

Safety Data Sheet
complying with Regulation 1907/2006/EC (REACH Regulation),
EU 2015/830 and Regulation No 1272/2008/EC (CLP)

Printing date 05.05.2017

Version number 1

Revision: 05.05.2017

SECTION 1: Identification of the substance/mixture and of the company/undertaking

1.1 Product identifier

Trade name: CYCLON RADIATOR G13

Registration number: Substances contained in the mixture have already (pre)-registered by the suppliers.

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

No further relevant information available.

Application of the substance / the mixture: Antifreeze

1.3 Details of the supplier of the safety data sheet

Manufacturer/Supplier:

LPC S.A.

Megaridos Avenue 124

Aspropyrgos - Attica , 193 00

Tel.: 210 - 809 3900

Fax: 210 - 809 3999

e-mail: technical@cyclon.gr

1.4 Emergency telephone number:



Emergency telephone number: 112

SECTION 2: Hazards identification

2.1 Classification of the substance or mixture

Classification according to Regulation EC No 1272/2008 CLP:



GHS08 health hazard

STOT RE 2 H373 May cause damage to organs through prolonged or repeated exposure.



GHS07

Acute Tox. 4 H302 Harmful if swallowed.

2.2 Label elements

Labelling according to Regulation EC No 1272/2008 CLP:

The product is classified and labelled according to the CLP regulation.

Hazard pictograms:



GHS07 GHS08

Safety Data Sheet
complying with Regulation 1907/2006/EC (REACH Regulation),
EU 2015/830 and Regulation No 1272/2008/EC (CLP)

Printing date 05.05.2017

Version number 1

Revision: 05.05.2017

Trade name: CYCLON RADIATOR G13

(Contd. of page 1)

Signal word: Warning**Hazard-determining components of labelling:**

ethanediol

Hazard statements:

H302 Harmful if swallowed.

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

Precautionary statements

P102 Keep out of reach of children.

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

P264 Wash thoroughly after handling.

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

P301+P312 IF SWALLOWED: Call a POISON CENTER/doctor if you feel unwell.

P314 Get medical advice/attention if you feel unwell.

P330 Rinse mouth.

P501 Dispose of contents/container in accordance with local/regional/national/international regulations.

Regulation (EC) No 648/2004 on detergents / Labelling for contents

soap

≥15 - <30%

2.3 Other hazards**Results of PBT and vPvB assessment****PBT:** Not applicable.**vPvB:** Not applicable.**SECTION 3: Composition/information on ingredients****3.2 Chemical characterisation: Mixtures****Description:** Mixture: consisting of the following components.**Ingredients according Regulation (EU) 830/2015:**

CAS: 107-21-1 EINECS: 203-473-3 Index number: 603-027-00-1 Reg.nr.: 01-2119456816-28-XXXX	ethanediol ⚠ STOT RE 2, H373; ⚠ Acute Tox. 4, H302	25-50%
CAS: 19766-89-3 EINECS: 243-283-8	Sodium-2-ethylhexanoate ⚠ Repr. 2, H361	3-<10%
Ingredients		
CAS: 56-81-5 EINECS: 200-289-5	glycerol	25-50%

SECTION 4: First aid measures**4.1 Description of first aid measures****General information:**

Symptoms of poisoning may even occur after several hours; therefore medical observation for at least 48 hours after the accident.

Take affected persons out into the fresh air.

Seek immediate medical advice.

(Contd. on page 3)

Safety Data Sheet
complying with Regulation 1907/2006/EC (REACH Regulation),
EU 2015/830 and Regulation No 1272/2008/EC (CLP)

Printing date 05.05.2017

Version number 1

Revision: 05.05.2017

Trade name: CYCLON RADIATOR G13

(Contd. of page 2)

After inhalation:

In case of unconsciousness place patient stably in side position for transportation.

Supply fresh air and to be sure call for a doctor.

Seek medical treatment in case of complaints.

After skin contact: Remove contaminated clothing.

After eye contact: Avoid strong water jet-risk of cornea damage, consult a doctor.

After swallowing:

Call for a doctor immediately.

Drink plenty of water and provide fresh air. Call for a doctor immediately.

