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DYNAMAX DOT 5.1

Brake fluid

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 DOT 5.1		
CAS:		EINECS:	
		ELINCS:	

1.2. Identified uses

Uses:	Brake fluid
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1.3. Details of the supplier of the safety data sheet

Manufacturer/Supplier:	EURO-VAT spol. s r.o.		
IČO:	18049397		
Address:	Alešince 231		
	951 22		
	Alešince		
	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, FNŠP akad. L.Dérera Limbova 5 833 05 Bratislava Tel. +421 2 5477 4166 ntic@ntic.sk www.ntic.sk		

SECTION 2: HAZARDS IDENTIFICATION

2.1. Classification of the substance or mixture	Classification according to Regulation (EC) No. 1272/2008 [CLP/GHS] Not classified as hazardous
2.2 Label elements	Hazard pictograms (CLP/GHS) : No Hazard Symbol required Signal word: - H-phrases: Not classified P-phrases: P102 Keep out of reach of children Contains: - Precautionary statements Prevention : 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 : Not applicable. Disposal : Not applicable.

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2.3 Other hazards

Supplemental label elements: Not applicable.

Special packaging requirements

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

Tactile warning of danger: Not applicable.

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 INGREDIENTS

Product /ingredient name	CAS	EC	Symbols	Conc.	Registr. no REACH	GHS classification	
mixture of 2-[2(2-butoxy ethoxy) ethoxy] ethanol and 3,6,9,12-tetraoxyhexadekan-1- ol *	-	-		3,5	01-2119531322-53-xxxx	Eye Dam.1	H318
2-(2-metoxy ethoxy) ethanol	111-77-3	203-906-6		max. 1	01-2119475100-52-xxxx	Repr.2	H361d
2-(2-butoxyethoxy)ethanol	112-34-5	203-961-6		max. 3	01-2119475104-44-xxxx	Skin Irrit. 2	H319
2,2'-oxydiethanol	111-46-6	203-872-2		max. 1	01-2119457857-21-xxxx	Acute Tox. 4 STOT RE2	H302 H373
* set concentration limits:		Eye Dam. 1; H318: C ≥ 30 % Eye Irrit. 2; H319: 20 % ≤ C <30%					

SECTION 4: FIRST AID MEASURES

4.1 Description of first aid measures	<p>Eye contact : Rinse immediately with plenty of water. Seek medical attention if irritation develops.</p> <p>Inhalation: No specific data.</p> <p>Skin contact: Wash the skin with water and soap and apply skin-protective cream.</p> <p>Ingestion: Do not induce vomiting. If the injured is conscious give 2 glasses of water. Ensure medical assistance immediately.</p>
4.2 Most important symptoms and effects, both acute and delayed	<p>Potential acute health effects</p> <p>Eye contact: No known significant effects or critical hazards.</p> <p>Inhalation : No known significant effects or critical hazards.</p> <p>Skin contact : No known significant effects or critical hazards.</p> <p>Ingestion : No known significant effects or critical hazards.</p> <p>Over-exposure signs/symptoms</p> <p>Eye contact : No specific data.</p> <p>Inhalation: No specific data.</p> <p>Skin contact: No specific data.</p> <p>Ingestion: No specific data.</p>
4.3 Indication of any immediate medical attention and special treatment needed	<p>Notes to physician: No specific notes.</p> <p>Specific treatments: No specific treatment.</p>

SECTION 5: FIRE FIGHTING MEASURES

5.1 Suitable extinguishing Foam, powder, carbon dioxide, water spray.



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media	
5.2. Unsuitable extinguishing media	None known.
5.3. Specific hazards	Formed during combustion gases containing oxides of carbon and nitrogen. Endangered containers and storage space cooling water screen and possibly removed from the danger zone.
5.4. Protective equipment for firefighters	Protective clothing against radiant heat and insulating breathing apparatus.
Additional advice	-

SECTION 6: ACCIDENTAL RELEASE MEASURES

6.1. Personal precautions	Ensure adequate ventilation. Avoid contact with skin and eyes. No smoking.
6.2. Environmental precautions	Do not allow to surface and groundwater. With its breakthrough contact person.
6.3. Clean up methods	Locate the spilled product, drain and remove mechanically. Residues backfilled with suitable absorbent material such as sand, lime powder, VAPEX, and other Ekosorb. Contaminated absorbent stored in tightly sealed containers and disposed of in a waste incineration plant. For leakage of the product or the fire department to inform the competent authorities.

SECTION 7: HANDLING AND STORAGE

7.1. Handling	When using do not eat or drink or smoke. Observe safety and sanitary measures.
7.2. Storage	Store in well-closed packings at the temperature up to 40 °C in a dry ventilated room. Avoid release into the environment.

