

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

1.1 Product Identifier trichloroisocyanuric acid / symclosene

Trade Name: Chlorine Tablets 200g
Index No: 613-031-00-5
CAS No: 87-90-1
EC No: 201-782-8

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

Uses: For disinfection of pool and spa water.
Restrictions: At this time we do not yet have information on identified uses.

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

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 Category	Target Organs	Hazard Statements
Ox. Sol. 2			H272
Acute Tox. 4 *			H302
Eye Irrit. 2			H319
STOT SE 3			H335
Aquatic Acute 1			H410
Aquatic Chronic 1			

For the full text of the H statements mentioned in this section see Section 16.

Classification according to EU Directives 67/548/EEC or 1999/45/EC

Hazard Symbol/Category of danger	Risk phrases
Oxidising	R8
Harmful	R22
Irritant	R31
	R36/37
Dangerous for the environment	R50/53

For the full text of the R phrases mentioned in this section see Section 16.

Most important adverse effects

Human Health: See section 11 for toxicological information.
Physical & Chemical Hazards: See section 9 for toxicological information.
Potential environmental effects: See section 12 for toxicological information.

2.2 Label elements

Labelling according to Regulation (EC) No 1272/2008

Hazard symbols:



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2. Hazard Identification...cont

Signal word: Danger

Hazard statements: H272 May intensify fire; oxidiser.
 H302 Harmful if swallowed.
 H319 Causes serious eye irritation.
 H335 May cause respiratory irritation.
 H400 Very toxic to aquatic life.
 H410 Very toxic to aquatic life with long lasting effects.
 EUH031 Contact with acids liberates toxic gas.

Precautionary statements:

Prevention P102 Keep out of reach of children
 P402 Store in a dry place.

Precautionary statements:

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

Hazardous components which must be listed on the label

Trichloroisocyanuric Acid

2.3 Other Hazards

No other information is available.

3. Composition/information on ingredients**3.1 Substances**

Chemical nature: Solid

Chemical Name	Identification Numbers	Amount %
trichloroisocyanuric acid	Index-No. 613-031-00-5 CAS-No. 87-90-1 EC-No. 201-782-8	75 - 100%

4. First Aid measures**4.1 Description of first aid measures**

General Advice: Take off all contaminated clothing immediately.

If inhaled: : Move to fresh air. Remove contaminated clothing and loosen remaining clothing. Keep at rest until fully recovered. If breathing is laboured and patient cyanotic (blue), ensure airways are clear and have qualified person give oxygen through a facemask. If breathing has stopped apply artificial respiration at once. In event of cardiac arrest, apply external cardiac massage. Seek medical advice. In severe cases pulmonary oedema can be delayed by up to 48 hours.

In case of skin contact: Drench the skin with plenty of water. Remove contaminated clothing and wash before reuse. If large areas of the skin is damaged or if irritation persists seek medical attention

In case of eye contact: Rinse immediately with plenty of water, also under the eyelids, for at least 15 minutes. Consult an eye specialist immediately. Go to an ophthalmic hospital if necessary.

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4. First Aid measures

If swallowed: Clean mouth with water and drink afterwards plenty of water. Never give anything by mouth to an unconscious person. Do NOT induce vomiting. Call a physician immediately.

4.2 Most important symptoms and effects, both acute and delayed

Symptoms: No further information available.

Effects: No further information available.

4.3 Indication of immediate medical attention and special treatment needed

Treatment Treat Symptomatically.

5. Fire fighting measures

5.1 Extinguishing media:

Suitable extinguishing media: Water (plenty) or CO2 for escape purposes only.

Unsuitable extinguishing media: DO NOT USE ammonium compounds as Nitrogen Trioxide will be formed (explosive and toxic)

5.2 Special hazards arising from the substance or mixture

Specific Hazards during fire fighting: Non-flammable but thermally decomposes at above 225 oC. Decomposition liberates chlorine, Hypochlorous acid, Cyanuric acid. Nitrogen trichloride can be generated slowly by the reaction of small quantities of water with a high concentration of this product. Nitrogen trichloride can present as an explosion hazard.

5.3 Advice for fire-fighters

Special protective equipment Fire-fighters should wear full protective clothing and self-contained breathing apparatus (SCBA). Thoroughly decontaminate fire-fighting equipment including all fire fighting wearing apparel after the incident.

Further Information: Collect contaminated fire extinguishing water separately.

6. Accidental release Measures

6.1 Personal precautions, protective equipment and emergency procedures

Personal Precautions: Use personal protective equipment. Provide adequate ventilation. For personal protection see section 8.

6.2 Environmental precautions

Environmental precautions:
Do not flush into surface water or sanitary sewer system.
Avoid subsoil penetration
Avoid subsoil penetration
If the product contaminates rivers and lakes or drains inform respective authorities
Local authorities should be advised if significant spillages cannot be contained

6.3 Methods and materials for containment and cleaning up

Sweep up, avoiding generation of dust, then immediately spread as a thin layer in an uncontaminated, dry open area, to avoid the possibility of hot spots forming. Gradually hose to drain ensuring large dilution. DO NOT store or transport swept up material. DO NOT return spilled material to original container. Do not add small amount of water to material. Where a spill has occurred in a confined space or an unventilated building and the material is damp and evolving chlorine, the rate of chlorine evolution can be reduced by covering the thinly spread solid with soda ash. For large spills notify Emergency Services.

