

LONG LIFE COOLANT -37°C MSDS

SECTION 1: Identification of the Substance or Mixture and of the Supplier

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|--|---|
| Product Name | LONG LIFE COOLANT -37°C |
| Other means of identification | |
| Number | DWS |
| Substance/mixture | Mixture |
| Recommended use of the chemical and restrictions on use | |
| Identified uses | Antifreeze, Coolant. |
| Uses advised against | Do not use for any purpose other than the one for which it is intended. |
| Details of the supplier of the safety data sheet | |
| Supplier | TOTAL - Direction Afrique ZONE SUD 24, cours Michelet 92800 PUTEAUX FRANCE Tel : +33 (0)1 41 35 40 00 Fax : +33 (0)1 41 35 82 88 |
| Please see section 16 to have the contact details of the local supplier. | TOTAL LUBRIFIANTS 562 Avenue du Parc de L'île 92029 Nanterre Cedex FRANCE Tel: +33 (0)1 41 35 40 00 Fax: +33 (0)1 41 35 84 71 For further information, please contact: Contact Point Technical/ HSEQ E-mail Address rm.msds-lubs@total.com |
| Emergency telephone | Africa +44 1235 239671 To speak to an interlocutor in Portuguese or Spanish: Emergency telephone: +44 1235 239670 |

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SECTION 2: Hazards Identification

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| Classification of the substance or mixture | Acute Toxicity - Oral - Category 5 Specific target organ toxicity (repeated exposure) - Category 2 |
| GHS Label elements, including precautionary statements | Contains ethylene glycol |
| Signal word | WARNING |
| Hazard Statements | H303 - May be harmful if swallowed. H373 - May cause damage to organs through prolonged or repeated exposure. |
| Precautionary Statements - Prevention | Avoid breathing dust/fume/gas/mist/vapors/spray. Use only outdoors or in a well-ventilated area. |
| Precautionary Statements - Response | Call a POISON CENTER/doctor if you feel unwell. IF INHALED: Remove person to fresh air and keep comfortable for breathing. Call a POISON CENTER/doctor if you feel unwell. |
| Precautionary Statements - Storage | Store in a well-ventilated place. Keep container tightly closed. Store locked up. |
| Precautionary Statements - Disposal | Dispose of contents/container in accordance with local, regional, national, and international regulations as applicable. |
| Other hazards which do not result in classification | |
| Physical-Chemical Properties | Contaminated surfaces will be extremely slippery. |

SECTION 3: Composition/Information on Ingredients

Mixture

| | | | |
|-------------------------------|---|--------------|-----------------|
| Chemical nature | Product with ethylene-glycol base. | | |
| Chemical name | CAS-No | EC-No | Weight % |
| ethylene glycol | 107-21-1 | 203-473-3 | 40-<50 |
| Sodium 2-ethylhexanoate | 19766-89-3 | 243-283-8 | 1-<3 |
| Additional information | This product contains an approved repellent (bitter), for the purpose of avoiding the risk of accidental ingestion. | | |

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SECTION 4: First Aid Measures

Description of necessary first-aid measures

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| General advice | IN CASE OF SERIOUS OR PERSISTENT CONDITIONS, CALL A DOCTOR OR EMERGENCY MEDICAL CARE. |
| Eye contact | Immediately flush with plenty of water. After initial flushing, remove any contact lenses and continue flushing for at least 15 minutes. Keep eye wide open while rinsing. |
| Skin contact | Wash off immediately with soap and plenty of water while removing all contaminated clothes and shoes. Wash contaminated clothing before reuse. |
| Inhalation | Remove casualty to fresh air and keep at rest in a position comfortable for breathing. If not breathing, give artificial respiration. |
| Ingestion | Rinse mouth. Take victim immediately to hospital. Induce vomiting, but only if victim is fully conscious. Never give anything by mouth to an unconscious person. |
| Protection of First-aiders | First aider needs to protect himself. See Section 8 for more detail. Do not use mouth-to-mouth method if victim ingested or inhaled the substance; induce artificial respiration with the aid of a pocket mask equipped with a one-way valve or other proper respiratory medical device. |

Most important symptoms/effects, acute and delayed

| | |
|--------------|--|
| Skin contact | Not classified based on available data. |
| Eye contact | Not classified based on available data. May cause slight irritation. |
| Inhalation | Not classified based on available data. Vapors 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 | May be harmful if swallowed. |
| Symptoms | Symptoms of overexposure are dizziness, headache, tiredness, nausea, unconsciousness, cessation of breathing. |

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SECTION 4: First Aid Measures (Continued)

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

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| Notes to physician | 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 mouth. |
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SECTION 5: Fire-Fighting Measures

Suitable Extinguishing Media

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|--------------------------------|--|
| Suitable Extinguishing Media | Water spray. Dry chemical powder. Carbon dioxide (CO ₂). Alcohol-resistant foam. |
| Unsuitable Extinguishing Media | Do not use a solid water stream as it may scatter and spread fire. |

Specific hazards arising from the chemical

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| 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. Sodium oxides. |
|----------------|---|

Advice for fire-fighters

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| 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. |

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SECTION 6: Accidental Release Measures

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.

