

GUARD LIQUIDO DE FRENOS DOT 4/GUARD BRAKE FLUID DOT 4

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

- 1.1 Product identifier:** GUARD LIQUIDO DE FRENOS DOT 4/GUARD BRAKE FLUID DOT 4
Other means of identification:
RP_9135Z
UFI: 4FWC-7QXQ-ETJ6-9RMC
- 1.2 Relevant identified uses of the substance or mixture and uses advised against:**
Relevant uses: Auxiliary product for the automotive
Uses advised against: All uses not specified in this section or in section 7.3
- 1.3 Details of the supplier of the safety data sheet:**
REPSOL LUBRICANTES Y ESPECIALIDADES, S.A.
Méndez Álvaro, 44
28045 MADRID - Madrid - Spain
Phone: +34 917538000 / +34 917538100 - Fax: +34 902303145
FDSRLESA@repsol.com
- 1.4 Emergency telephone number:** INTCF: +34 91 562 04 20

SECTION 2: HAZARDS IDENTIFICATION

- 2.1 Classification of the substance or mixture:**
CLP Regulation (EC) No 1272/2008:
Classification of this product has been carried out in accordance with CLP Regulation (EC) No 1272/2008.
Eye Irrit. 2: Eye irritation, Category 2, H319
Repr. 2: Reproductive toxicity, Category 2, H361d
- 2.2 Label elements:**
CLP Regulation (EC) No 1272/2008:
Warning

Hazard statements:
Eye Irrit. 2: H319 - Causes serious eye irritation.
Repr. 2: H361d - Suspected of damaging the unborn child.
Precautionary statements:
P101: If medical advice is needed, have product container or label at hand.
P102: Keep out of reach of children.
P264: Wash thoroughly after handling.
P280: Wear protective gloves/face protection/protective clothing/respiratory protection/protective footwear.
P305+P351+P338: IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
P501: Dispose of contents/ container in accordance with local/regional/national/international regulation.
Substances that contribute to the classification
Tris[2-[2-(2-methoxyethoxy)ethoxy]ethyl] orthoborate
UFI: 4FWC-7QXQ-ETJ6-9RMC
- 2.3 Other hazards:**
Product fails to meet PBT/vPvB criteria
Endocrine-disrupting properties: The product fails to meet the criteria.

SECTION 3: COMPOSITION/INFORMATION ON INGREDIENTS

- 3.1 Substance:**
Non-applicable

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SECTION 3: COMPOSITION/INFORMATION ON INGREDIENTS (continued)

3.2 Mixture:

Chemical description: Miscellaneous products

Components:

In accordance with Annex II of Regulation (EC) No 1907/2006 (point 3), the product contains:

Identification	Chemical name/Classification		Concentration
CAS: 30989-05-0 EC: 250-418-4 Index: Non-applicable REACH: 01-2119462824-33-XXXX	Tris[2-[2-(2-methoxyethoxy)ethoxy]ethyl] orthoborate⁽¹⁾ Self-classified		20 - <30 %
	Regulation 1272/2008	Repr. 2: H361d - Warning	
CAS: 143-22-6 EC: 205-592-6 Index: 603-183-00-0 REACH: 01-2119475107-38-XXXX	2-[2-(2-butoxyethoxy)ethoxy]ethanol⁽¹⁾ ATP CLP00		20 - <29.9 %
	Regulation 1272/2008	Eye Dam. 1: H318 - Danger	
CAS: 9004-77-7 EC: Non-applicable Index: Non-applicable REACH: 01-2119484615-30-XXXX	Poly(ethylene glycol) butyl ether⁽²⁾ Self-classified		10 - <25 %
	Regulation 1272/2008	Eye Irrit. 2: H319 - Warning	
CAS: 111-46-6 EC: 203-872-2 Index: 603-140-00-6 REACH: 01-2119457857-21-XXXX	2,2'-oxybisethanol⁽¹⁾ ATP CLP00		<9.9 %
	Regulation 1272/2008	Acute Tox. 4: H302 - Warning	
CAS: 112-34-5 EC: 203-961-6 Index: 603-096-00-8 REACH: 01-2119475104-44-XXXX	2-(2-butoxyethoxy)ethanol⁽¹⁾ ATP CLP00		<2.99 %
	Regulation 1272/2008	Eye Irrit. 2: H319 - Warning	
CAS: 111-77-3 EC: 203-906-6 Index: 603-107-00-6 REACH: 01-2119475100-52-XXXX	2-(2-methoxyethoxy)ethanol⁽¹⁾ ATP CLP00		<2.99 %
	Regulation 1272/2008	Repr. 2: H361d - Warning	

⁽¹⁾ Voluntarily-listed substance failing to meet any of the criteria set out in Regulation (EU) No. 2020/878

⁽²⁾ Substances presenting a health or environmental hazard which meet criteria laid down in Regulation (EU) No. 2020/878

To obtain more information on the hazards of the substances consult sections 11, 12 and 16.

Other information:

Identification	Specific concentration limit
2-[2-(2-butoxyethoxy)ethoxy]ethanol CAS: 143-22-6 EC: 205-592-6	% (w/w) >=30: Eye Dam. 1 - H318 20<= % (w/w) <30: Eye Irrit. 2 - H319

SECTION 4: FIRST AID MEASURES

4.1 Description of first aid measures:

The symptoms resulting from intoxication can appear after exposure, therefore, in case of doubt, seek medical attention for direct exposure to the chemical product or persistent discomfort, showing the SDS of this product.

