

**Multifunctional Chlorine Tablets 20g /200g**

**1. Identification of the substance/preparation and of the company/undertaking**

**1.1 Product Identifier** trichloroisocyanuric acid / symclosene

**1.2 Relevant Identified uses and restrictions of the substance or mixture**

Uses: For disinfection of pool and spa water.

**1.3 Details of the supplier of the safety data sheet**

Company: Complete Pool Controls Ltd  
Unit 2, The Park  
Stoke Orchard  
Bishops Cleeve  
Gloucestershire  
GL52 7RS

Telephone: +44 (0) 8712 229081

Fax: +44 (0) 8712 229083

E-mail: [sales@cpc-chemicals.co.uk](mailto:sales@cpc-chemicals.co.uk)

**1.4 Emergency Telephone**

Tel: +44 (0) 8712 229081 (office hours) +44 (0) 1242 300271 ( outside of office hours)

**2. Hazard Identification**

**2.1 Classification of the substance or mixture**

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

**Hazard Class Hazard Statements**

Ox. Sol. 3 H272

Acute Tox. 4 \* H302

Eye Irrit. 2 H319

STOT SE 3 H335

Aquatic Acute 1 H400

Aquatic Chronic1 H410

**Most important adverse effects**

Human Health: See section 11 for toxicological information

Physical & Chemical Hazards: See section 9 for physicochemical information

Potential environmental effects: See section 12 for environmental information

**2.2 Label elements**

The product is classified and labelled according to the CLP regulation

Hazard symbols:



GHS03



GHS07



GHS09

Signal word: Warning

Hazard-determining components of labelling: trichloroisocyanuric acid

|                   |      |                                                      |
|-------------------|------|------------------------------------------------------|
| Hazard statements | H272 | May intensify fire; oxidiser                         |
|                   | H302 | Harmful if swallowed.                                |
|                   | H319 | Causes serious eye irritation                        |
|                   | H335 | May cause respiratory 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                                         |
|                           | P201 | Obtain special instructions before use                                |
|                           | P221 | Take any precaution to avoid mixing with combustibles                 |

## 2. Hazard Identification

P305+351+338 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing

P301+P312 IF SWALLOWED: Call a POISON CENTER/doctor if you feel unwell.

P304+P340 IF INHALED: Remove person to fresh air and keep comfortable for breathing.

P 308 + P313 IF exposed or concerned: Get medical advice / attention.

P402 Store in a dry place.

P405 Store locked up.

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

Additional information: EUH031 Contact with acids liberates toxic gas.

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

## 2.3 Other Hazards

PBT and vPvB assessment PBT: Not applicable.  
vPvB: Not applicable.

## 3. Composition/information on ingredients

## 3.2 Mixture

| CAS-No.                                  | EINECS    | Index-No.    | %         |                                                                                                                                                                                                                                                                                                                                                                                        |
|------------------------------------------|-----------|--------------|-----------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <i>trichloroisocyanuric acid</i>         |           |              |           |                                                                                                                                                                                                                                                                                                                                                                                        |
| 87-90-1                                  | 201-782-8 | 613-031-00-5 | 75 - 100% |  Ox. Sol. 2, H272;  Aquatic Acute 1, H400; Aquatic Chronic 1, H410;  Acute Tox. 4, H302; Eye Irrit. 2, H319; STOT SE 3, H335 |
| <i>Boric Acid</i>                        |           |              |           |                                                                                                                                                                                                                                                                                                                                                                                        |
| 10043-35-3                               | 233-139-2 | 005-007-00-2 | 0.5- 1%   |  Repr. 1B, H360FD                                                                                                                                                                                                                                                                                   |
| <i>copper(II) sulfate, pentahydrate</i>  |           |              |           |                                                                                                                                                                                                                                                                                                                                                                                        |
| 7758-99-8                                | 231-847-6 |              | 0.5 - 1%  |  Eye Dam. 1, H318;  Aquatic Acute 1, H400; Aquatic Chronic 1, H410;  Acute Tox. 4, H302                                     |
| <i>Aluminium sulfate octadecahydrate</i> |           |              |           |                                                                                                                                                                                                                                                                                                                                                                                        |
| 7784-31-8                                | 233-135-0 |              | 0.5 - 1%  |  Eye Dam. 1, H318                                                                                                                                                                                                                                                                                   |
| <b>SVHC</b>                              |           |              |           |                                                                                                                                                                                                                                                                                                                                                                                        |
| 10043-35-3 boric acid                    |           |              |           |                                                                                                                                                                                                                                                                                                                                                                                        |

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

## 4. First Aid measures

## 4.1 Description of first aid measures

General Advice: 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: Seek medical treatment.

