

**Safety Data Sheet**

according to UK REACH Regulation

**Alphacool Ocean AIO Liquid**

Revision date: 15.04.2024

Product code: 147

Page 1 of 9

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

**1.1. Product identifier**

Alphacool Ocean AIO Liquid

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

**Use of the substance/mixture**

Heat transfer fluids

**1.3. Details of the supplier of the safety data sheet**

Company name:	Alphacool International GmbH	
	Tochtergesellschaft	
Street:	Marienberger Str. 1	
Place:	D-38122 Braunschweig	
Telephone:	0531 28874-0	Telefax: 0531 28874-22
E-mail:	info@alphacool.com	
Contact person:	Ronald Willms	Telephone: 05207 95846-205
E-mail:	einkauf@aquatuning.de	
Internet:	www.alphacool.com	

**1.4. Emergency telephone number:** +49 (0) 6131 19240

**SECTION 2: Hazards identification**

**2.1. Classification of the substance or mixture**

**GB CLP Regulation**

Acute Tox. 4; H302  
STOT RE 2; H373

Full text of hazard statements: see SECTION 16.

**2.2. Label elements**

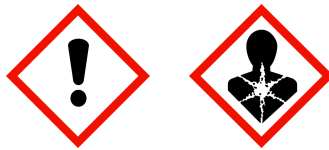
**GB CLP Regulation**

**Hazard components for labelling**

ethanediol; ethylene glycol

**Signal word:** Warning

**Pictograms:**



**Hazard statements**

H302 Harmful if swallowed.  
H373 May cause damage to kidneys through prolonged or repeated exposure if swallowed.

**Precautionary statements**

P314 Get medical advice/attention if you feel unwell.  
P260 Do not breathe mist/vapours/spray.  
P270 Do not eat, drink or smoke when using this product.  
P301+P312 IF SWALLOWED: Call a POISON CENTER/doctor if you feel unwell.  
P330 Rinse mouth.

**Labelling of packages where the contents do not exceed 125 ml**

**Signal word:** Warning

**Safety Data Sheet**

according to UK REACH Regulation

**Alphacool Ocean AIO Liquid**

Revision date: 15.04.2024

Product code: 147

Page 2 of 9

Pictograms:



**2.3. Other hazards**

No information available.

**SECTION 3: Composition/information on ingredients**

**3.2. Mixtures**

**Relevant ingredients**

CAS No	Chemical name			Quantity
	EC No	Index No	REACH No	
	Classification (GB CLP Regulation)			
107-21-1	ethanediol; ethylene glycol			70 - < 75 %
	203-473-3	603-027-00-1		
	Acute Tox. 4; H302			

Full text of H and EUH statements: see section 16.

**Specific Conc. Limits, M-factors and ATE**

CAS No	EC No	Chemical name	Quantity
	Specific Conc. Limits, M-factors and ATE		
107-21-1	203-473-3	ethanediol; ethylene glycol	70 - < 75 %
	dermal: LD50 = 10600 mg/kg; oral: ATE = 500 mg/kg		

**SECTION 4: First aid measures**

**4.1. Description of first aid measures**

**General information**

Get medical advice/attention if you feel unwell.

**After inhalation**

Remove person to fresh air and keep comfortable for breathing. Call a POISON CENTER/doctor/ if you feel unwell.

**After contact with skin**

After contact with skin, wash immediately with plenty of water and soap. If skin irritation occurs: Get medical advice/attention.

**After contact with eyes**

Rinse immediately carefully and thoroughly with eye-bath or water. In case of eye irritation consult an ophthalmologist.

**After ingestion**

Rinse mouth. Call a POISON CENTER/doctor/ if you feel unwell.

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

Harmful if swallowed. May cause damage to kidneys through prolonged or repeated exposure if swallowed.

**4.3. Indication of any immediate medical attention and special treatment needed**

Treat symptomatically.

**SECTION 5: Firefighting measures**

**5.1. Extinguishing media**

**Safety Data Sheet**

according to UK REACH Regulation

**Alphacool Ocean AIO Liquid**

Revision date: 15.04.2024

Product code: 147

Page 3 of 9

**Suitable extinguishing media**Carbon dioxide (CO<sub>2</sub>), Water spray, alcohol resistant foam**Unsuitable extinguishing media**

Full water jet

**5.2. Special hazards arising from the substance or mixture**

May form toxic vapor under fire

**5.3. Advice for firefighters**

In case of fire: Wear self-contained breathing apparatus.

