



## SAFETY DATA SHEET

### Aquacool MEG

According to Regulation (EC) No 1907/2006, Annex II, as amended.

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

##### 1.1. Product identifier

Product name                      Aquacool MEG

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

Identified uses                      Heat Transfer Fluid

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

Supplier                              Aqua Cooling Solutions Ltd  
     Unit D4 Segensworth Business Centre  
     Segensworth Road  
     Fareham  
     Hampshire

Tel: 0845 0941 800  
 Fax: 0845 0941 900  
 sales@aquacooling.co.uk

##### 1.4. Emergency telephone number

Emergency telephone              + 44 (0) 845 0941 800

Dilutions                              Applicable for dilutions between 20% product and 100% product

#### SECTION 2: Hazards identification

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

###### Classification (EC 1272/2008)

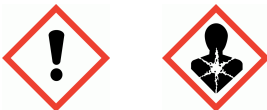
Physical hazards                      Not Classified

Health hazards                        Acute Tox. 4 - H302 STOT RE 2 - H373

Environmental hazards              Not Classified

##### 2.2. Label elements

###### Pictogram



Signal word                            Warning

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

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<b>Precautionary statements</b>	<p>P260 Do not breathe vapour/ spray.</p> <p>P264 Wash contaminated skin thoroughly after handling.</p> <p>P270 Do not eat, drink or smoke when using this product.</p> <p>P301+P312 IF SWALLOWED: Call a POISON CENTER/ doctor if you feel unwell.</p> <p>P314 Get medical advice/ attention if you feel unwell.</p> <p>P330 Rinse mouth.</p> <p>P501 Dispose of contents/ container in accordance with national regulations.</p>
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**Contains** ETHANEDIOL

### 2.3. Other hazards

No other information known.

## SECTION 3: Composition/information on ingredients

### 3.2. Mixtures

<b>ETHANEDIOL</b>	<b>93%</b>
CAS number: 107-21-1	EC number: 203-473-3
	REACH registration number: 01-2119456816-28-XXXX
<b>Classification</b>	
Acute Tox. 4 - H302	
STOT RE 2 - H373	

The full text for all hazard statements is displayed in Section 16.

**Composition comments** Information given is applicable to the product as supplied.

## SECTION 4: First aid measures

### 4.1. Description of first aid measures

<b>General information</b>	Treat symptomatically.
<b>Inhalation</b>	Move affected person to fresh air at once. Get medical attention.
<b>Ingestion</b>	Rinse mouth thoroughly with water. Give plenty of water to drink. Keep affected person under observation. Do not induce vomiting. If vomiting occurs, the head should be kept low so that vomit does not enter the lungs. Get medical attention immediately. Show this Safety Data Sheet to the medical personnel.
<b>Skin contact</b>	Remove contaminated clothing immediately and wash skin with soap and water. Get medical attention if any discomfort continues.
<b>Eye contact</b>	Remove any contact lenses and open eyelids wide apart. Continue to rinse for at least 15 minutes and get medical attention.

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

<b>Inhalation</b>	Irritation of nose, throat and airway.
<b>Ingestion</b>	May cause discomfort if swallowed. Sore throat. May cause stomach pain or vomiting.
<b>Skin contact</b>	Prolonged skin contact may cause redness and irritation.
<b>Eye contact</b>	May irritate eyes. Symptoms following overexposure may include the following: Redness. Pain. Profuse watering of the eyes.

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

**Notes for the doctor** Consult standard guidance for treatment of ethylene glycol intoxication

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### SECTION 5: Firefighting measures

#### 5.1. Extinguishing media

**Suitable extinguishing media** Use fire-extinguishing media suitable for the surrounding fire. Extinguish with alcohol-resistant foam, carbon dioxide, dry powder or water fog.

**Unsuitable extinguishing media** Do not use water jet as an extinguisher, as this will spread the fire.

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

**Hazardous combustion products** Oxides of carbon. Thermal decomposition or combustion may liberate carbon oxides and other toxic gases or vapours.

