

Previous version preparation date: 24.03.2021

Page: 1/10 Revision edition no: 0-new Update date:

DYNAMAX COOL ULTRA G12 -8

Safety data sheet

(Regulation 1907/2006/EC, amended by 2020/878/EU)

SECTION 1: IDENTIFICATION OF THE SUBSTANCE/MIXTURE AND OF THE COMPANY / **UNDERTAKING**

1.1. Product identifier

Material Name:	DYNAMAX COOL	DYNAMAX COOL ULTRA G12 -8		
CAS:		EINECS:		
UFI:	VKFX-YEY1-8101-YAQE	ELINCS:		

1.2. Identified uses

Uses:	antifreeze in the cooling systems

1.3. Details of the supplier of the safety data sheet

Manufacturer/Supplier:	EURO-VAT spol. s r.o.
IČO:	18049397
Address:	Alekšince 231
	951 22
	Alekšince (Slovakia)
Phone/fax number:	+421 37 7822 326-7
E-mail:	eurovat@eurovat.sk www.eurovat.sk
Emergency phone number:	National Poisons Information Service: City Hospital, Birmingham B187QH, United Kingdom Phone: +44 121 507 4123 E-mai: allistervale(at)npis.org, sallybradberry(at)npis.org Website: www.npis.org

SECTION 2: HAZARDS IDENTIFICATION

2.1. Classification of the	Classification according to Regulation (EC) No. 1272/2008 [CLP/GHS]
substance or mixture	Acute Tox. 4 (*) H302

STOT RE 2 H373

2.2 Label elements Hazard pictograms (CLP/GHS):



Signal word: warning

H-phrases:

H302 Harmful if swallowed

H373 May cause damage to organs through prolonged or repeated exposure

P-phrases:

P102 Keep out of reach of children

P260 Do not breathe vapours/spray

P264 Wash hands thoroughly after handling

P270 Do no eat, drink or smoke when using this product

P301+P312 IF SWALLOWED: Call a POISON CENTER or doctor/physician if

you feel unwell

P501 Dispose of contents/container to a hazardous waste in accordance with relevant legislation



Previous version preparation date: 24.03.2021 Page: 2/10 Update date: Revision edition no: 0-new

DYNAMAX COOL ULTRA G12 -8

Contains: ethylene glycol

Precautionary statements

Prevention: Do not breathe vapour. Do not eat, drink or smoke when

using this product. Wash hands thoroughly after

handling.

Response: Get medical attention if you feel unwell. IF SWALLOWED:

Call a POISON CENTER or physician if you feel unwell.

Storage: Store in original container in a well ventilated area

at temperatures up to 40 °C. Protect the product

from static electricity.

Disposal : Not applicable. **Supplemental label elements:** Not applicable.

Special packaging requirements

Containers to be fitted with child-resistant fastenings: Not applicable.

Tactile warning of danger: Applicable.

2.3 Other hazards

Substance meets the criteria for PBT according to Regulation (EC) No. 1907/2006, Annex XIII:

Not available.

Substance meets the criteria for vPvB according to Regulation (EC) No.

1907/2006, Annex XIII:

Not available.

Other hazards which do not result in classification: Not available.

SECTION 3: COMPOSITION/INFORMATION ON IGREDIENTS

Product /ingredient name	CAS	EC	Symbols	Conc. %	Registr. no REACH	GHS classific	ation
Ethan-1,2-diol	107-21-1	203-473-3	(1)	min. 20	01-2119456816- 28-0000	Acute Tox.4 STOT RE 2	H302 H373
Potassium 2- ethylhexanoate	3164-85-0	221-625-7		max. 1	01-2119980714- 29-xxxx	Repr. 2 Skin Irrit. 2 Eye Dam. 1	H361d H315 H318
Methyl-1H-benztriazol	29385-43-1	249-596-6	₹	min. 0,05	01-2119979081- 35-xxxx	Acute Tox. 4 Aquatic Chronic 2	H302 H411

SECTION 4: FIRST AID MEASURES

4.1 Description of first aid	Eye contact:	Immediately flush eyes with plenty of water, occasionally lifting the
measures		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.



Previous version preparation date: 24.03.2021 Page: 3/10 Update date: Revision edition no: 0-new

DYNAMAX COOL ULTRA G12 -8

	Ingestion: Wash out mouth with water. Remove dentures if any. Remove victim to fresh air and keep at rest in a position comfortable for breathing. 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. If necessary, call a poison		
	center or physician. 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	Potential acute health effects		
symptoms and effects,	Eye contact: No known significant effects or critical hazards.		
both acute and delayed	Inhalation: No known significant effects or critical hazards.		
	Skin contact: No known significant effects or critical hazards.		
	Ingestion: Harmful if swallowed.		
	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	Notes to physician: Treat symptomatically. Contact poison treatment specialist		
immediate medical	immediately if large quantities have been ingested or		
attention and special	inhaled.		
treatment needed	Specific treatments: No specific treatment.		