**Additional information**

Suppress gases/vapours/mists with water spray jet. Collect contaminated fire extinguishing water separately.  
Do not allow entering drains or surface water.

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

Provide adequate ventilation. Do not breathe gas/fumes/vapour/spray. Avoid contact with skin, eyes and clothes. Use personal protection equipment.

**For non-emergency personnel**

Wear protective gloves/protective clothing/eye protection/face protection.

**For emergency responders**

Evacuate area. Provide adequate ventilation. Avoid breathing vapours. Avoid contact with eyes and skin.

**6.2. Environmental precautions**

Prevent spread over a wide area (e.g. by containment or oil barriers).  
Do not allow to enter into surface water or drains.

**6.3. Methods and material for containment and cleaning up****For cleaning up**

Absorb with liquid-binding material (sand, diatomaceous earth, acid- or universal binding agents).  
Provide adequate ventilation.  
Treat the recovered material as prescribed in the section on waste disposal.

**6.4. Reference to other sections**

Safe handling: see section 7  
Personal protection equipment: see section 8  
Disposal: see section 13

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

Provide adequate ventilation.  
Wear protective gloves/protective clothing/eye protection/face protection.  
If handled uncovered, arrangements with local exhaust ventilation have to be used.  
Do not breathe gas/fumes/vapour/spray.

**Advice on protection against fire and explosion**

No special fire protection measures are necessary.

**Advice on general occupational hygiene**

Remove contaminated, saturated clothing immediately. Draw up and observe skin protection programme.  
Wash hands and face before breaks and after work and take a shower if necessary. When using do not eat, drink, smoke, sniff.

**7.2. Conditions for safe storage, including any incompatibilities**

**Safety Data Sheet**

according to UK REACH Regulation

**Alphacool Ocean AIO Liquid**

Revision date: 15.04.2024

Product code: 147

Page 4 of 9

**Requirements for storage rooms and vessels**

- Keep container tightly closed.
- Store in a well-ventilated place.
- Store in a cool dry place.

**Hints on joint storage**

No special measures are necessary.

**Further information on storage conditions**

Keep away from: Food and feedingstuffs

**7.3. Specific end use(s)**

Heat transfer fluids

**SECTION 8: Exposure controls/personal protection**

**8.1. Control parameters**

**Exposure limits (EH40)**

CAS No	Substance	ppm	mg/m <sup>3</sup>	fibres/ml	Category	Origin
107-21-1	Ethane-1,2-diol, vapour	20	52		TWA (8 h)	WEL
		40	104		STEL (15 min)	WEL

**8.2. Exposure controls**



**Appropriate engineering controls**

- Wash hands before breaks and after work.
- Further information on proper storage: see section 7.
- If handled uncovered, arrangements with local exhaust ventilation have to be used.

**Individual protection measures, such as personal protective equipment**

**Eye/face protection**

Wear eye/face protection.

**Hand protection**

When handling with chemical substances, protective gloves must be worn with the CE-label including the four control digits. The quality of the protective gloves resistant to chemicals must be chosen as a function of the specific working place concentration and quantity of hazardous substances. For special purposes, it is recommended to check the resistance to chemicals of the protective gloves mentioned above together with the supplier of these gloves.

**Skin protection**

Use of protective clothing.

**Respiratory protection**

In case of inadequate ventilation wear respiratory protection.

**Thermal hazards**

Wear fire resistant or flame retardant clothing.

