

Product: LUBRAX FLUIDO PARA RADIADORES PC-2

SDS ID: 1015629

Revision date: 5/24/2025

## SECTION 1: Identification

### 1.1. GHS Product identifier

Product form : Mixture  
Product name : LUBRAX FLUIDO PARA RADIADORES PC-2  
Product code : 1015629  
Product group : Produtos comerciais

### 1.2. Other means of identification

No additional information available

### 1.3. Recommended use of the chemical and restrictions on use

Recommended use : Heavy-duty diesel engine cooling system

### 1.4. Supplier's details

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

SAC : 4090 1337 ou 0800 770 1337 (capitals, metropolitan regions or other regions)

Emergency telephone number : 0800 024 44 33

### 1.5. Emergency phone number

Emergency number : 0800 024 44 33 CAE (Emergency Support Center), for leaks, spills and other accidents that require emergency support.

## SECTION 2: Hazard identification

### 2.1. Classification of the substance or mixture

Classification according to GHS BR (ABNT NBR 14725: 2023)

Acute toxicity (oral), Category 4

Skin corrosion/irritation, Category 2

Serious eye damage/eye irritation, Category 1

Reproductive toxicity, Category 2

Specific target organ toxicity – Repeated exposure, Category 2

**Product: LUBRAX FLUIDO PARA RADIADORES PC-2**

SDS ID: 1015629

Revision date: 5/24/2025

## 2.2. GHS Label elements, including precautionary statements

### GHS BR labelling

Hazard pictograms (GHS BR)



Signal word (GHS BR)

: Danger

Hazard statements (GHS BR)

: 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.

Precautionary statements (GHS BR)

Prevention

: P201 - Obtain special instructions before use.  
P202 - Do not handle until all safety precautions have been read and understood.  
P260 - Do not breathe dust, fume, gas, mist, vapours or spray.  
P264 - Wash hands, forearms and face thoroughly after handling.  
P270 - Do not eat, drink or smoke when using this product.  
P280 - Wear protective gloves, protective clothing, eye protection, face protection and hearing protection.

Response

: P301+P312 - IF SWALLOWED: Call a POISON CENTER or a doctor if you feel unwell.  
P302+P352 - IF ON SKIN: Wash with plenty of water.  
P305+P351+P338 - IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.  
P308+P313 - IF exposed or concerned: Get medical advice or attention.  
P310 - Immediately call a POISON CENTER or a doctor.  
P314 - Get medical advice or attention as appropriate.  
P321 - Specific treatment (see supplemental first aid instruction on this label).  
P330 - Rinse mouth.  
P332+P313 - If skin irritation occurs: Get medical advice or attention.  
P362+P364 - Take off contaminated clothing and wash it before reuse.

Storage

: P405 - Store locked up.

Disposal

: P501 - Dispose of contents and/or container to hazardous or special waste collection point, in accordance with local, regional, national and international regulations.

## 2.3. Other hazards which do not result in classification

No additional information available

Product: LUBRAX FLUIDO PARA RADIADORES PC-2

SDS ID: 1015629

Revision date: 5/24/2025

## SECTION 3: Composition/information on ingredients

### 3.1. Substances

Not applicable

### 3.2. Mixtures

Name	GHS Product identifier	%	Classification according to GHS BR (ABNT NBR 14725: 2023)
Ethane-1,2-diol	CAS-No.: 107-21-1	< 100	Acute Tox. 4 (Oral), H302 STOT RE 2, H373 Asp. Tox. 2, H305
Potassium hydroxide	CAS-No.: 1310-58-3	< 5	Acute Tox. 4 (Oral), H302 Skin Corr. 1A, H314 Aquatic Acute 3, H402
2-ethylhexanoic acid	CAS-No.: 149-57-5	< 5	Acute Tox. 4 (Dermal), H312 Aquatic Acute 3, H402
Denatonium benzoate	CAS-No.: 3734-33-6	< 1	Acute Tox. 4 (Oral), H302

## SECTION 4: First-aid measures

### 4.1. Description of necessary first-aid measures

First-aid measures general	: IF exposed or concerned: Get medical advice/attention.
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. Be careful, the product may remain trapped under clothing, footwear or a wrist-watch.
First-aid measures after eye contact	: IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
First-aid measures after ingestion	: If swallowed, seek medical advice immediately and show this container or label.

