

Product: LUBRAX FLUIDO PARA RADIADORES**SDS ID: 1001978****Revision date: 25/08/2023****SECTION 1: Identification of Product and Company****1.1. Product identifier**

Product name : LUBRAX FLUIDO PARA RADIADORES
Product code : 1001978
Recommended use : Heavy-duty diesel engine cooling system

1.2. Company identification

Name of company : Vibra Energia S.A.
Address : Rua Correia Vasques, 250
Rio de Janeiro
Brasil
20.211-140

SAC : 4090 1337 (capitais ou regiões metropolitanas) ou 0800 770 1337
(demais regiões)

Emergency telephone number : 0800 024 44 33 - CAE (Central de apoio a emergências), para vazamentos, derramamentos e outros acidentes que necessitem de suporte emergencial.

SECTION 2: Hazards identification**2.1. Classification of the substance or mixture****Classification according to GHS BR (ABNT NBR 14725)**

Acute toxicity (oral), Category 4

Specific target organ toxicity - Repeated exposure, Category 2

2.2. Label elements**GHS BR labelling**

Hazard pictograms (GHS BR)



Signal word (GHS BR)

: Warning

Hazard statements (GHS BR)

: H302 - Harmful if swallowed.

H373 - May cause damage to organs through prolonged or repeated exposure.

Precautionary statements (GHS BR)

Prevention

: P260 - Do not breathe mist and vapours.

P264 - Wash the exposed areas thoroughly after handling.

P270 - Do not eat, drink or smoke when using this product.

Product: LUBRAX FLUIDO PARA RADIADORES

SDS ID: 1001978

Revision date: 25/08/2023

Resposta a Emergência : P301+P312 - IF SWALLOWED: Call a POISON CENTER or doctor if you feel unwell.
P314 - Get medical advice/attention if you feel unwell.
P330 - Rinse mouth.

Disposição : P501 - Dispose of contents and container in accordance with local regulations.

2.3. Other hazards not contributing to the classification

No additional information available

SECTION 3: Composition/information on ingredients

3.1. Substances

Not applicable

3.2. Mixtures

Name	Product identifier	%	Classification according to GHS BR (ABNT NBR 14725)
Ethane-1,2-diol	CAS-No.: 107-21-1	≥ 90	Acute Tox. 4 (Oral), H302 STOT RE 2, H373 Asp. Tox. 2, H305
2,2'-oxydiethanol	CAS-No.: 111-46-6	< 10	Acute Tox. 4 (Oral), H302 STOT RE 2, H373

SECTION 4: First aid measures

4.1. Description of first aid measures

First-aid measures general : Seek medical attention immediately.

First-aid measures after inhalation : Remove person to fresh air and keep comfortable for breathing.

First-aid measures after skin contact : After contact with skin, take off immediately all contaminated clothing, and wash immediately with plenty of water.

First-aid measures after eye contact : In case of contact with eyes, rinse immediately with plenty of water and seek medical advice.

First-aid measures after ingestion : If swallowed, seek medical advice immediately and show this container or label.

Product: LUBRAX FLUIDO PARA RADIADORES

SDS ID: 1001978

Revision date: 25/08/2023

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

Symptoms/effects	: May cause damage to organs through prolonged or repeated exposure. Swallowing a small quantity of this material presents some health hazard.
Symptoms/effects after inhalation	: Although no appropriate human or animal health effects data are known to exist, this material is expected to be an inhalation hazard.
Symptoms/effects after skin contact	: None under normal conditions.
Symptoms/effects after eye contact	: None under normal conditions.
Symptoms/effects after ingestion	: Harmful if swallowed. Ingestion may cause nausea and vomiting.

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

Notes to physician	: Treat symptomatically
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SECTION 5: Firefighting measures

5.1. Extinguishing media

Suitable extinguishing media	: Water spray. dry chemical powder, foam for use in hydrocarbons, carbon dioxide (CO ₂).
Unsuitable extinguishing media	: Do not use a heavy water stream.

5.2. Special hazards arising from the substance or mixture

Fire hazard	: In case of fire and/or explosion do not breathe fumes.
Explosion hazard	: No direct explosion hazard.

5.3. Advice for firefighters

Firefighting instructions	: Fight fire with normal precautions from a reasonable distance. Do not enter fire area without proper protective equipment, including respiratory protection.
Protection during firefighting	: Use self-contained breathing apparatus and chemically protective clothing.

SECTION 6: Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures

General measures	: Stop leak if safe to do so. Notify authorities if product enters sewers or public waters. Absorb spillage to prevent material damage.
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Product: LUBRAX FLUIDO PARA RADIADORES

SDS ID: 1001978

Revision date: 25/08/2023

6.1.1. For non-emergency personnel

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| Protective equipment | : Wear recommended personal protective equipment. |
| Emergency procedures | : Evacuate area. Only qualified personnel equipped with suitable protective equipment may intervene. Notify fire brigade and environmental authorities. |

6.1.2. For emergency responders

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| Protective equipment | : Equip cleanup crew with proper protection. |
| Emergency procedures | : Evacuate unnecessary personnel. Stop leak if safe to do so. |

6.2. Environmental precautions

Do not allow to enter drains or water courses. Notify authorities if product enters sewers or public waters.