SECTION 5: FIRE FIGHTING MEASURES

5.1 Suitable extinguishing media	In case of fire, use water spray (fog), foam or dry chemical.		
5.2. Unsuitable extinguishing media	None known.		
5.3. Specific hazards	Hazards from the substance or mixture: In a fire or if heated, a pressure		
_	increase will occur and the container may burst.		
	Hazardous thermal decomposition products: Decomposition products may		
	include the following materials: carbon dioxide,		
	carbon monoxide.		
5.4. Protective equipment	Special protective actions for fire-fighters: Promptly isolate the scene by		
for firefighters	removing all persons from the vicinity of the incident if there		
0	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 facepiece 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	For non-emergency personnel: No action shall be taken involving any personal	
10.1. I CISOHAI DI CCAULIONS	To non emergency personner, the detion shan be taken involving any personal	



Previous version preparation date: 24.03.2021 Update date:

DYNAMAX COOL ULTRA G12 -8

may pose the same hazard as the spilt product. Note: see section 1 for emergency contact information and section 13 for waste disposal.

Page: 4/10

Revision edition no: 0-new

	risk or without suitable training. Evacuate surrounding areas. Keep unnecessary and unprotected personnel from entering. Do not touch or walk through spilt material. Avoid breathing vapour or mist. Provide adequate ventilation. Wear		
	appropriate respirator when ventilation is inadequate. Put on appropriate personal protective equipment.		
	For emergency responders: If specialised 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 spilt 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. Clean up methods	Small spill: Stop leak if without risk. Move containers from spill area. Dilute with water and mop up if water-soluble. Alternatively, or if water-insoluble, absorb with an inert dry 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 the release from upwind. Prevent entry into sewers, water courses, basements or confined areas. Wash spillages into an effluent treatment plant or proceed as follows. 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 (see section 13). Dispose of via a licensed waste disposal contractor. Contaminated absorbent material		

SECTION 7: HANDLING AND STORAGE

7.1. Handling	Protective measures : Put on appropriate personal protective equipment (see		
	Section 8). Do not breathe vapour 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 . Storage	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 unlabelled		
	containers. Use appropriate containment to avoid environmental contamination.		
	Storage temperature : $0 - 40$ °C.		

SECTION 8: EXPOSURE CONTROLS/PERSONAL PROTECTION

8.1. Control	Occupational exposure limits	
parameters	Product/ingredient	Exposure limit values
-	name	



Previous version preparation date: 24.03.2021 Update date:

DYNAMAX COOL ULTRA G12 -8

Page: 5/10

Revision edition no: 0-new

	ethanediol	EH40/2005 WELs (United Kingdom (UK), 8/2007). Absorbed	
		through skin.	
		TWA: 10 mg/m ³ 8 hour(s). Form: Particulate	
		STEL: 104 mg/m ³ 15 minute(s). Form: Vapour	
		STEL: 40 ppm 15 minute(s). Form: Vapour	
		TWA: 52 mg/m ³ 8 hour(s). Form: Vapour	
-		TWA: 20 ppm 8 hour(s). Form: Vapour	

Recommended monitoring procedures: If this product contains ingredients with exposure limits, personal, workplace atmosphere or biological monitoring may be required to determine the effectiveness of the ventilation or other control measures and/or the necessity to use respiratory protective equipment. Reference should be made to European Standard EN 689 for methods for the assessment of exposure by inhalation to chemical agents and national guidance documents for methods for the determination of hazardous substances.

Derived effect levels

orrea errect	10 1015				
Product/	Type	Exposure	Value	Population	Effects
ingredient					
name					
ethanediol	DNEL	Long term Dermal	106 mg/kg bw/day	Workers	Systemic
	DNEL	Long term inhalation	35 mg/m^3	Workers	Local
	DNEL	Long term Dermal	53 mg/kg bw/day	Consumers	Systemic
	DNEL	Long term inhalation	7 mg/m^3	Consumers	Local

Predicted effect concentrations

Product ingredient name	Type	Compartment Detail	Value	Method Detail
ethanediol	PNEC	Fresh water	10 mg/l	Assessment Factors
	PNEC	Marine	1 mg/l	Assessment Factors
	PNEC	Fresh water sediment	20,9 mg/kg dwt	-
	PNEC	Sewage Treatment Plant	20,9 mg/l	Assessment Factors

8.2 Exposure controls

Appropriate engineering controls: If user operations generate dust, fumes, gas, vapour 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 measures

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. Recommended: 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. >8 hours (breakthrough time): butyl rubber, nitrile rubber, PVC, Viton®

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.