6.4 Reference to other sections

For personal protection see section 8

7. Handling and storage**7.1 Precautions for safe handling**

Advice on safe handling: Strong oxidising agent. DO NOT MIX WITH OTHER CHEMICALS. Mix only with water. Never add water to product. Always add product to water. Use clean dry dispensing equipment.
Avoid contact with the skin and the eyes.

Hygiene measures: Keep away from food, drink and animal feeding stuffs. Smoking, eating and drinking should be prohibited in the application area. Wash hands before breaks and at the end of the work day. Take off all contaminated clothing immediately. Provide adequate ventilation. Avoid contact with the skin and eyes.

7.2 Conditions for safe storage, including any incompatibilities.

Requirements for storage areas and containers: Keep this product in original, sealed container when not in use. Store in a cool, dry, well-ventilated area.

Advice on protection against fire: Normal measures for preventive fire protection

Further information on storage: Keep away from children

Advice on common storage: Keep away from food, drink and animal feeding stuffs. Keep away from combustible material

7.3 Specific end uses

Specific use(s): No information is available.

8. Exposure control/personal protection**8.1 Control parameters**

Regulatory Basis: EU. Indicative Exposure and Directives relating to the protection of risks related to work exposure to chemical, physical, and biological agents.

Regulatory List:	LTEL (8 hour TWA)	LTEL (8 hour TWA)
Value:	10 mg/m ³	4 mg/m ³
Remarks:	Total inhalable dust	Respirable dust

8.2 Exposure controls

Engineering measures Fume cupboard required when vapours/aerosol are generated.

Personal protective equipment

Respiratory protection Advice: Use respiratory protection for chlorine and dust inhalation protection.

Hand protection Advice: The glove material has to be impermeable to the product/the substance/preparation.
Take note of the information given by the producer concerning permeability, break through times, and of special and of special working conditions (mechanical strain, duration of contact).
Protective gloves should be replaced at first sign of wear.
Due to missing tests no recommendation to the glove material can be given.

Eye protection Advice: Tightly fitting safety goggles.

Skin and body protection Advice: Plastic apron, sleeves, boots-if handling large quantities

Environmental exposure controls

General advice: General room ventilation plus local exhaust should be used to maintain exposure below TLV. Eyewash and emergency shower facilities recommended. Remove and wash contaminated clothing before reuse.
Local authorities should be advised if significant spillages cannot be contained

9. Physical and chemical properties**9.1 Information on basic physical and chemical properties**

Form:	Tablets
Colour:	Whitish
Odour:	Characteristic chlorine
Odour Threshold:	Currently we do not have any information from our supplier about this.
pH @ 20°C:	2.7 – 3.3 (1% aqueous solution 25°C)
Solidification point	Currently we do not have any information from our supplier about this.
Melting Point	225°C
Boiling point/boiling range:	Currently we do not have any information from our supplier about this.
Flash point:	Currently we do not have any information from our supplier about this.
Evaporation rate:	Currently we do not have any information from our supplier about this.
Flammability (solid, gas)	Currently we do not have any information from our supplier about this.
Upper explosion limit:	Currently we do not have any information from our supplier about this.
Lower explosion limit:	Currently we do not have any information from our supplier about this.
Vapour pressure:	Currently we do not have any information from our supplier about this.
Relative vapour density:	Currently we do not have any information from our supplier about this.
Density @ 20°C:	0.95 gm/cm ³
Water solubility:	12 g/ 25 °C
Partition coefficient:n-octanol/water:	Currently we do not have any information from our supplier about this.
Ignition temperature:	Currently we do not have any information from our supplier about this.
Thermal decomposition:	Currently we do not have any information from our supplier about this.
Viscosity, kinematic:	Currently we do not have any information from our supplier about this.
Explosive properties:	Product is not explosive.
Oxidising properties:	Currently we do not have any information from our supplier about this.

9.2 Other Information

Decomposition temperature:	170 - 180°C
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10. Stability and reactivity**10.1 Reactivity**

Advice:	Currently we do not have any information from our supplier about this.
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10.2 Chemical stability

Advice:	Currently we do not have any information from our supplier about this.
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10.3 Possibility of hazardous reactions

Hazardous reactions:	Gives off hydrogen by reaction with metals. Reacts exothermic with water.
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10.4 Conditions to avoid

Conditions to avoid	High temperature. Poor ventilation. Contamination. Moisture/high humidity.
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10.5 Incompatible materials

Materials to avoid	Avoid contact with water on concentrated material in the container. Avoid contact with easily oxidisable material such as organic compounds, reducing agents, Nitrogen containing compounds, Sodium or Calcium hypochlorite, other oxidisers, acids and alkalis.
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10.6 Hazardous decomposition products

Hazardous decomposition products:	Chlorine containing gases can be produced. Gradually forms Nitrogen Trichloride in damp, moist conditions. (Explosive gas)
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11. Toxicological Information

11.1 Information on toxicological effects

Component: trichloroisocyanuric acid

CAS No: 87-90-1

Acute Toxicity Oral

Remarks: Swallowing can result in nausea, vomiting, diarrhoea, abdominal pain, convulsions and chemical burns.