By inhalation:

This product does not contain substances classified as hazardous for inhalation, however, in case of symptoms of intoxication remove the person affected from the exposure area and provide with fresh air. Seek medical attention if the symptoms get worse or persist.

By skin contact:

In case of contact it is recommended to clean the affected area thoroughly with water and neutral soap. In case of changes to the skin (stinging, redness, rashes, blisters,...), seek medical advice with this Safety Data Sheet

By eye contact:

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**GUARD LIQUIDO DE FRENOS DOT 4/GUARD BRAKE FLUID DOT 4****SECTION 4: FIRST AID MEASURES (continued)**

Rinse eyes thoroughly with lukewarm water for at least 15 minutes. Do not allow the person affected to rub or close their eyes. If the injured person uses contact lenses, these should be removed unless they are stuck to the eyes, in which case this could cause further damage. In all cases, after cleaning, a doctor should be consulted as quickly as possible with the SDS of the product.

By ingestion/aspiration:

Do not induce vomiting, but if it does happen keep the head down to avoid aspiration. Keep the person affected at rest. Rinse out the mouth and throat, as they may have been affected during ingestion.

4.2 Most important symptoms and effects, both acute and delayed:

Acute and delayed effects are indicated in sections 2 and 11.

4.3 Indication of any immediate medical attention and special treatment needed:

Non-applicable

SECTION 5: FIREFIGHTING MEASURES**5.1 Extinguishing media:****Suitable extinguishing media:**

Product is non-flammable under normal conditions of storage, handling and use. In the case of combustion as a result of improper handling, storage or use preferably use polyvalent powder extinguishers (ABC powder), in accordance with the Regulation on fire protection systems.

Unsuitable extinguishing media:

Non-applicable

5.2 Special hazards arising from the substance or mixture:

As a result of combustion or thermal decomposition reactive sub-products are created that can become highly toxic and, consequently, can present a serious health risk.

5.3 Advice for firefighters:

Depending on the magnitude of the fire it may be necessary to use full protective clothing and self-contained breathing apparatus (SCBA). Minimum emergency facilities and equipment should be available (fire blankets, portable first aid kit,...) in accordance with Directive 89/654/EC.

Additional provisions:

Act in accordance with the Internal Emergency Plan and the Information Sheets on actions to take after an accident or other emergencies. Eliminate all sources of ignition. In case of fire, cool the storage containers and tanks for products susceptible to combustion, explosion or BLEVE as a result of high temperatures. Avoid spillage of the products used to extinguish the fire into an aqueous medium.

SECTION 6: ACCIDENTAL RELEASE MEASURES**6.1 Personal precautions, protective equipment and emergency procedures:****For non-emergency personnel:**

Isolate leaks provided that there is no additional risk for the people performing this task. Personal protection equipment must be used against potential contact with the spilled product (See section 8). Evacuate the area and keep out those who do not have protection.

For emergency responders:

See section 8.

6.2 Environmental precautions:

This product is not classified as hazardous to the environment. Keep product away from drains, surface and ground water.

6.3 Methods and material for containment and cleaning up:

It is recommended:

Absorb the spillage using sand or inert absorbent and move it to a safe place. Do not absorb in sawdust or other combustible absorbents. For any concern related to disposal consult section 13.

6.4 Reference to other sections:

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SECTION 6: ACCIDENTAL RELEASE MEASURES (continued)

See sections 8 and 13.

SECTION 7: HANDLING AND STORAGE

7.1 Precautions for safe handling:

A.- General precautions for safe use

Comply with the current legislation concerning the prevention of industrial risks with regards manually handling weights. Maintain order, cleanliness and destroy using safe methods (section 6).

B.- Technical recommendations for the prevention of fires and explosions

Product is non-flammable under normal conditions of storage, handling and use. It is recommended to transfer at slow speeds to avoid the generation of electrostatic charges that can affect flammable products. Consult section 10 for information on conditions and materials that should be avoided.

C.- Technical recommendations on general occupational hygiene

PREGNANT WOMEN SHOULD NOT BE EXPOSED TO THIS PRODUCT. Transfer in designated areas that comply with the necessary safety conditions (emergency showers and eyewash stations in close proximity), using personal protection equipment, especially on the hands and face (See section 8). Limit manual transfers to small amounts only. Do not eat or drink during the process, washing hands afterwards with suitable cleaning products.

D.- Technical recommendations to prevent environmental risks

It is recommended to have absorbent material available at close proximity to the product (See subsection 6.3)

7.2 Conditions for safe storage, including any incompatibilities:

A.- Technical measures for storage

Store in a cool, dry, well-ventilated location

B.- General conditions for storage

Avoid sources of heat, radiation, static electricity and contact with food. For additional information see subsection 10.5

7.3 Specific end use(s):

Except for the instructions already specified it is not necessary to provide any special recommendation regarding the uses of this product.

