

## SAFETY DATA SHEET Aquacool MEG

According to Regulation (EU) No 453/2010

### SECTION 1: IDENTIFICATION OF THE SUBSTANCE/MIXTURE AND OF THE COMPANY/UNDERTAKING

#### 1.1. Product identifier

**Product name** Aquacool MEG  
**Synonyms, Trade Names** Applicable for dilutions between 20% product and 100% product

#### 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

+ 44 (0) 845 0941 800

### SECTION 2: HAZARDS IDENTIFICATION

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

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

Physical and Chemical Hazards	Not classified.
Human health	Acute Tox. 4 - H302;STOT RE 2 - H373
Environment	Not classified.

##### Classification (1999/45/EEC)

Xn;R22.

The Full Text for all R-Phrases and Hazard Statements are Displayed in Section 16.

#### 2.2. Label elements

**Contains** ETHANEDIOL

**Label In Accordance With (EC) No. 1272/2008**



**Signal Word** Warning

##### Hazard Statements

H302	Harmful if swallowed.
H373	May cause damage to organs Kidneys through prolonged or repeated exposure if inhaled and if swallowed.

##### Precautionary Statements

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

##### Supplementary Precautionary Statements

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

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P264  
P301+312  
  
P330

Wash contaminated skin thoroughly after handling.  
IF SWALLOWED: Call a POISON CENTER or doctor/physician if you feel unwell.  
Rinse mouth.

**2.3. Other hazards**

No other information noted.

**SECTION 3: COMPOSITION/INFORMATION ON INGREDIENTS****3.2. Mixtures**

<b>ETHANEDIOL</b>	<b>93%</b>
<b>CAS-No.: 107-21-1</b>	<b>EC No.: 203-473-3</b>
Classification (EC 1272/2008) Acute Tox. 4 - H302	Classification (67/548/EEC) Xn;R22

The Full Text for all R-Phrases and Hazard Statements are Displayed in Section 16.

**Composition Comments**

Information given concerns the concentrated solution.

**SECTION 4: FIRST AID MEASURES****4.1. Description of first aid measures****General information**

Treat Symptomatically.

**Inhalation**

Move the exposed person to fresh air at once. Get medical attention.

**Ingestion**

Immediately rinse mouth and drink plenty of water or milk. Keep person under observation. Do not induce vomiting. If vomiting occurs, keep head low. Transport immediately to hospital and bring along these instructions.

**Skin contact**

Remove contaminated clothing immediately and wash skin with soap and water. Get medical attention if any discomfort continues.

**Eye contact**

Promptly wash eyes with plenty of water while lifting the eye lids. Continue to rinse for at least 15 minutes and get medical attention.

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

Irritation of nose, throat and airway.

**Ingestion**

May cause discomfort if swallowed. Sore throat. May cause stomach pain or vomiting.

**Skin contact**

Prolonged skin contact may cause redness and irritation.

**Eye contact**

Irritating and may cause redness and pain.

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

No recommendation given, but first aid may still be required in case of accidental exposure, inhalation or ingestion of this chemical. If in doubt, GET MEDICAL ATTENTION PROMPTLY!

**SECTION 5: FIREFIGHTING MEASURES****5.1. Extinguishing media****Extinguishing media**

Use fire-extinguishing media appropriate for surrounding materials.

**5.2. Special hazards arising from the substance or mixture****Hazardous combustion products**

Thermal decomposition or combustion may liberate carbon oxides and other toxic gases or vapours.

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### **5.3. Advice for firefighters**

**Special Fire Fighting Procedures**

Water spray should be used to cool containers.

**Protective equipment for fire-fighters**

Use protective equipment appropriate for surrounding materials.

## SECTION 6: ACCIDENTAL RELEASE MEASURES

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

For personal protection, see section 8. In case of spills, beware of slippery floors and surfaces.

### **6.2. Environmental precautions**

Contain spillages with sand, earth or any suitable adsorbent material.

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

Absorb spillage with non-combustible, absorbent material. Collect in containers and seal securely. Remove containers and flush area with water. For waste disposal, see section 13.

### **6.4. Reference to other sections**

Collect and dispose of spillage as indicated in section 13. For personal protection, see section 8.

## SECTION 7: HANDLING AND STORAGE

### **7.1. Precautions for safe handling**

Read and follow manufacturer's recommendations. Avoid spilling, skin and eye contact. Do not eat, drink or smoke when using the product.

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

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)**

The identified uses for this product are detailed in Section 1.2.

## SECTION 8: EXPOSURE CONTROLS/PERSONAL PROTECTION

### **8.1. Control parameters**

Name	STD	TWA - 8 Hrs		STEL - 15 Min		Notes
ETHANEDIOL	WEL	20 ppm	10 mg/m3	40 ppm	104 mg/m3	Sk

WEL = Workplace Exposure Limit.

Sk = Can be absorbed through skin.

### **8.2. Exposure controls**

**Protective equipment**



**Process conditions**

Provide eyewash station.

**Engineering measures**

No specific recommendation made, but respiratory protection must be used if the general level exceeds the recommended occupational exposure limit.

**Respiratory equipment**

If ventilation is insufficient, suitable respiratory protection must be provided.

**Hand protection**

Use protective gloves. Rubber, neoprene or PVC.