Seek immediate medical advice.

Never give anything by mouth to an unconscious person.

4.2 Most important symptoms and effects, both acute and delayed Not known or expected results.

4.3 Indication of any immediate medical attention and special treatment needed

No special measures are required.

SECTION 5: Firefighting measures**5.1 Extinguishing media****Suitable extinguishing agents:**

CO₂, powder or water spray. Fight larger fires with water spray.

Use fire extinguishing methods suitable to surrounding conditions.

5.2 Special hazards arising from the substance or mixture

In case of fire, the following can be released:

Carbon monoxide (CO)

Carbon dioxide (CO₂)

During heating or in case of fire poisonous gases are produced.

5.3 Advice for firefighters**Protective equipment:**

Wear fully protective suit.

Mouth respiratory protective device.

Self contained breathing apparatus and full protective clothing must be worn in case of fire.

Additional information Collect contaminated fire fighting water separately. It must not enter the sewage system.

SECTION 6: Accidental release measures**6.1 Personal precautions, protective equipment and emergency procedures:**

Mount respiratory protective device.

Wear protective equipment. Keep unprotected persons away.

6.1.1 For non-emergency personnel Avoid contact with skin and eyes.

6.1.2 For emergency responders

Use chemicals resistant gloves.

Wear protective equipment. Keep unprotected persons away.

6.2 Environmental precautions: Do not allow to enter sewers/ surface or ground water.

6.3 Methods and material for containment and cleaning up:

Absorb with liquid-binding material (sand, diatomite, acid binders, universal binders, sawdust, silica gel).

Dispose contaminated material as waste according to item 13.

6.4 Reference to other sections:

See Section 7 for information on safe handling.

See Section 8 for information on personal protection equipment.

(Contd. on page 4)

Safety Data Sheet
complying with Regulation 1907/2006/EC (REACH Regulation),
EU 2015/830 and Regulation No 1272/2008/EC (CLP)

Printing date 05.05.2017

Version number 1

Revision: 05.05.2017

Trade name: CYCLON RADIATOR G13

See Section 13 for disposal information.

(Contd. of page 3)

SECTION 7: Handling and storage**7.1 Precautions for safe handling**

Use adequate personal protective equipment as required. For more information regarding protective equipment see section 8.

Information about fire - and explosion protection:

Keep away from sources of ignition and flammable materials.

7.2 Conditions for safe storage, including any incompatibilities**Storage:**

Protect from heat and direct sunlight.

Store in cool, dry conditions in well sealed receptacles.

Requirements to be met by storerooms and receptacles: Store in a cool location.

Information about storage in one common storage facility: Not required.

Further information about storage conditions: Keep container tightly sealed.

7.3 Specific end use(s) No further relevant information available.

SECTION 8: Exposure controls/personal protection**8.1 Control parameters****Ingredients with limit values that require monitoring at the workplace:****107-21-1 ethanediol**

WEL (Great Britain)	Short-term value: 104** mg/m ³ , 40** ppm Long-term value: 10* 52** mg/m ³ , 20** ppm Sk *particulate **vapour
IOELV (EU)	Short-term value: 104 mg/m ³ , 40 ppm Long-term value: 52 mg/m ³ , 20 ppm Skin

56-81-5 glycerol

WEL (Great Britain)	Long-term value: 10 mg/m ³
---------------------	---------------------------------------

8.2 Exposure controls

8.2.1. Appropriate engineering controls Use of local ventilation is advised.

Personal protective equipment**General protective and hygienic measures:**

Keep away from foodstuffs, beverages and feed.

Wash hands before breaks and at the end of work.

Store protective clothing separately.

Respiratory protection:

In case of brief exposure or low pollution use respiratory filter device. In case of intensive or longer exposure use self-contained respiratory protective device.

(Contd. on page 5)

GB

Safety Data Sheet
complying with Regulation 1907/2006/EC (REACH Regulation),
EU 2015/830 and Regulation No 1272/2008/EC (CLP)

Printing date 05.05.2017

Version number 1

Revision: 05.05.2017

Trade name: CYCLON RADIATOR G13

(Contd. of page 4)

Protection of hands:

Protective gloves

Material of gloves

The selection of the suitable gloves does not only depend on the material, but also on further marks of quality and varies from manufacturer to manufacturer.