SECTION 8: EXPOSURE CONTROLS/PERSONAL PROTECTION

8.1 Control parameters:

Substances whose occupational exposure limits have to be monitored in the workplace (European OEL, not country-specific legislation):

Directive (EU) 2000/39, Directive 2004/37/EC, Directive (EU) 2006/15, Directive (EU) 2009/161, Directive (EU) 2017/164, Directive (EU) 2019/1831:

Identification		Occupational exposure limits		
2-(2-butoxyethoxy)ethanol CAS: 112-34-5 EC: 203-961-6		IOELV (8h)	10 ppm	67.5 mg/m ³
		IOELV (STEL)	15 ppm	101.2 mg/m ³
2-(2-methoxyethoxy)ethanol CAS: 111-77-3 EC: 203-906-6		IOELV (8h)	10 ppm	50.1 mg/m ³
		IOELV (STEL)		

DNEL (Workers):

Identification		Short exposure		Long exposure	
		Systemic	Local	Systemic	Local
Tris[2-[2-(2-methoxyethoxy)ethoxy]ethyl] orthoborate CAS: 30989-05-0 EC: 250-418-4	Oral	Non-applicable	Non-applicable	Non-applicable	Non-applicable
	Dermal	Non-applicable	Non-applicable	8.3 mg/kg	Non-applicable
	Inhalation	Non-applicable	Non-applicable	29.1 mg/m ³	Non-applicable
2-[2-(2-butoxyethoxy)ethoxy]ethanol CAS: 143-22-6 EC: 205-592-6	Oral	Non-applicable	Non-applicable	Non-applicable	Non-applicable
	Dermal	Non-applicable	Non-applicable	208 mg/kg	Non-applicable
	Inhalation	Non-applicable	Non-applicable	195 mg/m ³	Non-applicable

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SECTION 8: EXPOSURE CONTROLS/PERSONAL PROTECTION (continued)

Identification		Short exposure		Long exposure	
		Systemic	Local	Systemic	Local
2,2'-oxybisethanol CAS: 111-46-6 EC: 203-872-2	Oral	Non-applicable	Non-applicable	Non-applicable	Non-applicable
	Dermal	Non-applicable	Non-applicable	43 mg/kg	Non-applicable
	Inhalation	Non-applicable	Non-applicable	44 mg/m ³	60 mg/m ³
2-(2-butoxyethoxy)ethanol CAS: 112-34-5 EC: 203-961-6	Oral	Non-applicable	Non-applicable	Non-applicable	Non-applicable
	Dermal	Non-applicable	Non-applicable	83 mg/kg	Non-applicable
	Inhalation	Non-applicable	101.2 mg/m ³	67.5 mg/m ³	67.5 mg/m ³
2-(2-methoxyethoxy)ethanol CAS: 111-77-3 EC: 203-906-6	Oral	Non-applicable	Non-applicable	Non-applicable	Non-applicable
	Dermal	Non-applicable	Non-applicable	2.22 mg/kg	Non-applicable
	Inhalation	Non-applicable	Non-applicable	50.1 mg/m ³	Non-applicable

DNEL (General population):

Identification		Short exposure		Long exposure	
		Systemic	Local	Systemic	Local
Tris[2-[2-(2-methoxyethoxy)ethoxy]ethyl] orthoborate CAS: 30989-05-0 EC: 250-418-4	Oral	Non-applicable	Non-applicable	4.1 mg/kg	Non-applicable
	Dermal	Non-applicable	Non-applicable	4.1 mg/kg	Non-applicable
	Inhalation	Non-applicable	Non-applicable	7.2 mg/m ³	Non-applicable
2-[2-(2-butoxyethoxy)ethoxy]ethanol CAS: 143-22-6 EC: 205-592-6	Oral	Non-applicable	Non-applicable	12.5 mg/kg	Non-applicable
	Dermal	Non-applicable	Non-applicable	125 mg/kg	Non-applicable
	Inhalation	Non-applicable	Non-applicable	117 mg/m ³	Non-applicable
2,2'-oxybisethanol CAS: 111-46-6 EC: 203-872-2	Oral	Non-applicable	Non-applicable	Non-applicable	Non-applicable
	Dermal	Non-applicable	Non-applicable	21 mg/kg	Non-applicable
	Inhalation	Non-applicable	Non-applicable	12 mg/m ³	12 mg/m ³
2-(2-butoxyethoxy)ethanol CAS: 112-34-5 EC: 203-961-6	Oral	Non-applicable	Non-applicable	5 mg/kg	Non-applicable
	Dermal	Non-applicable	Non-applicable	50 mg/kg	Non-applicable
	Inhalation	Non-applicable	60.7 mg/m ³	40.5 mg/m ³	40.5 mg/m ³
2-(2-methoxyethoxy)ethanol CAS: 111-77-3 EC: 203-906-6	Oral	Non-applicable	Non-applicable	7.5 mg/kg	Non-applicable
	Dermal	Non-applicable	Non-applicable	1.33 mg/kg	Non-applicable
	Inhalation	Non-applicable	Non-applicable	30.1 mg/m ³	Non-applicable

PNEC:

Identification					
Tris[2-[2-(2-methoxyethoxy)ethoxy]ethyl] orthoborate CAS: 30989-05-0 EC: 250-418-4	STP	100 mg/L	Fresh water	0.211 mg/L	
	Soil	0.028 mg/kg	Marine water	0.021 mg/L	
	Intermittent	2.112 mg/L	Sediment (Fresh water)	0.76 mg/kg	
	Oral	Non-applicable	Sediment (Marine water)	0.076 mg/kg	
2-[2-(2-butoxyethoxy)ethoxy]ethanol CAS: 143-22-6 EC: 205-592-6	STP	200 mg/L	Fresh water	2 mg/L	
	Soil	0.47 mg/kg	Marine water	0.2 mg/L	
	Intermittent	8.4 mg/L	Sediment (Fresh water)	7.7 mg/kg	
	Oral	0.111 g/kg	Sediment (Marine water)	0.77 mg/kg	
2,2'-oxybisethanol CAS: 111-46-6 EC: 203-872-2	STP	199.5 mg/L	Fresh water	10 mg/L	
	Soil	1.53 mg/kg	Marine water	1 mg/L	
	Intermittent	10 mg/L	Sediment (Fresh water)	20.9 mg/kg	
	Oral	Non-applicable	Sediment (Marine water)	2.09 mg/kg	
2-(2-butoxyethoxy)ethanol CAS: 112-34-5 EC: 203-961-6	STP	200 mg/L	Fresh water	1.1 mg/L	
	Soil	0.32 mg/kg	Marine water	0.11 mg/L	
	Intermittent	11 mg/L	Sediment (Fresh water)	4.4 mg/kg	
	Oral	0.056 g/kg	Sediment (Marine water)	0.44 mg/kg	
2-(2-methoxyethoxy)ethanol CAS: 111-77-3 EC: 203-906-6	STP	10000 mg/L	Fresh water	12 mg/L	
	Soil	2.1 mg/kg	Marine water	1.2 mg/L	
	Intermittent	12 mg/L	Sediment (Fresh water)	44.4 mg/kg	
	Oral	0.09 g/kg	Sediment (Marine water)	0.44 mg/kg	

8.2 Exposure controls:

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SECTION 8: EXPOSURE CONTROLS/PERSONAL PROTECTION (continued)
A.- Individual protection measures, such as personal protective equipment

As a preventative measure it is recommended to use basic Personal Protective Equipment, with the corresponding <<CE marking>> in accordance with Regulation (EU) 2016/425. For more information on Personal Protective Equipment (storage, use, cleaning, maintenance, class of protection,...) consult the information leaflet provided by the manufacturer. For more information see subsection 7.1. All information contained herein is a recommendation which needs some specification from the labour risk prevention services as it is not known whether the company has additional measures at its disposal.

B.- Respiratory protection

Pictogram	PPE	Labelling	CEN Standard	Remarks
 Mandatory respiratory tract protection	Filter mask for gases and vapours	 CAT III	EN 405:2002+A1:2010	Replace when there is a taste or smell of the contaminant inside the face mask. If the contaminant comes with warnings it is recommended to use isolation equipment.

C.- Specific protection for the hands

Pictogram	PPE	Labelling	CEN Standard	Remarks
 Mandatory hand protection	NON-disposable chemical protective gloves	 CAT III	EN ISO 374-1:2016+A1:2018 EN 16523-1:2015+A1:2018 EN 420:2004+A1:2010	The Breakthrough Time indicated by the manufacturer must exceed the period during which the product is being used. Do not use protective creams after the product has come into contact with skin.

As the product is a mixture of several substances, the resistance of the glove material can not be calculated in advance with total reliability and has therefore to be checked prior to the application.

D.- Eye and face protection

Pictogram	PPE	Labelling	CEN Standard	Remarks
 Mandatory face protection	Face shield	 CAT II	EN 166:2002 EN 167:2002 EN 168:2002 EN ISO 4007:2018	Clean daily and disinfect periodically according to the manufacturer's instructions. Use if there is a risk of splashing.

E.- Body protection

Pictogram	PPE	Labelling	CEN Standard	Remarks
 Mandatory complete body protection	Disposable clothing for protection against chemical risks	 CAT III	EN 13034:2005+A1:2009 EN 168:2002 EN ISO 13982-1:2004/A1:2010 EN ISO 6529:2013 EN ISO 6530:2005 EN 464:1994	For professional use only. Clean periodically according to the manufacturer's instructions.
 Mandatory foot protection	Safety footwear for protection against chemical risk	 CAT III	EN ISO 20345:2011 EN 13832-1:2019	Replace boots at any sign of deterioration.

F.- Additional emergency measures

Emergency measure	Standards	Emergency measure	Standards
 Emergency shower	ANSI Z358-1 ISO 3864-1:2011, ISO 3864-4:2011	 Eyewash stations	DIN 12 899 ISO 3864-1:2011, ISO 3864-4:2011

Environmental exposure controls:

In accordance with the community legislation for the protection of the environment it is recommended to avoid environmental spillage of both the product and its container. For additional information see subsection 7.1.D

GUARD LIQUIDO DE FRENOS DOT 4/GUARD BRAKE FLUID DOT 4

SECTION 9: PHYSICAL AND CHEMICAL PROPERTIES

9.1 Information on basic physical and chemical properties:

For complete information see the product datasheet.

