

Material Safety Data Sheet
According to 91/155 EEC

Printing date 26.01.2005

Reviewed on 26.01.2005

*** 1 Identification of substance:****Trade name: Fi-CLOR PREMIUM 5 GRANULES****Article number:** 11711 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**2 Composition/Data on components:****Chemical characterization****Description:** Mixture of substances listed below with nonhazardous additions.**Dangerous components:**

CAS: 51580-86-0	sodium dichloroisocyanurate, dihydrate	Xn, N; R 22-31-36/37-50/53	50-100%
EINECS: 220-767-7			
CAS: 10043-01-3	aluminium sulphate	Xi; R 41	0.1-2.5%
EINECS: 233-135-0			
CAS: 7758-98-7	copper sulphate	Xn, N; R 22-36/38-50/53	0.1-2.5%
EINECS: 231-847-6			

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**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.**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** Drink plenty of water and provide fresh air. Call for a doctor immediately.**5 Fire fighting measures****Suitable extinguishing agents** Water spray**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.

Wear protective equipment. Keep unprotected persons away.

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Measures for environmental protection: Keep contaminated washing water and dispose of appropriately.**Measures for cleaning/collecting:**

Use neutralizing agent.

Dispose contaminated material as waste according to item 13.

7 Handling and storage

Handling

Information for safe handling: Ensure good ventilation/exhaustion at the workplace.**Information about fire - and explosion protection:** Substance/product is oxidizing when dry.

Storage

Requirements to be met by storerooms and receptacles:

Store only in unopened original receptacles.

Store in a cool location.

Information about storage in one common storage facility:

Do not store together with oxidizing and acidic materials.

Store away from flammable substances.

Store away from reducing agents.

Further information about storage conditions: Protect from heat and direct sunlight.

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:****51580-86-0 sodium dichloroisocyanurate, dihydrate**MEL Short-term value: 0.07 mg/m³Long-term value: 0.02 mg/m³

Sen; as -NCO

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

Personal protective equipment

General protective and hygienic measures

The usual precautionary measures are to be adhered to when handling chemicals.

Respiratory protection: Use suitable respiratory protective device in case of insufficient ventilation.**Protection of hands:**

Protective gloves.

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.

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.

Body protection: Protective work clothing.

9 Physical and chemical properties:

General Information

Form:	Granulate
Colour:	Whitish
Odour:	Chlorine-like

Change in condition

Melting point/Melting range: undetermined**Boiling point/Boiling range:** undetermined**Flash point:** Not applicable

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Flammability (solid, gaseous) Product is not flammable.

Ignition temperature:

Decomposition temperature: 250°C

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

Density:

Bulk density at 20°C: 1000 kg/m³

Solubility in / Miscibility with Water at 25°C: 250 g/l

pH-value at 20°C: 6

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:

51580-86-0 sodium dichloroisocyanurate, dihydrate

Oral LD50 1400 mg/kg (rat)

Primary irritant effect:

on the skin: No irritant effect.

on the eye: Irritating effect.

Sensitization: No sensitizing effects known.

12 Ecological information:

General notes: Water hazard class 2 (German Regulation) (Self-assessment): hazardous for water.

13 Disposal considerations

Product:

Recommendation 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: N.A.

Maritime transport IMDG:

IMDG Class: N.A.

Marine pollutant: No

Air transport ICAO-TI and IATA-DGR:

ICAO/IATA Class: N.A.

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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:



Xn Harmful
N Dangerous for the environment

Hazard-determining components of labelling:

sodium dichloroisocyanurate, dihydrate

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.

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