### 4.2. Most important symptoms and effects, 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. May cause severe burns. Causes serious eye damage.
Symptoms/effects after inhalation	: May cause irritation to the respiratory tract, sneezing, coughing, burning sensation of throat with constricting sensation of the larynx and difficulty in breathing.

**Product: LUBRAX FLUIDO PARA RADIADORES PC-2**

**SDS ID: 1015629**

**Revision date: 5/24/2025**

Symptoms/effects after skin contact	: Causes skin irritation. irritation (itching, redness, blistering). Causes severe burns.
Symptoms/effects after eye contact	: Causes serious eye damage. stinging. redness, itching, tears.
Symptoms/effects after ingestion	: Harmful if swallowed. Ingestion may cause nausea and vomiting. Burns or irritation of the linings of the mouth, throat, and gastrointestinal tract.
Chronic symptoms	: Suspected of damaging fertility. Suspected of damaging the unborn child.

#### 4.3. Indication of any immediate medical attention and special treatment needed, if necessary

Notes to physician : Treat symptomatically

### SECTION 5: Fire-fighting measures

#### 5.1. Suitable extinguishing media

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

#### 5.2. Specific hazards arising from the chemical

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

#### 5.3. Special protective actions for fire-fighters

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.
Other information	: In case of fire, corrosive and harmful gases come free.

### SECTION 6: Accidental release measures

#### 6.1. Personal precautions, protective equipment and emergency procedures

General measures	: Avoid contact with skin and eyes. 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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##### 6.1.1. For non-emergency personnel

Protective equipment	: Wear recommended personal protective equipment.
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**Product: LUBRAX FLUIDO PARA RADIADORES PC-2**

**SDS ID: 1015629**

**Revision date: 5/24/2025**

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

Protective equipment : Self-contained breathing apparatus. Total impervious protective suits, gloves, and boots must be worn to prevent any contact with the product. Corrosionproof suit. 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 materials for containment and cleaning up

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 : Absorb spilled material with sand or earth. 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

Additional hazards when processed : Not expected to present a significant hazard under anticipated conditions of normal use.

Precautions for safe handling : Obtain special instructions before use. Take all necessary technical measures to avoid or minimize the release of the product on the workplace. Limit quantities of product at the minimum necessary for handling and limit the number of exposed workers. Wear personal protective equipment. Do not eat, drink or smoke when using this product. When heated, material emits highly irritating vapours, affecting the eyes. 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

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 PC-2

SDS ID: 1015629

Revision date: 5/24/2025

## SECTION 8: Exposure controls/personal protection

### 8.1. Control parameters

<b>Ethane-1,2-diol (107-21-1)</b>	
<b>USA - ACGIH - Occupational Exposure Limits</b>	
Local name	Etileno Glicol - CAS# 107-21-1
ACGIH® TLV® TWA	100 mg/m <sup>3</sup>
	25 ppm (V - Vapor fraction)
ACGIH® TLV® STEL	10 mg/m <sup>3</sup>
	50 ppm
Remark (ACGIH)	URT irr; A4
Regulatory reference	(somente aerossol)

<b>Potassium hydroxide (1310-58-3)</b>	
<b>USA - ACGIH - Occupational Exposure Limits</b>	
Local name	Hidróxido de Potássio - CAS 1310-58-3
ACGIH® TLV® TWA	2 mg/m <sup>3</sup>
Regulatory reference	(Valor Teto)

<b>2-ethylhexanoic acid (149-57-5)</b>	
<b>USA - ACGIH - Occupational Exposure Limits</b>	
Local name	2-Ácido Etilhexanóico - CAS 149-57-5
ACGIH® TLV® TWA	5 mg/m <sup>3</sup>
Regulatory reference	(fração inalável e vapor)

### 8.2. Appropriate engineering controls

Appropriate engineering controls : Emergency eye wash fountains and safety showers should be available in the immediate vicinity of any potential exposure.

