**1 Identification of the substance/mixture and of the company/undertaking**

1.1 Product identifier

**Trade name:** Fi-CLOR™ ULTRA CONCENTRATED ALGICIDE

**Article number:** 11108 FiClor

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

**Sector of Use** SU21  Consumer uses: Private households / general public / consumers

**Product category**
- PC37  Water treatment chemicals
- PC8  Biocidal products (e.g. Disinfectants, pest control)

**Application of the substance / the preparation**
- Algicide
- Biocide

1.3 Details of the supplier of the safety data sheet

**Manufacturer/Supplier:**
- Arch Water Products France now part of LONZA MICROBIAL CONTROL
- BP 219 - 37402 Amboise Cedex - FRANCE
- phone: +33 (0)2 47 23 43 00
- fax: +33 (0)2 47 23 12 21
- framsds-reach.france.euwater@lonza.com

**Further information obtainable from:**
- ARCH CHEMICALS Ltd now part of LONZA MICROBIAL CONTROL
- Wheldon Road - Castleford - West Yorkshire WF10 2JT - ENGLAND
- Telephone: + 44 (0) 1977 714 100
- Fax: + 44 (0) 1977 714 002

1.4 Emergency telephone number:

Europe  >>> NCEC - Tel. +44 (0)1235 239 670

Africa & Middle East  >>> NCEC - Tel. +44 (0)1235 239 671

N.AMERICA  >>> 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 Hazards identification**

2.1 Classification of the substance or mixture

**Classification according to Regulation (EC) No 1272/2008**

GHS09 environment

Aquatic Chronic 1 H410 Very toxic to aquatic life with long lasting effects.

(Contd. on page 2)
Trade name: **Fi-CLOR™ ULTRA CONCENTRATED ALGICIDE**

---

**Classification according to Directive 67/548/EEC or Directive 1999/45/EC**

**Xi; Irritant**

R36/38: Irritating to eyes and skin.

N; Dangerous for the environment

R50/53: Very toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment.

Information concerning particular hazards for human 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.

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

---

**2.2 Label elements**

Labelling according to Regulation (EC) No 1272/2008

The product is classified and labelled according to the CLP regulation.

**Hazard pictograms**

GHS07 GHS09

**Signal word** Warning

**Hazard statements**

H315 Causes skin irritation.

H319 Causes serious eye irritation.

H410 Very toxic to aquatic life with long lasting effects.

**Precautionary statements**

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

P102 Keep out of reach of children.

P103 Read label before use.

P264 Wash thoroughly after handling.

P273 Avoid release to the environment.

P280 Wear protective gloves/protective clothing/eye protection/face protection.

P302+P352 IF ON SKIN: Wash with plenty of soap and water.

P305+P351+P338 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.

P332+P313 If skin irritation occurs: Get medical advice/attention.

P337+P313 If eye irritation persists: Get medical advice/attention.

P362 Take off contaminated clothing and wash before reuse.

P391 Collect spillage.

P501 Dispose of contents/container in accordance with local/regional/national/international regulations.

---

**2.3 Other hazards**

Results of PBT and vPvB assessment

**PBT:** Not applicable.

**vPvB:** Not applicable.

---

(Contd. on page 3)
Safety data sheet
according to 1907/2006/EC, Article 31

Printing date 17.04.2012
Rev. Index : 9
Revision: 17.04.2012

Trade name: Fi-CLOR™ ULTRA CONCENTRATED ALGICIDE

3 Composition/information on ingredients

3.2 Chemical characterization: Mixtures
Description: Mixture of substances listed below with nonhazardous additions.

Dangerous components:

- 25988-97-0 Polymerised quaternary Ammonium compound
  - Xn R22; Xi R36/38; N R50/53
  - Aquatic Acute 1, H400; Aquatic Chronic 1, H410; Acute Tox. 4, H302; Skin Irrit. 2, H315; Eye Irrit. 2, H319
  - 20-25%

Additional information: For the wording of the listed risk phrases refer to section 16.

4 First aid measures

4.1 Description of 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.
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.

4.2 Most important symptoms and effects, both acute and delayed:
No further relevant information available.

4.3 Indication of any immediate medical attention and special treatment needed:
No further relevant information available.

5 Firefighting measures

5.1 Extinguishing media
Suitable extinguishing agents: Water spray

5.2 Special hazards arising from the substance or mixture:
No further relevant information available.

5.3 Advice for firefighters
Protective equipment: No special measures required.

6 Accidental release measures

6.1 Personal precautions, protective equipment and emergency procedures:
Not required.

6.2 Environmental precautions:
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.

6.3 Methods and material for containment and cleaning up:
Absorb with liquid-binding material (sand, diatomite, acid binders, universal binders, sawdust).

6.4 Reference to other sections:
See Section 8 for information on personal protection equipment.
See Section 13 for disposal information.

7 Handling and storage

7.1 Precautions for safe handling:
No special precautions are necessary if used correctly.

Handling:

- DO NOT MIX WITH OTHER PRODUCTS
- DO NOT DILUTE BEFORE USE
Trade name: **Fi-CLOR™ ULTRA CONCENTRATED ALGICIDE**

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

**7.2 Conditions for safe storage, including any incompatibilities**

**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.

**7.3 Specific end use(s)**

No further relevant information available.

---

### 8 Exposure controls/personal protection

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

**8.1 Control parameters**

**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.

**8.2 Exposure controls**

**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

**Material of gloves**

Rubber gloves

**Penetration time of glove material**

The exact break trough 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

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

**General Information**

**Appearance:**

- **Form:** Viscous
- **Colour:** Dark blue
- **Odour:** Characteristic

**pH-value at 20°C:** 7.2

**Change in condition**

**Melting point/Melting range:** undetermined
Trade name: **Fi-CLOR™ ULTRA CONCENTRATED ALGICIDE**

---

34.0

Boiling point/Boiling range: 100°C

Flash point: Not applicable

Self-igniting: Product is not self-igniting.

