



SAFETY DATA SHEET

according to Regulation (EC) No. 1907/2006

SDS # : 31317

GLACELF CLASSIC

Date of the previous version: 2015-06-05

Revision Date: 2015-07-08

Version 2.01

Section 1: IDENTIFICATION OF THE SUBSTANCE/MIXTURE AND OF THE COMPANY/UNDERTAKING

1.1. Product identifier

| | |
|--------------------------|------------------------|
| Product name | GLACELF CLASSIC |
| Number | FDP |
| Substance/mixture | Mixture |

1.2. Relevant identified uses of the substance or mixture and uses advised against

| | |
|------------------------|----------------------|
| Identified uses | Antifreeze, Coolant. |
|------------------------|----------------------|

1.3. Details of the supplier of the safety data sheet

| | |
|-----------------|--|
| Supplier | TOTAL UK LIMITED One Euston Square 40 Melton Street. London. NW1 2FD UNITED KINGDOM Tel: +44 (0)20 7339 8000 Fax: +44 (0)20 7339 8033 |
|-----------------|--|

For further information, please contact:

| | |
|-----------------------|--|
| Contact Point | Specific Product Related Info : 01977 636200 |
| E-mail Address | rm.gb-msds@total.co.uk |

1.4. Emergency telephone number

00 33 149 00 00 49 (24h/24, 7d/7)
 TOTAL UK Ltd: + 44 (0) 20 7339 8000
 For Lubricants only: TOTAL Lubricants - +44 (0)1977 636200
 For bitumen only: Total Bitumen +44 (0) 17 7272 9302

Section 2: HAZARDS IDENTIFICATION

2.1. Classification of the substance or mixture

REGULATION (EC) No 1272/2008

For the full text of the H-Statements mentioned in this Section, see Section 2.2.

Classification

The product is classified as dangerous in accordance with Regulation (EC) No. 1272/2008

Acute oral toxicity - Category 4 - (H302)

Specific target organ toxicity (repeated exposure) - Category 2 - (H373)



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2.2. Label elements

Labelled according to

REGULATION (EC) No 1272/2008

Contains Monoethyleneglycol

Signal Word
WARNING**Hazard Statements**

H302 - Harmful if swallowed

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

Precautionary statements

P101 - If medical advice is needed, have product container or label at hand

P102 - Keep out of reach of children

P260 - Do not breathe dust/ fume/ gas/ mist/ vapours/ spray

P264 - Wash hands thoroughly after handling

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

P301 + P310 - IF SWALLOWED: Immediately call a POISON CENTRE/doctor

Unknown Acute Toxicity

2.9% of the mixture consists of ingredient(s) of unknown toxicity

2.3. Other hazards**Physical-Chemical Properties**

Contaminated surfaces will be extremely slippery.

Environmental properties

Should not be released into the environment.

Section 3: COMPOSITION/INFORMATION ON INGREDIENTS

3.2. Mixture**Hazardous components**

| Chemical Name | EC-No | REACH Registration Number | CAS-No | Weight % | GHS Classification |
|--------------------|-----------|---------------------------------|----------|----------|--|
| Monoethyleneglycol | 203-473-3 | 01-2119456816-28 | 107-21-1 | <98 | Acute Tox.4 (H302) STOT RE 2 (H373) |



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| | | | | | |
|-----------------------------------|-----------|------------------|------------|----|--|
| disodium tetraborate pentahydrate | 215-540-4 | 01-2119490790-32 | 12179-04-3 | <3 | Eye Irrit. 2 (H319) Repr. 1B (H360FD) |
|-----------------------------------|-----------|------------------|------------|----|--|

Additional information

Product with ethylene-glycol base. This product contains an approved repellent (bitter), for the purpose of avoiding the risk of accidental ingestion.

For the full text of the H-Statements mentioned in this Section, see Section 16.

