

# Safety data sheet

according to 1907/2006/EC, Article 31

Printing date 12.10.2015

Revision: 12.10.2015

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

- **1.1 Product identifier**
- **Trade name: AF1 Antifadent solution**
- **Article number: AGR1320**
- **1.2 Relevant identified uses of the substance or mixture and uses advised against**  
A buffered aqueous-glycerol amine solution for use in fluorescence microscopy.
- **Application of the substance / the preparation:** No further relevant information.
- **Uses advised against** Any use other than those identified.
- **1.3 Details of the supplier of the safety data sheet**
- **Supplier.**  
Agar Scientific  
Elektron Technology UK Ltd  
Parsonage Lane  
Stansted CM24 8GF  
United Kingdom  
sales@agarscientific.com  
Tel: +44 (0) 1279 813 519
- **Further information obtainable from:** Technical Support
- **1.4 Emergency telephone number:** 24 hours: +44 (0)1856 407333

## SECTION 2: Hazards identification

- **2.1 Classification of the substance or mixture**
- **Classification according to Regulation (EC) No 1272/2008**



GHS07

Eye Irrit. 2 H319 Causes serious eye irritation.

- **Classification according to Directive 67/548/EEC or Directive 1999/45/EC**



Xn; Harmful

R22: Harmful if swallowed.



Xi; Irritant

R36: Irritating to eyes.

- **Information concerning particular hazards for human and environment:**

The product has to be labelled due to the calculation procedure of the "General Classification guideline for preparations of the EU" in the latest valid version.

- **Classification system:**

The classification is according to the latest editions of the EU-lists, and extended by company and literature data.

- **2.2 Label elements**
- **Labelling according to Regulation (EC) No 1272/2008**

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

- **Hazard pictograms**



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- **Signal word** Warning

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- **Hazard-determining components of labelling:**  
Triethylendiamin
- **Hazard statements**  
H319 Causes serious eye irritation.
- **Precautionary statements**
  - P101 If medical advice is needed, have product container or label at hand.
  - P102 Keep out of reach of children.
  - P103 Read label before use.
  - P280 Wear protective gloves/protective clothing/eye protection/face protection.
  - P264 Wash thoroughly after handling.
  - P305+P351+P338 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
  - P337+P313 If eye irritation persists: Get medical advice/attention.
- **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 of substances listed below with nonhazardous additions.

- **Dangerous components:**

CAS: 56-81-5	glycerol	60-95%
EINECS: 200-289-5	substance with a Community workplace exposure limit	
CAS: 280-57-9	Triethylendiamin	1-5%
EINECS: 205-999-9	 C R34;  Xn R22  Skin Corr. 1B, H314;  Acute Tox. 4, H302	

- **Additional information:** For the wording of the listed risk phrases refer to section 16.

### 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.
- **After inhalation:**  
Move the exposed person to fresh air at once. Rinse nose and mouth with water. Get medical attention if any discomfort continues.
- **After skin contact:**  
Remove affected person from source of contamination. Remove contaminated clothing. Wash the skin immediately with soap and water. Get medical attention if any discomfort continues.
- **After eye contact:**  
Check for contact lenses which must be removed from the eyes before rinsing. Promptly rinse eyes with plenty of clean water while lifting the eyelids. Continue to rinse for at least 15 minutes. Continue until the eyes are free of all traces of contamination. Get medical attention if any discomfort or irritation persists.
- **After swallowing:**  
NEVER MAKE AN UNCONSCIOUS PERSON VOMIT OR DRINK FLUIDS! Rinse mouth thoroughly. Get medical attention if any discomfort continues.
- **4.2 Most important symptoms and effects, both acute and delayed**  
No further relevant information available.

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- **4.3 Indication of any immediate medical attention and special treatment needed**  
No further relevant information available.

### SECTION 5: Firefighting measures

- **5.1 Extinguishing media**
- **Suitable extinguishing agents:** Extinguish with foam, carbon dioxide, dry powder or water fog.
- **For safety reasons unsuitable extinguishing agents:**  
Do not use water jet as an extinguisher, as this will spread the fire.
- **5.2 Special hazards arising from the substance or mixture**  
If heated, vapours/gases hazardous to health (e.g. CO, NOx, HCl, isocyanates) may be formed.  
In case of fire, toxic and corrosive gases may be formed. May froth on contact with water.
- **5.3 Advice for firefighters**
- **Protective equipment:**  
Wear self-contained breathing apparatus and full protective clothing. Keep all unnecessary people away. Fire water run-off must not be allowed to contaminate ground or enter drains, sewers or water courses. Provide bunding against fire water run-off.

