



<b>HEXOL LUBE SRL</b>	<b>MATERIAL SAFETY DATA SHEET</b> <b>According to regulation</b> <b>1272/2008/EC</b> <b>Hexol UNIVERSAL ANTIFREEZE</b> <b>concentrate</b>	Date: 29.05.2015
		Edition: 1
		Revizion: 1
		Page: 1 of 12

## 1. Identification of the mixture and of the company/undertaking

### 1.1 Product identifier:

#### **Hexol UNIVERSAL ANTIFREEZE CONCENTRATE**

### 1.2 Relevant identified uses of the mixture and uses advised against

Relevant identified uses: antifreeze coolant concentrate  
Uses advised against: no data

### 1.3 Details of the supplier of the safety data sheet:

S.C. HEXOL LUBE S.R.L.

Adress: comuna. Paleu, str. Ardealului 1A, județ Bihor

Phone/Fax: 0259 449203/428299

### 1.4 Emergency telephone number

Phone: 0259-454216; 0259-449203; 8-16h on workdays.

## 2. Hazards identification

### 2.1 Classification of the mixture

#### 2.1.1 Classification of the mixture according to regulation (EC) No 1272/2008

Hazard Class and Category:

Hazard statement:

H302 Harmful if swallowed.

H373 May cause damage to kidneys through prolonged

or repeated exposure if swallowed.

Safety hazards: Danger symbol not required.

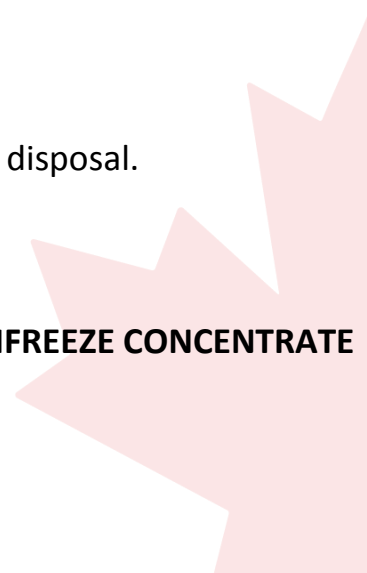
Environmental hazards: Danger symbol not required.

Note: Do not empty into waterways without disposal.

### 2.2 Label elements (EC) No 1272/2008

Product identification: Trade name: **Hexol UNIVERSAL ANTIFREEZE CONCENTRATE**

Hazardous substance(s): Ethanediol (CAS:107-21-1)





<b>HEXOL LUBE SRL</b>	<b>MATERIAL SAFETY DATA SHEET</b> <b>According to regulation</b> <b>1272/2008/EC</b> <b>Hexol UNIVERSAL ANTIFREEZE</b> <b>concentrate</b>	Date: 29.05.2015
		Edition: 1
		Revizion: 1
		Page: 2 of 12



GHS Pictogram:

Signal word: Warning

Hazard statement:

H302 Harmful if swallowed

H373 May cause damage to kidneys through prolonged or repeated exposure if swallowed.

Precautionary statements - Prevention

P260 Do not breathe gas/mist/vapours.

P270 Do no eat, drink or smoke when using this product.

Precautionary statements - Response

P301+312 IF SWALLOWED: Call a POISON CENTER or doctor/physician if you feel unwell.

P330 Rinse mouth.

P314 Get medical advice/attention if you feel unwell.

Precautionary statements - Storage Not required.

Precautionary statements - Disposal

P501 Dispose of contents/container in accordance with national regulation.

Other liabilities for labelling:

Tactile warning of danger: Not distributed for population.

Transport classification: see section 14.

2.3 Other hazards

No data available

3. Composition/information on ingredients

3.1 Mixtures

Chemical description: Ethylene glycol with additives, colorific.

