		available.	operties			
limit						
Flash point	: Clos	ed cup: Not a	applicable.			
Auto-ignition temperature	: 398°	C (748.4°F)				
Decomposition temperature	e : Not	available.				
рН	: 8.7					
Viscosity	: Not	available.				
Solubility	:					
Media	Re	sult				
cold water		sily soluble				
hot water	Ea	sily soluble				
Partition coefficient n-octar water (log Pow) Vapor pressure		applicable. available.				
	Va	apor Pressu	re at 20°C	V	apor pressu	ure at 50°C
		kPa	Method	mm Hg	kPa	
Ingredient name	ппп па	NFd				
Ingredient name ethanediol	mm Hg 0.09226	0.012	Method			Method
ethanediol	0.09226	0.012				Method
ethanediol Density	0.09226	0.012 g/cm ³ [20°C				Method
ethanediol Density Relative vapor density	0.09226	0.012				Method
ethanediol Density Relative vapor density Particle characteristics	0.09226 : 1.07 : 2.1 [0.012 g/cm³ [20°C Air = 1]				Method
ethanediol Density Relative vapor density	0.09226 : 1.07 : 2.1 [0.012 g/cm ³ [20°C				Method
ethanediol Density Relative vapor density Particle characteristics Median particle size	0.09226 : 1.07 : 2.1 [0.012 g/cm³ [20°C Air = 1]				Method
ethanediol Density Relative vapor density <u>Particle characteristics</u> Median particle size 0.2 Other information	0.09226 : 1.07 : 2.1 [: Not	0.012 g/cm³ [20°C Air = 1] applicable.	(68°F)]			Method
ethanediol Density Relative vapor density <u>Particle characteristics</u> Median particle size 0.2 Other information 9.2.1 Information with regar	0.09226 : 1.07 : 2.1 [: Not	0.012 g/cm³ [20°C Air = 1] applicable.	(68°F)]			Method
ethanediol Density Relative vapor density <u>Particle characteristics</u> Median particle size 0.2 Other information 9.2.1 Information with regar	0.09226 : 1.07 : 2.1 [: Not : Not	0.012 g/cm³ [20°C Air = 1] applicable.	(68°F)]			Method
ethanediol Density Relative vapor density <u>Particle characteristics</u> Median particle size 9.2 Other information 9.2.1 Information with regar Explosive properties	0.09226 : 1.07 : 2.1 [: Not : Not	0.012 g/cm ³ [20°C Air = 1] applicable. al hazard cla	(68°F)]			Method
ethanediol Density Relative vapor density <u>Particle characteristics</u> Median particle size 0.2 Other information 9.2.1 Information with regar Explosive properties Oxidizing properties	0.09226 : 1.07 : 2.1 [: Not : Not	0.012 g/cm ³ [20°C Air = 1] applicable. al hazard cla	(68°F)]			Method
ethanediol Density Relative vapor density <u>Particle characteristics</u> Median particle size 9.2 Other information 9.2.1 Information with regar Explosive properties Oxidizing properties 9.2.2 Other safety character Miscible with water	0.09226 : 1.07 : 2.1 [: Not : Not : Not : Not : : Not	0.012 g/cm ³ [20°C Air = 1] applicable. al hazard cla applicable. applicable.	(68°F)]			Method
ethanediol Density Relative vapor density <u>Particle characteristics</u> Median particle size 9.2 Other information 9.2.1 Information with regar Explosive properties Oxidizing properties 9.2.2 Other safety character Miscible with water SECTION 10: Stabilit	0.09226 : 1.07 : 2.1 [: Not : Not : Not : Not : : Not : : Yes. : : Yes.	0.012 g/cm ³ [20°C Air = 1] applicable. al hazard cla applicable. applicable. applicable.	(68°F)]			
ethanediol Density Relative vapor density <u>Particle characteristics</u> Median particle size 9.2 Other information 9.2.1 Information with regar Explosive properties Oxidizing properties 9.2.2 Other safety character Miscible with water	0.09226 : 1.07 : 2.1 [: Not : Not : Not : Not : : Not : : Yes. : : Yes.	0.012 g/cm ³ [20°C Air = 1] applicable. al hazard cla applicable. applicable. applicable.	(68°F)]			Method

10.3 Possibility of	1	Under normal conditions of storage and use, hazardous reactions will not occur.
hazardous reactions		

- **10.4 Conditions to avoid** : No specific data.
- **10.5 Incompatible materials** : No specific data.
- 10.6 Hazardous : Under normal conditions of storage and use, hazardous decomposition products should not be produced. decomposition products

10.3

SECTION 11: Toxicological information

11.1 Information on hazard classes as defined in Regulation (EC) No 1272/2008

Acute toxicity

Product/ingredient name ethanediol	<mark>Result</mark> Rat - Oral - LD50 4700 mg/kg
sodium benzoate	Rat - Oral - LD50

700 mg/kg Rat - Oral - LD50

4070 mg/kg

Conclusion/Summary [Product] : Not available.