Appearance:

Physical state at 20 °C:	Liquid
Appearance:	Not available
Colour:	Amber
Odour:	Soft
Odour threshold:	Non-applicable *

Volatility:

Boiling point at atmospheric pressure:	>260 °C
Vapour pressure at 20 °C:	Non-applicable *
Vapour pressure at 50 °C:	Non-applicable *
Evaporation rate at 20 °C:	Non-applicable *

Product description:

Density at 20 °C:	1051 kg/m ³
Relative density at 20 °C:	Non-applicable *
Dynamic viscosity at 20 °C:	Non-applicable *
Kinematic viscosity at 20 °C:	Non-applicable *
Kinematic viscosity at 40 °C:	Non-applicable *
Kinematic viscosity at 100 °C:	>1.5 mm ² /s
Concentration:	Non-applicable *
pH:	>7
Vapour density at 20 °C:	Non-applicable *
Partition coefficient n-octanol/water 20 °C:	1.5
Solubility in water at 20 °C:	Non-applicable *
Solubility properties:	Water-soluble
Decomposition temperature:	Non-applicable *
Melting point/freezing point:	<-50 °C

Flammability:

Flash Point:	Non Flammable (>60 °C)
Flammability (solid, gas):	Non-applicable *
Autoignition temperature:	Non-applicable *
Lower flammability limit:	Non-applicable *
Upper flammability limit:	Non-applicable *

Particle characteristics:

Median equivalent diameter:	Non-applicable
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9.2 Other information:

Information with regard to physical hazard classes:

Explosive properties:	Non-applicable *
Oxidising properties:	Non-applicable *
Corrosive to metals:	Non-applicable *
Heat of combustion:	Non-applicable *
Aerosols-total percentage (by mass) of flammable components:	Non-applicable *

*Not relevant due to the nature of the product, not providing information property of its hazards.

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GUARD LIQUIDO DE FRENOS DOT 4/GUARD BRAKE FLUID DOT 4

SECTION 9: PHYSICAL AND CHEMICAL PROPERTIES (continued)

Other safety characteristics:

Surface tension at 20 °C: Non-applicable *

Refraction index: Non-applicable *

*Not relevant due to the nature of the product, not providing information property of its hazards.

SECTION 10: STABILITY AND REACTIVITY

10.1 Reactivity:

No hazardous reactions are expected because the product is stable under recommended storage conditions. See section 7.

10.2 Chemical stability:

Chemically stable under the indicated conditions of storage, handling and use.

10.3 Possibility of hazardous reactions:

Under the specified conditions, hazardous reactions that lead to excessive temperatures or pressure are not expected.

10.4 Conditions to avoid:

Applicable for handling and storage at room temperature:

Shock and friction	Contact with air	Increase in temperature	Sunlight	Humidity
Not applicable	Not applicable	Not applicable	Not applicable	Not applicable

10.5 Incompatible materials:

Acids	Water	Oxidising materials	Combustible materials	Others
Avoid strong acids	Not applicable	Not applicable	Not applicable	Avoid alkalis or strong bases

10.6 Hazardous decomposition products:

See subsection 10.3, 10.4 and 10.5 to find out the specific decomposition products. Depending on the decomposition conditions, complex mixtures of chemical substances can be released: carbon dioxide (CO₂), carbon monoxide and other organic compounds.

SECTION 11: TOXICOLOGICAL INFORMATION

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

The experimental information related to the toxicological properties of the product itself is not available

Contains glycols. It is recommended not to breathe the vapours for prolonged periods of time due to the possibility of effects that are hazardous to the health.

Dangerous health implications:

In case of exposure that is repetitive, prolonged or at concentrations higher than the recommended occupational exposure limits, adverse effects on health may result, depending on the means of exposure:

A- Ingestion (acute effect):

- Acute toxicity : Based on available data, the classification criteria are not met, however, it contains substances classified as dangerous for consumption. For more information see section 3.
- Corrosivity/Irritability: Based on available data, the classification criteria are not met, as it does not contain substances classified as hazardous for this effect. For more information see section 3.

B- Inhalation (acute effect):

- Acute toxicity : Based on available data, the classification criteria are not met, as it does not contain substances classified as hazardous for inhalation. For more information see section 3.
- Corrosivity/Irritability: Based on available data, the classification criteria are not met, as it does not contain substances classified as hazardous for this effect. For more information see section 3.

C- Contact with the skin and the eyes (acute effect):

- Contact with the skin: Based on available data, the classification criteria are not met, as it does not contain substances classified as hazardous for skin contact. For more information see section 3.
- Contact with the eyes: Produces eye damage after contact.

D- CMR effects (carcinogenicity, mutagenicity and toxicity to reproduction):

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GUARD LIQUIDO DE FRENOS DOT 4/GUARD BRAKE FLUID DOT 4

SECTION 11: TOXICOLOGICAL INFORMATION (continued)

- Carcinogenicity: Based on available data, the classification criteria are not met, as it does not contain substances classified as hazardous for the effects mentioned. For more information see section 3.

IARC: Non-applicable

- Mutagenicity: Based on available data, the classification criteria are not met, as it does not contain substances classified as hazardous for this effect. For more information see section 3.

- Reproductive toxicity: Suspected of damaging the unborn child.

E- Sensitizing effects:

- Respiratory: Based on available data, the classification criteria are not met, as it does not contain substances classified as hazardous with sensitising effects. For more information see section 3.

- Skin: Based on available data, the classification criteria are not met, as it does not contain substances classified as hazardous for this effect. For more information see section 3.

F- Specific target organ toxicity (STOT) - single exposure:

Based on available data, the classification criteria are not met, as it does not contain substances classified as hazardous for this effect. For more information see section 3.