Ingredients:





<b>HEXOL LUBE SRL</b>	<b>MATERIAL SAFETY DATA SHEET</b> <b>According to regulation</b> <b>1272/2008/EC</b> <b>Hexol UNIVERSAL ANTIFREEZE</b> <b>concentrate</b>		Date: 29.05.2015
			Edition: 1
			Revizion: 1
			Page: 3 of 12

Name	EINECS number	Cas number	Hazard symbol/ Hazard classes and cat.	Risk phrase / Hazard statements	Conc. % (m/m)
Ethanediol REACH Registration Nr.: 01-2119456816-28- 0024	203-473- 3	107-21- 1		H302 H373	Max. 94
SodiumTetraborate decahidrat REACH Registration Nr.: 01-2119490790-32- 0002				H319 H360	Max. 1
Sodium benzoate REACH Registration Nr.: 01-2119460683-35- 0001	208-534- 8			H319	Max. 0.3
Benzotriazole	202-394- 1	95-14-7		H332 H302 H319 H335	Max. 0.1

The full text of each relevant Hazard classes and cat., R- and H- phrase see in Section 16.

#### 4. First aid measures

##### 4.1 Description of first aid measures

General information: Never give anything by mouth to an unconscious person, or never

induce vomiting.

Inhalation: Remove exposed person to fresh air if adverse effects are observed. If breathing has stopped, apply artificial respiration. If breathing is labored, administer oxygen. Get medical attention.

Skin Wash immediately with soap and water. If symptoms persist (redness, swelling, pain, bladder) get medical attention.



<b>HEXOL LUBE SRL</b>	<b>MATERIAL SAFETY DATA SHEET</b> <b>According to regulation</b> <b>1272/2008/EC</b> <b>Hexol UNIVERSAL ANTIFREEZE</b> <b>concentrate</b>	Date: 29.05.2015
		Edition: 1
		Revizion: 1
		Page: 4 of 12

Eye contact: Flush immediately with plenty of running water for at least 15 minutes, holding the eyelids open. Rest the eyes at least 30 minutes. If symptoms persist (redness, burning pain, dim-red sight, swelling) get medical attention.

Ingestion: Wash out the mouth immediately with water. Give plenty of water. Do not induce vomiting! If vomiting occur spontaneously, lower head below waist to prevent fluid entering the lungs. Get medical attention.

4.2 Most important symptoms and effects, both acute and delayed  
No data.

4.3 Indication of any immediate medical attention and special treatment need  
If swallowed, immediate medical attention is required: 2 hours, gastrolavage, etc.

#### 5. Fire-fighting measures

Fire hazards:

See also Section 9 - flash point.

##### 5.1 Extinguishing media

Suitable extinguishing media: Powder, alcohol resistant foam, water, CO<sub>2</sub>.

Unsuitable extinguishing media: No data.

##### 5.2 Special hazards arising from the mixture

Hazardous combustion products:

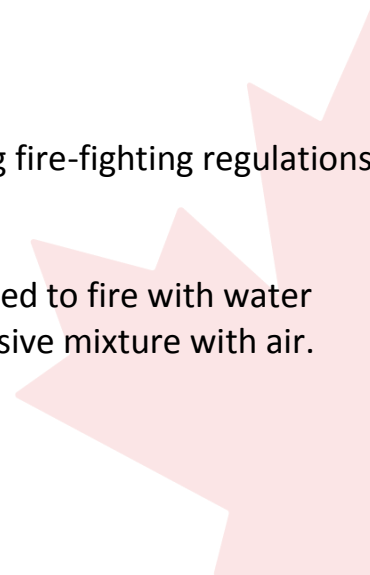
On burning hazardous gases and vapours (carbon-dioxide, carbon-monoxide, other organic compounds) can be formed.

##### 5.3 Advice for fire-fighters

Special protective equipment: According to the existing fire-fighting regulations.  
Self-contained breathing apparatus.

Further information: Cool containers and surroundings exposed to fire with water spray. Vapours of ethanediol heavier than air and form explosive mixture with air.

#### 6. Accidental release measures





<b>HEXOL LUBE SRL</b>	<b>MATERIAL SAFETY DATA SHEET</b> <b>According to regulation</b> <b>1272/2008/EC</b> <b>Hexol UNIVERSAL ANTIFREEZE</b> <b>concentrate</b>	Date: 29.05.2015
		Edition: 1
		Revision: 1
		Page: 5 of 12

6.1 Personal precautions, protective equipment and emergency procedures  
Personal precautions: see Section 8.

6.2 Environmental precautions:

Prevent spills from entering into natural water, soil and drains by containing the liquid.  
Notify relevant authority.