6.3. Methods and material for containment and cleaning up

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| For containment | : Absorb spilled material with sand or earth. Contain any spills with dikes or absorbents to prevent migration and entry into sewers or streams. Stop leak without risks if possible. |
| Methods for cleaning up | : Clean contaminated surfaces with an excess of water. Absorb spillage to prevent material damage. |

SECTION 7: Handling and storage

7.1. Precautions for safe handling

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| Additional hazards when processed | : Not expected to present a significant hazard under anticipated conditions of normal use. |
| Precautions for safe handling | : Do not eat, drink or smoke when using this product. Keep only in original container. Do not handle until all safety precautions have been read and understood. |
| Hygiene measures | : Always wash hands after handling the product. Remove contaminated clothes. Do not eat, drink or smoke when using this product. |

7.2. Conditions for safe storage, including any incompatibilities

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| Technical measures | : Store locked up. |
| Storage conditions | : Keep cool. Protect from sunlight. |
| Packaging materials | : Store always product in container of same material as original container. |

Product: LUBRAX FLUIDO PARA RADIADORES

SDS ID: 1001978

Revision date: 25/08/2023

SECTION 8: Exposure controls/personal protection**8.1. Control parameters**

Ethane-1,2-diol (107-21-1)	
USA - ACGIH - Occupational Exposure Limits	
Local name	Etileno Glicol - CAS# 107-21-1
ACGIH OEL TWA	100 mg/m ³
ACGIH OEL TWA [ppm]	25 ppm (V - Vapor fraction)
ACGIH OEL STEL	10 mg/m ³
ACGIH OEL STEL [ppm]	50 ppm
Remark (ACGIH)	URT irr; A4
Regulatory reference	(samente aerossol)

Exposure limit for mists/aerosols that may form while using this product:**8.2. Exposure controls**

Appropriate engineering controls : Ensure good ventilation of the work station.

8.3. Personal protective equipment**Personal protective equipment:**

Wear recommended personal protective equipment.

Hand protection:

Protective gloves

Eye protection:

Wear security glasses which protect from splashes

Skin and body protection:

Wear suitable protective clothing

Product: LUBRAX FLUIDO PARA RADIADORES**SDS ID: 1001978****Revision date: 25/08/2023****Respiratory protection:**

Where exposure through inhalation may occur from use, respiratory protection equipment is recommended

Personal protective equipment symbol(s):**SECTION 9: Physical and chemical properties****9.1. Information on basic physical and chemical properties**

Physical state	: Liquid
Appearance	: Liquid.
Colour	: Green
Odour	: Light
Odour threshold	: Not available
pH	: 8
Melting point	: Not available
Freezing point	: Not available
Boiling point	: > 165 °C
Flash point	: Not available
Relative evaporation rate	: Not available
(butylacetate=1)	
Flammability	: Not available
Explosive limits	: Not available
Vapour pressure	: < 0,1 mm Hg
Relative vapour density at 20 °C	: 2,1
Relative density	: 1,13 (20/4 °C)
Density	: 1,114 kg/l
Solubility	: Water:
Partition coefficient n-octanol/water	: Not available
(Log Kow)	
Auto-ignition temperature	: Not available
Decomposition temperature	: Not available
Kinematic Viscosity (40 °C)	: Not available

Product: LUBRAX FLUIDO PARA RADIADORES

SDS ID: 1001978

Revision date: 25/08/2023

Viscosity, dynamic : Not available

9.2. Other information

No additional information available

SECTION 10: Stability and reactivity

Chemical stability	: Stable under normal conditions of use.
Conditions to avoid	: Extremely high or low temperatures. Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking.
Hazardous decomposition products	: No hazardous decomposition products known at room temperature.
Incompatible materials	: Strong acids. Oxidizing agent.
Possibility of hazardous reactions	: None under normal use.
Reactivity	: The product is non-reactive under normal conditions of use, storage and transport.
Handling temperature	: No additional information available

SECTION 11: Toxicological information

11.1. Information on toxicological effects

Acute toxicity (oral)	: Harmful if swallowed.
Acute toxicity (dermal)	: Not available
Acute toxicity (inhalation)	: Not available

LUBRAX FLUIDO PARA RADIADORES

ATE BR (oral)	500 mg/kg bodyweight
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Ethane-1,2-diol (107-21-1)

LD50 oral rat	4000 mg/kg
LD50 dermal rat	9530 µl/kg
ATE BR (oral)	500 mg/kg bodyweight
ATE BR (dermal)	9530 mg/kg bodyweight

2,2'-oxydiethanol (111-46-6)

