



MATERIAL SAFETY DATA SHEET
according to Regulation (EC) No. 1907/2006

Product name :

COOLTECH
Issue : 01Version of : 2012-02-13
Revision date : None**1. IDENTIFICATION OF THE SUBSTANCE/PREPARATION AND OF THE COMPANY UNDERTAKING**

Name of the product: COOLTECH
 Product application : Antifreeze, Coolant.
 Supplier : TOTAL OIL INDIA PVT. LTD., Lubricants Division
 The Leela Galleria, 3rd Floor
 Andheri Kurla Road
 Andheri East, Mumbai 400 059
 India
 Emergency telephones : + 91 022 66407700
 Fax : + 91 022 66407720

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**DIRECTIVE 67/548/EEC or 1999/45/EC**

For the full text of the R-phrases mentioned in this Section, see Section 16

The substance/mixture is classified as dangerous in accordance with Directive(s) 67/548/EEC with amendments and/or 1999/45/EC with amendments

Symbol(s)

Xn - Harmful

Classification**2.2. Label elements**

Labelled according to: Directive 1999/45/EC

Contains Glycol

R-phrases(s)

R22 - Harmful if swallowed

S-phrases(s)

S 2 - Keep out of the reach of children

S46 - If swallowed, seek medical advice immediately and show this container or label

S36/37 - Wear suitable protective clothing and gloves

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

Contaminated surfaces will be extremely slippery

Environmental properties

Should not be released into the environment

3. COMPOSITION/INFORMATION ON INGREDIENTS

Chemical Name	EC No.	REACH registration no.	CAS-No	Weight %	Classification (Dir. 67/548)	Classification (Reg. 1272/2008)
Glycol	203-473-3	no data available	107-21-1	< 70	Xn; R22	Acute Tox. 4 (H302)

Additional information

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

For the full text of the R-phrases mentioned in this Section, see Section 16

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

4. FIRST AID MEASURES**4.1. Description of first-aid measures**

General advice

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

Eye contact

Rinse immediately with plenty of water, also under the eyelids, for at least 15 minutes. Obtain medical advice from a specialist.

Skin contact

Remove contaminated clothing and shoes. Wash skin with soap and water. If skin irritation persists, call a physician.

Inhalation

Move to fresh air. If symptoms persist, call a physician

Ingestion

Do NOT induce vomiting. Call a physician or Poison Control Center immediately

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

Ingestion

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 toxic effects. Intravenous ethyl alcohol in sodium bicarbonate solution is an approved antitoxin.

5. FIRE-FIGHTING MEASURES

Flash Point : See section 9

5.1. Extinguishing media :

Suitable Extinguishing Media Alcohol-resistant foam, Water spray or fog.

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

Specific hazards: 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. Advice 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.

**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

Personal Protective Equipment See Section 8 for more detail

Waste treatment See section 13

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 vapors or spray mist. Avoid contact with skin, eyes and clothing.

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 work wear pockets.

7.2. Conditions for safe storage, including any incompatibilities**Technical measures/Storage conditions**

Keep away from food, drink and animal feeding stuffs. Keep in a bonded 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. Protect from frost, heat and sunlight. Protect from moisture.

Materials to Avoid

Strong oxidizing agents

Packaging material

Stainless steel, Mild steel.

7.3. Specific end uses**8. EXPOSURE CONTROLS/PERSONAL PROTECTION****8.1. Control parameters**

- Occupational exposure limit

oil mist : 10 mg/m³, for 15 minsoil mist : 5 mg/m³, for 8 hrs

Chemical Name	European Union
Glycol 107-21-1	TWA 20 ppm TWA 52 mg/m ³ STEL 40 ppm STEL 104 mg/m ³ S*

Legend

See section 16

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. Ensure that eyewash stations and safety showers are close to the workstation location

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	When using a mask or half mask : Respirator with combination filter for vapour/particulate (EN 141). 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	Impervious butyl rubber gloves, Neoprene gloves, Nitrile rubber, 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. 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.