Penetration time of glove material

The determined penetration times according to EN 374 part III are not performed under practical conditions. Therefore a maximum wearing time, which corresponds to 50% of the penetration time, is recommended.

Eye protection:

Safety glasses

Body protection:

Protective work clothing

Environmental exposure controls: No further recommendations. See section 6.

SECTION 9: Physical and chemical properties

9.1 Information on basic physical and chemical properties**General Information****Appearance:**

Form:	Liquid
Colour:	Light coloured
Odour:	Light
Odour threshold:	Not determined

pH value: Not determined

Melting point/freezing point: Not determined

Initial boiling point and boiling range: Not determined

Flash point: Not Flammable

Flammability (solid, gas): Not applicable

Auto-ignition temperature: Not determined

Decomposition temperature: Not determined

Auto-ignition temperature: Product is not selfigniting.

Explosive properties: Product does not present an explosion hazard.

Explosion limits:

Lower: Not determined

(Contd. on page 6)

Safety Data Sheet
complying with Regulation 1907/2006/EC (REACH Regulation),
EU 2015/830 and Regulation No 1272/2008/EC (CLP)

Printing date 05.05.2017

Version number 1

Revision: 05.05.2017

Trade name: CYCLON RADIATOR G13

(Contd. of page 5)

Upper:	Not determined
Oxidising properties	Not considered as oxidising.
Vapour pressure:	Not determined
Density:	Not determined
Relative density	Not determined
Vapour density	Not determined
Evaporation rate	Not determined
Solubility in / Miscibility with water:	Fully miscible
Partition coefficient: n-octanol/water:	Not determined
Viscosity:	
Dynamic:	Not determined
Kinematic:	Not determined
9.2 Other information	No further relevant information available.

SECTION 10: Stability and reactivity**10.1 Reactivity** Stable under normal conditions**10.2 Chemical stability** Material is stable under normal conditions.**Thermal decomposition / conditions to be avoided** Stable at environment temperature.**10.3 Possibility of hazardous reactions** No dangerous reactions known.**10.4 Conditions to avoid** Oxidising agents**10.5 Incompatible materials** No further relevant information available.**10.6 Hazardous decomposition products** No dangerous decomposition products known.**SECTION 11: Toxicological information****11.1 Information on toxicological effects****Acute toxicity**

Harmful if swallowed.

LD/LC50 values relevant for classification:**ATE (Acute Toxicity Estimates)**

Oral	LD50	1149 mg/kg
------	------	------------

Skin corrosion/irritation Based on available data, the classification criteria are not met.**Serious eye damage/irritation** Based on available data, the classification criteria are not met.**Respiratory or skin sensitisation** Based on available data, the classification criteria are not met.**CMR effects (carcinogenicity, mutagenicity and toxicity for reproduction)**

The mixture is not carcinogenetic, mutagenetic, toxic for reproduction.

Germ cell mutagenicity Based on available data, the classification criteria are not met.**Carcinogenicity** Based on available data, the classification criteria are not met.**Reproductive toxicity** Based on available data, the classification criteria are not met.**STOT-single exposure** Based on available data, the classification criteria are not met.**STOT-repeated exposure**

STOT Repeated Exposure Category 2

May cause damage to organs through prolonged or repeated exposure.

(Contd. on page 7)

Safety Data Sheet
complying with Regulation 1907/2006/EC (REACH Regulation),
EU 2015/830 and Regulation No 1272/2008/EC (CLP)

Printing date 05.05.2017

Version number 1

Revision: 05.05.2017

Trade name: CYCLON RADIATOR G13

(Contd. of page 6)

Aspiration hazard Based on available data, the classification criteria are not met.

SECTION 12: Ecological information**12.1 Toxicity**

Aquatic toxicity: No further relevant information available.

12.2 Persistence and degradability No further relevant information available.**12.3 Bioaccumulative potential** No further relevant information available.**12.4 Mobility in soil** No further relevant information available.**12.5 Results of PBT and vPvB assessment****PBT:** Not applicable.**vPvB:** Not applicable.**12.6 Other adverse effects** No further relevant information available.**SECTION 13: Disposal considerations****13.1 Waste treatment methods****Recommendation**

Dispose according to National Regulations.