6.3 Methods and material for containment and cleaning up

On soil: Exclude source of ignition. Adequate ventilation required in enclosed areas.

Contain spilled liquid with sand, earth or other suitable absorbents. Recover free liquid by pumping. Dispose of according to local regulations. Clean up with large amount of water the contaminated area.

On water: Notify local authorities according to regulations.

6.4 Reference to other sections

Personal precautions: see section 8.

Waste treatment methods: see section 13.

7. Handling and storage

7.1 Precautions for safe handling

Keep general measures applied for normal operations with chemicals and flammable liquids.

Adequate ventilation required.

Keep material away from and open flame. No smoking.

Take precautionary measures against static discharges.

Avoid contact with skin and eyes, inhalation of vapours.

Ensure washing facilities after working hours and before breaks. Take off contaminated clothing, wash with warm water and soap.

Handling temperature: max. 40°C

7.2 Conditions for safe storage, including any incompatibilities

Storage facilities must comply with regulations for storing of chemicals and flammable liquids.

Keep material away from heat, sparks, and open flame. Store in cool, dry, wellventilated area, in original, tightly closed containers.

Keep out of the reach of children. Keep away from food, drink.

Unsuitable storage materials are: not recommended using plated or galvanized iron or steel containers.



<b>HEXOL LUBE SRL</b>	<b>MATERIAL SAFETY DATA SHEET</b> <b>According to regulation</b> <b>1272/2008/EC</b> <b>Hexol UNIVERSAL ANTIFREEZE</b> <b>concentrate</b>	Date: 29.05.2015
		Edition: 1
		Revision: 1
		Page: 6 of 12

Storage temperature: (-13) - 30°C

### 7.3 Specific end use(s)

Coolant concentrate.

### 8. Exposure controls / personal protection

Engineering control measures:

Not required.

#### 8.1 Control parameters:

EU (2000/39/EC)

Ethenediol:                      Eight hours: 52 mg/m<sup>3</sup>  
    Short-term: 104 mg/m<sup>3</sup>

#### 8.2 Exposure controls

Personal protection:

Respiratory protection: Under normal use conditions, respirator is not usually required.

Use approved breathing apparatus if vapours, mists and aerosols are generated or recommended exposure limits are exceeded.

Hand protection: Protective gloves (chemical resistant) (EN 374).

Note: Manufacturer's directions for use and the conditions of application should be observed.

Eye protection: Chemical goggles.

Skin protection: Protective clothing, possibly chemical resistant protective boots.

Other special: No data.

Environmental exposure controls:

Do not discharge into drains/surface waters/groundwater.

### 9. Physical and chemical properties

#### 9.1 Information on basic physical and chemical properties

Appearance:

Physical state:

Colour (ASTM D 1500):

liquid  
green



<b>HEXOL LUBE SRL</b>	<b>MATERIAL SAFETY DATA SHEET</b> <b>According to regulation</b> <b>1272/2008/EC</b> <b>Hexol UNIVERSAL ANTIFREEZE</b> <b>concentrate</b>	Date: 29.05.2015
		Edition: 1
		Revision: 1
		Page: 7 of 12

Odour:		mild, sweetish
Change in physical state:		
Crystallisation temperature (ASTM D 1177): (Diluted 1:1 with distilled water)		-36°C
Boiling point (ASTM D 1120):		≥ 110°C
Others:		
Flash point:		> 120°C
Ignition point:		> 200°C
Flammability:		no data
Explosion limits: lower/upper:		3 / 15 Vol/%
Decomposition temperature:		unknown
Oxidizing properties:		no data
Vapour pressure at 20°C:		ca. 2 mbar
Density at 20°C (ASTM D 1122):		1.095 - 1.130 g/cm <sup>3</sup>
Solubility in water at 20°C:		soluble in all proportion
Solubility in polar solvent		soluble
Thermal decomposition:		no data
n-Octanol/water partition coefficient:		no data
Kinematic viscosity at 20°C (EN ISO 3104):		20 - 30 mm <sup>2</sup> /s (calculated value)
pH (ASTM D 1287) (Diluted 1:2 with distilled water):		8.4

## 9.2 Other information

no data available soluble

## 10. Stability and reactivity

10.1 Reactivity: Dangerous reactivity not known.

10.2 Chemical stability: No decomposition if stored and handled properly.

10.3 Possibility of hazardous

reactions: Not known.

