

**Material Safety Data Sheet**  
According to 91/155 EEC

Printing date 30.11.2006

Reviewed on 30.11.2006

**1 Identification of substance:****Trade name: Fi-CLOR ULTRA CONCENTRATED ALGICIDE****Article number:** 11108 Fi-Clor**Application of the substance / the preparation**

Algicide

Biocide

**Manufacturer/Supplier:**ARCH WATER PRODUCTS FRANCE  
BP 219 - 37402 Amboise Cedex - FRANCE  
phone : +33 (0)2 47 23 43 00  
fax : +33 (0)2 47 23 12 21  
mail : archwpf@archchemicals.com**Further information obtainable from:**ARCH CHEMICALS Ltd  
Wheldon Road - Castleford - West Yorkshire WF10 2JT - ENGLAND  
Telephone: + 44 (0) 1977 714 100  
Fax: + 44 (0) 1977 714 006**Information in case of emergency:**ACEAN (Arch Chemicals Emergency Action Network) - Tel. +1 423 780 2970  
CALL A LOCAL NATIONAL POISON CONTROL UNIT  
FOR UK CONTACT NCEC Tel 01865 407 333**2 Composition/Data on components:****Chemical characterization****Description:** Mixture of substances listed below with nonhazardous additions.**Dangerous components:**

25988-97-0 Polymerised quaternary Ammonium compound

Xn, Xi, N; R 22-36/38-50/53 10-25%

**Additional information** For the wording of the listed risk phrases refer to section 16.**3 Hazard identification****Hazard description:**

Xi Irritant

N Dangerous for the environment

**Information concerning to particular hazards to man 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.

R 36/38 Irritating to eyes and skin.

R 50/53 Very toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment.

**Classification system**

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

**4 First aid measures****After inhalation** In case of unconsciousness place patient stably in side position for transportation.**After skin contact**

Rinse with warm water.

Immediately wash with water and soap and rinse thoroughly.

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Immediately rinse with water.

**After eye contact** Rinse opened eye for several minutes under running water. If symptoms persist, consult a doctor.

**After swallowing** If symptoms persist consult doctor.

### 5 Fire fighting measures

**Suitable extinguishing agents** Water spray

**Protective equipment:** No special measures required.

### 6 Accidental release measures

**Person-related safety precautions:** Not required.

**Measures for environmental protection:**

Keep contaminated washing water and dispose of appropriately.

Do not allow product to reach sewage system or any water course.

Inform respective authorities in case of seepage into water course or sewage system.

Dilute with plenty of water.

**Measures for cleaning/collecting:**

Absorb with liquid-binding material (sand, diatomite, acid binders, universal binders, sawdust).

### 7 Handling and storage

#### Handling

**Information for safe handling:** No special precautions are necessary if used correctly.

**Information about fire - and explosion protection:** No special measures required.

#### Storage

**Requirements to be met by storerooms and receptacles:** Store only in unopened original receptacles.

**Information about storage in one common storage facility:** Not required.

**Further information about storage conditions:** Keep receptacle tightly sealed.

### 8 Exposure controls and personal protection gear

**Additional information about design of technical facilities:** No further data; see item 7.

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

The product does not contain any relevant quantities of materials with critical values that have to be monitored at the workplace.

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

#### Personal protective equipment

##### General protective and hygienic measures

Keep away from foodstuffs, beverages and feed.

Immediately remove all soiled and contaminated clothing

Wash hands before breaks and at the end of work.

Avoid contact with the eyes and skin.

**Respiratory protection:** Not required.

##### Protection of hands:



Protective gloves.

The glove material has to be impermeable and resistant to the product/ the substance/ the preparation.

Due to missing tests no recommendation to the glove material can be given for the product/ the preparation/ the chemical mixture.

Selection of the glove material on consideration of the penetration times, rates of diffusion and the degradation

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**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.