SECTION 8: EXPOSURE CONTROL/PERSONAL PROTECTION

8.1. Control parameters	Ventilation respectively. exhausting work areas. The work may not be readily combustible substances and other dangerous source of fire.
8.2 Exposure controls	Observe the usual precautions for health at work and in good ventilation. When using do not eat, drink or smoke.
8.2.1 Occupational exposure controls	a) Respiratory protection: it is necessary only in case of exceeding the TWA (mask with organic vapor filter type A) b) Eye protection: goggles c) Protection of hands: protective gloves (EN 374) d) protection: clothing
8.2.2. Environmental exposure controls	To prevent leakage of concentrated mixture into surface water drains or soil. Mixture stored in tightly sealed and labeled containers.
8.3 NPEL	<u>2,2'-oxydiethanol</u> average: 44 mg/m ³ short-term: 90 mg/m ³ <u>2-(2-butoxyethoxy)ethanol</u> average: 67,5 mg/m ³ short-term: 101,2 mg/m ³ <u>2-(2-metoxyethoxy)ethanol</u> average: 50 mg/m ³

SECTION 9: PHYSICAL AND CHEMICAL PROPERTIES

9.1 Information on basic physical and chemical properties

Physical state	liquid
Colour	yellow-brown

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Odour	odourless
pH	7 – 11,5
Boiling point [°C]	> 260
Flash point [°C]	> 125
Melting point [°C]	< -50
Flammability	IV. class
Temperature of spontaneous combustion [°C]	not available
Lower limit of explosion	0,8
Superior limit of explosion	3,8
Oxidising properties	not available
Vapour pressure [hPa]	not available
Relative density [g.cm⁻³]	1,060 - 1,070
Water solubility [g.l⁻¹]	very good mixable
Solubility in solvents [g.l⁻¹]	soluble in alcohols, glycol
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	Temperature below 0 °C. Avoid storing in direct sunlight.
10.5 Incompatible materials	This product was kindled in contact with chromium trioxide, potassium permanganate, sodium peroxide at room temperature with ammonium bichromate, silver chlorate, uranyl nitrate at 100 °C.
10.6 Hazardous decomposition products	-

SECTION 11: TOXICOLOGICAL INFORMATION

11.1 Information on toxicological effects	<p>Acute toxicity</p> <p>Acute oral toxicity <u>2-[2-(2-butoxyethoxy)ethoxy] ethanol</u> LD50 (rat) > 5170 mg/kg <u>2-(2-butoxyethoxy)ethanol</u> LD50 (rat) = 3384 mg/kg <u>2,2'-oxydiethanol</u> LD50 (rat) = 1120 mg/kg</p> <p>Acute dermal toxicity <u>2-[2-(2-butoxyethoxy)ethoxy] ethanol</u> LD50 (rabbit) = 3540 mg/kg <u>2-(2-butoxyethoxy)ethanol</u> LD50 (rabbit) = 2764 mg/kg <u>2,2'-oxydiethanol</u> LD50 (rabbit) = 13300 mg/kg</p> <p>Acute inhal toxicity <u>2-(2-butoxyethoxy)ethanol</u> LC50 (rat) 2hours = 3 mg/l</p>
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2,2'-oxydiethanol

LC50 (rat) = 4600 mg/l

Irritation/Corrosion

skin (rabbit) – not irritant

eye (rabbit) – slightly irritating

Sensitisation

Conclusion/Summary : Not available.

Mutagenicity

Conclusion/Summary : Not available.

Carcinogenicity

Conclusion/Summary : Not available.

Reproductive toxicity

Conclusion/Summary : Not available.

Teratogenicity

Conclusion/Summary : Not available.

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 : No known significant effects or critical hazards

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.

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

Short term exposure

Potential immediate effects: Not available.

Potential delayed effects : Not available.

Long term exposure

Potential immediate effects: Not available.

Potential delayed effects: Not available.

Potential chronic health effects

Conclusion/Summary : Not available.

General : No known significant effects or critical hazards.

Carcinogenicity : No known significant effects or critical hazards.

Mutagenicity : No known significant effects or critical hazards.

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	<p>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.</p> <p>Other information : Not available.</p>
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SECTION 12: ECOLOGICAL INFORMATION

12.1 Toxicity	LC50 (fish) 96 hod. = 250 – 350 mg/l EC50 = 6,25 mg/l
12.2 Persistence and degradability	Degradability of tenzides: > 90 % (producer declare performance of requirements of Regulation No. 648/2004)
12.3 Bioaccumulative potential	Not available.
12.4 Mobility	Not available.
12.5 Results of PBT and vPvB assessment	PBT : Not available. vPvB : Not available.
12. 6 Other adverse effects	No known significant effects or critical hazards.

SECTION 13: DISPOSAL CONSIDERATIONS

13.1 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 meets the criteria for a hazardous waste.

Type of waste	Name of waste	Category of waste
16 01 13	Brake fluids	N

13.2 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.

Type of waste	Name of waste	Category of waste
15 01 10	Packaging containing residues of hazardous substances or contaminated by dangerous substances	N



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SECTION 14: TRANSPORT INFORMATION

Transport by land RID/ADR	Not regulated
Transport by sea IMDG	Nor regulated
Transport by air	Not regulated
Additional information	Does not pose a hazard during transport and does not require special treatment (handling) procedure.

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), amended by 2015/830/EU

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.

EU Regulation (EC) No 1272/2008 of the European Parliament and of the Council

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

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:

12.07.2017 - 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

H318 Causes serious eye damage

H319 Causes serious eye irritation

H373 May cause damage to organs through prolonged or repeated exposure

H361d Suspected of damaging fertility or the unborn child



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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.