

Safety Data Sheet

Product name :

GLACELF PLUS

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FDS N°:31315-33

Version :2.00

Version of :2003-06-30

This sheet supersedes the one dated :2001-06-28

PRODUCT LABELS

LABELLING (standard or EU): Concerned

Symbol(s):



Symbol(s): Xn Harmful

Contains: ethanediol

R-phrases: R-22 Harmful if swallowed.

S-phrases: S-2 Keep out of reach of children.
S-46 If swallowed seek medical advice immediately and show this container or label.

TRANSPORT LABELLING: Not applicable.

1. IDENTIFICATION OF THE SUBSTANCE/PREPARATION AND OF THE COMPANY UNDERTAKING

Name of the product: GLACELF PLUS

Code No.: FDW

Product application: Anti-freeze/Cooling liquid

Supplier: TOTAL LUBRIFIANTS
Le Diamant B
16, rue de la République
92922 Paris La Défense - France
Tel: +33 (0)1 41 35 40 00
Fax: +33 (0)1 41 35 84 71

Emergency telephones: ORFILA / Tel: 01.45.42.59.59

See local details at end of sheet:

2. COMPOSITION/INFORMATION ON INGREDIENTS

PREPARATION

Chemical nature: Product with ethylene-glycol base

Substances presenting a health hazard	EC No.	CAS No.	Content	Symbol(s)	R-phrases
ethanediol	203-473-3	107-21-1	<95 %	Xn	R-22

See section 16 for explanations of R-phrases:

3. HAZARDS IDENTIFICATION

Health effects: Accidental ingestion may be harmful to the central nervous system
The product contains an approved repellent (bitter), for the purpose of avoiding the risk of accidental ingestion

Environmental impact: Do not reject this product into the environment



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Physico-chemical hazards:

No specific risk of fire or explosion under normal conditions of use

4. FIRST AID MEASURES

IN CASE OF SERIOUS OR PERSISTENT MANIFESTATIONS, CALL A DOCTOR OR EMERGENCY MEDICAL CARE.

Inhalation:	Inhalation of heavy concentrations of vapour, fumes or spray, may cause mild irritation of the throat. Transport the person into fresh air, keep warm and allow to rest.
Ingestion:	Immediately transport to hospital. Possible risk of vomiting and diarrhoea. Do not induce vomiting to avoid the risk of aspiration into the respiratory tract. Give nothing to drink
Skin contact:	Immediately remove all soiled or stained clothing. Wash the affected area immediately and repeatedly with soap and water.
Eye contact:	Keep eyes open and rinse immediately and repeatedly with water for at least 15 minutes.
Aspiration:	If the product is believed to have entered the lungs (in case of vomiting, for example), take the person to hospital for immediate care.

5. FIRE FIGHTING MEASURES

Flash point:
See heading 9

Extinguishing media:	- suitable: Foam, carbon dioxide (CO ₂), powder. - not recommended: do not use water jets (stick jets) for extinguishing fire since they could help to spread the flames.
Specific hazards:	Prevent ethylene glycol from decomposing into acetaldehyde, at 500-600°C.
Protective measures for firefighters:	Insulated breathing apparatus must be worn in confined premises with heavy concentrations of fumes and gases.

6. ACCIDENTAL RELEASE MEASURES

See sections 8 and 13.

After spillage / leakage:	- On the soil: Surfaces on which the product has been spilled may become slippery. Do not allow the product to enter sewers or rivers or contaminate the soil. Recover with mechanical means such as pumps and skimmers. In case of spillage, contact the competent authorities if the situation cannot be brought under control rapidly and efficiently. - On water: If the product has penetrate in a river or a sewer, notify the authorities.
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7. HANDLING AND STORAGE

HANDLING:

Prevention of user exposure:	Ventilate extensively if the formation of vapours, fumes, mists or aerosol is a risk. Keep away from combustive substances; keep away from food and beverages.
Prevention of fire and explosion:	Empty containers may contain flammable or explosive vapours. There is a fire hazard associated with rags, paper or any other material used to remove spills which become soaked with product. Avoid accumulate of these: they are to be disposed off safely after use.



