



Opticool Antifreeze Blue – Ready to Use

Product Code: D021

SECTION 1 IDENTIFICATION OF SUBSTANCE/MIXTURE AND OF COMPANY/UNDERTAKING

1.1 Product Identifier	Opticool Antifreeze Blue – Ready to Use
Product Code	D021
1.2 Relevant identified uses of the substance or mixture and uses advised against	Automotive industry antifreeze Do not use in any other application.
1.3 Company	Exol Lubricants Limited All Saints Road Wednesbury, West Midlands, WS10 9TS
1.4 Emergency Telephone Number	+44 (0) 121 568 6800 (Monday – Friday 08.30 – 17.00 hrs GMT)
1.5 Other Information	Preparation Date: 27/09/2018

SECTION 2 HAZARD IDENTIFICATION

2.1 Classification of the substance or mixture <i>See section 16 for full text of H Statements</i>	CLP Classification: Acute Toxicity, Hazard Category 4; H302 Specific Target Organ Toxicity, Repeated Exposure, Hazard Category 2; H373
2.2 Label Elements	Labelling in accordance with CLP Contains Mono Ethylene Glycol



WARNING

WARNING

Hazard Statements	H302	Harmful if swallowed
	H373	May cause damage to organs (kidneys) through prolonged or repeated exposure if swallowed

Precautionary Statements	P260	Do not breathe vapour/spray
	P264	Wash contaminated skin thoroughly after handling
	P270	Do not eat, drink or smoke when using this product
	P301+310	IF SWALLOWED: Immediately call a POISON CENTRE/doctor.
	P501	Dispose of contents/container in accordance with local regulations.

Supplementary Precautionary Statements	P330	Rinse mouth
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2.3 Other Hazards	Not classified as PBT/vPvB by current EU criteria
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SECTION 3 COMPOSITION/ INFORMATION ON INGREDIENTS

3.2 Mixtures	Component	EC No.	REACH Reg. No.	GHS Classification	Conc. %
	Mono Ethylene Glycol	203-473-3	01-2119456816-28	Acute Tox. 4; H302 STOT RE. 2; H373	35-45
	Boric Acid	233-139-2	01-2119486683-25	Repr. 1A; H360FD	0.5-2.5
	Potassium Hydroxide	215-181-3	01-2119487136-33	Acute Tox. 4; H302 Skin Corr. 1A; H314	<0.5

Other Information This material is a mixture. All components have been registered under REACH by the manufacturer or supplier. The potassium hydroxide and boric acid are neutralised in the formulation so that although they are both corrosive materials the final formulation is non-corrosive.



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SECTION 4 FIRST AID MEASURES

4.1 Description of first aid measures

- Inhalation** Move the exposed person to fresh air at once. If breathing stops, provide artificial respiration. When breathing is difficult, properly trained personnel may assist affected person by administering oxygen. Get medical attention if any discomfort continues.
- Eyes** Promptly wash eyes with plenty of water while lifting the eye lids. Make sure to remove any contact lenses from the eyes before rinsing. Continue to rinse for at least 15 minutes. Get medical attention if any discomfort continues.
- Skin** Remove contaminated clothes and rinse skin thoroughly with water. Get medical attention if any discomfort continues.
- Ingestion** Do not induce vomiting. If vomiting occurs, the head should be kept low so that the stomach vomit doesn't enter the lungs. Get medical attention. Rinse mouth thoroughly. Give small quantities of water to drink.

4.2 Most important symptoms and effects, both acute and delayed Harmful if swallowed, irritating to skin and causes irritation to eyes and mucous membranes.

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

SECTION 5 FIRE-FIGHTING MEASURES

- 5.1 Extinguishing media** Extinguish with alcohol-resistant foam, carbon dioxide, dry powder or water fog. Do not use water jet as an extinguisher, as this will spread the fire.
- 5.2 Specific hazards arising from the substance or mixture** During fire, toxic gases (CO, CO₂) are formed. Heat may cause the containers to explode. Fire creates: Toxic gases/vapours/fumes of: Carbon monoxide and carbon dioxide
- 5.3 Advice for fire-fighters** Keep people away. Isolate fire and deny unnecessary entry. Use water to keep fire exposed containers cool and disperse vapours. Self-contained breathing apparatus and full protective clothing must be worn in case of fire.