10.4 Conditions to avoid: Direct heat or ignition sources.

10.5 Incompatible Strong oxidizing agents.

materials:

10.6 Hazardous decomposition No dangerous decomposition products are formed under normal

products: conditions. Hazardous combustion products: See Section 5.

Nota: Vapours of ethanediol heavier than air and form explosive mixture with air.

## 11. Toxicological information



<b>HEXOL LUBE SRL</b>	<b>MATERIAL SAFETY DATA SHEET</b> <b>According to regulation</b> <b>1272/2008/EC</b> <b>Hexol UNIVERSAL ANTIFREEZE</b> <b>concentrate</b>	Date: 29.05.2015
		Edition: 1
		Revizion: 1
		Page: 8 of 12

### 11.1 Information on toxicological effects

Acute toxicity: No data for the product. Oral:

Note: Harmful if swallowed. Dermal:

Component:

Ethenediol:

Oral: LD (human): 1200-1500 mg/kg

Oral (OECD LD50 (rat): 5840 mg/kg

401):

LD50 (guinea 6610 mg/kg

pig):

LD50 2780 mg/kg

(mouse):

Dermal 9530 mg/kg

(OECD 402):

LD50

(rabbit):

Note:

The main component is ethenediol symptoms of glycol poisoning: breathing disorders, paralysis of central nervous system and in case of severe toxicosis may be fatal. May cause vomiting when ingested. Aspiration into the lungs may cause chemical pneumontitis. May produce central nervous system disorders. Absorb on skin. Vapours may cause narcosis.

Acute toxicity: irritation

Inhalation: not irritant (based on components)

Note: Elevated temperatures, mixing or mechanical action may form mists, which may cause slightly burning effects in nose, throat and lungs.

Skin contact: not irritant (based on components)

Note: Prolonged and/or repeated contact may cause slight irritation: transient burning effects, mild local redness on skin and/or swelling. Risk of skin

resorption.

In case of short term contact is not expected to other unlikely





<b>HEXOL LUBE SRL</b>	<b>MATERIAL SAFETY DATA SHEET</b> <b>According to regulation</b> <b>1272/2008/EC</b> <b>Hexol UNIVERSAL ANTIFREEZE</b> <b>concentrate</b>	Date: 29.05.2015
		Edition: 1
		Revision: 1
		Page: 9 of 12

effects.

Eye contact: not irritant (based on components)  
Note: May cause slight irritation: transient burning effects, mild redness and/or dim sight.  
Prolonged and/or repeated contact may cause slight irritation: transient burning effects, mild local redness on skin and/or swelling. Risk of skin resorption.  
In case of short term contact is not expected to other unlikely effects

Respiratory or skin sensitisation: not sensitising (based on components)

Chronic toxicity: If swallowed may cause mental confusion, central nervous system effects and kidney damage.

Repeted dose toxicity: not known

Other information, specific effects:

Carcinogen effect: not known

Mutagen effect: not known

Reproduction-damaging effect: not known

## 12. Ecological information

12.1 Toxicity No data available for the preparation.

Component:

Ethenediol:

Aquatic organisms: LC50 >100 (Literature)

Fish toxicity: mg/l

Daphnia toxicity: EC50 >100 (Literature)

mg/l

Algae toxicity: IC50 >100 (Literature)

mg/l

Soil organisms: Bacteria toxicity: >1000 (Literature)

mg/l

Plants:

12.2 Persistence and degradability

Biodegradability: Readily degradable. (Literature)

12.3 Bioaccumulative Has low bioaccumulation



<b>HEXOL LUBE SRL</b>	<b>MATERIAL SAFETY DATA SHEET</b> <b>According to regulation</b> <b>1272/2008/EC</b> <b>Hexol UNIVERSAL ANTIFREEZE</b> <b>concentrate</b>	Date: 29.05.2015
		Edition: 1
		Revision: 1
		Page: 10 of 12

potential (ethylene glycol).