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Precautions:

Avoid static electricity build up with connection to earth.
Set up machinery and equipment so as to avoid the risk of accidental spills or splashes onto hot machine parts and electrical contacts (on joint failure, for example).
Avoid contact with strong oxidizers.

STORAGE:

Technical measures:

Make the necessary arrangements to prevent water and soil pollution.

Storage precautions:

. Suitable:
Store at room temperature, protected against contact with water and moisture, and away from any source of ignition.
. To be avoided:
Do not store exposed to the elements.

Incompatible products:

Dangerous reaction with strong oxidizing agents.

Packaging materials:

. Recommended:
Use only containers, joints, pipes, etc...made in a material suitable for use with water and glycol.
Keep in original container if possible.

8. EXPOSURE CONTROLS/PERSONAL PROTECTION

Technical measures:

Use the product in a properly ventilated atmosphere.
When working on enclosed place (tanks, reservoirs...), make sure that atmosphere is not suffocating and/or wear recommend equipment.

Occupational exposure limit:

Vapours of monoethylene glycol (VLE) : 125 mg/m³ (50 ppm) for 15 minutes.

Composant	N°. CAS	Référence	VME 8 h	VLE 15 mn	Date
ethanediol	107-21-1	VLEP.		125 mg/m ³	

Hand protection:

Glycol resistant gloves.

Eye protection:

Goggles, in case of risk of splashing.

Skin and body (other than the hands) protection:

Depending on requirements, face mask, boots, clothing proof against the product, safety shoes (drum handling).
Don't wear ring, watch or similar thing which will be able to hold the product and may give rise to some skin diseases.

Hygienic work practices:

Immediately remove all soiled or stained clothing.
If the product comes into contact with the skin, wash the affected area immediately and copiously with soap and water.
Use no abrasives, solvents or fuels.
Do not use cloths stained with the product to dry hands.
Dont put the product-soaked rags in the pockets of working clothes.
Do not eat, drink or smoke while handling the product.

9. PHYSICAL AND CHEMICAL PROPERTIES

Appearance:

Liquid

Colour:

Blue green.

Odour:

Slight.

Density/specific gravity:

1130 kg/m³
Temperature (°C) 20

pH-value, conc. solution:

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Flash point:	> 115 ° C (ASTM D 93)
Température d'auto-inflammation:	> 410 ° C (ASTM E 659)
Solubility:	- in water: Completely soluble
Viscosity:	20 mm ² /s Temperature (°C) 20

10. STABILITY AND REACTIVITY

Stability:	The product is stable at normal storage, handling and use temperatures.
Conditions to avoid:	Heat (temperatures above flash point), sparks, ignition points, flames, static electricity
Materials to avoid:	Avoid contact with strong oxidizing
Hazardous decomp. products:	Acetaldehyde at temperatures around 500 - 600 °C.

11. TOXICOLOGICAL INFORMATION

Acute toxicity / Local effect:

Inhalation, comments:	- Inhalation : The product is not volatile Risk is improbable under normal conditions of use Inhalation of important concentration of vapour or aerosols may cause irritation of the upper respiratory tract.
Skin contact:	SKIN TEST DL50 (Rabbit) = 19530 mg/kg
Skin contact, comments:	Risk is improbable under normal conditions of use. However, major and prolonged contact is to be avoided, in particular by persons with extensive dermatosis
Ingestion:	DL50(Rat) = 5840 mg/kg
Ingestion, comments:	- Ingestion : Ingestion constitutes the main danger because of the toxicity of ethylene glycol Acute intoxication is particularly dangerous for children Ingestion is followed first by digestive disorders (nausea, vomiting, abdominal pain), then by loss of muscular coordination, convulsions, headaches and dizzy spells, preceding serious nervous disorders This develops into a state of torpor and then coma, at times accompanied by convulsions High metabolic acidosis (oxalic acid) leads to affliction of the renal ducts, with anuresis Intoxication can lead to a coma with metabolic acidosis that may be fatal For man, the lowest oral lethal dose known is 1,500 mg/kg