Environmental precautions

General Information

Do not allow material to contaminate ground water system. Prevent entry into waterways, sewers, basements or confined areas. Local authorities should be advised if significant spillages cannot be contained.

Methods and material for containment and cleaning up

Methods for containment

Dike to collect large liquid spills. If necessary dike the product with dry earth, sand or similar non-combustible materials.

Methods for cleaning up

Dispose of contents/container in accordance with local regulation. In case of soil contamination, remove contaminated soil for remediation or disposal, in accordance with local regulations.

Other information

Personal Protective Equipment

See Section 8 for more detail.

Waste treatment

See section 13.

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SECTION 7: Handling And Storage

Precautions for safe handling

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|----------------------------------|---|
| Advice on safe handling | For personal protection see section 8. Use only in well-ventilated areas. Do not breathe vapors or spray mist. Avoid contact with skin, eyes and clothing. |
| Prevention of fire and explosion | Take precautionary measures against static discharges. |
| Hygiene measures | Ensure the application of strict rules of hygiene by the personnel exposed to the risk of contact with the product. When using, do not eat, drink or smoke. Wash hands before breaks and immediately after handling the product. Provide regular cleaning of equipment, work area and clothing. 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. |

Conditions for safe storage, including any incompatibilities

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|---------------------------------------|--|
| Technical measures/Storage conditions | Keep away from food, drink and animal feedingstuffs. Keep in a bunded area. Keep container tightly closed. Keep preferably in the original container. Otherwise reproduce all indication of the regulation label on 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. Store at room temperature. Protect from moisture. |
| Materials to Avoid | Strong oxidizing agents. |
| Packaging material | Recommended materials: steel , Aluminium, Polyethylene. Not Compatible: Zinc. |

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SECTION 8: Exposure Controls/Personal Protection

Control parameters

Exposure limits

| Chemical name | ACGIH (Additional information) | South Africa | Lesotho | Botswana | Namibia | |
|-----------------------------|--|--|----------|--|----------|--------|
| ethylene glycol 107-21-1 | TWA 25 ppm STEL 50 ppm STEL 10 mg/m ³ | Ceiling 40 ppm TWA 20 ppm TWA 10 mg/m ³ TWA 60 mg/m ³ STEL 60 mg/m ³ STEL 125 mg/m ³ STEL 40 ppm | | | | |
| Chemical name | Zambia | Angola | Zimbabwe | Kenya | Tanzania | Uganda |
| ethylene glycol 107-21-1 | | | | TWA 10 mg/m ³ TWA 60 mg/m ³ STEL 125 mg/m ³ | | |

Appropriate engineering controls

Engineering Measures

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

Individual protection measures, such as personal protective equipment (PPE)

Personal Protective Equipment

General Information

Protective engineering solutions should be implemented and in use before personal protective equipment is considered. The personal protective equipment (PPE) recommendations apply to the product ITSELF. In case of mixtures or formulations, it is suggested that you contact the relevant PPE suppliers.

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SECTION 8: Exposure Controls/Personal Protection (Continued)

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|--------------------------|--|
| Respiratory protection | None under normal use conditions. When workers are facing concentrations above the exposure limit they must use appropriate certified respirators. Respirator with combination filter for vapor/particulate. Type A/ P2. Warning ! filters have a limited use duration. 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. Protective shoes or boots. Long sleeved clothing. |
| Hand Protection | 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. |

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SECTION 9: Physical and Chemical Properties

General Information

| | |
|----------------------|--------------------------|
| Appearance | limpid |
| Colour | orange |
| Physical State @20°C | liquid |
| Odour | Characteristic |
| Odour Threshold | No information available |