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

After swallowing: Rinse out mouth and then drink plenty of water. Call for a doctor immediately.

## 4.2 Most important symptoms and effects, both acute and delayed

Symptoms and effects: No relevant information available.

## 4.3 Indication of immediate medical attention and special treatment needed

Treatment: No relevant information available.

## 5. Fire fighting measures

### 5.1 Extinguishing media:

|                                 |                                                  |
|---------------------------------|--------------------------------------------------|
| Suitable extinguishing media:   | Water, water spray, carbon dioxide.              |
| Unsuitable extinguishing media: | Extinguishing powder, foam, water with full jet. |

### 5.2 Special hazards arising from the substance or mixture

|                                        |                                                                                                                                                                           |
|----------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Specific Hazards during fire fighting: | Formation of toxic gases is possible during heating or in case of fire. In case of fire, the following can be released:<br>Nitrogen oxides (NOx); Hydrogen chloride (HCl) |
|----------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------|

### 5.3 Advice for fire-fighters

|                              |                                                                                                                                            |
|------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------|
| Special protective equipment | Wear self-contained respiratory protective device.<br>Wear fully protective suit.<br>Mouth respiratory protective device.                  |
| Additional information       | Cool endangered receptacles with water spray.<br>Collect contaminated fire fighting water separately. It must not enter the sewage system. |

## 6. Accidental release Measures

### 6.1 Personal precautions, protective equipment and emergency procedures

|                       |                                                                                                 |
|-----------------------|-------------------------------------------------------------------------------------------------|
| Personal Precautions: | Avoid formation of dust.<br>Ensure adequate ventilation<br>Mount respiratory protective device. |
|-----------------------|-------------------------------------------------------------------------------------------------|

### 6.2 Environmental precautions

|                            |                                                                                                                                                                                                                                                                                     |
|----------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Environmental precautions: | Keep contaminated washing water and dispose of appropriately.<br>Do not allow product to reach sewage system or any water course.<br>Inform respective authorities in case of seepage into water course or sewage system.<br>Do not allow to enter sewers/ surface or ground water. |
|----------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|

### 6.3 Methods and materials for containment and cleaning up

|              |                                                                                              |
|--------------|----------------------------------------------------------------------------------------------|
| Cleaning up: | Dispose contaminated material as waste according to item 13.<br>Ensure adequate ventilation. |
|--------------|----------------------------------------------------------------------------------------------|

### 6.4 Reference to other sections

|                |                                                                                                                                                               |
|----------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Other Sections | See Section 7 for information on safe handling.<br>See Section 8 for information on personal protection equipment<br>See Section 13 for disposal information. |
|----------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------|

## 7. Handling and storage

### 7.1 Precautions for safe handling

|                          |                                                                                                                                                                                                                |
|--------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Advice on safe handling: | Store in cool, dry place in tightly closed receptacles.<br>Provide suction extractors if dust is formed.<br>Restrict the quantity stored at the work place.<br>Do not refill residue into storage receptacles. |
|--------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|

### 7.2 Conditions for safe storage, including any incompatibilities.

|                                 |                                                                                                                                 |
|---------------------------------|---------------------------------------------------------------------------------------------------------------------------------|
| Requirements for storage areas: | Store only in the original receptacle.                                                                                          |
| Common storage facility:        | Do not store together with acids.                                                                                               |
| Further information on storage: | Protect from humidity and water.<br>Keep container tightly sealed.<br>Store in cool, dry conditions in well sealed receptacles. |
| Storage class:                  | 5.1B                                                                                                                            |

### 7.3 Specific end uses

|                 |                                    |
|-----------------|------------------------------------|
| Specific use(s) | No relevant information available. |
|-----------------|------------------------------------|

## 8. Exposure control/personal protection

### 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.

Avoid contact with the eyes and skin.

**Respiratory protection:** Use suitable respiratory protective device when high concentrations are present. In case of brief exposure or low pollution use respiratory filter device. In case of intensive or longer exposure use selfcontained respiratory protective device.

**Protection of hands:** Wear suitable chemical resistant 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.

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

#### **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.

For the permanent contact gloves made of the following materials are suitable:

Nitrile rubber, NBR

Chloroprene rubber, CR

Butyl rubber, BR

Eye protection: Tightly sealed goggles

Body protection: Protective work clothing, Boots, Apron

## 9. Physical and chemical properties

### 9.1 Information on basic physical and chemical properties

#### General Information

Appearance:

Form

Tablets

Colour:

Blue

Odour:

Like chlorine

Odour threshold:

Not determined.

pH-value (10 g/l) at 20 °C: "

2.0-2.7

Change in condition:

Melting point/Melting range:

225-240 °C

Boiling point/Boiling range:

Undetermined.