Acute toxicity estimates

Product/ingredient name	Oral (mg/ kg)	Dermal (mg/kg)	Inhalation (gases) (ppm)	Inhalation (vapors) (mg/l)	Inhalation (dusts and mists) (mg/l)
Q8 Antifreeze Long Life OAT Premixed	4081.6	N/A	N/A	N/A	N/A
ethanediol	2000	N/A	N/A	N/A	N/A
sodium benzoate	4070	N/A	N/A	N/A	N/A

Skin corrosion/irritation

Product/ingredient name

ethanediol

Result

Rabbit - Skin - Mild irritant Amount/concentration applied: 555 mg

Conclusion/Summary [Product] : Not available.

Serious eye damage/eye irritation

Product/ingredient name ethanediol

Result

Rabbit - Eyes - Mild irritant Duration of treatment/exposure: 24 hours Amount/concentration applied: 500 mg

Rabbit - Eyes - Mild irritant

Duration of treatment/exposure: 1 hours Amount/concentration applied: 100 mg

Rabbit - Eyes - Moderate irritant

Duration of treatment/exposure: 6 hours Amount/concentration applied: 1440 mg

Conclusion/Summary [Product] : Not available.

Respiratory corrosion/irritation

Not available.

Conclusion/Summary [Product] : Not available.

Respiratory or skin sensitization

Not available.

Skin

Conclusion/Summary [Product] : Not available.

SECTION 11: Toxicological information

SECTION 11: Toxicological information
Respiratory
Conclusion/Summary [Product] : Not available.
Germ cell mutagenicity
Not available.
NOT available.
Conclusion/Summary [Product] : Not available.
Carcinogenicity
Not available.
Conclusion/Summary [Product] : Not available.
Reproductive toxicity
Not available.
Conclusion/Summary [Product] : Not available.
Specific target organ toxicity (single exposure)
Not available.
Specific target organ toxicity (repeated exposure)
Product/ingredient nameResultethanediolSTOT RE 2, H373 (kidneys)
STOTICE 2, 11373 (kidneys)
Aspiration hazard
Not available.
Information on the likely routes of exposure
Not available.
Potential acute health effects
Eye contact : No known significant effects or critical hazards.
Inhalation : No known significant effects or critical hazards.
Skin contact : No known significant effects or critical hazards.
Ingestion : No known significant effects or critical hazards.
Symptoms related to the physical, chemical and toxicological characteristics
Eye contact : No specific data.
Inhalation : No specific data.
Skin contact No specific data.
Ingestion : No specific data.
Delayed and immediate effects and also chronic effects from short and long term exposure
Short term exposure
Potential immediate : Not available.
effects
Potential delayed effects : Not available.
Long term exposure
Potential immediate : Not available. effects
Potential delayed effects : Not available.
Potential chronic health effects

SECTION 11: Toxicological information

Conclusion/Summary [P	roduct] : Not available.
General	: May cause damage to organs through prolonged or repeated exposure.
Carcinogenicity	: No known significant effects or critical hazards.
Mutagenicity	: No known significant effects or critical hazards.
Reproductive toxicity	: No known significant effects or critical hazards.

11.2 Information on other hazards

11.2.1 Endocrine disrupting properties

Not available.

Conclusion/Summary [Product] : The product does not meet the criteria to be considered as having endocrine disrupting properties according to the criteria set out in either Regulation (EC) No. 1907/2006 or Regulation (EC) No 1272/2008.

11.2.2 Other information

Not available.

SECTION 12: Ecological information

12.1 Toxicity		
Product/ingredient name		Result
ethanediol		Acute - LC50 - Fresh water
		Fish - Fathead minnow - Pimephales promelas
		<u>Age</u> : ≤7 days
		8050 mg/l [96 hours]
		<u>Effect</u> : Mortality
		Acute - LC50 - Fresh water
		Crustaceans - Water flea - <i>Ceriodaphnia dubia</i> - Neonate 6900 mg/l [48 hours] <u>Effect</u> : Mortality
sodium benzoate		Acute - LC50 - Fresh water
		Fish - Fathead minnow - <i>Pimephales promelas</i>
		Age: 33 days
		484 mg/l [96 hours]
		Effect: Mortality
Conclusion/Summary [Product]	 Not available 	3

Conclusion/Summary [Product] Not available.

12.2 Persistence and degradability

Product/ingredient name

ethanediol

Result

OECD 301A [Ready Biodegradability - DOC Die-Away Test] >70% [28 days]

Conclusion/Summary [Product] : Not available.