### 8.3. Individual protection measures

#### Personal protective equipment:

Wear recommended personal protective equipment.

**Product: LUBRAX FLUIDO PARA RADIADORES PC-2**

SDS ID: 1015629

Revision date: 5/24/2025

**Hand protection:**

Protective gloves made of PVC. Nitrile rubber gloves

**Eye protection:**

Wear closed safety glasses

**Skin and body protection:**

Wear impervious rubber safety shoes

**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. Basic physical and chemical properties

Physical state	: Liquid
Appearance	: Liquid.
Colour	: red,
Odour	: Light
Odour threshold	: Not available
pH	: 8
Melting point	: $\approx -15^{\circ}\text{C}$
Freezing point	: Not available
Boiling point	: $\geq 176^{\circ}\text{C}$
Flash point	: $119^{\circ}\text{C}$
Relative evaporation rate (butylacetate=1)	: Not available
Flammability	: Not available
Explosive limits	: 3.2 - 15.3
Vapour pressure	: $< 0.1\text{ mm Hg}$
Relative vapour density at $20^{\circ}\text{C}$	: Not available
Relative density	: 1.07 ( $20/4^{\circ}\text{C}$ )
Density	: $1.07\text{ g/cm}^3$
Solubility	: Water:

**Product: LUBRAX FLUIDO PARA RADIADORES PC-2**

**SDS ID: 1015629**

**Revision date: 5/24/2025**

Partition coefficient n-octanol/water (Log Kow)	: Not available
Auto-ignition temperature	: $\geq 398^{\circ}\text{C}$
Decomposition temperature	: Not available
Kinematic Viscosity (40°C)	: Not available
Particle size	: Not applicable
Particle size distribution	: Not applicable
Particle shape	: Not applicable
Particle aspect ratio	: Not applicable
Particle specific surface area	: Not applicable

## 9.2. Data relevant with regard to physical hazard classes

VOC content : 1113.38 g/l

## 9.3. Further safety characteristics

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	: On exposure to high temperature, may decompose, releasing corrosive gases.
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 PC-2

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

LD50 oral rat	4000 mg/kg
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**Product: LUBRAX FLUIDO PARA RADIADORES PC-2****SDS ID: 1015629****Revision date: 5/24/2025**

<b>Ethane-1,2-diol (107-21-1)</b>	
LD50 dermal rat	9530 µl/kg
ATE BR (oral)	500 mg/kg bodyweight
ATE BR (dermal)	10578.3 mg/kg bodyweight

<b>Potassium hydroxide (1310-58-3)</b>	
ATE BR (oral)	500 mg/kg bodyweight

<b>2-ethylhexanoic acid (149-57-5)</b>	
LD50 dermal rat	1260 mg/kg
ATE BR (dermal)	1260 mg/kg bodyweight

<b>Denatonium benzoate (3734-33-6)</b>	
LD50 oral rat	584 mg/kg
ATE BR (oral)	584 mg/kg bodyweight

Skin corrosion/irritation	: Causes skin irritation. pH: 8
Serious eye damage/irritation	: Causes serious eye damage. pH: 8
Respiratory or skin sensitisation	: Not available
Germ cell mutagenicity	: Not available
Carcinogenicity	: Not available

<b>Ethane-1,2-diol (107-21-1)</b>	
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)

Reproductive toxicity	: Suspected of damaging fertility or the unborn child.
STOT-single exposure	: Not available
STOT-repeated exposure	: May cause damage to organs through prolonged or repeated exposure.