**Environmental exposure controls**

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

**Safety Data Sheet**

according to UK REACH Regulation

**Alphacool Ocean AIO Liquid**

Revision date: 15.04.2024

Product code: 147

Page 5 of 9

**SECTION 9: Physical and chemical properties**

**9.1. Information on basic physical and chemical properties**

Physical state:	Liquid
Colour:	red, green
Odour:	characteristic
Odour threshold:	not determined
Melting point/freezing point:	-35 °C
Boiling point or initial boiling point and boiling range:	>107,5 °C
Flammability:	not applicable not applicable
Lower explosion limits:	not determined
Upper explosion limits:	not determined
Flash point:	111 °C
Auto-ignition temperature:	not determined
Decomposition temperature:	not determined
pH-Value (at 25 °C):	7,5-9
Viscosity / kinematic:	not determined
Water solubility:	easily soluble
Solubility in other solvents	not determined
not determined	
Dissolution rate:	not determined
Partition coefficient n-octanol/water:	not determined
Dispersion stability:	not determined
Vapour pressure:	<0,01 hPa
(at 20 °C)	
Vapour pressure:	not determined
Density (at 20 °C):	1,06 g/cm <sup>3</sup>
Relative density:	not determined
Bulk density:	not determined
Relative vapour density:	not determined
Particle characteristics:	not determined

**9.2. Other information**

**Information with regard to physical hazard classes**

Explosive properties

The product is not: Explosive.

Self-ignition temperature

Solid:

not determined

Gas:

not determined

Oxidizing properties

The product is not: oxidising.

**Other safety characteristics**

Evaporation rate:

not determined

Solvent separation test:

not determined

Solvent content:

not determined

Solid content:

not determined

Sublimation point:

not determined

Softening point:

not determined

Pour point:

not determined

Viscosity / dynamic:

not determined

Safety Data Sheet

according to UK REACH Regulation

Alphacool Ocean AIO Liquid

Revision date: 15.04.2024

Product code: 147

Page 6 of 9

Flow time:

not determined

SECTION 10: Stability and reactivity

10.1. Reactivity

No hazardous reaction when handled and stored according to provisions.

10.2. Chemical stability

The product is stable under storage at normal ambient temperatures.

10.3. Possibility of hazardous reactions

No known hazardous reactions.

10.4. Conditions to avoid

Avoid high temperatures or direct sunlight.

10.5. Incompatible materials

Oxidising agent, strong  
Acids

10.6. Hazardous decomposition products

Does not decompose when used for intended uses.

SECTION 11: Toxicological information

11.1. Information on hazard classes as defined in GB CLP Regulation

Acute toxicity

Harmful if swallowed.

ATEmix tested

	Dose	Species	Source
LD50, oral	1000 mg/kg		
LD50, dermal	>2000 mg/kg		
LC50, inhalation (vapour) (4 h)	>20 mg/l		

ATEmix calculated

ATE (inhalation dust/mist) > 5 mg/l

CAS No	Chemical name				
	Exposure route	Dose	Species	Source	Method
107-21-1	ethanediol; ethylene glycol				
	oral	ATE mg/kg 500			
	dermal	LD50 mg/kg 10600	Rabbit	GESTIS	

Irritation and corrosivity

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

Sensitising effects

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

Carcinogenic/mutagenic/toxic effects for reproduction

This substance does not meet the criteria for classification as CMR category 1A or 1B according to CLP.

STOT-single exposure

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

STOT-repeated exposure

May cause damage to organs through prolonged or repeated exposure.

Safety Data Sheet

according to UK REACH Regulation

**Alphacool Ocean AIO Liquid**

Revision date: 15.04.2024

Product code: 147

Page 7 of 9

**Aspiration hazard**

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

**11.2. Information on other hazards**

**Endocrine disrupting properties**

No ingredient (=0.1%) is considered to have endocrine-disrupting properties with respect to humans as it meets the criteria set out in section A of Regulation (EU) No 2017/2100.

**Other information**

No further relevant information available.

**SECTION 12: Ecological information**

**12.1. Toxicity**

The product is not: Ecotoxic.

**12.2. Persistence and degradability**

The product has not been tested.

**12.3. Bioaccumulative potential**

The product has not been tested.

**Partition coefficient n-octanol/water**

CAS No	Chemical name	Log Pow
107-21-1	ethanediol; ethylene glycol	-1,36

**12.4. Mobility in soil**

The product has not been tested.

**12.5. Results of PBT and vPvB assessment**

The substances in the mixture do not meet the PBT/vPvB criteria according to UK REACH.

The product has not been tested.

**12.6. Endocrine disrupting properties**

This product does not contain a substance that has endocrine disrupting properties with respect to non-target organisms as no components meets the criteria.