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### Eye protection

Wear approved safety goggles.

### Other Protection

Wear suitable protective clothing as protection against splashing or contamination.

### Hygiene measures

When using do not eat, drink or smoke. Wash hands after handling. Wash contaminated clothing before reuse.

### 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

<b>Appearance</b>	Clear Coloured liquid.
<b>Colour</b>	Orange. or Customer specific
<b>Odour</b>	No characteristic odour.
<b>Solubility</b>	Miscible with water
<b>Initial boiling point and boiling range (°C)</b>	165 @ 1013 hPa (100%)
<b>Melting point (°C)</b>	Not determined.
<b>Relative density</b>	1.1134 @ 20 (100%)
<b>Vapour density (air=1)</b>	2.1 based on raw material
<b>Vapour pressure</b>	0.09 mm Hg @ 20 based on raw material
<b>Evaporation rate</b>	0.01 based on raw material
<b>pH-Value, Diluted Solution</b>	8.1 @ 50%
<b>Viscosity</b>	20.5 mPas @ 20 (100%)
<b>Decomposition temperature (°C)</b>	No information available.
<b>Odour Threshold, Lower</b>	No information available.
<b>Odour Threshold, Upper</b>	No information available.
<b>Flash point (°C)</b>	110 CC (Closed cup). (100%)
<b>Auto Ignition Temperature (°C)</b>	398 based on raw material
<b>Flammability Limit - Lower(%)</b>	3.2 based on raw material
<b>Flammability Limit - Upper(%)</b>	15.3 based on raw material
<b>Partition Coefficient (N-Octanol/Water)</b>	log Pow 1.36 Based on raw material
<b>Explosive properties</b>	No information available.
<b>Oxidising properties</b>	Not available.

### 9.2. Other information

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

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### SECTION 10: STABILITY AND REACTIVITY

#### **10.1. Reactivity**

No specific reactivity hazards associated with this product.

#### **10.2. Chemical stability**

Stable under normal temperature conditions and recommended use.

#### **10.3. Possibility of hazardous reactions**

Not relevant

#### **10.4. Conditions to avoid**

Avoid exposing to heat and contact with strong oxidising substances.

#### **10.5. Incompatible materials**

##### **Materials To Avoid**

Strong oxidising substances.

#### **10.6. Hazardous decomposition products**

None under normal conditions. 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:**

##### **Acute Toxicity (Oral LD50)**

< 5000 mg/kg Rat

Estimated Value

##### **Respiratory or skin sensitisation:**

##### **Respiratory sensitisation**

No information available.

##### **Skin sensitisation**

No information available.

##### **Germ cell mutagenicity:**

##### **Genotoxicity - In Vitro**

No information available.

##### **Carcinogenicity:**

No evidence of carcinogenicity in animal studies

##### **Reproductive Toxicity:**

##### **Reproductive Toxicity - Fertility**

No information available.

Based on available data the classification criteria are not met.

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

##### **STOT - Single exposure**

No information available.

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

##### **STOT - Repeated exposure**

No information available.

##### **Aspiration hazard:**

No data available.

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### Ingestion

Harmful if swallowed.

### Skin contact

Slightly irritating.

### Eye contact

Irritating and may cause redness and pain.

## SECTION 12: ECOLOGICAL INFORMATION

### 12.1. Toxicity

#### Acute Toxicity - Fish

LC50 96 hours > 10, 000 mg/l

Estimated Value

#### Acute Toxicity - Aquatic Invertebrates

EC50 48 hours > 100 mg/l Daphnia magna

Estimated Value

### 12.2. Persistence and degradability

#### 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

(33% solution)

### 12.5. Results of PBT and vPvB assessment

No data available.

### 12.6. Other adverse effects

Not determined.

## SECTION 13: DISPOSAL CONSIDERATIONS

### General information

Waste to be treated as controlled waste. Disposal to licensed waste disposal site in accordance with local Waste Disposal Authority.

### 13.1. Waste treatment methods

Dispose of waste and residues in accordance with local authority requirements.

## SECTION 14: TRANSPORT INFORMATION

### General

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

### 14.1. UN number

Not applicable.

### 14.2. UN proper shipping name

Not applicable.

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### 14.3. Transport hazard class(es)

#### Transport Labels

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 MARPOL73/78 and the IBC Code

Not applicable.

## SECTION 15: REGULATORY INFORMATION

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

#### Guidance Notes

Workplace Exposure Limits EH40.

#### EU Legislation

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, amending and repealing Directives 67/548/EEC and 1999/45/EC, and amending Regulation (EC) No 1907/2006 with amendments.

#### Water hazard classification

WGK 1

### 15.2. Chemical Safety Assessment

No chemical safety assessment has been carried out.

## SECTION 16: OTHER INFORMATION

#### General information

Only trained personnel should use this material.

#### Revision Comments

All previous revisions no longer valid, complete re-issue of SDS.

**Revision Date** 20/11/2013

**Revision** 1

**Supersedes date** 18/07/2013

**Safety Data Sheet Status** Approved.

#### Risk Phrases In Full

R22 Harmful if swallowed.

#### Hazard Statements In Full

H302 Harmful if swallowed.

H373 May cause damage to organs <<Organs>> through prolonged or repeated exposure if inhaled and if swallowed.

#### Disclaimer

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.