SAFETY DATA SHEET
Citifluor CFM-1 plus AF solution

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

1.1. Product identifier
Product name Citifluor CFM-1 plus AF solution

1.2. Relevant identified uses of the substance or mixture and uses advised against
Identified uses A buffered aqueous-glycerol amine solution for use in fluorescence microscopy.

1.3. Details of the supplier of the safety data sheet
Supplier Citifluor Ltd.
18 Enfield Cloisters
Fanshaw Street
London
N1 6LD
United Kingdom
Tel: +44 (0)20 7739 6561
Fax: +44 (0)20 7729 2936
Contact Person R Stephen Davidson
davidson@citifluor.co.uk

1.4. Emergency telephone number
+44 (0)207 739 6561
Note
Office hours only.

SECTION 2: HAZARDS IDENTIFICATION

2.1. Classification of the substance or mixture
Classification (EC 1272/2008)
Physical and Chemical Hazards
Not classified.
Human health
Eye Irrit. 2 - H319
Environment
Not classified.

Classification (1999/45/EEC) Xi;R36.
The Full Text for all R-Phrases and Hazard Statements are Displayed in Section 16.

2.2. Label elements
Label In Accordance With (EC) No. 1272/2008
**Citifluor CFM-1 plus AF solution**

**Signal Word Warning**

**Hazard Statements**

- **H319** Causes serious eye irritation.

**Precautionary Statements**

- **P101** If medical advice is needed, have product container or label at hand.
- **P264** Wash contaminated skin thoroughly after handling.
- **P305+351+338** IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
- **P337+313** If eye irritation persists: Get medical advice/attention.
- **P404** Store in a closed container.
- **P501** Dispose of contents/container in accordance with local regulations.

### 2.3. Other hazards

#### SECTION 3: COMPOSITION/INFORMATION ON INGREDIENTS

#### 3.2. Mixtures

<table>
<thead>
<tr>
<th>Ingredient</th>
<th>Concentration</th>
</tr>
</thead>
<tbody>
<tr>
<td>Glycerol</td>
<td>30-60%</td>
</tr>
<tr>
<td>CAS-No.: 56-81-5</td>
<td>EC No.: 200-289-5</td>
</tr>
<tr>
<td>Classification (67/548/EEC)</td>
<td>Not classified.</td>
</tr>
<tr>
<td>Registration Number: 01-2119471987-18-XXXX</td>
<td></td>
</tr>
</tbody>
</table>

| Pyridine N-oxide           | 30-60%        |
| CAS-No.: 694-59-7          | EC No.: 211-774-6 |
| Classification (EC 1272/2008)| Eye Irrit. 2 - H319 |
| Classification (67/548/EEC)| Xi;R36. |

| Triethylenediamine         | 1-5%          |
| CAS-No.: 280-57-9          | EC No.: 205-999-9 |
| Classification (EC 1272/2008)| Flam. Sol. 1 - H228 |
| Classification (67/548/EEC)| Xn;R22. |
| Classification (EC 1272/2008)| Acute Tox. 4 - H302 |
| Classification (67/548/EEC)| Xi;R36/38. |
| Classification (EC 1272/2008)| Skin Irrit. 2 - H315 |
| Classification (EC 1272/2008)| Eye Irrit. 2 - H319 |
| Classification (67/548/EEC)| |
| Classification (EC 1272/2008)| Aquatic Chronic 4 - H413 |
| Classification (67/548/EEC)| |

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

#### SECTION 4: FIRST AID MEASURES

#### 4.1. Description of first aid measures

**Inhalation**

Move the exposed person to fresh air at once. Rinse nose and mouth with water. Get medical attention if any discomfort continues.

**Ingestion**

NEVER MAKE AN UNCONSCIOUS PERSON VOMIT OR DRINK FLUIDS! Rinse mouth thoroughly. Get medical attention if any discomfort continues.
Citifluor CFM-1 plus AF solution

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.

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.

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

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

SECTION 5: FIREFIGHTING MEASURES

5.1. Extinguishing media
Extinguishing media
This product is not flammable. Use fire-extinguishing media appropriate for surrounding materials.
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
During fire, toxic gases (CO, CO2, NOx) are formed.
Unusual Fire & Explosion Hazards
No unusual fire or explosion hazards noted.

5.3. Advice for firefighters
Protective equipment for fire-fighters
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
Eye contact MUST be prevented by means of suitable personal protection equipment.

6.2. Environmental precautions
Do not allow ANY environmental contamination.

6.3. Methods and material for containment and cleaning up
Stop leak if possible without risk. Absorb in vermiculite, sand, diatomaceous earth or other inert absorbent material. Place into clearly labelled container for recovery or disposal (see section 13). Rinse site with copious amounts of water, which should not be allowed into drains, sewers or water courses.

6.4. Reference to other sections

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, cool and well-ventilated place. Keep away from food, drink and animal feeding stuffs.

7.3. Specific end use(s)

SECTION 8: EXPOSURE CONTROLS/PERSONAL PROTECTION
### 8.1. Control parameters

<table>
<thead>
<tr>
<th>Name</th>
<th>STD</th>
<th>TWA - 8 Hrs</th>
<th>STEL - 15 Min</th>
<th>Notes</th>
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<tbody>
<tr>
<td>glycerol</td>
<td>WEL</td>
<td>10 mg/m³</td>
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<td></td>
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</table>

WEL = Workplace Exposure Limit.

