

Material Safety Data Sheet
According to 91/155 EEC

Printing date 25.11.2004

Reviewed on 25.11.2004

*** 1 Identification of substance:****Trade name: Fi-CLOR PREMIUM 5 TABLETS****Article number:** 11702 Fi-Clor**Application of the substance / the preparation**Water treatment
Water disinfectant**Manufacturer/Supplier:**ARCH CHEMICALS Ltd
Wheldon Road - Castleford - West Yorkshire WF10 2JT - ENGLAND
Telephone: + 44 (0) 1977 714 100
Fax: + 44 (0) 1977 712 456**Further information obtainable from:**CALL A LOCAL NATIONAL POISON CONTROL UNIT OR
ARCH USA CHEMICALS EMERGENCY 24 HOUR TEL No. + 1-423-780-2970
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:**

CAS: 87-90-1	trichloroisocyanuric acid	Xn, O, N; R 8-22-31-36/37-50/53	50-100%
EINECS: 201-782-8			
CAS: 7758-98-7	copper sulphate	Xn, N; R 22-36/38-50/53	< 2.5%
EINECS: 231-847-6			
CAS: 10043-01-3	aluminium sulphate	Xi; R 41	< 2.5%
EINECS: 233-135-0			

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

R 31 Contact with acids liberates toxic gas.

R 36/37 Irritating to eyes and respiratory system.

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

Warning! Do not use together with other products. May release dangerous gases (chlorine).

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**General information**

Take affected persons out into the fresh air.

Symptoms of poisoning may even occur after several hours; therefore medical observation for at least 48 hours after the accident.

After inhalation Supply fresh air; consult doctor in case of complaints.**After skin contact** Rinse with warm water.**After eye contact** Rinse opened eye for several minutes under running water. If symptoms persist, consult a doctor.**After swallowing** Call for a doctor immediately.**5 Fire fighting measures****Suitable extinguishing agents** Water spray

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For safety reasons unsuitable extinguishing agents Extinguishing powder.
Special hazards caused by the substance, its products of combustion or resulting gases:
 During heating or in case of fire poisonous gases are produced.
Protective equipment: Mount respiratory protective device.

6 Accidental release measures

Person-related safety precautions: Mount respiratory protective device.
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.
 Do not allow to enter sewers/ surface or ground water.
Measures for cleaning/collecting:
 Dispose contaminated material as waste according to item 13.
 Ensure adequate ventilation.

7 Handling and storage

Handling

Information for safe handling: No special precautions are necessary if used correctly.
Information about fire - and explosion protection:
 Substance/product is oxidizing when dry.
 Keep respiratory protective device available.

Storage

Requirements to be met by storerooms and receptacles: Store only in unopened original receptacles.
Information about storage in one common storage facility:
 Store away from flammable substances.
 Store away from reducing agents.
 Do not store together with acids.
Further information about storage conditions:
 Keep receptacle tightly sealed.
 Store in cool, dry conditions in well sealed receptacles.

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:

10043-01-3 aluminium sulphate

OES Long-term value: 2 mg/m³

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.
 Avoid contact with the eyes and skin.

Respiratory protection:

In case of brief exposure or low pollution use respiratory filter device. In case of intensive or longer exposure use self-contained respiratory protective device.

Protection of hands:

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

Chloroprene rubber, CR

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 trough time has to be found out by the manufacturer of the protective gloves and has to be observed.

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Eye protection:

Tightly sealed goggles.

Body protection: Protective work clothing.

9 Physical and chemical properties:

General Information

Form: Tablets
Colour: White
Odour: Chlorine-like

Change in condition

Melting point/Melting range: undetermined
Boiling point/Boiling range: undetermined

Flash point: Not applicable**Ignition temperature:****Decomposition temperature:** 220 - 230°C**Self-igniting:** Product is not selfigniting.**Danger of explosion:** Product does not present an explosion hazard.**Density at 20°C:** 1.9 g/cm³

**Solubility in / Miscibility with
 Water at 20°C:** 12 g/l

pH-value (10 g/l) at 20°C: 3**Solvent content:****Solids content:** 100.0 %

10 Stability and reactivity

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

Reacts with strong oxidizing agents
 Reacts with alcohols, amines, aqueous acids and alkalis
 Reacts with flammable substances

Dangerous decomposition products: Poisonous gases/vapours

11 Toxicological information

Acute toxicity:**LD/LC50 values relevant for classification:****87-90-1 trichloroisocyanuric acid**

Oral LD50 490 mg/kg (rat)

Primary irritant effect:**on the skin:** No irritant effect.**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.

Harmful
 Irritant

12 Ecological information:

Ecotoxicological effects:**Remark:** Very toxic for fish

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General notes:

Water hazard class 2 (German Regulation) (Self-assessment): hazardous for water.
 Do not allow product to reach ground water, water course or sewage system.
 Danger to drinking water if even small quantities leak into the ground.
 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.

14 Transport information

Land transport ADR/RID (cross-border)

ADR/RID class: 5.1 Oxidizing substances.
Item: O2
Danger code (Kemler): 50
UN-Number: 2468
Hazard label 5.1
Description of goods: 2468 Trichloroisocyanuric acid, dry, mixture

Maritime transport IMDG:

IMDG Class: 5.1
UN Number: 2468
Label 5.1
Packaging group: II
EMS Number: F-A,S-Q
MFAG: 740
Marine pollutant: No
Proper shipping name: Trichloroisocyanuric acid, mixture

Air transport ICAO-TI and IATA-DGR:

ICAO/IATA Class: 5.1
UN/ID Number: 2468
Label 5.1
Packaging group: II
Proper shipping name: Trichloroisocyanuric acid, mixture

15 Regulations

Labelling according to EU guidelines:

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

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Code letter and hazard designation of product:

Xn Harmful
N Dangerous for the environment

Hazard-determining components of labelling:

trichloroisocyanuric acid

Risk phrases:

- 22 Harmful if swallowed.
- 31 Contact with acids liberates toxic gas.
- 36/37 Irritating to eyes and respiratory system.
- 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.
- 8 Keep container dry.
- 26 In case of contact with eyes, rinse immediately with plenty of water and seek medical advice.
- 29 Do not empty into drains.
- 41 In case of fire and/or explosion do not breathe fumes.
- 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.

Special labelling of certain preparations:

Warning! Do not use together with other products. May release dangerous gases (chlorine).

National regulations**Waterhazard class:** Water hazard class 2 (Self-assessment): 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.
- 31 Contact with acids liberates toxic gas.
- 36/37 Irritating to eyes and respiratory system.
- 36/38 Irritating to eyes and skin.
- 41 Risk of serious damage to eyes.
- 50/53 Very toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment.
- 8 Contact with combustible material may cause fire.

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