Important health safety and environmental information

| Property | Values | Remarks | Method |
|------------------------------------|------------------------------|---------------------------|--------------------------|
| pH | | Not applicable. | |
| Melting point/range | | Not applicable. | |
| Boiling point/boiling range | 108 °C 226 °F | No information available. | ASTM D1120 ASTM D1120 |
| Flash point | | Not applicable. | |
| Evaporation rate | | No information available. | |
| Flammability Limits in Air | | | |
| upper | | No information available. | |
| Lower | | No information available. | |
| Vapor Pressure | | No information available. | |
| Vapor density | | No information available. | |
| Relative density | 1.068 | @ 15 °C | ASTM D1122 |
| Density | 1068 kg/m ³ | @ 15 °C | ASTM D1122 |
| Water solubility | | soluble | |
| Solubility in other solvents | | No information available. | |
| logPow | | No information available. | |
| Autoignition temperature | | No information available. | |
| Decomposition temperature | | No information available. | |
| Viscosity, kinematic | | Not applicable. | |
| Explosive properties | Not explosive | | |
| Oxidizing Properties | Not applicable. | | |
| Possibility of hazardous reactions | None under normal processing | | |

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SECTION 9: Physical and Chemical Properties (Continued)

Other information

| | |
|----------------|------------------|
| Freezing Point | -37 °C -35 °F |
|----------------|------------------|

SECTION 10: Stability and Reactivity

| | |
|------------------------------------|---|
| Reactivity | None under normal processing. |
| Chemical stability | Stable under recommended storage conditions. |
| Possibility of hazardous reactions | No dangerous reaction known under conditions of normal use. |
| Conditions to avoid | Keep away from open flames, hot surfaces and sources of ignition. Keep away from heat and sparks. |
| Materials to Avoid | Strong oxidizing agents. |
| Hazardous Decomposition Products | Incomplete combustion and thermolysis may produce gases of varying toxicity such as carbon monoxide, carbon dioxide, various hydrocarbons, aldehydes and soot. Sodium oxides. |

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SECTION 11: Toxicological Information

Information on likely routes of exposure

| | |
|--------------|--|
| Inhalation | Not classified based on available data. Vapors 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 | May be harmful if swallowed. |
| Skin contact | Not classified based on available data. |
| Eye contact | Not classified based on available data. May cause slight irritation. |

Symptoms related to the physical, chemical and toxicological characteristics

| | |
|----------|---|
| Symptoms | Symptoms of overexposure are dizziness, headache, tiredness, nausea, unconsciousness, cessation of breathing. |
|----------|---|

Delayed and immediate effects as well as chronic effects from short and long-term exposure

Acute toxicity - Product Information

| | |
|------------|---|
| Oral | May be harmful if swallowed. 0 % of the mixture consists of ingredient(s) of unknown acute oral toxicity. |
| Dermal | Not classified based on available data. 0 % of the mixture consists of ingredient(s) of unknown acute dermal toxicity. |
| Inhalation | Not classified based on available data. 0 % of the mixture consists of ingredient(s) of unknown acute inhalation toxicity. |

Acute toxicity - Component Information

| Chemical name | LD50 Oral | LD50 Dermal | LC50 Inhalation |
|-------------------------|-------------------------------------|---------------------------------------|--|
| ethylene glycol | LD50 1600 mg/kg (cat) | LD50 > 3500 mg/kg Dermal (Mouse) | LC50(6h) >2.5 mg/l Inhalation (Rat) |
| Sodium 2-ethylhexanoate | LD50 2043 mg/kg bw (rat - OECD 401) | LD50 > 2000 mg/kg bw (rat - OECD 402) | LC0 (8h) 0.11 mg/l (rat - vapour - OECD 403) |

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SECTION 11: Toxicological Information (Continued)

| | |
|-----------------------------------|--|
| Skin corrosion/irritation | Not classified based on available data. |
| Serious eye damage/eye irritation | Not classified based on available data. |
| Sensitisation | Not classified based on available data. |
| Carcinogenicity | Not classified based on available data. |
| Germ Cell Mutagenicity | Not classified based on available data. |
| Reproductive toxicity | Not classified based on available data. |
| Target Organ Effects (STOT) | Kidney, Liver, Respiratory system, Central nervous system (CNS), Eyes. |
| STOT - single exposure | Not classified based on available data. |
| STOT - repeated exposure | May cause damage to organs through prolonged or repeated exposure. |
| Aspiration hazard | Not classified based on available data. |
| Other adverse effects | None known. |

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SECTION 12: Ecological Information

Ecotoxicity Not classified based on available data.

Acute aquatic toxicity - Product Information No information available.