## 9 Physical and chemical properties:

**General Information**

<b>Form:</b>	Viscous
<b>Colour:</b>	Dark blue
<b>Odour:</b>	Characteristic

**Change in condition**

<b>Melting point/Melting range:</b>	undetermined
<b>Boiling point/Boiling range:</b>	100°C

<b>Flash point:</b>	Not applicable
<b>Self-igniting:</b>	Product is not selfigniting.
<b>Danger of explosion:</b>	Product does not present an explosion hazard.
<b>Vapour pressure at 20°C:</b>	23 hPa
<b>Density at 20°C:</b>	1.072 g/cm <sup>3</sup>
<b>Solubility in / Miscibility with Water:</b>	Fully miscible
<b>pH-value at 20°C:</b>	7.2
<b>Solvent content:</b>	
<b>Organic solvents:</b>	0.0 %
<b>Water:</b>	75.0 %

## 10 Stability and reactivity

**Thermal decomposition / conditions to be avoided:** No decomposition if used according to specifications.

**Dangerous reactions** No dangerous reactions known

**Dangerous decomposition products:** No dangerous decomposition products known

## 11 Toxicological information

**Acute toxicity:****LD/LC50 values relevant for classification:**

Oral	LD50	3813 mg/kg (rat)
Dermal	LD50	> 4090 mg/kg (rabbit)

**25988-97-0 Polymerised quaternary Ammonium compound**

Oral	LD50	1865 mg/kg (rat)
Dermal	LD50	> 2000 mg/kg (rabbit)

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**Primary irritant effect:****on the skin:** Irritant to skin and mucous membranes.**on the eye:** Irritating effect.**Sensitization:** No sensitizing effects known.**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.

Irritant

**12 Ecological information:****Ecotoxicological effects:****Acquatic toxicity:**Oral LC50 - 96 hrs 0.572 mg/l (bluegill sunfish)  
0.145 mg/l (rainbow trout)**25988-97-0 Polymerised quaternary Ammonium compound**Oral LC50 - 96 hrs 0.28 mg/l (bluegill sunfish)  
0.0709 mg/l (rainbow trout)**Remark:** Very toxic for fish**General notes:**

Generally not hazardous for water.

Also poisonous for fish and plankton in water bodies.

Very toxic for aquatic organisms

**13 Disposal considerations****Product:****Recommendation**

Must be specially treated adhering to official regulations.

Must not be disposed together with household garbage. Do not allow product to reach sewage system.

**Uncleaned packaging:****Recommendation:** Disposal must be made according to official regulations.**Recommended cleansing agents:** Water, if necessary together with cleansing agents.**14 Transport information****Land transport ADR/RID (cross-border)****ADR/RID class:** 9 Miscellaneous dangerous substances and articles.**Danger code (Kemler):** 90**UN-Number:** 3082**Description of goods:** 3082 Environmentally hazardous substance, liquid, n.o.s., mixture**Maritime transport IMDG:****IMDG Class:** 9**UN Number:** 3082**Packaging group:** III**EMS Number:** F-A,S-F**Marine pollutant:** No**Proper shipping name:** ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S., mixture**Air transport ICAO-TI and IATA-DGR:****ICAO/IATA Class:** 9

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**UN/ID Number:** 3082**Packaging group:** III**Proper shipping name:** ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S., mixture

## 15 Regulations

### Labelling according to EU guidelines:

The product has been classified and marked in accordance with EU Directives / Ordinance on Hazardous Materials

#### Code letter and hazard designation of product:



Xi Irritant

N Dangerous for the environment

#### Hazard-determining components of labelling:

Polymerised quaternary Ammonium compound

#### Risk phrases:

36/38 Irritating to eyes and skin.

50/53 Very toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment.

#### Safety phrases:

2 Keep out of the reach of children.

26 In case of contact with eyes, rinse immediately with plenty of water and seek medical advice.

28 After contact with skin, wash immediately with plenty of water.

29 Do not empty into drains.

46 If swallowed, seek medical advice immediately and show this container or label.

60 This material and its container must be disposed of as hazardous waste.

61 Avoid release to the environment. Refer to special instructions/safety data sheets.

### National regulations

**Waterhazard class:** Generally not hazardous for water.

## \* 16 Other information:

This information is based on our present knowledge. However, this shall not constitute a guarantee for any specific product features and shall not establish a legally valid contractual relationship.

#### Relevant R-phrases

22 Harmful if swallowed.

36/38 Irritating to eyes and skin.

50/53 Very toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment.

\* **Data compared to the previous version altered.**