Flash point:

Not applicable.

Flammability (solid

gaseous): "

Decomposition temperature:

225 °C

Self-igniting:

Product is not selfigniting.

Danger of explosion:

Product does not present an explosion hazard.

## 9. Physical and chemical properties

## 9.1 Information on basic physical and chemical properties

## General Information

Explosion limits: Lower: Not determined.  
Upper: Not determined.

Vapour pressure: Not applicable.  
Density at 20 °C: ca. 2.5 g/cm<sup>3</sup>  
Relative density: Not determined.  
Vapour density: Not applicable.  
Evaporation rate: Not applicable.  
Solubility in / Miscibility with water at 25 °C: 12 g/l  
Partition coefficient (n-octanol/water): Not determined.

Dynamic viscosity: Not applicable.  
Kinematic viscosity: Not applicable.  
Solvent content: 0.00%  
Solids content: 100.00%

## 9.2 Other Information

Other information No further relevant information available.

## 10. Stability and reactivity

## 10.1 Reactivity

Reactivity No further relevant information available.

## 10.2 Chemical stability

Chemical stability No further relevant information available.

## 10.3 Possibility of hazardous reactions

**Hazardous reactions**  
Reacts with oxidising agents.  
Reacts with strong alkali.  
Reacts with amines.  
Strong exothermic reaction with acids.  
Reacts with flammable substances.  
Reacts with acids releasing chlorine.  
Reacts with reducing agents.

## 10.4 Conditions to avoid

Conditions to avoid No further relevant information available.

## 10.5 Incompatible materials

Materials to avoid No further relevant information available.

## 10.6 Hazardous decomposition products

Haz. Decomp. products: Hydrogen chloride (HCl), Chlorine, Nitrogen oxides (NOx)

## 11. Toxicological Information

## 11.1 Information on toxicological effects

## Toxicity Values

| <i>trichloroisocyanuric acid</i> |         |      |       | 87-90-1    |
|----------------------------------|---------|------|-------|------------|
| Route                            | Species | Test | Value | Units      |
| Oral                             | Rat     | LD50 | 406   | mg/kg      |
| <i>boric acid</i>                |         |      |       | 10043-35-3 |
| Oral                             | Rat     | LD50 | 2660  | mg/kg      |

**11. Toxicological Information****11.1 Information on toxicological effects****Primary Irritant effect:**

Skin corrosion/irritation: Based on available data, the classification criteria are not met.

Serious eye damage/irritation: Causes serious eye irritation.

Respiratory or skin sensitisation: Based on available data, the classification criteria are not met.

**CMR effects (carcinogenicity, mutagenicity and toxicity for reproduction)**

Germ cell mutagenicity: Based on available data, the classification criteria are not met.

Carcinogenicity: Based on available data, the classification criteria are not met.

Reproductive toxicity : Based on available data, the classification criteria are not met.

STOT-single exposure: May cause respiratory irritation.

STOT-repeated exposure: Based on available data, the classification criteria are not met.

Aspiration hazard: Based on available data, the classification criteria are not met.

**12. Ecological Information****12.1 Toxicity****Acute Toxicity**

| <i>trichloroisocyanuric acid</i> |      | <b>87-90-1</b>    |        |
|----------------------------------|------|-------------------|--------|
| Species                          | Test | Value             | Units  |
| Daphnia                          | EC50 | 0.2               | mg / l |
| (Selenastrum capricornutum       | EC50 | 0.5               | mg / l |
| (Danio rerio (Zebraabärbling)    | LC50 | 0.3               | mg / l |
| <i>boric acid</i>                |      | <b>10043-35-3</b> |        |
| (Chlorella pyrenoidosa)          | NOEC | 10                | mg / l |
| Daphnia                          | LC50 | 133               | mg / l |

(Modified method based on the ASTM method E645-85)

(ASTM Standard E 729-80)

**12.2 Persistence and degradability**

Persistence and degradability No further relevant information available.

**12.3 Bioaccumulative potential**

Bioaccumulative potential No further relevant information available.

**12.4 Mobility in soil**

Mobility in soil No further relevant information available.

Ecotoxicological effects: Remark: Very toxic for fish

Behaviour in sewage processing plants

10043-35-3 boric acid

NOEC 180 mg/l (Activated sludge) (OECD "Chironomid testing using spiked sediment")

Additional ecological information:

General notes:

Water hazard class 3 (German Regulation) (Self-assessment): extremely hazardous for water

Do not allow product to reach ground water, water course or sewage system, even in small quantities.

Danger to drinking water if even extremely small quantities leak into the ground.

Also poisonous for fish and plankton in water bodies.