<b>Ethane-1,2-diol (107-21-1)</b>	
STOT-repeated exposure	May cause damage to organs through prolonged or repeated exposure.

Aspiration hazard	: Not available
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**Product: LUBRAX FLUIDO PARA RADIADORES PC-2**

**SDS ID: 1015629**

**Revision date: 5/24/2025**

<b>Ethane-1,2-diol (107-21-1)</b>	
Kinematic Viscosity (40°C)	14.505 mm <sup>2</sup> /s

## 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. May cause severe burns. Causes serious eye damage.
Symptoms/effects after inhalation	: May cause irritation to the respiratory tract, sneezing, coughing, burning sensation of throat with constricting sensation of the larynx and difficulty in breathing.
Symptoms/effects after skin contact	: Causes skin irritation. irritation (itching, redness, blistering). Causes severe burns.
Symptoms/effects after eye contact	: Causes serious eye damage. stinging. redness, itching, tears.
Symptoms/effects after ingestion	: Harmful if swallowed. Ingestion may cause nausea and vomiting. Burns or irritation of the linings of the mouth, throat, and gastrointestinal tract.
Chronic symptoms	: Suspected of damaging fertility. Suspected of damaging the unborn child.

## 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

<b>LUBRAX FLUIDO PARA RADIADORES PC-2</b>	
LC50 - Fish [1]	51000 mg/l

<b>Ethane-1,2-diol (107-21-1)</b>	
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: Mysidopsis bahia) Duration: '23 d'

**Product: LUBRAX FLUIDO PARA RADIADORES PC-2**

SDS ID: 1015629

Revision date: 5/24/2025

<b>Potassium hydroxide (1310-58-3)</b>	
LC50 - Fish [1]	80 mg/l

<b>2-ethylhexanoic acid (149-57-5)</b>	
LC50 - Fish [1]	70

**12.2. Persistence and degradability**

<b>LUBRAX FLUIDO PARA RADIADORES PC-2</b>	
Persistence and degradability	Rapidly degradable

**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
Other adverse effects	: May cause pH changes in aqueous ecological systems. Before neutralisation, the product may represent a danger to aquatic organisms.

**SECTION 13: Disposal considerations**

Regional waste regulation	: 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**

In accordance with IMDG / IATA / ANTT

**14.1 National and international Regulations****Overland transport**

Proper Shipping Name (ANTT)	: Not applicable
Dangerous for the environment	: No

**Product: LUBRAX FLUIDO PARA RADIADORES PC-2**

**SDS ID: 1015629**

**Revision date: 5/24/2025**

## Transport by sea

UN-No. (IMDG)	: Not applicable
Proper Shipping Name (IMDG)	: Not applicable
Class (IMDG)	: Not applicable
Subsidiary hazard (IMDG)	: Not applicable
Packing group (IMDG)	: Not applicable
EmS-No. (Fire)	: Not applicable
EmS-No. (Spillage)	: Not applicable
Special provisions (IMDG)	: Not applicable

## Air transport

UN-No. (IATA)	: Not applicable
Proper Shipping Name (IATA)	: Not applicable
Class (IATA)	: Not applicable
Subsidiary hazards (IATA)	: Not applicable
Packing group (IATA)	: Not applicable
Special provisions (IATA)	: Not applicable

## 14.2 Other informations

No additional information available

## SECTION 15: Regulatory information

### 15.1. National regulations

Brazil Local Regulations	: Norma ABNT NBR 14725. Federal Decree no. 10.088, of 5 November 2019 - Promulgates Convention no. 170 of the WLO, relating to Safety in the Use of Chemicals in the Workplace, ratified by the Federative Republic of Brazil. Ministerial Order no. 2.770, of 5 September 2022 - Approves the new wording of Regulatory Standard No. 26 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

Safety Data Sheet (SDS), Brazil

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.