#### 5.3. Advice for firefighters

**Protective actions during firefighting** Cool containers exposed to heat with water spray and remove them from the fire area if it can be done without risk.

**Special protective equipment for firefighters** Use protective equipment appropriate for surrounding materials.

### SECTION 6: Accidental release measures

#### 6.1. Personal precautions, protective equipment and emergency procedures

**Personal precautions** For personal protection, see Section 8.

#### 6.2. Environmental precautions

**Environmental precautions** Collect and dispose of spillage as indicated in Section 13. Avoid discharge to the aquatic environment.

#### 6.3. Methods and material for containment and cleaning up

**Methods for cleaning up** Absorb spillage with non-combustible, absorbent material. Collect and place in suitable waste disposal containers and seal securely. For waste disposal, see Section 13.

#### 6.4. Reference to other sections

**Reference to other sections** For personal protection, see Section 8. Collect and dispose of spillage as indicated in Section 13.

### SECTION 7: Handling and storage

#### 7.1. Precautions for safe handling

**Usage precautions** Read and follow manufacturer's recommendations. Avoid inhalation of vapours and spray/mists. Provide adequate ventilation. Avoid contact with skin and eyes.

**Advice on general occupational hygiene** Do not eat, drink or smoke when using this product. Provide eyewash station. Wash contaminated skin thoroughly after handling. Take off immediately all contaminated clothing and wash it before reuse.

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

**Storage precautions** Store in tightly-closed, original container in a dry, cool and well-ventilated place. Keep away from food, drink and animal feeding stuffs.

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

**Specific end use(s)** The identified uses for this product are detailed in Section 1.2.

### SECTION 8: Exposure Controls/personal protection

#### 8.1. Control parameters

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### Occupational exposure limits

#### ETHANEDIOL

Long-term exposure limit (8-hour TWA): WEL 10 mg/m<sup>3</sup> particulate

Long-term exposure limit (8-hour TWA): WEL 20 ppm 52 mg/m<sup>3</sup> vapour

Sk

Short-term exposure limit (15-minute): WEL 40 ppm 104 mg/m<sup>3</sup> vapour

Sk

WEL = Workplace Exposure Limit

Sk = Can be absorbed through the skin.

#### ETHANEDIOL (CAS: 107-21-1)

<b>DNEL</b>	Industry - Inhalation; Short term : 35 mg/m <sup>3</sup> Industry - Dermal; Long term : 106 mg/kg/day Consumer - Dermal; Long term : 53 mg/kg/day Consumer - Inhalation; Long term : 7 mg/m <sup>3</sup>
<b>PNEC</b>	- Fresh water; 10 mg/l - Marine water; 1 mg/l - Soil; 1.53 mg/kg - STP; 199.5 mg/l - Sediment (Freshwater); 37 mg/kg - Sediment (Marinewater); 3.7 mg/kg - Intermittent release; 10 mg/l

### 8.2. Exposure controls

#### Protective equipment



#### Appropriate engineering controls

Provide adequate general and local exhaust ventilation. In case of insufficient ventilation, wear suitable respiratory equipment. Respiratory protection must be used if the airborne contamination exceeds the recommended occupational exposure limit.

#### Eye/face protection

Wear tight-fitting, chemical splash goggles or face shield.

#### Hand protection

It is recommended that chemical-resistant, impervious gloves are worn. To protect hands from chemicals, gloves should comply with European Standard EN374.

#### Other skin and body protection

Wear suitable protective clothing as protection against splashing or contamination.

#### Hygiene measures

Do not eat, drink or smoke when using this product. Wash hands after handling. Wash contaminated clothing before reuse. Eye wash facilities and emergency shower must be available when handling this product.

#### Respiratory protection

If ventilation is inadequate, suitable respiratory protection must be worn. Wear a respirator fitted with the following cartridge: Combination filter, type A2/P3.