SECTION 6 ACCIDENTAL RELEASE MEASURES

- 6.1 Personal precautions, protective equipment and emergency procedures** Wear protective clothing as described in Section 8. No action shall be taken involving any personal risk or without suitable training. Evacuate surrounding areas. Keep unnecessary and unprotected personnel from entering. Do not touch or walk through spilled material. Avoid inhalation of vapours and aerosol spray. Provide adequate ventilation.
- 6.2 Environmental precautions** Do not discharge into drains, water courses or onto the ground. Avoid discharge to the aquatic environment. Inform the relevant authorities if the product has caused environmental pollution (sewers, waterways, soil or air).
- 6.3 Methods and material for containment and cleaning up** Stop leak if possible without risk. Remove sources of ignition. Absorb in vermiculite, dry sand or earth and place into containers. Collect spillage in containers, seal securely and deliver for disposal according to local regulations.
- 6.4 Reference to other sections** Personal protective equipment: See section 8

SECTION 7 HANDLING AND STORAGE

- 7.1 Precautions for safe handling** Avoid inhalation of vapours/spray and contact with skin and eyes. Do not ingest. Good personal hygiene is necessary. Wash hands and contaminated areas with water and soap before leaving the work site. Provide good ventilation.
- 7.2 Conditions for safe storage, including any incompatibilities** Do not eat, drink or smoke when using the product. Keep separate from food, feedstuffs, fertilisers and other sensitive material. Store in tightly closed original container in a dry, cool and well-ventilated place. Keep upright. Store in closed original container at temperatures between 0°C and 40°C. Protect from light, including direct sunrays.



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7.3 Specific end use(s)

Identified uses for this product are detailed in section 1.2.

SECTION 8 EXPOSURE CONTROLS/PERSONAL PROTECTION

8.1 Control parameters

Standard	Substance	Long Term (8 Hours TWA)	Short Term (15 Mins)
WEL	Antifreeze	60 mg/m ³	125 mg/m ³
WEL	Glycerine 99.5% Tech.	10 mg/m ³	
WEL	Mono Ethylene Glycol	20 ppm(Sk) / 52 mg/m ³ (Sk)	40 ppm(Sk) / 104 mg/m ³ (Sk)
WEL			2 mg/m ³
Boric Acid - DNEL			
Consumer	Oral	Short Term	Systemic Effects 0.98 mg/kg/day
Consumer	Oral	Long Term	Systemic Effects 0.98 mg/kg/day
Industry	Inhalation	Long Term	Systemic Effects 8.28 mg/m ³
Consumer	Inhalation	Long Term	Systemic Effects 4.15 mg/m ³
Industry	Dermal	Long Term	Systemic Effects 392 mg/kg/day
Consumer	Dermal	Long Term	Systemic Effects 196 mg/kg/day
PNEC			
Freshwater	2.02	mg/l	
Marinewater	2.02	mg/l	
Intermittent release	13.7	mg/l	
Soil	5.4	mg/kg	
STP	10	mg/l	
Mono Ethylene Glycol – DNEL			
Industry	Inhalation	Long Term	Local Effects 35 mg/m ³
Industry	Dermal	Long Term	Systemic Effects 106 mg/kg
Consumer	Inhalation	Long Term	Local Effects 7 mg/m ³
Consumer	Dermal	Long Term	Systemic Effects 53 mg/m ³
PNEC			
Freshwater	10	mg/l	
Marinewater	1	mg/l	
STP	199.5	mg/l	
Sediment Freshwater	20.9	mg/kg	
Soil	1.53	mg/kg	

8.2 Exposure controls

Engineering Measures	Provide adequate general and local exhaust ventilation
Respiratory Equipment	It is recommended to use respiratory equipment with combination filter, type A2/P2.
Hand Protection	For prolonged or repeated skin contact use suitable protective gloves. Butyl rubber gloves are recommended. Neoprene gloves are recommended. Nitrile gloves are recommended but be aware that the liquid may penetrate the gloves. Frequent change is advisable. Polyvinyl alcohol gloves are recommended. EN474 gloves with a protective index of 6 or greater are recommended.
Eye Protection	Use approved safety goggles or face shield. EN 166 recommended.
Other Protection	Provide eye wash station and safety shower. Wear suitable protective clothing as protection against splashing or contamination.
Hygiene Measures	Wash hands at the end of each work shift and before eating, drinking, smoking and using the toilet. When using do not eat, drink or smoke. Wash contaminated clothing before reuse.
Environmental Exposure Controls	Emissions from ventilation or work process equipment should be checked to ensure they comply with the requirements of environmental protection legislation. In some cases, fume scrubbers, filters or engineering modifications to the process equipment will be necessary to reduce emissions to acceptable levels.



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SECTION 9 | PHYSICAL AND CHEMICAL PROPERTIES

9.1 Information on basic physical and chemical properties Does not constitute a specification

Typical Values

Grades:

Opticool Antifreeze Blue – Ready to Use

	Units	
Appearance		Varied Colours - Liquid Hygroscopic Viscous
Odour		Odourless
Odour Threshold		No data available
pH		Not applicable
Melting point/range	°C	No data available
Initial boiling point and range	°C	>100°C
Freezing Point	°C	-33°C
Flash point (PMCC)	°C	>120°C
Flammability		No data available
Upper/lower flammability or explosive limits		No data available
Vapour pressure	kPa (0.1 mm Hg)	23.0 hPa @ 20°C
Relative density	kg/m ³	1.08 @ 20°C
Solubility		Miscible with water. Miscible with Acetone and Alcohol
Partition coefficient n-octanol/water		No data available
Autoignition temperature		>250°C
Decomposition temperature		No data available
Viscosity	mm ² /s	No data available
Evaporation rate		Not applicable
Vapour density		No data available
Explosive properties		Not applicable
Oxidising properties		None