Previous version preparation date: 24.03.2021 Revision edition no: 0-new Update date:

DYNAMAX COOL ULTRA G12 -8

Page: 6/10

Respiratory protection: Use a properly fitted, air-purifying or air-fed respirator complying with an approved standard if a risk assessment indicates this is necessary. Respirator selection must be based on known or anticipated exposure levels, the hazards of the product and the safe working limits of the selected respirator. Recommended: organic vapour filter (Type A)

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

9.1 Information on basic physical and chemical properties

i information on basic physical and chemical properties			
Fysical state	liquid		
Colour	green		
Odour	odourless		
рН	7 - 9		
Flash point (ASTM-D92) [°C]	not available		
Boiling point (ASTM D1120) [°C]	min. 100		
Freezing point [°C]	- 8 +/-1		
Flammability	not available		
Temperature of spontaneous combustion [°C]	not available		
Lower limit of explosion	not available		
Superior limit of explosion	not available		
Oxidising properties	not available		
Vapour pressure [hPa]	not available		
Relative density [g.cm ⁻³] typ.	1,030 – 1,040		
Water solubility [g.l ⁻¹]	very good mixable		
Solubility in solvents [g.l ⁻¹]	soluble in alcohols, acetone		
9.2 Other information	No additional information.		

SECTION 10: STABILITY AND REACTIVITY

10.1 Reactivity	No specific test data related to reactivity available for this product or its ingredients.
10.2 Chemical stability	Stabile under recommended conditions of use and storage.
10.3 Possibility of hazardous reactions	Under normal conditions of storage and use, hazardous reactions will not occur.
10.4 Conditions to avoid	Keep away from heat, sparks and flame.
10.5 Incompatible materials	Oxidising agents
10.6 Hazardous decomposition products	Under normal conditions of storage and use, hazardous decomposition products should not be produced

SECTION 11: TOXICOLOGICAL INFORMATION

11.1 Information on	Acute toxicity				
toxicological effects	Product/ ingredient	Result	Species	Dose	Exposure
	name				
	ethanediol	LC50 Inhalation Vapour	Rat	>2.5 mg/l	6 hours
		LD50 Dermal	Mouse	>3500 mg/kg	-
		LD50 Oral	Rat	7712 mg/kg	-
	Conclusion/Sur	mmary : Not available.	•		



Previous version preparation date: 24.03.2021

Update date: Revision edition no: 0-new

Page: 7/10

DYNAMAX COOL ULTRA G12 -8

Irritation/Corrosion

Conclusion/Summary: Not available.

Sensitisation

Conclusion/Summary: Not available.

Mutagenicity

•	Product/ ingredient name	Test	Experiment	Result
	ethanediol	-	Experiment: In vitro	Negative
			Subject: Bacteria	
		-	Experiment: In vitro	Negative
			Subject: Bacteria	

Conclusion/Summary: Not available.

Carcinogenicity

Conclusion/Summary: Not available.

Reproductive toxicity

Product/ ingredient name	Maternal toxicity	Fertility	Developmental toxin	Species	Dose	Exposure
ethanediol	Negative	-	Negative	Rat	Oral: >1000 mg/kg	-

Conclusion/Summary: Not available.

Teratogenicity

Conclusion/Summary: Not available.

Specific target organ toxicity (single exposure)

Not available.

Specific target organ toxicity (repeated exposure)

ı	Specific target organ	toxicity (1cp	cated exposure	
	Product/ingredient	Category	Route of exposure	Target organs
	name			
ı	ethanediol	Category 2	Oral	kidnevs

Aspiration hazard

Not available.

Information on the likely routes of exposure: Not available.

Potential acute health effects

Inhalation: No known significant effects or critical hazards.

Ingestion: Harmful if swallowed.

Skin contact: No known significant effects or critical hazards.

Eye contact: 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.

<u>Delayed and immediate effects and also chronic effects from short and long term exposure</u>

Short term exposure

Potential immediate effects: Not available.



Previous version preparation date: 24.03.2021

Page: 8/10 Update date: Revision edition no: 0-new

DYNAMAX COOL ULTRA G12 -8

Potential delayed effects: Not available.

Long term exposure

Potential immediate effects: Not available. **Potential delayed effects:** Not available.

Potential chronic health effects

i ocemenan em	otential chi onic nearth chects							
Product/	Result	Species	Dose	Exposure				
ingredient								
name								
ethanediol	Sub-acute NOAEL Oral	Rat	200 mg/kg	33 days; 7 days per week				
	Sub-acute NOAEL Dermal	Dog	2,22 mg/kg	4 weeks; 7 days per week				

Conclusion/Summary: Not available.