G- Specific target organ toxicity (STOT)-repeated exposure:

- Specific target organ toxicity (STOT)-repeated exposure: Based on available data, the classification criteria are not met, as it does not contain substances classified as hazardous for this effect. For more information see section 3.

- Skin: Based on available data, the classification criteria are not met, as it does not contain substances classified as hazardous for this effect. For more information see section 3.

H- Aspiration hazard:

Based on available data, the classification criteria are not met, as it does not contain substances classified as hazardous for this effect. For more information see section 3.

Other information:

Non-applicable

Specific toxicology information on the substances:

Identification	Acute toxicity		Genus
2-[2-(2-butoxyethoxy)ethoxy]ethanol CAS: 143-22-6 EC: 205-592-6	LD50 oral	5170 mg/kg	Rat
	LD50 dermal	3480 mg/kg	Rabbit
	LC50 inhalation	> 20 mg/L	
Tris[2-[2-(2-methoxyethoxy)ethoxy]ethyl] orthoborate CAS: 30989-05-0 EC: 250-418-4	LD50 oral	> 2000 mg/kg	
	LD50 dermal	> 2000 mg/kg	
	LC50 inhalation	> 20 mg/L	
2,2'-oxybisethanol CAS: 111-46-6 EC: 203-872-2	LD50 oral	500 mg/kg	Rat
	LD50 dermal	11890 mg/kg	Rabbit
	LC50 inhalation	> 20 mg/L	
Poly(ethylene glycol) butyl ether CAS: 9004-77-7 EC: Non-applicable	LD50 oral	> 2000 mg/kg	
	LD50 dermal	> 2000 mg/kg	
	LC50 inhalation	> 20 mg/L	
2-(2-butoxyethoxy)ethanol CAS: 112-34-5 EC: 203-961-6	LD50 oral	> 2000 mg/kg	
	LD50 dermal	> 2000 mg/kg	
	LC50 inhalation	> 20 mg/L	
2-(2-methoxyethoxy)ethanol CAS: 111-77-3 EC: 203-906-6	LD50 oral	7128 mg/kg	Rat
	LD50 dermal	9404 mg/kg	Rabbit
	LC50 inhalation	> 20 mg/L	

Acute Toxicity Estimate (ATE mix):

ATE mix		Ingredient(s) of unknown toxicity
Oral	5555.56 mg/kg (Calculation method)	0 %
Dermal	> 2000 mg/kg (Calculation method)	Non-applicable
Inhalation	> 20 mg/L (4 h) (Calculation method)	Non-applicable

11.2 Information on other hazards:

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SECTION 11: TOXICOLOGICAL INFORMATION (continued)

Endocrine disrupting properties

Endocrine-disrupting properties: The product fails to meet the criteria.

Other information

Non-applicable

SECTION 12: ECOLOGICAL INFORMATION

The experimental information related to the eco-toxicological properties of the product itself is not available

12.1 Toxicity:

Acute toxicity:

Identification	Concentration	Species	Genus
Tris[2-[2-(2-methoxyethoxy)ethoxy]ethyl] orthoborate CAS: 30989-05-0 EC: 250-418-4	LC50	222 mg/L (96 h)	Oncorhynchus mykiss
	EC50	211 mg/L (48 h)	Daphnia magna
	EC50	Non-applicable	
2-[2-(2-butoxyethoxy)ethoxy]ethanol CAS: 143-22-6 EC: 205-592-6	LC50	2400 mg/L (96 h)	Pimephales promelas
	EC50	3200 mg/L (24 h)	Daphnia magna
	EC50	Non-applicable	
2,2'-oxybisethanol CAS: 111-46-6 EC: 203-872-2	LC50	32000 mg/L (96 h)	Gambusia affinis
	EC50	84000 mg/L (48 h)	Daphnia magna
	EC50	Non-applicable	
2-(2-butoxyethoxy)ethanol CAS: 112-34-5 EC: 203-961-6	LC50	1300 mg/L (96 h)	Lepomis macrochirus
	EC50	2850 mg/L (24 h)	Daphnia magna
	EC50	53 mg/L (192 h)	Microcystis aeruginosa
2-(2-methoxyethoxy)ethanol CAS: 111-77-3 EC: 203-906-6	LC50	5741 mg/L (96 h)	Pimephales promelas
	EC50	1192 mg/L (48 h)	Daphnia magna
	EC50	Non-applicable	

Chronic toxicity:

Identification	Concentration	Species	Genus
2-[2-(2-butoxyethoxy)ethoxy]ethanol CAS: 143-22-6 EC: 205-592-6	NOEC	Non-applicable	
	NOEC	100 mg/L	Daphnia magna
2,2'-oxybisethanol CAS: 111-46-6 EC: 203-872-2	NOEC	Non-applicable	
	NOEC	8590 mg/L	Ceriodaphnia dubia

12.2 Persistence and degradability:

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SECTION 12: ECOLOGICAL INFORMATION (continued)