9.2 Other Information None

SECTION 10 | STABILITY AND REACTIVITY

10.1 Reactivity	No specific test data related to reactivity available for this product
10.2 Chemical stability	Stable under normal temperature conditions and recommended use
10.3 Possibility of hazardous reactions	Will not polymerise
10.4 Conditions to avoid	Avoid heat, flames and other sources of ignition. Avoid contact with strong oxidisers.
10.5 Incompatible materials	Strong oxides. Strong alkalis. Strong acids.
10.6 Hazardous decomposition products	During fire, toxic gases (CO, CO ₂) are formed.

SECTION 11 | TOXICOLOGICAL INFORMATION

11.1 Information on toxicological effects

Acute Toxicity	
- Oral	LD50 7712 mg/kg rat
- Dermal	LD50 >3500 mg/kg mouse
- Inhalation	LC50 >2.5 mg/l (vapours) Rat 6hrs
Corrosivity/Irritation	Not irritating
Skin Sensitisation	Guinea pig maximization test (GPMT): Guinea Pig – Not sensitising



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Specific Target Organ Toxicity – Repeated Exposure	STOT – Repeated exposure – NOAEL 200 mg/kg Oral Rat Ingestion – Harmful if swallowed Route of Entry – Ingestion Target Organs - Kidneys
Mutagenicity	Genotoxicity – In vitro Gene Mutation: Not mutagenic – Negative
Carcinogenicity	Not available
Reproductive Toxicity	Fertility:>1000 mg/kg Oral Rat Not expected to be a reproductive toxicant

SECTION 12 ECOLOGICAL INFORMATION

12.1 Toxicity	The product is not expected to be hazardous to the environment. Ecotoxicological data on main component only. Acute toxicity – Fish: LC50 96 hours 72860 mg/l Pimephales promelas (Fat-head Minnow) Acute toxicity – Aquatic Invertebrates: EC50 48 hours > 100 mg/l Daphnia magna Acute toxicity – Aquatic Plants: EC50 96 hours > 6500 mg/l Selastrum capricornutum Acute toxicity – Microorganisms: EC20 > 1995 mg/l Activated Sludge , 30 mins Chronic toxicity – Fish Early Life Stage: NOEC 15380 mg/l Pimephales promelas (Fat-head Minnow) , 7 days
12.2 Persistence and Degradability	Readily biodegradable Hydrolysis is not expected/probable.
12.3 Bioaccumulative Potential	Bioconcentration potential is low
12.4 Mobility in Soil	This material has low volatility and is water soluble hence the potential for mobility is high.
12.5 Results of PBT and vPvB Assessment	Not classified as PBT/vPvB by current EU criteria.
12.6 Other Adverse Effects	None known.

SECTION 13 DISPOSAL CONSIDERATIONS

13.1 Waste Treatment Methods

Where possible, arrange for product to be recycled.
Dispose of via an authorised person/ licensed waste disposal contractor in accordance with local regulations.
Incineration may be carried out under controlled conditions provided that local regulations for emissions are met.

SECTION 14 TRANSPORT INFORMATION

Not classified as dangerous goods for carriage under ADR/RID/AND/IMDG/ICAO/IATA regulations

14.1 UN Number	-
14.2 UN Proper Shipping Name	-
14.3 Transport Hazard Class	-
14.4 Packing Group	-
14.5 Environmental Hazards	-
14.6 Special Precautions for User	See section 8 for safe handling
14.7 Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code	Not applicable to packaged goods

SECTION 15 REGULATORY INFORMATION

15.1 Safety, health and environmental regulations/legislation specific for the substance or mixture	Supply regulations: DPD: Dangerous Preparations Directive; GHS: Globally Harmonised System of classification and labelling of chemicals; CLP: Classification, Labelling and Packaging regulations. Transport regulations: CDG: Carriage of Dangerous Goods regulations; ADR/RID/IMDG/ICAO/IATA regulations.
15.2 Chemical Safety Assessment	No formal chemical safety assessment has been carried out.

SECTION 16 OTHER INFORMATION

Fourth Issue September 2018
Third Issue December 2015: Changed name
Second Issue July 2015: Change to precautionary statements



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Previous version August 2010: Changed to Reach version 2 format

Full text of classification data in sections 2 and 3

Acute Tox. 4; H302
STOT RE 2; H373

Repr. 1A; H360FD
Skin Corr. 1A; H314

Acute toxicity, oral, Hazard Category 4; Harmful if swallowed
Specific target organ toxicity, repeated exposure, Hazard Category 2; Causes damage to organs through prolonged or repeated exposure
Reproductive toxicity, Hazard Category 1A; May damage fertility or the unborn child
Skin corrosion/irritation, Hazard Category 1A; Causes severe skin burns and eye damage