CHRONIC TOXICITY OR LONG-TERM TOXICITY:

Sensitization:	To our knowledge, the product does not cause aggravated sensitivity.
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12. ECOLOGICAL INFORMATION

Ecotoxicity:	Acute toxicity. LC50 96 hours Rainbow Trout 18-46 g/l Acute toxicity. EC50 24 hours Daphnia magna 46-51 g/l Acute toxicity. EC50 Algae (Selastrum capricornutum) 10
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Mobility:	- Air: there is a slow loss by evaporation. - Ground: Given its physical and chemical characteristics, the product is generally mobile in the ground - Water: Soluble in all proportions
Persistence and degradability:	The product is intrinsically biodegradable.

13. DISPOSAL CONSIDERATIONS

Waste disposal:	Dispose of in a safe manner, in accordance with local regulations. If need be, collection by an authorized waste contractor and regeneration or incineration in an approved installation
Waste class:	07.01.99 (wastes not otherwise specified)
Disposal of contaminated packaging:	Proceed in compliance with the prevailing regulations.
National regulations:	* France List of wastes: JOCE L349 of 16.02.2001. Law No. 75-633 of 15.07.75 amended, relative to the elimination of wastes and the recovery of materials. Regulations concerning the collection of used oils: Decree 79-981 of 21.11.79 and rules of 28.01.99 relative to their collection and the conditions for their elimination. Law No. 88-1261 of 30.12.88 concerning the import, export and transit of wastes. Decree No. 77-254 of 08.03.77 relative to the regulation for the dumping of oils and lubricants into surface waters.

14. TRANSPORT INFORMATION

Not concerned by the regulatory below.	
Road (ADR) / Rail (RID):	
Class:	Not restricted for transport.
Transport by barge (ADNR):	
Marine (IMO-IMDG):	
Air (ICAO/IATA):	

15. REGULATORY INFORMATION

Symbol(s):



Symbol(s):	Xn Harmful
Contains:	ethanediol
Risk phrases:	R-22 Harmful if swallowed.
Safety phrases:	S-2 Keep out of reach of children. S-46 If swallowed seek medical advice immediately and show this container or label.
EU directives:	Hazardous preparations directive 1999/45/EC modified (Directive 2001/60/EC).



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Social Security code: - Art. L.461-6, Art. D.461-1, apendix A, No. 603
Table of occupational illnesses and diseases No. 84

Others (French Regulations): Decree No. 95-326 of March, 20th 1995 (JORF of March, 25th 1995).

16. OTHER INFORMATION

For France, in case of poisoning call the Antipoison Centre (if possible in your area) and/or the SAMU (15), see ORFILA number below - Tel : Angers 02.41.48.21.21 - Bordeaux 05.56.96.40.80 - Lille 03.20.44.44.44 - Lyon 04.72.11.69.11 - Marseille 04.91.75.25.25 - Nancy 03.83.32.36.36 - Paris 01.40.05.48.48 - Rennes 02.99.59.22.22 - Strasbourg 03.88.37.37.37 - Toulouse 05.61.77.74.47

This sheet is in compliance with the standarts defined by the directives 91/155/CEE, 93/112/CEE, 2001/58/CE and the article 14 of the directive 1999/45/EC.

Explanations of R-phrases in section 2: R-22 Harmful if swallowed.

Revision date: 2003-06-30

Supersedes the data sheet of: 2001-06-28

* Information revised since the previous version of the SDS:

SDS No.: glaplus

This safety data sheet serves to complete but not to replace the technical product sheets. The information contained herein is given in good faith and is accurate to the best of knowledge at the date indicated above. It is understood by the user that any use of the product for purposes other than those for which it was designed entails potential risk. The information given herein in no way dispenses the user from knowing and applying all provisions regulating his activity. The user bears sole liability for the precautions required when using the product. The regulatory texts indicated herein are intended to aid the user to fulfil his obligations. This list is not to be considered complete and exhaustive. It is the user's responsibility to ensure that he is subject to no other obligations than those mentioned.