### SECTION 6: Accidental release measures

- **6.1 Personal precautions, protective equipment and emergency procedures**  
Wear protective gloves and glasses.  
In case of spills, beware of slippery floors and surfaces.
- **6.2 Environmental precautions:** Cover all drains and sewers. Avoid spreading spilled material.
- **6.3 Methods and material for containment and cleaning up:**  
Stop leak if possible without risk. Absorb in vermiculite, dry sand or earth and place into containers. Flush with plenty of water to clean spillage area. Flushings must not be allowed to contaminate ground or enter drains, sewers or watercourses.
- **6.4 Reference to other sections**  
See Section 7 for information on safe handling.  
See Section 8 for information on personal protection equipment.  
See Section 13 for disposal information.

### SECTION 7: Handling and storage

- **7.1 Precautions for safe handling**  
Avoid spilling, skin and eye contact. Wash thoroughly after handling.
- **7.2 Conditions for safe storage, including any incompatibilities**  
Store in tightly closed original container in a dry and cool place. Keep away from food, drink and animal feeding stuffs.
- **Storage:**
- **Requirements to be met by storerooms and receptacles:** No special requirements.
- **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

- **Additional information about design of technical facilities:**  
Provide adequate ventilation. Observe occupational exposure limits and minimize the risk of inhalation of vapours.

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### 8.1 Control parameters

#### Ingredients with limit values that require monitoring at the workplace:

**56-81-5 glycerol**

 WEL Long-term value: 10 mg/m<sup>3</sup>

Additional information: The lists valid during the making were used as basis.

### 8.2 Exposure controls

#### Personal protective equipment:

##### General protective and hygienic measures:

DO NOT SMOKE IN WORK AREA! Wash hands at the end of each work shift and before eating, smoking and using the toilet. Wash promptly if skin becomes wet or contaminated. Promptly remove any clothing that becomes contaminated. Use appropriate skin cream to prevent drying of skin. When using do not eat, drink or smoke.

##### Respiratory protection:

In case of inadequate ventilation or when the product is heated, use suitable respiratory equipment with gas filter (type A2).

##### Protection of hands:



Protective gloves

Wear suitable protective gloves conforming to EN 374. Seek recommendations from manufacturer or supplier. After using gloves the hands should be washed and dried thoroughly and a suitable moisturiser applied.

##### 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. As the product is a preparation of several substances, the resistance of the glove material can not be calculated in advance and has therefore to be checked prior to the application.

##### Penetration time of glove material

The exact break through time has to be found out by the manufacturer of the protective gloves and has to be observed.

##### Eye protection:



Tightly sealed goggles

Use approved safety goggles or face shield.

Body protection: Wear appropriate clothing to prevent any possibility of skin contact.

## SECTION 9: Physical and chemical properties

### 9.1 Information on basic physical and chemical properties

#### General Information

##### Appearance:

Form:	Liquid
Colour:	Colourless
	Clear

Odour:	Slight odour. Musty (mouldy).
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Odour threshold:	Not determined.
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pH-value (500 g/l) at 20 °C:	10
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- |   |   |
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| · <b>Change in condition</b>                      |   |
| Melting point/Melting range:                      | Undetermined.                                 |
| Boiling point/Boiling range:                      | >100 °C                                       |
| · <b>Flash point:</b>                             | Not applicable.                               |
| · <b>Flammability (solid, gaseous):</b>           | Not applicable.                               |
| · <b>Ignition temperature:</b>                    |   |
| Decomposition temperature:                        | Not determined.                               |
| · <b>Self-igniting:</b>                           | Product is not selfigniting.                  |
| · <b>Danger of explosion:</b>                     | Product does not present an explosion hazard. |
| · <b>Explosion limits:</b>                        |   |
| Lower:  | Not determined.                               |
| Upper:  | Not determined.                               |
| · <b>Vapour pressure:</b>                         | Not determined.                               |
| · <b>Density:</b>                                 | Not determined.                               |
| · <b>Relative density</b>                         | Not determined.                               |
| · <b>Vapour density</b>                           | Not determined.                               |
| · <b>Evaporation rate</b>                         | Not determined.                               |
| · <b>Solubility in / Miscibility with water:</b>  | Fully miscible.                               |
| · <b>Partition coefficient (n-octanol/water):</b> | Not determined.                               |
| · <b>Viscosity:</b>                               |   |
| Dynamic at 22 °C:                                 | 180 cP  |
| Kinematic:  | Not determined.                               |
| · <b>9.2 Other information</b>                    | No further relevant information available.    |

### SECTION 10: Stability and reactivity

- **10.1 Reactivity**
- **10.2 Chemical stability** Stable under normal conditions of storage and use.
- **Thermal decomposition / conditions to be avoided:**  
No decomposition if used according to specifications.
- **10.3 Possibility of hazardous reactions** No dangerous reactions known.
- **10.4 Conditions to avoid** Avoid exposure to heat in any form, including sunlight.
- **10.5 Incompatible materials:** Strong oxidising substances. Strong reducing agents.
- **10.6 Hazardous decomposition products:**  
Decomposition can lead to the formation of toxic gases or fumes, including Carbon monoxide (CO). Carbon dioxide (CO<sub>2</sub>). Nitrous gases (NO<sub>x</sub>).