Acute aquatic toxicity - Component Information

| Chemical name | Toxicity to algae | Toxicity to daphnia and other aquatic invertebrates | Toxicity to fish | Toxicity to microorganisms |
|---------------------------------------|---|---|--|----------------------------|
| ethylene glycol 107-21-1 | NOEC(72h) >100 mg/l (Pseudokirchneriella subcapitata - OECD Guideline 201) | EC50(48h) >100 mg/l Daphnia magna (OECD 202) | LC50(96h) 72860 mg/l (Phimephales promelas) | |
| Sodium 2-ethylhexanoate 19766-89-3 | | | LC50 (96h) > 100 mg/l (Oryzias latipes - OECD 203) | |

Chronic aquatic toxicity - Product Information No information available.

Chronic aquatic toxicity - Component Information No information available.

Effects on terrestrial organisms No information available.

Persistence and degradability No information available.

Bioaccumulative potential

Product Information No information available.

logPow No information available.

Component Information

| Chemical name | log Pow |
|----------------------------|---------|
| ethylene glycol - 107-21-1 | -1.93 |

Mobility

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

Air The product may evaporate.

Water Soluble.

Other adverse effects

General Information No information available.

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SECTION 13: Disposal Considerations

| | |
|---------------------------------------|--|
| Waste from Residues / Unused Products | Should not be released into the environment. Do not empty into drains. Dispose of in accordance with all applicable national environmental laws and regulations. |
| Contaminated packaging | Empty containers should be taken to an approved waste handling site for recycling or disposal. |
| Other information | Refer to section 8 for safety and protective measures for disposal personnel. |

SECTION 14: Transport Information

| | |
|-----------|----------------|
| ADR/RID | Not regulated. |
| IMDG/IMO | Not regulated. |
| ICAO/IATA | Not regulated. |
| ADN | Not regulated. |

SECTION 15: Regulatory Information

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|---------------------------------|--|
| International Inventories | All the substances contained in this product are listed or exempted from listing in the following inventories: Canada (DSL/NDSL) Korea (KECL) Philippines (PICCS) Australia (AICS) Europe (EINECS/ELINCS/NLP) U.S.A. (TSCA) China (IECSC) |
| Further information | No information available. |
| National regulatory information | No information available. |

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SECTION 16: Other Information

| | |
|---------------|---------------------------|
| Issuing date | 2019-03-05 |
| Revision date | 2020-02-04 |
| Revision Note | No information available. |

Abbreviations, acronyms

ACGIH = American Conference of Governmental Industrial Hygienists

bw = body weight

bw/day = body weight/day

EC x = Effect Concentration associated with x% response

GLP = Good Laboratory Practice

IARC = International Agency for Research of Cancer

LC50 = 50% Lethal concentration - Concentration of a chemical in air or a chemical in water which causes the death of 50% (one

half) of a group of test animals

LD50 = 50% Lethal Dose - Chemical amount, given at once, which causes the death of 50% (one half) of a group of test animals

LL = Lethal Loading

NIOSH = National Institute of Occupational Safety and Health

NOAEL = No Observed Adverse Effect Level

NOEC = No Observed Effect Concentration

NOEL = No Observed Effect Level

OECD = Organization for Economic Co-operation and Development

OSHA = Occupational Safety and Health Administration

UVCB = Substance of unknown or Variable composition, Complex reaction products or Biological material

Legend

Section 8

OEL = Occupational Exposure Limit

TWA: Time Weight Average

STEL: Short Time Exposure Limit

PEL: Permissible exposure limit

REL: Recommended exposure limit

old Limit Values

+ Sensitizer * Skin designation

C: Carcinogen

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SECTION 16: Other Information (Continued)

Additional details on the supplier of the product

TOTAL KENYA PLC
Regal Plaza, 6th Avenue Limuru Road
P.O. Box 30736, 00100 GPO Nairobi /
KENYA

TOTAL MAURITIUS
Chaussée Tromelin, Quai D
BP 1202 Port-Louis / MAURITIUS

TOTAL NAMIBIA (PTY) LTD
5 Otto Nitzsche Strasse, Klein Windhoek
Windhoek / NAMIBIA

TOTAL SOUTH AFRICA
3 Biermann Ave Rosebank 2196
Tel: +27 11 778 2000
Fax: +27 11 778 2001

TOTAL SWAZILAND (PTY) LTD
King Sobhuza 2nd Avenue, Industrial
sites
Manzini / SWAZILAND

TOTAL TANZANIA LTD
TOTAL HOUSE - Msasani Peninsula
Haile Selassie Road, Plot no. 1720 P.O. BOX 1503
Dar es Salaam / TANZANIA

TOTAL UGANDA
Plot 4, eighte Street Indusrial Area
Kampala / UGANDA

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.