



## SAFETY DATA SHEET

### Citifluor MWL 4-88 solution

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

##### 1.1. Product identifier

Product name Citifluor MWL 4-88 solution

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

Identified uses An aqueous polymer solution for use in fluorescence microscopy.

##### 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  
Email: sgkckck@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 Not classified.

Environment Not classified.

Classification (1999/45/EEC) Not classified.

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

Human health

May be slightly irritating to skin and 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

No pictogram required.

Precautionary Statements

P101 If medical advice is needed, have product container or label at hand.

P264 Wash contaminated skin thoroughly after handling.

P314 Get medical advice/attention if you feel unwell.

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P404  
P501

Store in a closed container.  
Dispose of contents/container in accordance with local regulations.

## 2.3. Other hazards

### SECTION 3: COMPOSITION/INFORMATION ON INGREDIENTS

#### 3.2. Mixtures

glycerol			10-30%
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.		
tris(hydroxymethyl)aminomethane hydrochloride			<5%
CAS-No.: 1185-53-1	EC No.: 214-684-5		
Classification (EC 1272/2008) Skin Irrit. 2 - H315 Eye Irrit. 2 - H319	Classification (67/548/EEC) Xi;R36/38.		

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

##### General information

Remove affected person from source of exposure. Provide fresh air, first-aid, warmth and rest.

Never give victim anything to drink if they are unconscious.

##### Inhalation

Provide rest, warmth and fresh air. Get medical attention if any discomfort continues.

##### Ingestion

If swallowed do NOT induce vomiting. Never give anything by mouth to an unconscious person. If vomiting occurs, keep head low so that stomach contents do not enter lungs.

Rinse mouth thoroughly and seek medical attention immediately. Keep patient at rest.

##### Skin contact

Remove contaminated clothing and shoes. Wash skin thoroughly with soap and running water. Take especial care to clean folds, crevices, creases and groin.

Get medical attention if irritation persists or develops.

Launder clothing and clean shoes thoroughly before reuse.

##### 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

Use fire-extinguishing media appropriate for surrounding materials.

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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, CO<sub>2</sub>, NO<sub>x</sub>) 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

Wear protective clothing (see Section 8). Keep unnecessary people at a safe distance.

### 6.2. Environmental precautions

Cover all drains and sewers. Avoid spreading spilled material.

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

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. Normal precautions necessary for the handling of all chemicals and the information and advice provided in this safety data sheet (SDS) should be observed.

### 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

Name	STD	TWA - 8 Hrs		STEL - 15 Min		Notes
glycerol	WEL		10 mg/m <sup>3</sup>			

WEL = Workplace Exposure Limit.

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glycerol (CAS: 56-81-5)

DNEL				
Industry	Inhalation.	Long Term	Local Effects	56 mg/m <sup>3</sup>
Consumer	Inhalation.	Long Term	Local Effects	33 mg/m <sup>3</sup>
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

In case of inadequate ventilation use suitable respirator.

### Hand protection

Avoid prolonged or repeated contact, use suitable protective gloves made of Butyl rubber. Nitrile. After using gloves the hands should be washed and dried thoroughly and a suitable moisturiser applied.

### Eye protection

Wear goggles/face shield.

### Hygiene measures

Wash hands at the end of each work shift and before eating, smoking and using the toilet. Wash promptly if skin becomes contaminated. Promptly remove any clothing that becomes contaminated.

## SECTION 9: PHYSICAL AND CHEMICAL PROPERTIES

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

Appearance	Viscous liquid.
Colour	Clear Colourless.
Odour	Odourless.
Solubility	Completely soluble in water
pH-Value, Conc. Solution	ca. 8.5 @ 20°C

### 9.2. Other information

Refractive Index	1.3850 ± 0.005 @ 22°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

### 10.4. Conditions to avoid

Protect from sunlight, open flames, sources of heat and humidity.

### 10.5. Incompatible materials

#### Materials To Avoid

Acids, non-oxidising. Bases, alkalis (inorganic).

### 10.6. Hazardous decomposition products

During fire, toxic gases (CO, CO<sub>2</sub>, NO<sub>x</sub>) are formed.

## SECTION 11: TOXICOLOGICAL INFORMATION

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## 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).

### General information

This product has low toxicity. Only large volumes may have adverse impact on human health.

No ill effects are expected if this product is used for its intended purpose or when processing and handling it with the normal precautions employed in the use of chemicals.

### Inhalation

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

### Ingestion

May cause discomfort if swallowed.

### Skin contact

Skin irritation is not anticipated when used normally. Not a skin sensitiser.

### Eye contact

Splashes may irritate.

## 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

## SECTION 13: DISPOSAL CONSIDERATIONS

### General information

Do not dispose to landfill or watercourses. 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.

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## 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)

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/l15.pdf>

Guidance Notes

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>

Maintenance, examination and testing of local exhaust ventilation HSG154 (HSE 1998).

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.)

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## 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 29APR-13

Revision 03 replaces 02

Supersedes date 08-JUL-08

#### Risk Phrases In Full

R36/38 Irritating to eyes and skin.

NC Not classified.

#### Hazard Statements In Full

H319 Causes serious eye irritation.

H315 Causes skin irritation.

#### 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.