Product/ingredient name	Aquatic half-life	Photolysis	Biodegradability
ethanediol	-	-	Readily

12.3 Bioaccumulative potential

Product/ingredient name	LogPow	BCF	Potential
ethanediol	-1.36		Low
sodium benzoate	-2.27		Low

12.4 Mobility in soil Soil/Water partition coefficient

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SECTION 12: Ecological information **Product/ingredient name** logKoc Koc 0.75 ethanediol 5.59292 31.66 sodium benzoate 1.5 **Results of PMT and vPvM assessment**

Product/ingredient name	РМТ	Ρ	М	Т	vPvM	vP	٧M
ethanediol	No	No	No	No	No	No	No
sodium benzoate	No	No	No	No	No	No	No

Mobility : Not available.

Conclusion/Summary

: The product does not meet the criteria to be considered as a PMT or vPvM.

12.5 Results of PBT and vPvB assessment

Regulation (EC) No. 1907/2006 [REACH]

Product/ingredient name	PBT	D	В	т	vPvB	vP	vB
Froduct/ingredient name	FDI	F	D		VEVD	VF	VD
ethanediol	No	No	No	No	No	No	No
sodium benzoate	No	No	No	No	No	No	No
Regulation (EC) No. 1272/20	008 [CLP]						
Product/ingredient name	PBT	Р	В	т	vPvB	vP	vB
ethanediol	No	No	No	No	No	No	No
sodium benzoate	No	No	No	No	No	No	No

Conclusion/Summary : The product does not meet the criteria to be considered as a PBT or vPvB. **Regulation (EC) No. 1272/2008** [CLP]

12.6 Endocrine disrupting properties

Not available.

Conclusion/Summary [Product]

: The product does not meet the criteria to be considered as having endocrine disrupting properties according to the criteria set out in either Regulation (EC) No. 1907/2006 or Regulation (EC) No 1272/2008.

12.7 Other adverse effects

No known significant effects or critical hazards.

SECTION 13: Disposal considerations

The information in this section contains generic advice and guidance. The list of Identified Uses in Section 1 should be consulted for any available use-specific information provided in the Exposure Scenario(s).

3.1 Waste treatment met	hods
Product	
Methods of disposal	: The generation of waste should be avoided or minimized wherever possible. Disposal of this product, solutions and any by-products should at all times comply with the requirements of environmental protection and waste disposal legislation and any regional local authority requirements. Dispose of surplus and non-recyclable products via a licensed waste disposal contractor. Waste should not be disposed of untreated to the sewer unless fully compliant with the requirements of all authorities with jurisdiction.
Hazardous waste	: Yes.
European waste catalo	gue (EWC)
Waste code	Waste designation
16 01 14*	antifreeze fluids containing hazardous substances
Packaging	
Date of issue/Date of revision	: 06-03-2025 Date of previous issue : 19-01-2024 Version : 1.01 12/10

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SECTION 13: Disposal considerations

Methods of disposal	: The generation of waste should be avoided or minimized wherever possible. Waste packaging should be recycled. Incineration or landfill should only be considered when recycling is not feasible.
Special precautions	: This material and its container must be disposed of in a safe way. Care should be taken when handling emptied containers that have not been cleaned or rinsed out. Empty containers or liners may retain some product residues. Avoid dispersal of spilled material and runoff and contact with soil, waterways, drains and sewers.

SECTION 14: Transport information

	ADR/RID	ADN	IMDG	ΙΑΤΑ		
14.1 UN number or ID number	Not regulated.	Not regulated.	Not regulated.	Not regulated.		
14.2 UN proper shipping name	-	-	-	-		
14.3 Transport hazard class(es)	-	-	-	-		
14.4 Packing group	-	-	-	-		
14.5 Environmental hazards	No.	No.	No.	No.		

14.6 Special precautions for user

Transport within user's premises: always transport in closed containers that are upright and secure. Ensure that persons transporting the product know what to do in the event of an accident or spillage.

14.7 Maritime transport in : Not available. bulk according to IMO instruments

SECTION 15: Regulatory information

15.1 Safety, health and environmental regulations/legislation specific for the substance or mixture <u>EU Regulation (EC) No. 1907/2006 (REACH)</u>

Annex XIV - List of substances subject to authorization

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Annex XIV

None of the components are listed.

Substances of very high concern

None of the components are listed.