12.4 Mobility

Mobility in soil: Large spills to soil can contaminate groundwater.

Mobility in water: No data available.

12.5 Results of PBT and vPvB assessment Not required.

assessment

12.6 Other adverse effects

Biological oxygen demand: Ethanediol: BOD: 0,81 (Literature) g/g

Chemical oxygen demand: Ethanediol: COD: 1,29 (Literature) g/g

Heavy metal content: None.

PCT, PCB and other chlorinated None.

hydrocarbons:

Effects on activated sludge: The product can be disposed in wastewater treatment plant - biological stage of treatment (activation) after dilution in the ratio 1:1000 and after approval of relevant authority and manager of the sewer.

Environmental effects: Do not empty into waterways without disposal.

Water hazard class (German): WGK 1

13. Disposal considerations

13.1 Waste treatment methods  
Product disposal:





<b>HEXOL LUBE SRL</b>	<b>MATERIAL SAFETY DATA SHEET</b> <b>According to regulation</b> <b>1272/2008/EC</b> <b>Hexol UNIVERSAL ANTIFREEZE</b> <b>concentrate</b>	Date: 29.05.2015
		Edition: 1
		Revision: 1
		Page: 11 of 12

Wastes of the product or used oil should be treated as hazardous waste.  
Antifreeze fluids containing dangerous substances.  
Disposal must be in compliance with national and local regulations. Recommended waste treatment method: incineration

**Packaging disposal:**

Containers with product residue should also be treated as hazardous waste according to national and local disposal regulations.

Packaging containing residues of or contaminated by dangerous substances.

Disposal must be in compliance with national and local regulations.

**Wastewater:**

Quality of wastewater emitted to natural water must comply with national and local regulations.

Care should be taken in any case to ensure compliance with EC, national and local regulations. It is the responsibility of the user to know all relevant national and local regulations.

**14. Transport information**

**Land transport:**

Road/ Railway ADR/RID: Not classified.

**Waterways:**

Inland waterways/ Sea transport ADN/IMDG: Not classified.

Air transport: ICAO / IATA: Not classified.

**15. Regulatory information**

15.1 Safety, health and environmental regulations/legislation specific for the mixture.

This safety data sheet has been prepared according to Regulation (EC) No 1907/2006 (mod.: 453/2010/EC).





<b>HEXOL LUBE SRL</b>	<b>MATERIAL SAFETY DATA SHEET</b> <b>According to regulation</b> <b>1272/2008/EC</b> <b>Hexol UNIVERSAL ANTIFREEZE</b> <b>concentrate</b>	Date: 29.05.2015
		Edition: 1
		Revizion: 1
		Page: 12 of 12

15.2 Chemical safety assessment.  
not available

#### 16. Other information

The information given in this data sheet is based on our best knowledge at the time of publication. The information is related only to this product and is intended to assist its safe transport, handling and use. The given physical and chemical parameters describe the product only for the purpose of safety requirements and therefore should not be construed as guaranteeing any specific property of the product or as being part of a product specification or any contract.

The manufacturer or supplier shall not take responsibility for any damages from the use other than recommended or other misuse of the product. It is the responsibility of the user to keep regulatory precautions and observe recommendations for safe use of the product.

Source of data presented in this material safety data sheet:

Test results of this product

Material safety data sheets of product's components

Romanian and EU lists of dangerous substances

Relevant Romanian regulation and EU directives

The full text of each relevant Hazard classes and cat., R- and H- phrase in Section 3.:

H302 Harmful if swallowed.

H319 Causes serious eye irritation.

H332 Harmful if inhaled.

H335 May cause respiratory irritation.

H361d Suspected of damaging the unborn child.

H373 May cause damage to kidneys through prolonged or repeated exposure if swallowed.

H412 Harmful to aquatic life with long lasting effects.

Acute Tox. 4 Acute toxicity Category 4

Eye Irrit. 2 Serious eye damage/eye irritation Category 2

