SAFETY DATA SHEET

according to Regulation (EC) No. 1907/2006

SDS # : 32127

COOLELF SUPRA

Date of the previous version: 2016-07-12 **Revision Date:** 2016-08-09 **Version** 5

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

1.1. Product identifier

Product name **COOLELF SUPRA**
Number EKN
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

A - 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

B - TOTAL LUBRIFIANTS
562 Avenue du Parc de L'ile
92029 Nanterre Cedex
FRANCE
Tél: +33 (0)1 41 35 40 00
Fax: +33 (0)1 41 35 84 71

For further information, please contact:

Contact Point A - HSE

B - HSE

E-mail Address A - rm.gb-msds@total.co.uk

B - rm.msds-lubs@total.com

1.4. Emergency telephone number

Emergency telephone: +44 1235 239670
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

UK: National Poisons Information Service (NPIS): NHS111 or a doctor

Section 2: HAZARDS IDENTIFICATION

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

2.2. Label elements

Labelled according to REGULATION (EC) No 1272/2008

Contains Monoethyleneglycol

Signal Word
WARNING

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

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	CAS-No	Weight %	GHS Classification

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		Number			
Monoethyleneglycol	203-473-3	01-2119456816-28	107-21-1	60-<70	Acute Tox.4 (H302) STOT RE 2 (H373)

Additional information Product with ethylene-glycol base. Accidental ingestion may be harmful to the central nervous system. This product contains an approved repellant (bitter), for the purpose of avoiding the risk of accidental ingestion. If overheated, the product may release flammable vapours that can form explosive gas mixtures.

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

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.

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 Clean mouth with water. Take victim immediately to hospital. Do NOT induce vomiting. 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.***

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 Not classified. 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.

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

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 toxical effects. Intravenous ethyl alcohol in sodium bicarbonate solution is an approved antitoxin. Rinse mouth.***

Section 5: FIRE-FIGHTING MEASURES

5.1. Extinguishing media

Suitable extinguishing media Water spray. Dry chemical powder. Carbon dioxide (CO_2). 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 material for containment and cleaning up

Methods for cleaning up Dam up. Contain spillage, and then collect with non-combustable 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

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.

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

Storage conditions Keep away from food, drink and animal feedingstuffs. Keep in a bunded area. 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).

Incompatible materials Oxidizing agents. Strong acids.

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/m³ STEL 40 ppm STEL 104 mg/m³ S*	STEL 40 ppm vapour STEL 104 mg/m³ vapour STEL 30 mg/m³ particulate TWA 10 mg/m³ particulates TWA 20 ppm vapour TWA 52 mg/m³ vapour Skin	TWA 10 mg/m³ particulate TWA 20 ppm vapour TWA 52 mg/m³ vapour STEL 40 ppm particulate STEL 104 mg/m³ 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/m³/8h (inhalation)

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/m³/24h (inhalation)

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	

8.2. Exposure controls

Occupational Exposure 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.***

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 AS DELIVERED. In case of mixtures or formulations, it is suggested that you contact the relevant PPE suppliers.***

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 vapour/particulate (EN 14387). Type A/P1. 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

Rubber gloves, Nitrile rubber. Neoprene gloves, Polyvinylchloride. In case of prolonged contact with the product, it is recommended to wear gloves complying with EN 420 and EN 374 standards, protecting at least for 480 minutes and having a thickness of 0,38 mm at least. These values are indicative only. The level of protection is provided by the material of the glove, its technical characteristics, its resistance to the chemicals to be handled, the appropriateness of its use and its replacement frequency.***

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Environmental exposure controls

General Information The product should not be allowed to enter drains, water courses or the soil.***

Section 9: PHYSICAL AND CHEMICAL PROPERTIES

9.1. Information on basic physical and chemical properties

Appearance	Clear
Colour	yellow
Physical state @20°C	Liquid
Odour	slight
Odour Threshold	No information available

Property	Values	Remarks	Method
pH	8 - 8.4		ASTM D 1287
Melting point/range		Not applicable	
Boiling point/boiling range		No information available	
Flash point		Not applicable	
Evapouration rate		No information available	
Flammability Limits in Air		No information available	
Upper		No information available	
Lower		No information available	
Vapour pressure		No information available	
Vapour density		No information available	
Relative density	1	@ 20 °C	ASTM D 5931
Density	1000 kg/m³	@ 20 °C	ASTM D 5931
Water solubility		soluble	
Solubility in other solvents		No information available	
logPow		No information available	
Autoignition temperature		Not applicable	
Decomposition temperature		No information available	
Viscosity, kinematic		No information available	
Explosive properties	Not explosive		
Oxidising properties	Not applicable		
Possibility of hazardous reactions	No information available		

9.2. Other information

Freezing point	-25 °C	ASTM D 1177
	-13 °F	ASTM D 1177

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. Strong acids.

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. 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 . Not classified. 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.
ATEmix (oral) 833.00 mg/kg
ATEmix (dermal) 5,835.00 mg/kg
ATEmix (inhalation-dust/mist) 8.50 mg/l

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)

Sensitisation

Sensitisation Not classified as a sensitizer.

Specific effects

Carcinogenicity This product is not classified carcinogenic.
Mutagenicity None known.
Reproductive toxicity This product does not present any known or suspected reproductive hazards.

Repeated Dose Toxicity

Subchronic Toxicity No information available.

Target Organ Effects (STOT)

Target Organ Effects (STOT) Kidney. Liver. Respiratory system. Central nervous system (CNS). Eyes.

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

Other information

Other adverse effects Characteristic skin lesions (oil blisters) may develop following prolonged and repeated exposures (contact with contaminated clothing).

Other information No information available.

Section 12: ECOLOGICAL INFORMATION

12.1. Toxicity

Not classified.

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
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 No information available.

Water soluble.

12.5. Results of PBT and vPvB assessment

PBT and vPvB assessment No information available.

12.6. Other adverse effects

General Information No information available.

Section 13: DISPOSAL CONSIDERATIONS

13.1. Waste treatment methods

Waste from residues / unused products Dispose of in accordance with the European Directives on waste and hazardous waste. 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.

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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

ADR/RID	not regulated
IMDG/IMO	not regulated
ICAO/IATA	not regulated
ADN	not regulated

Section 15: REGULATORY INFORMATION

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

European Union

International Inventories

Australia (AICS)
Canada (DSL/NDSL)
Europe (EINECS/ELINCS/NLP)
Japan (ENCS)
China (IECSC)
Korea (KECL)
U.S.A. (TSCA)

Further information

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

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

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
DNEL = Derived No Effect Level
PNEC = Predicted No Effect Concentration
dw = dry weight
fw = fresh water
mw = marine water
or = occasional release

Legend Section 8

TWA: Time Weight Average
STEL: Short Time Exposure Limit

+	Sensitiser	*	Skin designation
**	Hazard Designation	C:	Carcinogen
M:	Mutagen	R:	Toxic to reproduction

Revision Date: 2016-08-09
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

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the user's responsibility to ensure that he is subject to no other obligations than those mentioned.

End of Safety Data Sheet