Very toxic for aquatic organisms

**12.5 Results of PBT and PvB assessment**

Results of PBT and PvB Not applicable

**12.6 Other adverse effects**

Other adverse effects No further relevant information available.

**13. Disposal Considerations****13.1 Waste treatment methods**

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:**

Empty contaminated packagings thoroughly. They may be recycled after thorough and proper cleaning.

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** UN2468

**14.2 UN proper shipping name**

**ADR:** 2468 TRICHLOROISOCYANURIC ACID DRY, ENVIRONMENTALLY HAZARDOUS

**IMDG:** TRICHLOROISOCYANURIC ACID, MARINE POLLUTANT

**IATA:** TRICHLOROISOCYANURIC ACID

**14.3 Transport hazard class(es)**

**ADR / IMDG**



**Class:** 5.1 Oxidising substances.

**Label:** 5.1

**IATA:**



**Class:** 5.1 Oxidising substances.

**Label:** 5.1

**14.4 Packaging Group**

**ADR / IMDG / IATA** III

**14.5 Environmental hazards**

**Marine pollutant:** Yes

Yes  
Symbol (fish and tree)

**Special marking (ADR):** Symbol (fish and tree)

**14.6 Special precautions for user**

**Special precautions:** Warning: Oxidising substances.

**Danger code (Kemler):** 50

**EMS Number:** F-A,S-Q

**Stowage Category** B

**Segregation Code** SG38 Stow "separated from" ammonium compounds.

SG49 Stow "separated from" cyanides

SG60 Stow "separated from" peroxides

SG61 Stow "separated from" powdered metals

**14.7 Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code** Not applicable

**Transport/Additional information:**

**ADR**

**Excepted quantities (EQ):** E1

**Limited quantities (LQ)** 5 kg

**Excepted quantities (EQ) Code:** E1

Maximum net quantity per inner packaging: 30 g

Maximum net quantity per outer packaging: 1000 g

## 14. Transport Information

## Transport/Additional information:

## ADR

|                                |                                                  |
|--------------------------------|--------------------------------------------------|
| Excepted quantities (EQ):      | E1                                               |
| Limited quantities (LQ)        | 5 kg                                             |
| Excepted quantities (EQ) Code: | E1                                               |
|                                | Maximum net quantity per inner packaging: 30 g   |
|                                | Maximum net quantity per outer packaging: 1000 g |
| Transport category             | 3                                                |
| Tunnel restriction code        | E                                                |

## IMDG

|                                |                                                  |
|--------------------------------|--------------------------------------------------|
| Limited quantities (LQ)        | 5 kg                                             |
| Excepted quantities (EQ) Code: | E1                                               |
|                                | Maximum net quantity per inner packaging: 30 g   |
|                                | Maximum net quantity per outer packaging: 1000 g |

UN "Model Regulation":

UN2468 TRICHLOROISOCYANURIC ACID, 5.1, III, ENVIRONMENTALLY HAZARDOUS

## 15. Regulatory information

## 15.1 Safety, health and environmental regulations/legislation specific for this substance or mixture.

## Directive 2012/18/EU

Named dangerous substances - ANNEX I None of the ingredients is listed.

Seveso category

P8 OXIDISING LIQUIDS AND SOLIDS

E1 Hazardous to the Aquatic Environment

Qualifying quantity (tonnes) for the application of lower-tier requirements 50 t

Qualifying quantity (tonnes) for the application of upper-tier requirements 200 t

REGULATION (EC) No 1907/2006 ANNEX XVII Conditions of restriction: 30

## National regulations:

Other regulations, limitations and prohibitive regulations

## Substances of very high concern (SVHC) according to REACH, Articles 57

10043-35-3 boric acid

## 15.2 Chemical Safety Assessment

A Chemical Safety Assessment has not been carried out.

## 16. Other information

Full text of H-statements referred to under sections 2 and 3

|        |                                                       |
|--------|-------------------------------------------------------|
| H272   | May intensify fire; oxidiser.                         |
| H302   | Harmful if swallowed.                                 |
| H319   | Causes serious eye irritation.                        |
| H335   | May cause respiratory irritation.                     |
| H360FD | May damage fertility. May damage the unborn child.    |
| H400   | Very toxic to aquatic life.                           |
| H410   | Very toxic to aquatic life with long lasting effects. |



## 16. Other information

### Further information

Restricted to professional users. Attention - Avoid exposure- obtain special instructions before use

This information is believed to be accurate and represents the best information currently available to us. However, we make no warranty or merchantability, or fitness for any particular use, or any other warranty, express or implied, with respect to this information, and we assume no liability resulting from use of this information Users should make their own investigations to determine the suitability of the information for their particular needs and uses.

 Indicates updated section