



SAFETY DATA SHEET

Citifluor AF300 Antifadent Solution

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

1.1 Product identifier

Product name Citifluor AF300 Antifadent Solution

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

Identified uses: A glycerol-amine solution for use in fluorescence microscopy
Uses advised against: Any use other than those identified.

1.3 Details of the supplier of the safety data sheet

Supplier Citifluor, A Division of Electron Microscopy Sciences
1560 Industry Road
P.O. Box 550
Hatfield, PA 19440
USA
Tel: 215-412-8400
Fax: 215-412-8450

Contact Person Stacie Kirsch
sgkcck@aol.com

1.4. Emergency telephone number

215-412-8400

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	Acute Tox. 4 – H302; Skin Irrit.2-H315;Eye Irrit. 2 H319
Environment	Aquatic Chronic 4 – H413

Classification (1999/45/EEC)

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

Human Health

May cause temporary irritation on skin or eye contact.

Environment

The product contains a substance which may cause long term adverse effects in the aquatic environment

2.2 Label elements

Label in Accordance with (EC) No. 1272/2008

Hazard Statements

H302	Harmful if swallowed
H315	Causes skin irritation
H319	Causes serious eye irritation
H413	May cause long lasting harmful effects to aquatic life.

Precautionary Statements

P273	Avoid release to the environment.
P280	Wear protective clothing
P305+351+338	IF ON EYES: Rinse cautiously with water for several minutes Remove contact lenses if present and easy to do. Continue rinsing.
P301+330+331+313	If Swallowed: Rinse mouth. DO NOT induce vomiting. Get Medical advice/attention
P404	Store in a closed container
P501	Dispose of contents/container in accordance with local regulations.

Supplementary Precautionary Statements

P270	Do not eat, drink or smoke when using this product.
P264	Wash contaminated skin thoroughly after handling

2.3 Other hazards

SECTION 3: COMPOSITION/INFORMATION ON INGREDIENTS

3.2 Mixtures

Glycerol 90-99%
CAS-No: 56-81-5 EC No: 200-289-5

Classification (EC 1272/2008) Not classified
Classification (67/548/EEC) Not classified

Triethylenediamine 1-10%
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

Aquatic Chronic 4 –H413

Classification (EC 1272/2008)

Xn;R22

Xi;R36/38

F;R11, R53

SECTION 4: FIRST AID MEASURES

4.1 Description of first aid measures

Inhalation

If unconscious, place the patient on their side in the recovery position and ensure they are breathing. Clean nose and mouth with water. Artificial respiration may be administered by suitably qualified first-aiders if the patient is unconscious or breathing is difficult. Get immediate medical attention..

Ingestion

If swallowed do NOT induce vomiting. Never give anything by mouth to an unconscious person. If person vomits, keep head low to prevent vomit entering the lungs. Rinse mouth thoroughly. Get medical attention if symptoms persist. Keep patient at rest

Skin contact

Remove affected person from source of contamination. Remove contaminated clothing and shoes. Wash the skin immediately with soap and water. Take especial care to clean folds, crevices, crease and groin. Get medical attention if irritation persists or develops..

Eye contact

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

Extinguish with foam, carbon dioxide, dry powder or water fog
Unsuitable extinguishing media
Do not use a water jet as this may spread the fire

5.2 Special hazards arising from the substance or mixture

Hazardous combustion products
If heated, vapours/gases hazardous to health (e.g. CO, NO_x, isocyanates) may be formed.
Unusual Fire & Explosion Hazards
No unusual fire or explosion hazards noted.
Specific Hazards
In case of fire, toxic and corrosive gases may form.

5.3 Advice for fire-fighters

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

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 water courses.

6.4 Reference to other sections

Use in a well ventilated area.

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 container in a dry and cool place. Keep away from food, drink and animal feeding stuffs. Do not store with strong acids.

7.3 Specific end use(s)

SECTION 8: EXPOSURE CONTROLS/PERSONAL PROTECTION

8.1 Control parameters

Name	STD	TWA -8hrs	STEL – 15min
glycerol	WEL	10mg/m ³	

WEL = Workplace Exposure Limit

8.2 Exposure controls

Engineering measures

Provide adequate ventilation. Observe occupational exposure limits and minimise the risk of inhalation of vapours.

Respiratory equipment

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

Hand protection

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

Eye protection

Use approved safety goggles or face shield.

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	Slight musty (mouldy) odour
Solubility	Fully miscible with water
Initial boiling point and boiling range (°C)	>100°C

9.2 Other information

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 heat in any form including sunlight

10.5 Incompatible materials

Strong oxidising agents and acids

10.6 Hazardous decomposition products

Decomposition can lead to vapours/gases hazardous to health (e.g. CO, NOx, isocyanates) being formed.

SECTION 11: TOXICOLOGICAL INFORMATION

11.1 Information on toxicological effects

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 individual components then read across to the Classification, Labelling and Packaging substances and mixtures directive (as amended).

Inhalation

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

Ingestion

Harmful if swallowed

Skin Contact

Liquid may irritate the skin

Eye contact

May cause severe irritation to the eyes. Visual disturbances including blurred vision.

Target Organs

Skin, eyes

SECTION 12: ECOLOGICAL INFORMATION

Ecotoxicity

The product contains substances, which may cause long term adverse effects in the aquatic environment

12.1 Toxicity

May decrease acidity of aquatic systems to pH >10 which is toxic to aquatic organisms

12.2 Persistence and degradability

Degradability

This product is expected to be biodegradable

12.3 Bioaccumulative potential

Bio-accumulative potential

This product does not contain any substances expected to be bioaccumulating

12.4 Mobility in soil

Mobility:

This product is completely water soluble and therefore may spread into 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

SECTION 13: DISPOSAL CONSIDERATIONS

General information

Do not dispose to landfill 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)

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 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/15.pdf>

Guidance notes

COSHH essentials. 'Easy steps to control chemicals'. Only available on HSE's website and regularly updated at

<http://www.hse.gov.uk/pubns/guidance/inex.htm>

CHIP for everyone HSG(108).

EU legislation

Regulation (EC) No 1907/2006 of the European Parliament and 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	02Sept-13
Revision	03 replaces 02
Supersedes date	06-June-08
Risk phrases in full	
R22	Harmful if swallowed
R11	Highly flammable
R36/38	Irritating to eyes and skin
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.