9. PHYSICAL AND CHEMICAL PROPERTIES**9.1. Information on basic physical and chemical properties**

Appearance	limpid
Color	Dark Green Colour
Physical State @20°C	liquid
Odor	Slight

<u>Property</u>	<u>Values</u>	<u>Remarks</u>	<u>Method</u>
pH	7.8 - 8.6		ASTM D 1287
Boiling point/boiling range		No information available	
Flash point		Not applicable	
Evaporation rate		No information available	
Flammability Limits in Air		No information available	
Vapor Pressure @ 20° C		No information available	
Vapor density			
Density	1053 - 1096 kg/m ³	@ 20 °C	ASTM D 5931
Water solubility			soluble
Solubility in other solvents			No information available
logPow			No information available
Auto ignition temperature		No information available	

Viscosity, kinematic

@ -40 °C
@ 100 °C

Explosive properties May form explosive mixtures with air
Oxidizing Properties Not applicable
Possibility of hazardous reactions Not applicable

9.2. Other information

Freezing Point

ASTM D 1177
ASTM D 1177

10. STABILITY AND REACTIVITY**10.1. Reactivity****10.2. Chemical stability**

Stability Stable under recommended storage conditions. Hygroscopic.

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 oxidizing agents, Strong acids, Strong bases, Isocyanates, Mineral oil, Water.

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.

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.
Ingestion	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

Acute toxicity Component Information

Chemical Name	LD 50 ORAL	LD 50 DERMAL	LC 50 INHALATION
Glycol	= 4000 mg/kg (Rat.)	= 9530 µL/kg (Rabbit)	

Sensitization

Sensitization No sensitization responses were observed.

Specific effects

Carcinogenicity This product is not classified carcinogenic.

Mutagenicity None known.

Reproductive toxicity This product does not contain any known or suspected reproductive hazards.

Developmental Toxicity

None known.

Repeated Dose Toxicity

Sub chronic toxicity No information available.
Target Organ Effects (STOT)
 Target Organ Effects (STOT) Central nervous system (CNS), Respiratory system.
Other information

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
Glycol 107-21-1	EC50 (96h) 6500-13000 mg/L Pseudokirchneriella subcapitata	EC50 (48h) = 46300 mg/L Daphnia magna	LC50 (96h) = 16000 mg/L Poecilia reticulata (static) LC50 (96h) 40000 - 60000 mg/L Pimephales promelas (static) LC50 (96h) = 40761 mg/L Oncorhynchus mykiss (static) LC50 (96h) 14 - 18 mL/L Oncorhynchus mykiss (static) LC50 (96h) = 27540 mg/L Lepomis macrochirus (static) LC50 (96h) = 41000 mg/L Oncorhynchus mykiss	EC50 = 620 mg/L 30 min EC50 = 10000 mg/L 16 h EC50 = 620.0 mg/L 30 min

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

Product is biodegradable. Based on compositional information available and measured or predicted data on key constituents

12.3. Bio accumulative potential (Please check table info)**Product Information**

No information available

logPow

No information available

Component Information

Chemical Name	log pow
Glycol - 107-21-1	-1.93

12.4. Mobility in soil

Mobility :

Soil

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

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

13. DISPOSAL CONSIDERATIONS**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. 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. 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.

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.

15. TRANSPORT INFORMATION

UN Number :

unregulated

Road(ADR)/Rail(RID)/River(ADNR)

Not restricted for transport

Marine (IMO-IMDG)

Not restricted for transport

Airline (ICAO / IATA)

Not restricted for transport

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

International Inventories

EINECS/ELINCS -

TSCA -

DSL -

ENCS -

IECSC -

KECL -
 PICCS -
 AICS -
 NZIoC -
 Legend

EINECS/ELINCS - European Inventory of Existing Commercial Chemical Substances/EU List of Notified Chemical Substances

TSCA - United States Toxic Substances Control Act Section 8(b) Inventory

DSL/NDSL - Canadian Domestic Substances List/Non-Domestic Substances List

ENCS - Japan Existing and New Chemical Substances

IECSC - China Inventory of Existing Chemical Substances

KECL - Korean Existing and Evaluated Chemical Substances

PICCS - Philippines Inventory of Chemicals and Chemical Substances

AICS - Australian Inventory of Chemical Substances

NZIoC - New Zealand Inventory of Chemicals

15.2. Chemical Safety Assessment

16. OTHER INFORMATION

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

Full text of R-phrases referred to under sections 2 and 3

R22 - Harmful if swallowed

H302 - Harmful if swallowed

Abbreviations, acronyms

Legend Section 8

+	Sensitizer	*	Skin designation
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**	Hard designation	C:	Carcinogen
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M:	Mutagen	R:	Toxic reproduction
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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.

End of the safety data sheet