LD50 dermal rabbit	11890 mg/kg
ATE BR (oral)	500 mg/kg bodyweight
ATE BR (dermal)	11890 mg/kg bodyweight

Skin corrosion/irritation : Not available
pH: 8

Product: LUBRAX FLUIDO PARA RADIADORES

SDS ID: 1001978

Revision date: 25/08/2023

Serious eye damage/irritation : Not available
pH: 8

Respiratory or skin sensitisation : Not available

Germ cell mutagenicity : Not available

Carcinogenicity : Not available

Ethane-1,2-diol (107-21-1)

NOAEL (chronic, oral, animal/male, 2 years)	1500 mg/kg bodyweight Animal: mouse, Animal sex: male, Remarks on results: other:Effect type: carcinogenicity (migrated information)
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Reproductive toxicity : Not available

STOT-single exposure : Not available

STOT-repeated exposure : May cause damage to organs through prolonged or repeated exposure.

Ethane-1,2-diol (107-21-1)

STOT-repeated exposure	May cause damage to organs through prolonged or repeated exposure.
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2,2'-oxydiethanol (111-46-6)

STOT-repeated exposure	May cause damage to organs through prolonged or repeated exposure.
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Aspiration hazard : Not available

Ethane-1,2-diol (107-21-1)

Kinematic Viscosity (40°C)	14,505 mm ² /s
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11.2. Most important symptoms and effects, both acute and delayed

Symptoms/effects : May cause damage to organs through prolonged or repeated exposure. Swallowing a small quantity of this material presents some health hazard.

Symptoms/effects after inhalation : Although no appropriate human or animal health effects data are known to exist, this material is expected to be an inhalation hazard.

Symptoms/effects after skin contact : None under normal conditions.

Symptoms/effects after eye contact : None under normal conditions.

Symptoms/effects after ingestion : Harmful if swallowed. Ingestion may cause nausea and vomiting.

LUBRAX FLUIDO PARA RADIADORES

LC50 - Fish [1]	51000 mg/l
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Product: LUBRAX FLUIDO PARA RADIADORES

SDS ID: 1001978

Revision date: 25/08/2023

SECTION 12: Ecological information**12.1. Toxicity**

Hazardous to the aquatic environment, short-term (acute) : Not classified.

Hazardous to the aquatic environment, long-term (chronic) : Not available

Ethane-1,2-diol (107-21-1)

LC50 - Fish [1]	72860 mg/l Test organisms (species): Pimephales promelas
EC50 - Crustacea [1]	> 100 mg/l Test organisms (species): Daphnia magna
EC50 96h - Algae [1]	3536 mg/l Test organisms (species): other:greenn algae
EC50 96h - Algae [2]	6500 - 13000 mg/l Test organisms (species): Pseudokirchneriella subcapitata (previous names: Raphidocelis subcapitata, Selenastrum capricornutum)
NOEC (chronic)	≥ 1000 mg/l Test organisms (species): Americamysis bahia (previous name: Mysisopsis bahia) Duration: '23 d'

2,2'-oxydiethanol (111-46-6)

LC50 - Fish [1]	> 500000 ppm
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12.2. Persistence and degradability

No additional information available

12.3. Bioaccumulative potential

No additional information available

12.4. Mobility in soil

No additional information available

12.5. Other adverse effects

Hazardous to the ozone layer : Not available

SECTION 13: Disposal considerations

Product: LUBRAX FLUIDO PARA RADIADORES

SDS ID: 1001978

Revision date: 25/08/2023

Regional legislation (waste)	: Law No. 12.305 on the National Policy on Solid Waste Management, 02 August 2010.
Waste treatment methods	: Must follow special treatment according to local regulation.
Sewage disposal recommendations	: Disposal must be done according to official regulations.
Product/Packaging disposal recommendations	: Disposal must be done according to official regulations.
Additional information	: Do not re-use empty containers.

SECTION 14: Transport information

14.1 National and international Regulations

Not classified as dangerous for transport in the different modes, but may be harmful in the event of an accident. For further information, please consult Section 2 in this MSDS.

14.2 Other information

No additional information available

SECTION 15: Regulatory information

15.1. National regulations

Brazil Local Regulations	: Norma ABNT NBR 14725. Decreto Federal nº 2.657, de 3 de julho de 1998 - Promulga a Convenção nº 170 da OIT, relativa à Segurança na Utilização de Produtos Químicos no Trabalho, assinada em Genebra, em 25 de junho de 1990. Portaria nº 229, de 24 de maio de 2011 - Altera a Norma Regulamentadora nº 27 Federal Decree no. 96.044, of 18 May 1988 - Approves Regulations for Road Transportation of Hazardous Materials Resolution no. 5998, of November 3, 2022, updates the regulation for road transport of dangerous goods, approves its Complementary Instructions, and other measures.
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SECTION 16: Other information

No additional information available

This information is based on our current knowledge and is intended to describe the product for the purposes of health, safety and environmental requirements only. It should not therefore be construed as guaranteeing any specific property of the product.