This product contains one or more candidate substance(s) of very high concern (Regulation (EC) No. 1907/2006 (REACH), Article 59)

| Chemical Name | CAS-No | SVHC candidates |
|-----------------------------------|------------|-----------------|
| disodium tetraborate pentahydrate | 12179-04-3 | X |

Section 4: FIRST AID MEASURES

4.1. Description of first aid measures

| | |
|-----------------------|--|
| General advice | IN CASE OF SERIOUS OR PERSISTENT CONDITIONS, CALL A DOCTOR OR EMERGENCY MEDICAL CARE. Show this safety data sheet to the doctor in attendance. |
| Eye contact | Check for and remove any contact lenses. Rinse thoroughly with plenty of water, also under the eyelids. |
| Skin contact | Remove contaminated clothing and shoes. Wash skin with soap and water. Wash contaminated clothing before reuse. |
| Inhalation | Move to fresh air. If breathing difficult, Consult a physician. |
| Ingestion | Do NOT induce vomiting. Call a physician or poison control centre immediately. Never give anything by mouth to an unconscious person. |

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

| | |
|---------------------|---|
| Eye contact | Not classified. |
| Skin contact | Not classified. |
| Inhalation | Not classified. Vapours inhaled in strong concentration have a narcotic effect on the central nervous system. May cause central nervous system depression with nausea, headache, dizziness, vomiting, and incoordination. Symptoms of overexposure are dizziness, headache, tiredness, nausea, unconsciousness, cessation of breathing. |
| Ingestion | Harmful if swallowed. Ingestion constitutes the main danger because of the toxicity of ethylene glycol. Accidental ingestion may be harmful to the central nervous system. 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. Intoxication can lead to a coma with metabolic acidosis that may be fatal. |



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

Notes to physician Treat symptomatically.

Section 5: FIRE-FIGHTING MEASURES

5.1. Extinguishing media

Suitable extinguishing media Water spray or fog. Foam. Dry chemical powder. Carbon dioxide (CO₂). Alcohol-resistant foam.

Unsuitable Extinguishing Media Do not use a solid water stream as it may scatter and spread fire.

5.2. Special hazards arising from the substance or mixture

Special hazard Incomplete combustion and thermolysis may produce gases of varying toxicity such as carbon monoxide, carbon dioxide, various hydrocarbons, aldehydes and soot. These may be highly dangerous if inhaled in confined spaces or at high concentration.

5.3. Precautions for fire-fighters

Special protective equipment for fire-fighters Wear self-contained breathing apparatus and protective suit.

Other information Cool containers / tanks with water spray. Fire residues and contaminated fire extinguishing water must be disposed of in accordance with local regulations.

Section 6: ACCIDENTAL RELEASE MEASURES

6.1. Personal precautions, protective equipment and emergency procedures

General Information Do not touch or walk through spilled material. Contaminated surfaces will be extremely slippery. Use personal protective equipment. Ensure adequate ventilation. Remove all sources of ignition.

6.2. Environmental precautions

General Information Do not allow material to contaminate ground water system. Try to prevent the material from entering drains or water courses. Local authorities should be advised if significant spillages cannot be contained.

6.3. Methods and materials for containment and cleaning up

Methods for cleaning up Dam up. Contain spillage, and then collect with non-combustible absorbent material, (e.g. sand, earth, diatomaceous earth, vermiculite) and place in container for disposal according to local / national regulations (see section 13). Keep in suitable, closed containers for disposal.

6.4. Reference to other sections



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Personal protective equipment See Section 8 for more detail.

Waste treatment See section 13.

Section 7: HANDLING AND STORAGE

7.1. Precautions for safe handling

Advice on safe handling When using, do not eat, drink or smoke. For personal protection see section 8. Use only in well-ventilated areas. Do not breathe vapours or spray mist. Avoid contact with skin, eyes and clothing. Never pierce, drill, grind, cut, saw or weld any empty container.

Prevention of fire and explosion Take precautionary measures against static discharges. Ground/bond containers, tanks and transfer/receiving equipment.

Hygiene measures Ensure the application of strict rules of hygiene by the personnel exposed to the risk of contact with the product. Regular cleaning of equipment, work area and clothing is recommended. Wash hands before breaks and immediately after handling the product. Do not use abrasives, solvents or fuels. Do not dry hands with rags that have been contaminated with product. Do not put product contaminated rags into workwear pockets.

7.2. Conditions for safe storage, including any incompatibilities

Technical measures/Storage conditions Keep out of reach of children. Keep away from food, drink and animal feedingstuffs. Keep in a bunded area. Keep container tightly closed. Preferably keep in the original container. Otherwise, reproduce all the statutory information from the labels onto the new container. Do not remove the hazard labels of the containers (even if they are empty). Design the installations in order to avoid accidental emissions of product (due to seal breakage, for example) onto hot casings or electrical contacts. Protect from frost, heat and sunlight. Protect from moisture.

