



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.

Human health

May irritate eyes.

Environment

The product is not expected to be hazardous to the environment.

2.2. Label elements

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



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Signal Word	Warning	
Hazard Statements		
Precautionary Statements	H319	Causes serious eye irritation.
	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

glycerol	30-60%
CAS-No.: 56-81-5	EC No.: 200-289-5
Registration Number: 01-2119471987-18-XXXX	
Classification (EC 1272/2008) Not classified.	Classification (67/548/EEC) Not classified.
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 Acute Tox. 4 - H302 Skin Irrit. 2 - H315 Eye Irrit. 2 - H319 Aquatic Chronic 4 - H413	Classification (67/548/EEC) Xn;R22. Xi;R36/38. F;R11. R53.

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.

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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, NO_x) 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

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8.1. Control parameters

Name	STD	TWA - 8 Hrs		STEL - 15 Min		Notes
glycerol	WEL		10 mg/m3			

WEL = Workplace Exposure Limit.

glycerol (CAS: 56-81-5)

DNEL					
Industry	Inhalation.	Long Term	Local Effects	56 mg/m3	
Consumer	Inhalation.	Long Term	Local Effects	33 mg/m3	
Consumer	Oral	Long Term	Systemic Effects	229 mg/kg/day	
PNEC					
Freshwater	0.885	mg/l			
Marinewater	88.5	µg/l			
Sediment (Marinewat	8.85	mg/l			
Water	1000	mg/l			
Sediment (Freshwate	3.3	mg/kg			
Sediment (Marinewat	0.33	mg/kg			
Soil	0.141	mg/kg			

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.

SECTION 9: PHYSICAL AND CHEMICAL PROPERTIES

9.1. Information on basic physical and chemical properties

Appearance	Clear colourless liquid.
Odour	Almost odourless.
Solubility	Completely soluble in water
pH-Value, Conc. Solution	ca. 10.5 @ 20°C

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.

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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 (NO_x).

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.

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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

Chemicals (Hazard Information and Packaging for Supply) Regulations 2009 SI No 716. (CHIP4).

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.

Fifth Edition 2005. HSE Books, or download at: <http://www.hse.gov.uk/pubns/priced/I5.pdf>

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>

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EU Legislation

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), establishing a European Chemicals Agency, amending Directive 1999/45/EC and repealing Council Regulation (EEC) No 793/93 and Commission Regulation (EC) No 1488/94 as well as Council Directive 76/769/EEC and Commission Directives 91/155/EEC, 93/67/EEC, 93/105/EC and 2000/21/EC, including amendments.

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.

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.