Identification	Degradability		Biodegradability	
Tris[2-[2-(2-methoxyethoxy)ethoxy]ethyl] orthoborate CAS: 30989-05-0 EC: 250-418-4	BOD5	Non-applicable	Concentration	39 mg/L
	COD	Non-applicable	Period	10 days
	BOD5/COD	Non-applicable	% Biodegradable	70 %
2-[2-(2-butoxyethoxy)ethoxy]ethanol CAS: 143-22-6 EC: 205-592-6	BOD5	0.3 g O ₂ /g	Concentration	10 mg/L
	COD	1.83 g O ₂ /g	Period	14 days
	BOD5/COD	0.16	% Biodegradable	88 %
2,2'-oxybisethanol CAS: 111-46-6 EC: 203-872-2	BOD5	0.05 g O ₂ /g	Concentration	100 mg/L
	COD	1.51 g O ₂ /g	Period	28 days
	BOD5/COD	0.03	% Biodegradable	90 %
2-(2-butoxyethoxy)ethanol CAS: 112-34-5 EC: 203-961-6	BOD5	0.25 g O ₂ /g	Concentration	100 mg/L
	COD	2.08 g O ₂ /g	Period	28 days
	BOD5/COD	0.12	% Biodegradable	92 %
2-(2-methoxyethoxy)ethanol CAS: 111-77-3 EC: 203-906-6	BOD5	Non-applicable	Concentration	Non-applicable
	COD	Non-applicable	Period	28 days
	BOD5/COD	Non-applicable	% Biodegradable	100 %

12.3 Bioaccumulative potential:

Identification	Bioaccumulation potential	
2-[2-(2-butoxyethoxy)ethoxy]ethanol CAS: 143-22-6 EC: 205-592-6	BCF	3
	Pow Log	0.62
	Potential	Low
2,2'-oxybisethanol CAS: 111-46-6 EC: 203-872-2	BCF	0
	Pow Log	-1.47
	Potential	Low
2-(2-butoxyethoxy)ethanol CAS: 112-34-5 EC: 203-961-6	BCF	0.46
	Pow Log	0.56
	Potential	Low
2-(2-methoxyethoxy)ethanol CAS: 111-77-3 EC: 203-906-6	BCF	3
	Pow Log	-1.18
	Potential	Low

12.4 Mobility in soil:

Identification	Absorption/desorption		Volatility	
Tris[2-[2-(2-methoxyethoxy)ethoxy]ethyl] orthoborate CAS: 30989-05-0 EC: 250-418-4	Koc	0.01	Henry	Non-applicable
	Conclusion	Very High	Dry soil	Non-applicable
	Surface tension	Non-applicable	Moist soil	Non-applicable

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SECTION 12: ECOLOGICAL INFORMATION (continued)

Identification	Absorption/desorption		Volatility	
2,2'-oxybisethanol CAS: 111-46-6 EC: 203-872-2	Koc	1	Henry	2.06E-4 Pa·m ³ /mol
	Conclusion	Very High	Dry soil	No
	Surface tension	4.954E-2 N/m (25 °C)	Moist soil	No
2-(2-butoxyethoxy)ethanol CAS: 112-34-5 EC: 203-961-6	Koc	48	Henry	7.2E-9 Pa·m ³ /mol
	Conclusion	Very High	Dry soil	No
	Surface tension	3.395E-2 N/m (25 °C)	Moist soil	No
2-(2-methoxyethoxy)ethanol CAS: 111-77-3 EC: 203-906-6	Koc	1	Henry	1.621E-6 Pa·m ³ /mol
	Conclusion	Very High	Dry soil	Non-applicable
	Surface tension	3.59E-2 N/m (25 °C)	Moist soil	No

12.5 Results of PBT and vPvB assessment:

Product fails to meet PBT/vPvB criteria

12.6 Endocrine disrupting properties:

Endocrine-disrupting properties: The product fails to meet the criteria.

12.7 Other adverse effects:

Not described

SECTION 13: DISPOSAL CONSIDERATIONS

13.1 Waste treatment methods:

Type of waste (Regulation (EU) No 1357/2014):

HP10 Toxic for reproduction, HP4 Irritant — skin irritation and eye damage

Waste management (disposal and evaluation):

Consult the authorized waste service manager on the assessment and disposal operations in accordance with Annex 1 and Annex 2 (Directive 2008/98/EC). As under 15 01 (2014/955/EC) of the code and in case the container has been in direct contact with the product, it will be processed the same way as the actual product. Otherwise, it will be processed as non-dangerous residue. Waste should not be disposed of to drains. See paragraph 6.2.

Regulations related to waste management:

In accordance with Annex II of Regulation (EC) No 1907/2006 (REACH) the community or state provisions related to waste management are stated

Community legislation: Directive 2008/98/EC, 2014/955/EU, Regulation (EU) No 1357/2014

SECTION 14: TRANSPORT INFORMATION

Transport of dangerous goods by land:

With regard to ADR 2021 and RID 2021:

- 14.1 UN number or ID number:** Non-applicable
- 14.2 UN proper shipping name:** Non-applicable
- 14.3 Transport hazard class(es):** Non-applicable
- Labels: Non-applicable
- 14.4 Packing group:** Non-applicable
- 14.5 Environmental hazards:** No
- 14.6 Special precautions for user**
 - Special regulations: Non-applicable
 - Tunnel restriction code: Non-applicable
 - Physico-Chemical properties: see section 9
 - Limited quantities: Non-applicable
- 14.7 Maritime transport in bulk according to IMO instruments:** Non-applicable

Transport of dangerous goods by sea:

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SECTION 14: TRANSPORT INFORMATION (continued)

With regard to IMDG 39-18:

14.1 UN number or ID number:	Non-applicable
14.2 UN proper shipping name:	Non-applicable
14.3 Transport hazard class(es):	Non-applicable
Labels:	Non-applicable
14.4 Packing group:	Non-applicable
14.5 Marine pollutant:	No
14.6 Special precautions for user	
Special regulations:	Non-applicable
EmS Codes:	
Physico-Chemical properties:	see section 9
Limited quantities:	Non-applicable
Segregation group:	Non-applicable
14.7 Maritime transport in bulk according to IMO instruments:	Non-applicable

Transport of dangerous goods by air:

With regard to IATA/ICAO 2022:

14.1 UN number or ID number:	Non-applicable
14.2 UN proper shipping name:	Non-applicable
14.3 Transport hazard class(es):	Non-applicable
Labels:	Non-applicable
14.4 Packing group:	Non-applicable
14.5 Environmental hazards:	No
14.6 Special precautions for user	
Physico-Chemical properties:	see section 9
14.7 Maritime transport in bulk according to IMO instruments:	Non-applicable

SECTION 15: REGULATORY INFORMATION

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

Candidate substances for authorisation under the Regulation (EC) No 1907/2006 (REACH): Non-applicable

Substances included in Annex XIV of REACH ("Authorisation List") and sunset date: Non-applicable

Regulation (EC) No 1005/2009, about substances that deplete the ozone layer: Non-applicable

Article 95, REGULATION (EU) No 528/2012: Non-applicable

REGULATION (EU) No 649/2012, in relation to the import and export of hazardous chemical products: Non-applicable

Seveso III:

Non-applicable

Limitations to commercialisation and the use of certain dangerous substances and mixtures (Annex XVII REACH, etc):

Contains more than 0.1 % of 2-(2-methoxyethoxy)ethanol by weight. Shall not be placed on the market after 27 June 2010, for supply to the general public, as a constituent of paints, paint strippers, cleaning agents, selfshining emulsions or floor sealants in concentrations equal to or greater than 0,1 % by weight.

Shall not be used in:

—ornamental articles intended to produce light or colour effects by means of different phases, for example in ornamental lamps and ashtrays,

—tricks and jokes,

—games for one or more participants, or any article intended to be used as such, even with ornamental aspects.

Specific provisions in terms of protecting people or the environment:

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Safety data sheet

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GUARD LIQUIDO DE FRENOS DOT 4/GUARD BRAKE FLUID DOT 4

SECTION 15: REGULATORY INFORMATION (continued)

It is recommended to use the information included in this safety data sheet as a basis for conducting workplace-specific risk assessments in order to establish the necessary risk prevention measures for the handling, use, storage and disposal of this product.

Other legislation:

The product could be affected by sectorial legislation

15.2 Chemical safety assessment:

The supplier has not carried out evaluation of chemical safety.

SECTION 16: OTHER INFORMATION

Legislation related to safety data sheets:

The SDS shall be supplied in an official language of the country where the product is placed on the market. This safety data sheet has been designed in accordance with ANNEX II-Guide to the compilation of safety data sheets of Regulation (EC) No 1907/2006 (COMMISSION REGULATION (EU) 2020/878).

Modifications related to the previous Safety Data Sheet which concerns the ways of managing risks.:

Non-applicable

Texts of the legislative phrases mentioned in section 2:

H319: Causes serious eye irritation.

H361d: Suspected of damaging the unborn child.

Texts of the legislative phrases mentioned in section 3:

The phrases indicated do not refer to the product itself; they are present merely for informative purposes and refer to the individual components which appear in section 3

CLP Regulation (EC) No 1272/2008:

Acute Tox. 4: H302 - Harmful if swallowed.

Eye Dam. 1: H318 - Causes serious eye damage.

Eye Irrit. 2: H319 - Causes serious eye irritation.

Repr. 2: H361d - Suspected of damaging the unborn child.

Classification procedure:

Eye Irrit. 2: Calculation method

Repr. 2: Calculation method

Advice related to training:

Training is recommended in order to prevent industrial risks for staff using this product and to facilitate their comprehension and interpretation of this safety data sheet, as well as the label on the product.

Principal bibliographical sources:

<http://echa.europa.eu>

<http://eur-lex.europa.eu>

Abbreviations and acronyms:

ADR: European agreement concerning the international carriage of dangerous goods by road

IMDG: International maritime dangerous goods code

IATA: International Air Transport Association

ICAO: International Civil Aviation Organisation

COD: Chemical Oxygen Demand

BOD5: 5day biochemical oxygen demand

BCF: Bioconcentration factor

LD50: Lethal Dose 50

LC50: Lethal Concentration 50

EC50: Effective concentration 50

LogPOW: Octanolwater partition coefficient

Koc: Partition coefficient of organic carbon

UFI: unique formula identifier

IARC: International Agency for Research on Cancer

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The information contained in this safety data sheet is based on sources, technical knowledge and current legislation at European and state level, without being able to guarantee its accuracy. This information cannot be considered a guarantee of the properties of the product, it is simply a description of the security requirements. The occupational methodology and conditions for users of this product are not within our awareness or control, and it is ultimately the responsibility of the user to take the necessary measures to obtain the legal requirements concerning the manipulation, storage, use and disposal of chemical products. The information on this safety data sheet only refers to this product, which should not be used for needs other than those specified.

- END OF SAFETY DATA SHEET -