### SECTION 11: Toxicological information

- **11.1 Information on toxicological effects**
- **Acute toxicity**
- **LD/LC50 values relevant for classification:**
- 280-57-9 Triethylendiamin**
- Oral LD50 1700 mg/kg (rat)
- **Skin corrosion/irritation** Liquid may irritate skin.

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- **Serious eye damage/irritation** May cause temporary eye irritation.
- **Respiratory or skin sensitisation** No sensitising effects known.
- **Other information (about experimental toxicology):**  
Inhalation: Not relevant at normal room temperatures. When heated, irritating vapours may be formed.  
Ingestion: No harmful effects expected in amounts likely to be ingested by accident.
- **Additional toxicological information:**  
The product shows the following dangers according to the calculation method of the General EU Classification Guidelines for Preparations as issued in the latest version:  
Harmful  
Irritant

## SECTION 12: Ecological information

- **12.1 Toxicity**  
The product components are not classified as environmentally hazardous. However, this does not exclude the possibility that large or frequent spills can have a harmful or damaging effect on the environment.
- **Aquatic toxicity:** No further relevant information available.
- **12.2 Persistence and degradability** The product is expected to be biodegradable.
- **12.3 Bioaccumulative potential**  
The product does not contain any substances expected to be bioaccumulating.
- **12.4 Mobility in soil**  
The product contains substances, which are water soluble and may spread in water systems.
- **Additional ecological information:**
- **General notes:**  
Water hazard class 1 (German Regulation) (Self-assessment): slightly hazardous for water  
Do not allow undiluted product or large quantities of it to reach ground water, water course or sewage system.
- **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** Do not dispose to landfill or watercourses.
- **Recommendation:**  
Small amounts may be flushed with water to sewer. Larger volumes must be sent to approved plant for destruction.

## SECTION 14: Transport information

- |  |      |
|--|------|
| • <b>14.1 UN-Number</b>                  |      |
| • <b>ADR, IMDG, IATA</b>                 | Void |
| • <b>14.2 UN proper shipping name</b>    |      |
| • <b>ADR, IMDG, IATA</b>                 | Void |
| • <b>14.3 Transport hazard class(es)</b> |      |
| • <b>ADR, IMDG, IATA</b>                 |      |
| • <b>Class</b>                           | Void |

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|---|-----------------|
| <ul style="list-style-type: none"> <li>• <b>14.4 Packing group</b></li> <li>• <b>ADR, IMDG, IATA</b></li> </ul>                         | Void            |
| <ul style="list-style-type: none"> <li>• <b>14.5 Environmental hazards:</b></li> <li>• <b>Marine pollutant:</b></li> </ul>              | No              |
| <ul style="list-style-type: none"> <li>• <b>14.6 Special precautions for user</b></li> </ul>  | Not applicable. |
| <ul style="list-style-type: none"> <li>• <b>14.7 Transport in bulk according to Annex II of MARPOL73/78 and the IBC Code</b></li> </ul> | Not applicable. |
| <ul style="list-style-type: none"> <li>• <b>UN "Model Regulation":</b></li> </ul>   | -               |

### SECTION 15: Regulatory information

- **15.1 Safety, health and environmental regulations/legislation specific for the substance or mixture**
- **Directive 2012/18/EU**
- **Named dangerous substances - ANNEX I** None of the ingredients is listed.
- **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 and should assist the user with the safe handling of this material when properly applied. 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.  
 H314 Causes severe skin burns and eye damage.  
 .....  
 R22 Harmful if swallowed.  
 R34 Causes burns.
- **Department issuing MSDS:** Sales department
- **Contact:**  
 sales@agarscientific.com  
 Tel: +44 (0) 1279 813 519
- **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)  
 VOC: Volatile Organic Compounds (USA, EU)  
 LC50: Lethal concentration, 50 percent  
 LD50: Lethal dose, 50 percent  
 Acute Tox. 4: Acute toxicity, Hazard Category 4  
 Skin Corr. 1B: Skin corrosion/irritation, Hazard Category 1B  
 Eye Irrit. 2: Serious eye damage/eye irritation, Hazard Category 2

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