

Safety Data Sheet

Product name :

GLACELF AUTO SUPRA

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SDS n° :31319-44

Version :1.00

Version of :2005-05-10

This sheet supersedes the one dated :2004-10-27

PRODUCT LABELS

LABELLING (standard or EU):

Concerned

Symbol(s) :



Symbol(s) :

Xn Harmful

Contains :

Monoethylene-glycol

*R-phrases :

R-22 Harmful if swallowed.

*S-phrases :

S-2 Keep out of reach of children.
S-36/37 Wear suitable protective clothing and gloves.
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 AUTO SUPRA

Code No. :

FDF

Product application :

Anti-freeze/Cooling liquid

Supplier :

TOTAL UK LIMITED
40 Clarendon Road
Watford. Hertfordshire. WD17 1TQ
UNITED KINGDOM
Tel: 01923 694000
Fax: 01923 694400

*Contact :

Specific Product Related Info: 01977 636200

*Emergency telephones :

UK - 01923 694000

*Poisons Advice Centre :

NHS Direct: 0845 46 47 / Textphone: 0845 606 46 47

*Burns Units :

NHS Direct: 0845 46 47 / Textphone: 0845 606 46 47

See local details at end of sheet :

Manufacturer :

TOTAL UK LIMITED
40 Clarendon Road
Watford. Hertfordshire. WD17 1TQ
UNITED KINGDOM
Tel: 01923 694000
Fax: 01923 694400

2. 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

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| *Environmental impact : | Do not discharge this product into the environment. |
| *Physico-chemical hazards : | If overheated, the product may release flammable vapours that can form explosive gas mixtures. |
| *Product classification : | Harmful: Xn. |

3. 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 |
|---------------------------------------|-----------|------------|---------|-----------|-----------|
| Monoethylene-glycol | 203-473-3 | 107-21-1 | <95 % | Xn | R-22 |
| sodium 2-ethylhexanoate | 243-283-8 | 19766-89-3 | <5 % | Xn | R-63 |

See section 16 for explanations of R-phrases :

4. FIRST AID MEASURES

IN CASE OF SERIOUS OR PERSISTENT CONDITIONS, 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. Do not induce vomiting to avoid the risk of aspiration into the respiratory tract. Give nothing to drink Ingestion, depending on the dose, can cause i.a. abnormal behaviour, unconsciousness, convulsions, respiratory paralysis, pulmonary oedemas, as well as damages to liver and kidneys and can lead, in the worst case, to death. A quick treatment of an ethylene-glycol intoxication, when necessary with haemodialysis, may reduce the toxic effects. Intravenous ethyl alcohol in sodium bicarbonate solution is an approved antitoxin. Rinse the mouth. |
| 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. Contact physician if discomfort continues. |
| 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 (CO₂), 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.
Vapours can build explosive mixtures with air.

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Protective measures for firefighters :

Insulated breathing apparatus must be worn in confined premises with heavy concentrations of fumes and gases.

Other :

All combustion residues and contaminated water from fire-fighting should be disposed of according to local regulations.

6. ACCIDENTAL RELEASE MEASURES

See sections 8 and 13.

Personal protection :

As applicable in view of the risk of exposure, wear suitable protective clothing, gloves, goggles, and boots.
Whenever there is a possibility of contact, wear liquid-proof protective clothing that must be cleaned and changed frequently. Remove any stained clothing at once and have dry cleaned.
Ensure good ventilation.
Avoid the inhalation of vapours.

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 penetrated into a river or a sewer, notify the authorities.

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 combustible 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 accumulation of these: they are to be disposed off safely after use.

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:
Keep away from food, drink and animal feeding stuffs.
Store at room temperature, protected against contact with water and moisture, and away from any source of ignition.
Do not use aluminum containers.
- 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.

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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 recommended equipment.

*Occupational exposure limit :

In France:
Vapours of monoethylene glycol (VLE) : 125 mg/m³ (50 ppm) for 15 minutes.
Germany:
Vapours of monoethylene glycol (MAK) : Category 1 ; 10ppm , 26mg/m³
There is no reason to fear the risk of damage to a developing embryo or foetus when MAK and BAT values are adhered to.
Risk of skin absorption.
Recommended indicative occupational exposure limit value for the EC according to 2000/39/CE (Official journal of the EC L 142, is currently checked by the AGS for Germany):
- 8h-limit value: 52 mg/m³ (20 ppm)
- short time limit value: 104 mg/m³ (40 ppm)
ACGIH (TLV) :
Vapours of monoethylene glycol (TWA) : 39.4ppm , 100mg/m³
Vapours of monoethylene glycol (STEL) : 40ppm , 104mg/m³

Protective equipment :



Respiratory protection :

If exposure is likely to exceed the occupational exposure limit, in a ventilated space, use approved respiratory protective equipment; in confined spaces, use autonomous breathing apparatus.
Gas cartridge (organic gases, filter A).
Combined gas cartridge (organic gases and dust, filter A/P2).
Be aware that filter protection time is limited.