#### Environmental exposure controls

Keep container tightly sealed when not in use.

### **SECTION 9: Physical and Chemical Properties**

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

**Appearance** Clear liquid. Coloured liquid.

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<b>Colour</b>	Orange. or Customer specific
<b>Odour</b>	No characteristic odour.
<b>Odour threshold</b>	No information available.
<b>pH</b>	pH (diluted solution): 8.1 @ 50%
<b>Melting point</b>	Not determined.
<b>Initial boiling point and range</b>	165 @°C @ 1013 hPa (100%)
<b>Flash point</b>	110°C CC (Closed cup). (100%)
<b>Evaporation rate</b>	0.01 based on raw material
<b>Flammability (solid, gas)</b>	No information available.
<b>Upper/lower flammability or explosive limits</b>	Lower flammable/explosive limit: 3.2 % Upper flammable/explosive limit: 15.2 %
<b>Vapour pressure</b>	0.09 mm Hg @ °C
<b>Vapour density</b>	2.1
<b>Relative density</b>	1.1134 @ @ 20°C (100%)
<b>Solubility(ies)</b>	Miscible with water.
<b>Partition coefficient</b>	log Pow: 1.36 Based on raw material
<b>Auto-ignition temperature</b>	398°C based on raw material
<b>Decomposition Temperature</b>	No information available.
<b>Viscosity</b>	20.5 mPa s @ 20°C (100%)
<b>Explosive properties</b>	Not considered to be explosive.
<b>Oxidising properties</b>	Does not meet the criteria for classification as oxidising.

### 9.2. Other information

<b>Refractive index</b>	1.429 @ 20 (100%)
<b>Freezing Point (°C)</b>	-36 degC @ 50%

## SECTION 10: Stability and reactivity

### 10.1. Reactivity

<b>Reactivity</b>	There are no known reactivity hazards associated with this product.
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### 10.2. Chemical stability

<b>Stability</b>	Stable at normal ambient temperatures and when used as recommended.
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### 10.3. Possibility of hazardous reactions

<b>Possibility of hazardous reactions</b>	Not relevant.
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### 10.4. Conditions to avoid

<b>Conditions to avoid</b>	Avoid heat.
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### 10.5. Incompatible materials

<b>Materials to avoid</b>	Strong oxidising agents. Strong acids.
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### 10.6. Hazardous decomposition products

**Hazardous decomposition products** Does not decompose when used and stored as recommended. Oxides of carbon. Thermal decomposition or combustion may liberate carbon oxides and other toxic gases or vapours.

### SECTION 11: Toxicological information

#### 11.1. Information on toxicological effects

##### Acute toxicity - oral

**ATE oral (mg/kg)** 535.0

##### Acute toxicity - dermal

**Notes (dermal LD<sub>50</sub>)** No information available.

##### Acute toxicity - inhalation

**Notes (inhalation LC<sub>50</sub>)** No information available.

##### Skin corrosion/irritation

**Skin corrosion/irritation** No information available.

##### Serious eye damage/irritation

**Serious eye damage/irritation** No information available.

##### Respiratory sensitisation

**Respiratory sensitisation** No information available.

##### Skin sensitisation

**Skin sensitisation** No information available.

##### Germ cell mutagenicity

**Genotoxicity - in vitro** No information available.

##### Carcinogenicity

**Carcinogenicity** Does not contain any substances known to be carcinogenic.

##### Reproductive toxicity

**Reproductive toxicity - fertility** No information available.

##### Specific target organ toxicity - single exposure

**STOT - single exposure** No information available.

##### Specific target organ toxicity - repeated exposure

**STOT - repeated exposure** STOT RE 2 - H373 May cause damage to organs (Kidneys) through prolonged or repeated exposure if swallowed.

##### Aspiration hazard

**Aspiration hazard** No data available.

##### **Inhalation**

Vapour may irritate respiratory system/lungs.