Inhalation

Remarks: Inhalation of mists and vapour will cause irritation of the upper respiratory tract, high concentrations may cause corrosion, pulmonary oedema may occur up to 48 hours after exposure.

Skin

Remarks: This product is an irritant to the skin. Burns are induced when moisture is added.

Eyes

Remarks: Corrosive to eyes; contact can cause corneal burns.

Sensitisation

Remarks: No further information available

Further information

Other relevant toxicity information:

12. Ecological Information

12.1 Toxicity

This product is toxic to fish and aquatic organisms.

Salts, acids and bases are typically diluted and neutralised when released to the environment in small doses.

DO NOT discharge effluent containing this product into lakes, streams, ponds or estuaries, oceans or their waters unless in accordance with the applicable regulatory requirements.

DO NOT discharge effluent containing this product to sewer systems without previously notifying the local sewage treatment plant authority.

12.2 Persistence and degradability

Remarks: Neutralised slowly by natural alkalinity.

12.3 Bioaccumulative potential

Remarks: Currently we do not have any information from our supplier about this.

12.4 Mobility in soil

Remarks: soluble in water, predicted to have high mobility in soil.

12.5 Results of PBT and PvB assessment

Remarks: No data available

12.6 Other adverse effects

Remarks: Harmful effects to aquatic organisms due to pH shift

Neutralization is normally necessary before waste water is discharged into water treatment plants.

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

Product:	Disposal together with normal waste is not allowed. Special disposal is required according to local regulations. Do not let product enter drains. Contact waste disposal services.
Contaminated packaging:	Empty contaminated packaging thoroughly. They can be re-cycled after thorough and proper cleaning. Packaging that cannot be cleaned is to be disposed of in the same manner as the product
European Waste Catalogue No:	No waste code according to the European Waste Catalogue can be assigned for this product, as the intended use dictates the assignment. The waste code is established in consultation with the regional waste disposer.

14. Transport Information

14.1 UN Number 2468

14.2 UN proper shipping name

ADR:	TRICHLOROISOCYANURIC ACID, DRY
RID:	TRICHLOROISOCYANURIC ACID, DRY
IMDG:	TRICHLOROISOCYANURIC ACID, DRY

14.3 Transport hazard class(es)

ADR Class (Label, classification code; Hazard ID; Tunnel Restriction code)	5.1 5.1; E2; 50; (E)
RID Class (Label, Classification Code; Hazard ID;)	5.1 5.1; F-A, S-Q; 50
IMDG Class (Labels; EmS)	5.1 5.1; E2; 50;

14.4 Packaging Group II

14.5 Environmental hazards

Labelling according to 5.2.1.8 ADR:	No
Labelling according to 5.2.1.8 RID:	No
Labelling according to 5.2.1.8 IMDG:	No
Classification as environmentally hazardous according to 2.9.3 IMDG:	no
Classified as 'P' according to 2.10 IMDG:	no

14.6 Special precautions for user

Not applicable

14.7 Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code

IMDG:

15. Regulatory information**15.1 Safety, health and environmental regulations/legislation specific for this substance or mixture.**

Regulatory List	Notification	Notification No
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15.2 Chemical Safety Assessment

Currently we do not have any information from our supplier about this.

16. Other information

Full text of R-phrases referred to under sections 2 and 3

R8	Contact with combustible material may cause fire
R22	Harmful if swallowed
R31	Contact with acids liberates toxic gas
R36/37	Irritating to eyes and respiratory system
R50/53	Very toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment

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.
H400	Very toxic to aquatic life.
H410	Very toxic to aquatic life with long lasting effects.
EUH031	Contact with acids liberates toxic gas.

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.

• 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 Carriage of Dangerous Goods by Road)
IMDG:	International Maritime Code for Dangerous Goods
IATA:	International Air Transport Association
IATA-DGR	Dangerous goods Regulations by the 'International Air Transport Association' (IATA)
ICAO:	International Civil Aviation Organization
GHS:	Globally Harmonized System of Classification and Labelling of Chemicals
EINECS	European Inventory of Existing Commercial Chemical Substances.
CAS:	Chemicals Abstracts Service (division of the American Chemical Society)
LC50:	Lethal concentration, 50 percent
LD50:	Lethal dose, 50 percent

Revision	Date	By	Amendment
1	27/08/2008	Linda Brueford	
2	01/10/10	Linda Brueford	Packing Group changed. GHS label elements added and other minor editorial amendments
3	23/06/2011	Linda Brueford	Updated to 2011 European requirements