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

1.1 Product Identifier trichloroisocyanuric acid / symclosene

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

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

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. 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.

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: 

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:
P102 Keep out of reach of children
P402 Store in a dry place.
P101 If medical advice is needed, have product container or label at hand.
P103 Read label before use.
P221 Take any precaution to avoid mixing with combustibles.
P210 Keep away from heat/sparks/open flames/hot surfaces. - No smoking.
P220 Keep/Store away from clothing/combustible materials
P305+351+338 IF IN EYES: Rinse cautiously with water for several minutes. Remove Remove contact lenses, if present and easy to do. Continue rinsing

(continued on Page 2)

2. Hazard Identification…cont

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 Chemical nature: Solid

Chemical Name	CAS-No.	EC-No.	Index-No.	%	H & R
trichloroisocyanuric acid	87-90-1	201-782-8	613-031-00	75 - 100	H272/302/319/335/400/410/EUH031

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 pulmanory 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.

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

Unsuitable 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 : 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

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

Do not flush into surface water or sanitary sewer system. 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.

7.2 Conditions for safe storage, including any incompatibilities.

Storage areas : Keep this product in original, sealed container when not in use. Store in a cool, dry, well-ventilated area.

Protection against fire: Normal measures for preventive fire protection

Further information: Keep away from children

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

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

TRICHLOROISOCYANURIC ACID		
State	**8 hour TWA**	**15 min STEL**
UK	10 mg/m^3	4 mg/m^3
UK	Total inhalable dust	Respirable dust

(continued on Page 4)

8. Exposure control/personal protection

8.2 Exposure controls

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

Personal protective equipment

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

Hand protection: 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
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: Tightly fitting safety goggles.

Skin and body protection: 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
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
pH @ 20°C:	2.7 – 3.3 (1% aqueous solution 25ºC)
Melting Point	225°C
Density @ 20°C:	0.95 gm/cm^3
Water solubility:	12 g/ 25 °C
Explosive properties:	Product is not explosive.
Oxidising properties:	No further information

9.2 Other Information

Decomposition temperature: 170 - 180°C

10. Stability and reactivity

10.1 Reactivity No further information

10.2 Chemical stability No further information

10.3 Possibility of hazardous reactions

Hazardous reactions: Gives off hydrogen by reaction with metals. Reacts exothermic with water.

10.4 Conditions to avoid

Conditions to avoid: High temperature. Poor ventilation. Contamination. Moisture/high humidity.

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.

10.6 Hazardous decomposition products

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

11. Toxilogical Information

11.1 Information on toxilogical effects

Primary Irritant effect:

On the skin: This product is an irritant to the skin. Burns are induced when moisture is added.
On the eyes: Corrosive to eyes; contact can cause corneal burns.

Sensitization: No further information available
Carcinogenic No further information available
Mutagenic No further information available

Symptoms / routes of exposure

Skin contact: There may be irritation and redness at the site of contact.
Eye contact: . There may be irritation and redness. The eyes may water profusely
Ingestion: There may be nausea, vomiting, diarrhoea, abdominal pain, convulsions and chemical burns.
Inhalation: There may be shortness of breath with a burning sensation in the throat. Exposure may cause coughing or wheezing. Pulmonary oedema may occur up to 48 hours after exposure.

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 envirnment 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 Neutralised slowly by natural alkalinity.

12.3 Bioaccumlative potential No further information

12.4 Mobility in soil Soluble in water, predicted to have high mobility in soil.

12.5 Results of PBT and PvB assessment 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

-Disposal should be in accordance with local, state or national legislation
-Do not reuse empty containers without commercial cleaning or reconditioning
-Do not discharge into drains or the environment ,dispose to an authorised waste collection point

Classification

Waste Codes in accordance with the European Waste catalogue (EWC) are origin-defined. Since this product is used in several industries, no Waste Code can be provided by the supplier. The Waste Code should be determined in arrangement with your waste disposal partner or the responsible authority

14. Transport Information

14.1 UN Number 2468

14.2 UN proper shipping name TRICHLOROISOCYANURIC ACID, DRY

14.3 Transport hazard class(es)

Class	5.1
ADR Classification	E2
RID Classification	F-A : S-Q
IMDG Classification	E2
Hazard label	50
Transport Category	3
Tunnel Code	E

14.4 Packaging Group II

14.5 Environmental hazards
Classification as environmentally hazardous according to 2.9.3 IMDG: No

14.6 Special precautions for user See section 8

14.7 Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code
No further information

15. Regulatory information

15.1 Safety, health and environmental regulations/legislation specific for this substance or mixture.
Regulatory List **Notification** **Notification No**
This Safety Data Sheet is provided in compliance with REACH Regulation (EC) No 1907/2006

15.2 Chemical Safety Assessment No further information

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.
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.

Revision 5
Indicates updated section.