Danger of explosion: Product does not present an explosion hazard.

Vapour pressure at 20°C: 23 hPa

Density at 20°C: 1.072 g/cm³

Solubility in / Miscibility with Water: Fully miscible

Solvent content:
- Organic solvents: 0.0 %
- Water: 75.0 %

9.2 Other information
No further relevant information available.

---

10 Stability and reactivity

10.1 Reactivity

10.2 Chemical stability

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

10.3 Possibility of hazardous reactions
No dangerous reactions known

10.4 Conditions to avoid
No further relevant information available.

10.5 Incompatible materials: No further relevant information available.

10.6 Hazardous decomposition products: No dangerous decomposition products known

---

11 Toxicological information

11.1 Information on toxicological effects

**Acute toxicity**:

LD/LC50 values relevant for classification:

25988-97-0 Polymerised quaternary Ammonium compound

Oral  LD50 1865 mg/kg (rat)

Dermal  LD50 > 2000 mg/kg (rabbit)

**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

12.1 Toxicity

**Aquatic toxicity**:

25988-97-0 Polymerised quaternary Ammonium compound

Oral  LC50 - 96 hrs  0.28 mg/l (bluegill sunfish)

0.0709 mg/l (rainbow trout)
Trade name: **Fi-CLOR™ ULTRA CONCENTRATED ALGICIDE**

12.2 Persistence and degradability  No further relevant information available.
12.3 Bioaccumulative potential  No further relevant information available.
12.4 Mobility in soil  No further relevant information available.

**Ecotoxical effects:**

**Remark:** Very toxic for fish

**Additional ecological information:**

**General notes:**
- Generally not hazardous for water.
- Also poisonous for fish and plankton in water bodies.
- Very toxic for aquatic organisms

12.5 Results of PBT and vPvB assessment

**PBT:** Not applicable.
**vPvB:** Not applicable.

12.6 Other adverse effects  No further relevant information available.

### 13 Disposal considerations

13.1 Waste treatment methods

**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.
- Packagings that may not be cleansed are to be disposed of in the same manner as the product.

**Recommended cleansing agents:** Water, if necessary together with cleansing agents.

### 14 Transport information

14.1 UN-Number

ADR, IMDG, IATA  3082

14.2 UN proper shipping name

ADR  3082 ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (Polymerised quaternary Ammonium compound)

IMDG, IATA  ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (Polymerised quaternary Ammonium compound)

14.3 Transport hazard class(es)

**ADR**

<table>
<thead>
<tr>
<th>Class</th>
<th>Label</th>
</tr>
</thead>
<tbody>
<tr>
<td>9 (M6) Miscellaneous dangerous substances and articles.</td>
<td>9</td>
</tr>
</tbody>
</table>

**IMDG, IATA**

<table>
<thead>
<tr>
<th>Class</th>
<th>Label</th>
</tr>
</thead>
<tbody>
<tr>
<td>9 Miscellaneous dangerous substances and articles.</td>
<td>9</td>
</tr>
</tbody>
</table>

14.4 Packing group

**ADR, IMDG, IATA**  III

(Contd. on page 7)
Trade name: **Fi-CLOR™ ULTRA CONCENTRATED ALGICIDE**

14.5 Environmental hazards:

Marine pollutant: Symbol (fish and tree)
Special marking (ADR): Symbol (fish and tree)
Special marking (IATA): Symbol (fish and tree)

14.6 Special precautions for user

Warning: Miscellaneous dangerous substances and articles.

Danger code (Kepler): 90

EMS Number: F-A,S-F

14.7 Transport in bulk according to Annex II of MARPOL73/78 and the IBC Code

Not applicable.

Transport/Additional information:

ADR
Exempted quantities (EQ): E1
Limited quantities (LQ): LQ7
Tunnel restriction code: E
UN "Model Regulation": UN3082, ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S., 9

15 Regulatory information

**Directive 98/8/EC**
Best before: see date on packaging
Providing this container when empty is thoroughly rinsed out in the pool, it may be disposed of via the recycling scheme

15.1 Safety, health and environmental regulations/legislation specific for the substance or mixture

National regulations

**Waterhazard class:** Water danger class 3 (Self-assessment): extremely hazardous for water.

15.2 Chemical safety assessment:
A Chemical Safety Assessment has not been carried out.

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 phrases**

H302 Harmful if swallowed.
H315 Causes skin irritation.
H319 Causes serious eye irritation.
H400 Very toxic to aquatic life.
H410 Very toxic to aquatic life with long lasting effects.
H401 Harmful if inhaled.
R22 Harmful if swallowed.
R36/38 Irritating to eyes and skin.
R50/53 Very toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment.

**Abbreviations and acronyms:**

ADR: Accord européen sur le transport des marchandises dangereuses par Route (European Agreement concerning the International Carriage of Dangerous Goods by Road)
RID: Règlement international concernant le transport des marchandises dangereuses par chemin de fer (Regulations Concerning the International Transport of Dangerous Goods by Rail)
IMDG: International Maritime Code for Dangerous Goods
IATA: International Air Transport Association
ICAO: International Civil Aviation Organization
GHS: Globally Harmonized System of Classification and Labelling of Chemicals
LC50: Lethal concentration, 50 percent
LD50: Lethal dose, 50 percent

* Data compared to the previous version altered.