**12.7. Other adverse effects**

No information available.

**Further information**

Avoid release to the environment.

**SECTION 13: Disposal considerations**

**13.1. Waste treatment methods**

**Disposal recommendations**

Do not allow to enter into surface water or drains. Dispose of waste according to applicable legislation.

**Contaminated packaging**

Hazardous waste according to Directive 2008/98/EC (waste framework directive). Handle contaminated packages in the same way as the substance itself.

**SECTION 14: Transport information**

**Land transport (ADR/RID)**

**14.1. UN number or ID number:**

No dangerous good in sense of this transport regulation.

**14.2. UN proper shipping name:**

No dangerous good in sense of this transport regulation.

**14.3. Transport hazard class(es):**

No dangerous good in sense of this transport regulation.

**14.4. Packing group:**

No dangerous good in sense of this transport regulation.

**14.6. Special precautions for user**

No dangerous good in sense of this transport regulation.

**Safety Data Sheet**

according to UK REACH Regulation

**Alphacool Ocean AIO Liquid**

Revision date: 15.04.2024

Product code: 147

Page 8 of 9

**14.7. Maritime transport in bulk according to IMO instruments**

No dangerous good in sense of this transport regulation.

**SECTION 15: Regulatory information**

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

**EU regulatory information**

Restrictions on use (REACH, annex XVII):

Entry 3

Directive 2004/42/EC on VOC in paints and varnishes: 70 % (742 g/l)

Information according to Directive 2012/18/EU (SEVESO III): Not subject to 2012/18/EU (SEVESO III)

**National regulatory information**

Employment restrictions: Observe restrictions to employment for juveniles according to the 'juvenile work protection guideline' (94/33/EC).

Water hazard class (D): 1 - slightly hazardous to water

**15.2. Chemical safety assessment**

Chemical safety assessments for substances in this mixture were not carried out.

**SECTION 16: Other information**

**Abbreviations and acronyms**

Acute Tox: Acute toxicity

STOT RE: Specific target organ toxicity - repeated exposure

CLP: Classification, labelling and Packaging

REACH: Registration, Evaluation and Authorization of Chemicals

GHS: Globally Harmonised System of Classification, Labelling and Packaging of Chemicals

UN: United Nations

CAS: Chemical Abstracts Service

DNEL: Derived No Effect Level

DMEL: Derived Minimal Effect Level

PNEC: Predicted No Effect Concentration

ATE: Acute toxicity estimate

LC50: Lethal concentration, 50%

LD50: Lethal dose, 50%

LL50: Lethal loading, 50%

EL50: Effect loading, 50%

EC50: Effective Concentration 50%

ErC50: Effective Concentration 50%, growth rate

NOEC: No Observed Effect Concentration

BCF: Bio-concentration factor

PBT: persistent, bioaccumulative, toxic

vPvB: very persistent, very bioaccumulative

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

RID: Regulations concerning the international carriage of dangerous goods by rail

MARPOL: International Convention for the Prevention of Marine Pollution from Ships

IBC: Intermediate Bulk Container

VOC: Volatile Organic Compounds

SVHC: Substance of Very High Concern

For abbreviations and acronyms, see: ECHA Guidance on information requirements and chemical safety assessment, chapter R.20 (Table of terms and abbreviations).



**Safety Data Sheet**

according to UK REACH Regulation

**Alphacool Ocean AIO Liquid**

Revision date: 15.04.2024

Product code: 147

Page 9 of 9

**Classification for mixtures and used evaluation method according to GB CLP Regulation**

Classification	Classification procedure
Acute Tox. 4; H302	Calculation method
STOT RE 2; H373	

**Relevant H and EUH statements (number and full text)**

- H302 Harmful if swallowed.
- H373 May cause damage to kidneys through prolonged or repeated exposure if swallowed.
- H373 May cause damage to organs through prolonged or repeated exposure.

**Further Information**

The information is based on the present level of our knowledge. It does not, however, give assurance of product properties and establishes no contract legal rights. The receiver of our product is singularly responsible for adhering to existing laws and regulations.

*(The data for the relevant ingredients were taken respectively from the last version of the sub-contractor's safety data sheet.)*