Materials to avoid Strong oxidising agents.

7.3. Specific use(s)

Specific use(s) No information available.

Section 8: EXPOSURE CONTROLS / PERSONAL PROTECTION

8.1. Control parametres

Exposure limits Components with workplace control parametres

| Chemical Name | European Union | The United Kingdom | Ireland |
|--------------------------------|---|--|---|
| Monoethyleneglycol 107-21-1 | TWA 20 ppm TWA 52 mg/m ³ STEL 40 ppm STEL 104 mg/m ³ S* | STEL 40 ppm vapour STEL 104 mg/m ³ vapour STEL 30 mg/m ³ particulate TWA 20 ppm vapour TWA 52 mg/m ³ vapour TWA 10 mg/m ³ particulate Skin | TWA 10 mg/m ³ particulate TWA 20 ppm vapour TWA 52 mg/m ³ vapour STEL 40 ppm vapour STEL 104 mg/m ³ vapour Skin |

Legend See section 16

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DNEL Worker (Industrial/Professional)

| Chemical Name | Short term, systemic effects | Short term, local effects | Long term, systemic effects | Long term, local effects |
|---|------------------------------|---------------------------|---|---------------------------------------|
| Monoethyleneglycol 107-21-1 | | | 106 mg/kg bw/day (dermal) | 35 mg/m ³ /8h (inhalation) |
| disodium tetraborate pentahydrate 12179-04-3 | | | 6.7 mg/m ³ Inhalation 316.4 mg/kg bw/day Dermal | |

DNEL Consumer

| Chemical Name | Short term, systemic effects | Short term, local effects | Long term, systemic effects | Long term, local effects |
|---|------------------------------|---------------------------|---|---------------------------------------|
| Monoethyleneglycol 107-21-1 | | | 53 mg/kg bw/day (dermal) | 7 mg/m ³ /24h (inhalation) |
| disodium tetraborate pentahydrate 12179-04-3 | 0.79 mg/kg bw/day Oral | | 3.4 mg/m ³ Inhalation 159.5 mg/kg bw/day Dermal 0.79 mg/kg bw/day Oral | |

Predicted No Effect Concentration (PNEC)

| Chemical Name | Water | Sediment | Soil | Air | STP | Oral |
|---|--|-----------------------------------|---------------|-----|------------|------|
| Monoethyleneglycol 107-21-1 | 10 mg/l (fw) 1mg/l (mw) 10 mg/l (or) | 37 mg/kg dw fw 3.7 mg/kg dw mw | 1.53 mg/kg dw | | 199.5 mg/l | |
| disodium tetraborate pentahydrate 12179-04-3 | 2.9 mg/l fw 2.9 mg/l mw 13.7 mg/l or | | 5.7 mg/kg dw | | 10 mg/l | |

8.2. Exposure controls

Occupational Exposure Controls

Engineering measures

Apply technical measures to comply with the occupational exposure limits. When working in confined spaces (tanks, containers, etc.), ensure that there is a supply of air suitable for breathing and wear the recommended equipment.

Personal protective equipment

General Information

If the product is used in mixtures, it is recommended that you contact the appropriate protective equipment suppliers. These recommendations apply to the product as supplied.

Respiratory protection

None under normal use conditions. When workers are facing concentrations above the exposure limit they must use appropriate certified respirators: Type A/P2. The use of breathing apparatus must comply strictly with the manufacturer's instructions and the regulations governing their choices and uses.***

Eye protection

If splashes are likely to occur, wear: Safety glasses with side-shields.

Skin and body protection

Wear suitable protective clothing. Impervious gloves. Protective shoes or boots. Long sleeved clothing.



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Hand protection

Rubber gloves, Nitrile rubber. Neoprene gloves, Polyvinylchloride. Please observe the instructions regarding permeability and breakthrough time which are provided by the supplier of the gloves. Also take into consideration the specific local conditions under which the product is used, such as the danger of cuts, abrasion, and the contact time. If used in solution, or mixed with other substances, and under conditions which differ from EN 374, contact the supplier of the EC approved gloves.

Environmental exposure controls

General Information

Do not allow material to contaminate ground water system.