Annex XVII - Restrictions on the manufacture, placing on the market and use of certain dangerous substances, mixtures and articles

Product/ingredient name %		%	Designation [Usage]	
Q8 Antifreeze Long Life OA	AT Premixed	≥90	3	
Labeling	: Not applica	able.		
Other EU regulations				
Industrial emissions (integrated pollution prevention and control) - Air	: Not listed			

Date of issue/Date of revision

SECTION 15: Regulatory information Industrial emissions : Not listed

(integrated pollution prevention and control) - Water	
Explosive precursors	: Not applicable.
Ozone depleting substance	
Not listed.	
Prior Informed Consent (PI Not listed.	<u>C) (649/2012/EU)</u>
Persistent Organic Pollutar Not listed.	nts (1021/2019/EU)
Seveso Directive	
This product is not controlled	under the Seveso Directive.
National regulations	
<u>Germany</u>	
Hazard class for water (WGK)	: 1
Switzerland	
VOC content	: Exempt.
International regulations	
Chemical Weapon Convention	on List Schedules I, II & III Chemicals
Not listed.	
Not listed. <u>Montreal Protocol</u> Not listed.	
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SECTION 15: Regulatory information

15.2 Chemical Safety	: Chemical Safety Assessments for all substances in this product are either Complete
Assessment	or Not applicable.

SECTION 16: Other information

Indicates information that has changed from previously issued version.

	on that has changed from previously issued version.
Abbreviations and acronyms	 ADN = European Provisions concerning the International Carriage of Dangerous Goods by Inland Waterway
	ADR = The European Agreement concerning the International Carriage of
	Dangerous Goods by Road
	ASTM = American Society for Testing and Materials
	ATE = Acute Toxicity Estimate
	BCF = Bioconcentration Factor
	CAS = Chemical Abstracts Service
	CLP = Classification, Labelling and Packaging Regulation [Regulation (EC) No. 1272/2008]
	DIN = German Institute for Standardization
	DMEL = Derived Minimal Effect Level
	DNEL = Derived No Effect Level
	EC = European Commission
	EC50 = Half maximal effective concentration
	EN = European Standard (Norm)
	EUH statement = CLP-specific Hazard statement
	GHS - Globally Harmonized System of Classification and Labeling of Chemicals
	IATA = International Air Transport Association IBC = Intermediate Bulk Container
	IC50 = Half maximal inhibitory concentration
	IMDG = International Maritime Dangerous Goods
	IMO = International Maritime Organisation
	ISO = International Organization for Standardization
	LC50 = Median lethal concentration
	LD50 = Median lethal dose
	LOAEL / LOAEC = Lowest Observed Adverse Effect Level / Concentration
	MARPOL = International Convention for the Prevention of Pollution From Ships,
	1973 as modified by the Protocol of 1978. ("Marpol" = marine pollution)
	N/A = Not available NOAEL / NOAEC = No Observed Adverse Effect Level / Concentration
	NOAEL / NOAEC = No Observed Adverse Effect Level / Concentration
	OECD = Organisation for Economic Co-operation and Development
	OEL = Occupational Exposure Limit
	PBT = Persistent, Bioaccumulative and Toxic
	PNEC = Predicted No Effect Concentration
	REACH = Registration, Evaluation, Authorisation and Restriction of Chemicals
	Regulation [Regulation (EC) No. 1907/2006]
	RID = The Regulations concerning the International Carriage of Dangerous Goods
	by Rail
	SDS = Safety Data Sheet
	SVHC = Substances of Very High Concern
	STEL = Short Term Exposure Limit
	TLV = Threshold Limit Value
	TWA = Time Weighted Average
	UFI = Unique Formula Identifier
	UN = United Nations
	VOC = Volatile Organic Compound
	vPvB = Very Persistent and Very Bioaccumulative

Procedure used to derive the classification according to Regulation (EC) No. 1272/2008 [CLP/GHS]

Classification	Justification
STOT RE 2, H373	Calculation method

Full text of abbreviated H statements

SECTION 16: Other information

H319 Cau	nful if swallowed. ses serious eye irritation. cause damage to organs through prolonged or repeated exposure.
Full text of classifications [CLP/GHS]	
Acute Tox. 4 Eye Irrit. 2 STOT RE 2	ACUTE TOXICITY - Category 4 SERIOUS EYE DAMAGE/ EYE IRRITATION - Category 2 SPECIFIC TARGET ORGAN TOXICITY (REPEATED EXPOSURE) - Category 2
Training advice Date of printing	Ensure operatives are trained to minimise exposures.06-03-2025
Date of issue/ Date of revision	: 06-03-2025
Date of previous issu Version	e : 19-01-2024 : 1.01

: Kuwait Petroleum Research & Technology B.V., The Netherlands

Notice to reader

Prepared by

The information in this SDS is based on the present state of our knowledge and on current laws. The product is not to be used for purposes other than those specified under section 1 without first obtaining written handling instructions. It is always the responsibility of the user to take all necessary steps to fulfill the demands set out in the local rules and legislation. The information in this SDS is meant to be a description of the safety requirements for our product. It is not to be considered a guarantee of the product's properties.