May cause damage to organs through prolonged or repeated General:

exposure if

Carcinogenicity: No known significant effects or critical hazards. **Mutagenicity:** No known significant effects or critical hazards. **Teratogenicity:** No known significant effects or critical hazards. **Developmental effects:** No known significant effects or critical hazards. Fertility effects: No known significant effects or critical hazards.

Other information:

Not available.

SECTION 12: ECOLOGICAL INFORMATION

12.1 Toxicity	Product/ ingredient name	Result	Species	Exposure
	ethanediol	EC50 6500 to 13000 mg/l	Aquatic plants - Pseudokirchnerella subcapitata	96 hours
		Acute EC50 >100 mg/l Fresh water Acute LC50 72860 mg/l Fresh water	Daphnia - Dapnia magna Fish - Pimephales promelas	48 hours 96 hours
		Chronic NOEC 8590 mg/l Fresh water	Crustaceans - Ceriodaphnia sp.	7 days
		Chronic NOEC 15380 mg/l Fresh water	Fish - Pimephales promelas	7 days
	Conclusion/S	Summary: Not available.	· -	

12.2 Persistence and degradability	Conclusion/Summar	y: Not available.			
	Product/ingredient name	Aquatic half-life	Photolysis	Biodegradability	
	ethanediol	-	-	readily	
12.3 Bioaccumulative	Product/ingredient name	LogPow	BCF	Potential	

12.5 Dioaccumulative	1 Todate / mgr carent	Logiow	DC1	1 otchilai	
potential	name				
	ethanediol	-1,36	-	low	

12.4 Mobility	Soil/water partition coefficient (Koc): 1
	Mobility: Not available.

12.5 Results of PBT	PBT:	Not available.
and vPvB assessment		P: Not available. B: Not available. T: Yes.



Previous version preparation date: 24.03.2021 Update date:

n date: 24.03.2021 Page: 9/10 Revision edition no: 0-new

DYNAMAX COOL ULTRA G12 -8

vPvB: Not available.

vP: Not available. vB: Not available.

12. 6 Other adverse effects

No known significant effects or critical hazards.

SECTION 13: DISPOSAL CONSIDERATIONS

13.1 Product

Product

Methods of disposal: The generation of waste should be avoided or minimised wherever possible.

Significant quantities of waste product residues should not be disposed of via the foul sewer but processed in a suitable effluent treatment plant. Dispose of surplus and non-recyclable products via a licensed waste disposal contractor. 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.

Hazardous waste: The classification of the product may meet the criteria for a hazardous waste.

Packaging

Methods of disposal: The generation of waste should be avoided or minimised 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 spilt material and runoff and contact with soil, waterways,

drains and sewers.

SECTION 14: TRANSPORT INFORMATION

ADR	Not regulated
UN proper shipping name	Nor regulated
Class	Not regulated
Hazard Identification	Not regulated
Packing group	Nor regulated
Label	Not regulated

SECTION 15: REGULATORY INFORMATION

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

Annex XIV - List of substances subject to authorisation

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: Not applicable.

Other EU regulations

Europe inventory: All components are listed or exempted.

Black List Chemicals: Not listed
Priority List Chemicals: Not listed

Integrated pollution prevention and control list (IPPC) - Air: Not listed **Integrated pollution prevention and control list (IPPC) - Water:** Not listed



Previous version preparation date: 24.03.2021 Revision edition no: 0-new Update date:

DYNAMAX COOL ULTRA G12 -8

Page: 10/10

International regulations

Chemical Weapons Convention List Schedule I Chemicals: Not listed Chemical Weapons Convention List Schedule II Chemicals: Not listed Chemical Weapons Convention List Schedule III Chemicals: Not listed

15.2 Chemical Safety Assessment

This product contains substances for which Chemical Safety Assessments are still required.

SECTION 16: OTHER INFORMATION

Reason for Revision:

16.1 Text of H-phrases (point 3):

H302 Harmful if swallowed

H315 Causes skin irritation

H318 Causes serious eye damage

H361 Suspected of damaging fertility or the unborn child

H373 May cause damage to organs through prolonged or repeated exposure

H411 Toxic to aquatic life with long lasting effects

16.3 Other information:

The information above is based on a current available data concerning the product, but also on the experience and knowledge in this field of the producer. They are neither a quality description of the product nor a guarantee of particular features. They are to be treated as aid to safety in transport, storage and usage of the product. This does not free the user from the responsibility of improper usage of the information above and also of improper compliance with the law norms in the field.