Must not be disposed together with household garbage. Do not allow product to reach sewage system.

Contact manufacturer for recycling information.

Uncleaned packaging:**Recommendation:**

Disposal must be made according to official regulations.

Packaging may be reused or recycled after cleaning.

SECTION 14: Transport information**14.1 UN-Number** Void**ADR, ADN, IMDG, IATA** Void**14.2 UN proper shipping name** Void**ADR, ADN, IMDG, IATA** Void**14.3 Transport hazard class(es)** Void**ADR, ADN, IMDG, IATA****Class** Void**14.4 Packing group** Void**ADR, IMDG, IATA** Void**14.5 Environmental hazards:** Not applicable.**14.6 Special precautions for user** Not applicable.**14.7 Transport in bulk according to Annex II of Marpol and the IBC Code** Not applicable.

(Contd. on page 8)

Safety Data Sheet
complying with Regulation 1907/2006/EC (REACH Regulation),
EU 2015/830 and Regulation No 1272/2008/EC (CLP)

Printing date 05.05.2017

Version number 1

Revision: 05.05.2017

Trade name: CYCLON RADIATOR G13

UN "Model Regulation":

Void

(Contd. of page 7)

SECTION 15: Regulatory information

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

REACH Regulation 1907/2006/EC

Regulation (EU) 2015/830

CLP Regulation 1272/2008/EC

Constituents of the mixture that fall within the scope of REACH Regulation 1907/2006/EC, have been (pre)-registered.

Directive 2012/18/EU

Named dangerous substances - ANNEX I None of the ingredients is listed.

REGULATION (EC) No 1907/2006 ANNEX XVII Conditions of restriction: 3

National regulations: No further information available.

Other regulations, limitations and prohibitive regulations

Substances of very high concern (SVHC) according to REACH, Article 57

It doesn't contain substances of very high concern (SVHC).

15.2 Chemical safety assessment: A Chemical Safety Assessment has not been carried out.

SECTION 16: Other information

This information is based on our present knowledge. However, this shall not constitute a guarantee for any specific product features and shall not establish a legally valid contractual relationship.

Relevant phrases

H302 Harmful if swallowed.

H361 Suspected of damaging fertility or the unborn child.

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

Training hints

Suitable training on safety in handling, storing and converting the product should be given to the employees based on all the existing information.

Department issuing SDS:



SUSTCHEM Engineering Ltd
 REACH & Chemical Services Department
 144, 3rd Septemvriou, GR 112 51, Athens, Greece
 Tel.: +30 210 8252510 Fax: +30 210 8252575
 E-mail: info@suschem.gr
 Website: www.sustchem.gr

Abbreviations and acronyms:

ADR: Accord européen sur le transport des marchandises dangereuses par Route (European Agreement concerning the International Carriage of Dangerous Goods by Road)

IMDG: International Maritime Code for Dangerous Goods

IATA: International Air Transport Association

GHS: Globally Harmonised System of Classification and Labelling of Chemicals

EINECS: European Inventory of Existing Commercial Chemical Substances

ELINCS: European List of Notified Chemical Substances

CAS: Chemical Abstracts Service (division of the American Chemical Society)

LC50: Lethal concentration, 50 percent

LD50: Lethal dose, 50 percent

(Contd. on page 9)

Safety Data Sheet
complying with Regulation 1907/2006/EC (REACH Regulation),
EU 2015/830 and Regulation No 1272/2008/EC (CLP)

Printing date 05.05.2017

Version number 1

Revision: 05.05.2017

Trade name: CYCLON RADIATOR G13

(Contd. of page 8)

PBT: Persistent, Bioaccumulative and Toxic

SVHC: Substances of Very High Concern

vPvB: very Persistent and very Bioaccumulative

Acute Tox. 4: Acute toxicity – Category 4

Repr. 2: Reproductive toxicity – Category 2

STOT RE 2: Specific target organ toxicity (repeated exposure) – Category 2

GB