Section 9: PHYSICAL AND CHEMICAL PROPERTIES

9.1. Information on basic physical and chemical properties

| Colour | | blue | |
|------------------------------------|------------------------|--------------------------|--|
| Physical state @20°C | | Liquid | |
| Odour | | slight | |
| Property | Values | Remarks | Method |
| pH | 6.7 | | |
| Boiling point/boiling range | 180 °C 356 °F | | |
| Flash point | 122 °C 252 °F | | Cleveland Open Cup (COC) Cleveland Open Cup (COC) |
| Evaporation rate | | No information available | |
| Flammability Limits in Air | | No information available | |
| Vapour pressure | | No information available | |
| Vapour density | > 1 | (Air = 1) | |
| Density | 1100 kg/m ³ | @ 20 °C | |
| Water solubility | | soluble | |
| Solubility in other solvents | | No information available | |
| logPow | | No information available | |
| Autoignition temperature | | No information available | |
| Viscosity, kinematic | | No information available | |
| Explosive properties | Not explosive | | |
| Oxidising properties | Not applicable | | |
| Possibility of hazardous reactions | Not applicable | | |

9.2. Other information

| | |
|----------------|----------------|
| Freezing point | -18 °C 0 °F |
|----------------|----------------|

Section 10: STABILITY AND REACTIVITY

10.1. Reactivity

General Information

No information available.



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10.2. Chemical stability

Stability Stable under recommended storage conditions.

10.3. Possibility of hazardous reactions

Hazardous reactions None under normal processing.

10.4. Conditions to Avoid

Conditions to Avoid Heat (temperatures above flash point), sparks, ignition points, flames, static electricity.

10.5. Incompatible materials

Materials to avoid Strong oxidising agents.

10.6. Hazardous Decomposition Products

Hazardous Decomposition Products Incomplete combustion and thermolysis may produce gases of varying toxicity such as carbon monoxide, carbon dioxide, various hydrocarbons, aldehydes and soot, Ketones.

Section 11: TOXICOLOGICAL INFORMATION

11.1. Information on toxicological effects

Acute toxicity Local effects Product Information

Skin contact . Not classified.

Eye contact . Not classified.

Inhalation . Not classified. Vapours inhaled in strong concentration have a narcotic effect on the central nervous system. May cause central nervous system depression with nausea, headache, dizziness, vomiting, and incoordination. Symptoms of overexposure are dizziness, headache, tiredness, nausea, unconsciousness, cessation of breathing.

Ingestion . Harmful if swallowed. Ingestion constitutes the main danger because of the toxicity of ethylene glycol. Accidental ingestion may be harmful to the central nervous system. 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. Intoxication can lead to a coma with metabolic acidosis that may be fatal.

Unknown Acute Toxicity

0 % of the mixture consists of ingredient(s) of unknown acute oral toxicity

0 % of the mixture consists of ingredient(s) of unknown acute dermal toxicity

2.9 % of the mixture consists of ingredient(s) of unknown acute inhalation toxicity



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Acute toxicity - Component Information

| Chemical Name | LD50 Oral | LD50 Dermal | LC50 Inhalation |
|-----------------------------------|--|----------------------------------|-------------------------------------|
| Monoethyleneglycol | LD50 7712 mg/kg Oral (Rat) | LD50 > 3500 mg/kg Dermal (Mouse) | LC50(6h) >2.5 mg/l Inhalation (Rat) |
| disodium tetraborate pentahydrate | LD50 > 2500 mg/kg (Rat - male - OECD401) | LD50 > 2000 mg/kg (Rabbit) | |

Sensitisation

Sensitisation Not classified as a sensitizer.

Specific effects

Carcinogenicity This product is not classified carcinogenic.
Mutagenicity This product is not classified as mutagenic.
Reproductive toxicity Contains a known or suspected reproductive toxin. The provider of a component used in the formulation indicates that the data available show that use applied rates, no classification as toxic for reproduction is required.

| Chemical Name | European Union |
|---|-------------------|
| disodium tetraborate pentahydrate 12179-04-3 | Repr. 1B (H360FD) |

Repeated Dose Toxicity

Subchronic Toxicity No information available.

Target Organ Effects (STOT)

Target Organ Effects (STOT) Kidney.

Specific target organ toxicity - repeated exposure May cause damage to organs through prolonged or repeated exposure.

Other information

Other information No information available.

Section 12: ECOLOGICAL INFORMATION**12.1. Toxicity**

Not classified.