Hand protection :

Use protective gloves.
Check that gloves are in suitable condition prior to each use.
Suitable glove materials (break through time \geq 8h) are:
Polychloroprene - layer thickness 0,5 mm
Nitrile rubber/-latex - layer thickness 0,35 mm
Fluorocarbon rubber (Viton) - layer thickness 0,4 mm
Butyl rubber - layer thickness 0,5 mm
Polyvinyl chloride (PVC) – layer thickness 0,5 mm
Gloves made of natural rubber or latex are not suitable.
All data is based on standard values measured at 22 °C and long-term loading
No experimental data is currently available for the finished product
Permeation times have not been determined by means of practical tests, but by comparison with existing data.
The characteristics of the gloves are determined by the conditions in practice (e.g. multiple use, mechanical load, temperature, strength and duration of exposition).
The break through times of the same type of glove of different manufacturers can be very different - even if the layer thickness is similar. Therefore the break through times have to be found out from the manufacturer of the protective gloves themselves.
Before choosing suitable gloves, it is recommended that the user test

Eye protection :

Goggles, in case of risk of splashing.

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| Skin and body (other than the hands) protection : | Depending on the requirements, face mask, boots, product resistant clothing, safety shoes (drum handling). Don't wear rings, watches or anything similar which can retain the product and may give rise to skin conditions. |
| 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. Do not use abrasives, solvents or fuels. Do not use cloths stained with the product to dry hands. Do not put the product-soaked rags into the pockets of working clothes. Do not eat, drink or smoke while handling the product. |

9. PHYSICAL AND CHEMICAL PROPERTIES

| | |
|--|--|
| Appearance : | Liquid |
| Colour : | Orange. |
| Odour : | Characteristic. |
| Density/specific gravity : | 1105 - 1125 kg/m ³ Temperature (°C) 15 |
| pH-value, diluted solution : | 8.3 Concentration %M 50 |
| Flash point : | > 100 ° C (ASTM D 93) |
| Température d'auto-inflammation : | Monoethylene glycol > 398 ° C |
| Comments on autoignition temperature : | This value may be significantly lower in the case of contact with potentially catalytic materials The values of auto-ignition temperature are given without guarantee. Indeed, these values vary widely depending on the source of information. |
| Solubility : | - in water : soluble in all proportions - in organic solvents : Completely soluble |

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 : | Strong acids and strong oxidising agents |
| Hazardous decomp. products : | Acetaldehyde at temperatures around 500 - 600 °C. Incomplete combustion and thermolysis produces potentially toxic gases such as CO, CO ₂ . Possible formation of carbon oxides, nitrogen oxides and hazardous organic compounds |

11. TOXICOLOGICAL INFORMATION

Acute toxicity / Local effect :

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Inhalation, comments:

The product is not volatile at room temperature.
Inhalation of high concentrations of vapour or aerosols may cause irritation of the upper respiratory tract.
High concentrations may cause headaches, dizziness, nausea, behavioural changes, weakness, drowsiness and blackouts.

Skin contact :

SKIN TEST LD50 (Rabbit) = 19530 mg/kg

Skin contact, comments:

Skin penetration is possible.

Eye contact, comments:

Not classified as irritating, but may cause a burning feeling and temporary reddening.
Can cause conjunctivitis.

Ingestion :

LD50(Rat) = 5840 mg/kg

Ingestion, comments:

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
The minimum lethal dose known for humans is 100 ml of ethylene glycol. But there are also cases known of humans who survived intoxications with more than 1 l ethylene glycol (source: BIA-Gestis data base, Germany).

CHRONIC TOXICITY OR LONG-TERM TOXICITY :

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 (Selenastrum capricornutum) 10 g/l

Comments about ecotoxicity :

It is considered to present a little danger for aquatic life.
no information available for used product

Mobility :

- Air:
there is a slow loss by evaporation.
- Soil:
Given its physical and chemical characteristics, the product is generally mobile in the ground
- Water:
Soluble in all proportions

Persistence and degradability :

The main components of the product are degradable in the environment.

13. DISPOSAL CONSIDERATIONS

Waste disposal :

Dispose of in a safe manner, in accordance with local regulations.
If need be, collection by an authorised waste contractor and regeneration or incineration at an approved installation.

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Waste class :

The waste classification is dependant on the composition of the product at the time of disposal.

The waste classification mentioned here represents only a recommendation. The waste producer is responsible for the correct specification of the waste. The specification of the waste classification should be in arrangement with the authorised waste disposal company.

Industrial waste number EU
16 01 14

Disposal of contaminated packaging :

Proceed in compliance with the prevailing regulations.

14. TRANSPORT INFORMATION

UN N°: not applicable

Road (ADR) / Rail (RID) :

Transport by barge (ADNR) :

Marine (IMO-IMDG) :

Air (ICAO/IATA) :

15. REGULATORY INFORMATION

Symbol(s) :



Symbol(s) :

Xn Harmful

Contains :

Monoethylene-glycol

*Risk phrases :

R-22 Harmful if swallowed.

*Safety phrases :

S-2 Keep out of reach of children.
S-36/37 Wear suitable protective clothing and gloves.
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).
D. 67/548/EC modified by D. 2001/59/EC (28th APT)

16. OTHER INFORMATION

Explanations of R-phrases in section 2 :

R-22 Harmful if swallowed.
R-63 Possible risk of foetal harm.

*Revision date:

2005-05-10

*Supersedes the data sheet of:

2004-10-27

* Information revised since the previous version of the SDS :

SDS No. :

LT-DS-5217

Safety Data Sheet status :

Approved.



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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.