**glycerol (CAS: 56-81-5)**

<table>
<thead>
<tr>
<th></th>
<th>Long Term</th>
<th>Local Effects</th>
<th>Systemic Effects</th>
</tr>
</thead>
<tbody>
<tr>
<td>Industry</td>
<td>Inhalation.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Consumer</td>
<td>Inhalation.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Consumer</td>
<td>Oral</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

PNEC

<table>
<thead>
<tr>
<th></th>
<th>Industry</th>
<th>Consumer</th>
<th>Consumer</th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Inhalation.</td>
<td>Long Term</td>
<td>Local Effects</td>
<td>56 mg/m³</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Inhalation.</td>
<td>Long Term</td>
<td>Local Effects</td>
<td>33 mg/m³</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Oral</td>
<td>Long Term</td>
<td>Systemic Effects</td>
<td>229 mg/kg/day</td>
<td></td>
</tr>
</tbody>
</table>

**8.2. Exposure controls**

**Engineering measures**

Provide adequate general and local exhaust ventilation.

**Respiratory equipment**

If ventilation is insufficient suitable respiratory protection must be provided.

Seek advice and recommendations of the manufacturer or supplier of equipment

**Hand protection**

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.

**Eye protection**

Wear tightly fitting safety goggles conforming to EN 166.

**Other Protection**

Wear appropriate clothing to prevent any possibility of skin contact.

**Hygiene 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.

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**SECTION 9: PHYSICAL AND CHEMICAL PROPERTIES**

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

<table>
<thead>
<tr>
<th>Appearance</th>
<th>Clear colourless liquid.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Odour</td>
<td>Almost odourless.</td>
</tr>
<tr>
<td>Solubility</td>
<td>Completely soluble in water</td>
</tr>
<tr>
<td>pH-Value, Conc. Solution</td>
<td>ca. 10.5 @ 20°C</td>
</tr>
</tbody>
</table>

**9.2. Other information**

| Refractive Index                        | 1.5160 ± 0.005 @ 20°C |

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**SECTION 10: STABILITY AND REACTIVITY**

**10.1. Reactivity**

**10.2. Chemical stability**

Stable under normal conditions of storage and use. See section 7.

**10.3. Possibility of hazardous reactions**

Not known.
10.4. Conditions to avoid
Avoid exposure to high temperatures or direct sunlight.

10.5. Incompatible materials
Materials To Avoid
Acids, non-oxidising.

10.6. Hazardous decomposition products
Decomposition can lead to the formation of toxic gases or fumes, including carbon monoxide (CO) and carbon dioxide (CO2). Nitrous gases (NOx).

SECTION 11: TOXICOLOGICAL INFORMATION

11.1. Information on toxicological effects
Toxicological information
No data are available for this product. It has been classified according to the calculation procedure of the EC Dangerous Preparations Directive using known information and calculated data about the individual components then read across to the Classification, Labelling and Packaging of substances and mixtures directive (as amended).

Inhalation
Not relevant at normal room temperatures. When heated, irritating vapours may be formed.

Ingestion
May cause discomfort if swallowed.

Skin contact
May cause defatting of the skin, but is not an irritant. Not a skin sensitiser.

Eye contact
Irritating and may cause redness and pain.

SECTION 12: ECOLOGICAL INFORMATION

Ecotoxicity
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.

12.1. Toxicity
No data is available for this preparation. Classified according to the calculation procedure of the EC Dangerous Preparations Directive using known data and information about the individual components.

12.2. Persistence and degradability
Degradability
The product is expected to be biodegradable.

12.3. Bioaccumulative potential
Bioaccumulative potential
The product does not contain any substances expected to be bioaccumulating.

12.4. Mobility in soil
Mobility:
The product contains substances, which are water soluble and may spread in water systems.

12.5. Results of PBT and vPvB assessment
This product does not contain any PBT or vPvB substances.

12.6. Other adverse effects
The product may contribute to an excessive enrichment of the aquatic environment with nutrients.
SECTION 13: DISPOSAL CONSIDERATIONS

General information
Product is hazardous waste. Do not allow into drains, sewers or water courses.
Disposal must be by means of a licensed waste contractor.

13.1. Waste treatment methods
Small amounts may be flushed with water to sewer. Larger volumes must be sent to approved plant for destruction.

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.

14.3. Transport hazard class(es)
Not applicable.

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

Statutory Instruments
Control of Substances Hazardous to Health Regulations (as amended). (COSHH)
Carriage of Dangerous Goods and Use of Transportable Pressure Equipment Regulations 2007. (CDG 2009)
Management of Health & Safety at Work Regulations 1999.
Approved Code Of Practice
The Control of Substances Hazardous to Health Regulations 2002 (as amended). Approved code of practice and guidance.
Guidance Notes
Workplace Exposure Limits EH40.
CHIP for everyone HSG(108).
COSHH essentials. ‘Easy steps to control chemicals.’ Only available on HSE's website and regularly updated at http://www.hse.gov.uk/pubns/guidance/index.htm
EU Legislation


ADR (L’Accord européen relative au transport international des marchandises dangereuses par route.)

15.2. Chemical Safety Assessment

No chemical safety assessment has been carried out.

SECTION 16: OTHER INFORMATION

Revision Comments
Comprehensive revision.
New format SDS, including classification to CLP (EC 1272/2008).
And translated into the language of this document as of the date below.
Revision Date 29-APR-13
Revision 03 replaces 02
Supersedes date 23-JUN-04

Risk Phrases In Full
R22 Harmful if swallowed.
R11 Highly flammable
R36/38 Irritating to eyes and skin.
R36 Irritating to eyes.
R53 May cause long-term adverse effects in the aquatic environment.
NC Not classified.

Hazard Statements In Full
H319 Causes serious eye irritation.
H315 Causes skin irritation.
H228 Flammable solid.
H302 Harmful if swallowed.
H413 May cause long lasting harmful effects to aquatic life.

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.