

DYNAMAX COOL G11R

Safety data sheet

(Regulation 1907/2006/EC, amended by 2015/830/EU)

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

1.1. Product identifier			
Material Name:	DYNAMAX COO	DL G11R	
CAS:		EINECS:	
		ELINCS:	

1.2.	Identified	uses
1.4.	Iuchtinu	usus

Uses:	antifreeze in the cooling systems			
1.3. Details of the supplier of	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:	Národné toxikologické informačné centrum (NTIC) Klinika pracovného lekárstva a toxikológie, FNsP akad. L.Dérera Limbova 5 833 05 Bratislava Tel. +421 2 5477 4166 <u>ntic@ntic.sk</u> www.ntic.sk			

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
	Contains: ethylene glycol



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	Precautionary statements		
	Prevention :	Do not breathe vapour. Do not eat, drink or smoke when	
	revenuon.		
		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.		
	Substance meets the criteria for PBT according to Regulation (EC) No.		
	1907/2006, Annex XIII:		
	Not available.		
	Substance mee	ts the criteria for vPvB according to Regulation (EC) No.	
2.3 Other hazards	1907/2006, Ani		
	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		min. 90	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

	E	
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
	imalation.	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.
	T	
	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



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	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		
8	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	
-	risk or without suitable training. Evacuate surrounding	
	areas. Keep unnecessary and unprotected personnel from	
	entering. Do not touch or walk through spilt material. Avoid	

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	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	Avoid dispersal of spilt material and runoff and contact with soil, waterways,	
precautions	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 may pose the same hazard as the spilt product. Note: see section 1for emergency contact information and section 13 for waste disposal.	

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 : $0 - 40^{\circ}$ C.		

SECTION 8: EXPOSURE CONTROLS/PERSONAL PROTECTION

8.1. Control	Occupational exposu	Occupational exposure limits				
parameters	Product/ingredient	Exposure limit values				
-	name					
	ethanediol	EH40/2005 WELs (United Kingdom (UK), 8/2007). Absorbed				
		through skin.				
		TWA: 10 mg/m ³ 8 hour(s). Form: Particulate				



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			STEL: 104 mg/m ³ 15 m		r			
			STEL: 40 ppm 15 minu					
			TWA: 52 mg/m ³ 8 hour TWA: 20 ppm 8 hour(s					
	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							
		necessi	ty to use respiratory prote an Standard EN 689 for n	ctive equipment. Refer	ence should be m	ade to		
		inhalati	on to chemical agents and nation of hazardous subs	l national guidance doc				
	Derived effect	lovolo						
	Product/	Type	Exposure	Value	Population	Effects		
	ingredient	турс	Laposure	Value	ropulation	Lincus		
	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 effe	ct concer	trations					
	Product	Туре	Compartment Detail	Value	Method Detai	1		
	ingredient name							
	ethanediol	PNEC	Fresh water	10 mg/l	Assessment Fa	actors		
	cillaneuloi	PNEC	Marine	1 mg/l	Assessment Fa			
		PNEC	Fresh water sediment	20,9 mg/kg dwt	-	ectors.		
	11							
		PNEC	Sewage Treatment Plan		Assessment Fa	actors		
Exposure	Appropriate			t 20,9 mg/l				
Exposure ntrols	Appropriate	enginee	Sewage Treatment Plan	t 20,9 mg/l operations generate	dust, fumes, gas	, vapour or		
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-	Appropriate	enginee mi en	Sewage Treatment Plan ring controls : If user st, use process enclosu	t 20,9 mg/l operations generate of res, local exhaust ver eep worker exposure	dust, fumes, gas ntilation or othe	s, vapour or r		
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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

Fysical state	liquid
Colour	phosphorescent yellow
Odour	odourless
pH	7 - 9
Flash point (ASTM-D92) [°C]	not available
Boiling point (ASTM D1120) [°C]	> 150
Freezing point [°C]	- 32 +/-2 (mixed with water 1:1)
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.	1,110 - 1,140
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.

9.1 Information on basic physical and chemical properties

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 name	Result	Species	Dose	Exposure
	ethanediol	LC50 Inhalation Vapour LD50 Dermal LD50 Oral	Rat Mouse Rat	>2.5 mg/l >3500 mg/kg 7712 mg/kg	6 hours - -
	Irritation/Corr	nmary : Not available. <u>osion</u> nmary : Not available.			



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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)

Product/ingredient	Category	Route of exposure	Target organs
name			
ethanediol	Category 2	Oral	kidneys

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 dataIngestion:No specific data.

Delayed and immediate effects and also chronic effects from short and long term exposure

<u>Short term exposure</u> Potential immediate effects: Not available.



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Potential delayed effects : Not available.							
Potential del	mediate effects: Not avai layed effects: Not avai						
Potential chi Product/ ingredient name	ronic health effects Result	Species	Dose	Exposure			
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			
General : exposure if Carcinogeni Mutagenicit Teratogenici	swallowed. city: No known sig y: No known sig ity: No known sig tal effects: No known sig exts: No known sig	nificant et gnificant e gnificant e gnificant e	ffects or critica ffects or critica ffects or critica	al hazards. al hazards. al hazards.			
Not available							

SECTION 12: ECOLOGICAL INFORMATION

					a .	
12.1 Toxicity	Product/	Result			Species	Exposure
	ingredient					
	name	E050 (500 / 12000 /		A (1 1 (0.61
	ethanediol	EC50 63	500 to 13000 mg/l		Aquatic plants - Pseudokirchnerella	96 hours
					subcapitata	
			C50 >100 mg/l Fresh		Daphnia - Dapnia magna	48 hours
		Acute L	C50 72860 mg/l Fres	h water	Fish - Pimephales promelas	96 hours
		Chronic	NOEC 8590 mg/l Fr	esh water	Crustaceans -	7 days
			-		Ceriodaphnia sp.	-
		Chronic NOEC 15380 mg/l Fresh water			Fish - Pimephales	7 days
					promelas	
	Conclusion/S	Summar	y : Not available.			
12.2 Persistence and degradability	Conclusion/S	Summar	y : Not available.			
	Product/ing name	redient	Aquatic half-life	Photolysis	s Biodegradability	
	ethanediol		-	-	readily	
12.3 Bioaccumulative potential	Product/ing name	redient	LogPow	BCF	Potential	
potentiai	ethanediol		-1,36	-	low	
12.4 Mobility	-		coefficient (Koc):	1		
	Mobility : N	ot availa	ble.			
12.5 Results of PBT		available		— — —		
and vPvB assessment	P: N	ot availa	ble. B: Not availabl	le. 1: Yes.		

, EURO-VAT

Previous version preparation date: 06.05.2015 Update date: 22.08.2017

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vPvB	: Not available.
	vP: Not available. vB: Not available.

12. 6 Other adverse	No known significant effects or critical hazards.
effects	

SECTION 13: DISPOSAL CONSIDERATIONS

13.1 Product	
<u>Product</u>	
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.
Hanandana mata .	
Hazardous waste :	The classification of the product may meet the criteria for a hazardous waste.
Packaging	
	The generation of waste should be avoided or minimised wherever possible.
incentous of unsposur	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.
L	

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 <u>EU Regulation (EC) No. 1907/2006 (REACH)</u>

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 regulationsEurope inventory :All components are listed or exempted.Black List Chemicals :Not listedPriority List Chemicals :Not listedIntegrated pollution prevention and control list (IPPC) - Air:Not listedIntegrated pollution prevention and control list (IPPC) - Water:Not listed



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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:

22.08.2017 - Classification of the mixture of the European Parliament and Council Regulation (EC) No. 2015/830

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
- 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.