##### **Ingestion**

Harmful if swallowed. May cause stomach pain or vomiting.

##### **Skin contact**

Prolonged and frequent contact may cause redness and irritation.

##### **Eye contact**

May irritate eyes. Symptoms following overexposure may include the following: Redness. Pain.

#### Toxicological information on ingredients.

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### ETHANEDIOL

#### Acute toxicity - oral

ATE oral (mg/kg) 500.0

#### Acute toxicity - dermal

Acute toxicity dermal (LD<sub>50</sub> mg/kg) 10,600.0

Species Rabbit

#### Acute toxicity - inhalation

Acute toxicity inhalation (LC<sub>50</sub> vapours mg/l) 2.5

Species Rat

### SECTION 12: Ecological Information

#### 12.1. Toxicity

Acute toxicity - fish LC50, 96 hours: > 10,000 mg/l, Estimated value.

Acute toxicity - aquatic invertebrates EC<sub>50</sub>, 48 hours: > 100 mg/l, Daphnia magna Estimated value.

#### 12.2. Persistence and degradability

Persistence and degradability The product is expected to be biodegradable.

#### 12.3. Bioaccumulative potential

Bioaccumulative potential No data available on bioaccumulation.

Partition coefficient log Pow: 1.36 Based on raw material

#### 12.4. Mobility in soil

Mobility The product is miscible with water. May spread in water systems.

Surface tension 45 mN/m @ @ 20°C (33% solution)

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

Results of PBT and vPvB assessment No data available.

#### 12.6. Other adverse effects

Other adverse effects Not determined.

### SECTION 13: Disposal considerations

#### 13.1. Waste treatment methods

General information Waste should be treated as controlled waste.

Disposal methods Dispose of waste to licensed waste disposal site in accordance with the requirements of the local Waste Disposal Authority.

### SECTION 14: Transport information

General The product is not covered by international regulations on the transport of dangerous goods (IMDG, IATA, ADR/RID).

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### 14.1. UN number

Not applicable.

### 14.2. UN proper shipping name

Not applicable.

### 14.3. Transport hazard class(es)

No transport warning sign required.

### 14.4. Packing group

Not applicable.

### 14.5. Environmental hazards

**Environmentally hazardous substance/marine pollutant**

No.

### 14.6. Special precautions for user

Not applicable.

### 14.7. Transport in bulk according to Annex II of MARPOL and the IBC Code

Transport in bulk according to Not applicable.

**Annex II of MARPOL 73/78  
and the IBC Code**

## SECTION 15: Regulatory information

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

<b>EU legislation</b>	Regulation (EC) No 1907/2006 of the European Parliament and of the Council of 18 December 2006 concerning the Registration, Evaluation, Authorisation and Restriction of Chemicals (REACH) (as amended). Regulation (EC) No 1272/2008 of the European Parliament and of the Council of 16 December 2008 on classification, labelling and packaging of substances and mixtures (as amended).
<b>Guidance</b>	Workplace Exposure Limits EH40.

### 15.2. Chemical safety assessment

No chemical safety assessment has been carried out.

## SECTION 16: Other information

<b>General information</b>	Only trained personnel should use this material.
<b>Revision comments</b>	Review only
<b>Revision date</b>	20/07/2018
<b>Revision</b>	3.1
<b>Supersedes date</b>	30/06/2015
<b>SDS status</b>	Approved.
<b>Hazard statements in full</b>	H302 Harmful if swallowed. H373 May cause damage to organs through prolonged or repeated exposure. H373 May cause damage to organs (Kidneys) through prolonged or repeated exposure if swallowed.



## Aquacool MEG

This information relates only to the specific material designated and may not be valid for such material used in combination with any other materials or in any process. Such information is, to the best of the company's knowledge and belief, accurate and reliable as of the date indicated. However, no warranty, guarantee or representation is made to its accuracy, reliability or completeness. It is the user's responsibility to satisfy himself as to the suitability of such information for his own particular use.