Acute aquatic toxicity - Product Information

No experimental data available .

Acute aquatic toxicity - Component Information

| Chemical Name | Toxicity to algae | Toxicity to daphnia and other aquatic invertebrates. | Toxicity to fish | Toxicity to microorganisms |
|---------------|-------------------|--|------------------|----------------------------|
|---------------|-------------------|--|------------------|----------------------------|



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| | | | | |
|--------------------------------|-----------------------|---|--|--|
| Monoethyleneglycol 107-21-1 | EC50(48h) >10000 mg/l | EC50(48h) >100 mg/l Daphnia magna (OECD 202) | LC50 (95h) 72860 mg/l (Phimephales promelas) LC50(96h) 18500 mg/l (Rainbow trout) EC50(96h) 6500-13000 mg/l (Selenastrum capricornulum) | |
|--------------------------------|-----------------------|---|--|--|

Chronic aquatic toxicity - Product Information

No information available.

Chronic aquatic toxicity - Component Information

No information available.

Effects on terrestrial organisms

No information available.

12.2. Persistence and Degradability**General Information**

No information available.

12.3. Bioaccumulative potential**Product Information**

No information available.

logPow

No information available

Component Information

| Chemical Name | log Pow |
|-------------------------------|---------|
| Monoethyleneglycol - 107-21-1 | -1.36 |

12.4. Mobility in soil**Soil**

Given its physical and chemical characteristics, the product is generally mobile in the ground.

Air

Loss by evaporation is limited.

Water

soluble.

12.5. Results of PBT and vPvB assessment**PBT and vPvB assessment**

This preparation contains no substance considered to be persistent, bioaccumulating nor toxic (PBT). This mixture contains no substance considered to be very persistent nor very bioaccumulating (vPvB).

12.6. Other adverse effects**General Information**

No information available.

Section 13: DISPOSAL CONSIDERATIONS



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13.1. Waste treatment methods

| | |
|--|--|
| Waste from residues / unused products | Should not be released into the environment. Dispose of in accordance with the European Directives on waste and hazardous waste. Dispose of in accordance with local regulations. Where possible recycling is preferred to disposal or incineration. If recycling is not practicable, dispose of in compliance with local regulations. |
| Contaminated packaging | Empty containers should be taken to an approved waste handling site for recycling or disposal. |
| EWC Waste Disposal No | The following Waste Codes are only suggestions: 16 01 14. |
| Other information | According to the European Waste Catalogue, Waste Codes are not product specific, but application specific. Waste codes should be assigned by the user based on the application for which the product was used. |

Section 14: TRANSPORT INFORMATION

| | |
|------------------|---------------|
| <u>ADR/RID</u> | not regulated |
| <u>IMDG/IMO</u> | not regulated |
| <u>ICAO/IATA</u> | not regulated |
| <u>ADN</u> | not regulated |

Section 15: REGULATORY INFORMATION

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

European Union

Take note of Directive 98/24/EC on the protection of the health and safety of workers from the risks related to chemical agents at work.

| | |
|---------------------------|--|
| International Inventories | Australia (AICS) Canada (DSL/NDSL) Europe (EINECS/ELINCS/NLP) China (IECSC) Korea (KECL) Philippines (PICCS) U.S.A. (TSCA) |
|---------------------------|--|

Further information



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No information available

15.2. Chemical Safety Assessment

Chemical Safety Assessment No information available

15.3. National regulatory information

The United Kingdom

- Avoid exceeding occupational exposure limits (see section 8).

Ireland

- Avoid exceeding occupational exposure limits (see section 8).

Section 16: OTHER INFORMATION

Full text of H-Statements referred to under sections 2 and 3

H302 - Harmful if swallowed

H319 - Causes serious eye irritation

H360FD - May damage fertility. May damage the unborn child

H373 - May cause damage to the kidneys/liver/eyes/brain/digestive system/central nervous system through prolonged or repeated exposure if swallowed

Abbreviations, acronyms

Legend Section 8

TWA: Time Weight Average

STEL: Short Time Exposure Limit

+ Sensitiser

** Hazard Designation

M: Mutagen

*

C:

R:

Skin designation

Carcinogen

Toxic to reproduction

Revision Date: 2015-07-08

Revision Note *** Indicates updated section.

This safety data sheet complies with the requirements of Regulation (EC) No. 1907/2006

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.

End of Safety Data Sheet