

Safety data sheet
according to 1907/2006/EC, Article 31 as amended

Printing date 17.04.2023

Version number 3

Revision: 21.02.2023

SECTION 1: Identification of the substance/mixture and of the company/undertaking

· **1.1 Product identifier**

· **Trade name:** Chlorine Tablets

· **CAS Number:**

87-90-1

· **EC number:**

201-782-8

· **Index number:**

613-031-00-5

· **1.2 Relevant identified uses of the substance or mixture and uses advised against**

· **Product category** PC37 Water treatment chemicals

· **Application of the substance / the mixture**

Disinfectant

Swimming pool product

· **Uses advised against**

Any use carrying a risk of direct contact with eyes/skin where workers are exposed without adequate personal protective equipment (PPE).

Processes involving the use of incompatible substances - refer to section 10.

Processes involving extreme heat use advised against.

Any use involving significant release of aerosol, vapour or dust in the breathing zone of workers where they are exposed without suitable respiratory protective equipment (RPE).

The product is intended exclusively for industrial and professional use.

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

· **Manufacturer/Supplier:**

Complete Pool Controls Ltd

Unit 2, The Park

Stoke Orchard

Bishops Cleeve

Gloucestershire

GL52 7RS

UK

Tel: +44 (0) 8712 229081 (office hours)

email: sales@cpc-chemicals.co.uk

· **Further information obtainable from:** Product safety department.

· **1.4 Emergency telephone number:**

Members of the public seeking specific information on poisons should contact:

In England and Wales: NHS 111 - dial 111

In Scotland: NHS 24 - dial 111

SECTION 2: Hazards identification

· **2.1 Classification of the substance or mixture**

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



flame over circle

Ox. Sol. 2

H272 May intensify fire; oxidiser.

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environment

Aquatic Acute 1 H400 Very toxic to aquatic life.

Aquatic Chronic 1 H410 Very toxic to aquatic life with long lasting effects.



Acute Tox. 4 H302 Harmful if swallowed.

Eye Irrit. 2 H319 Causes serious eye irritation.

STOT SE 3 H335 May cause respiratory irritation.

· 2.2 Label elements

· Labelling according to Regulation (EC) No 1272/2008

The substance is classified and labelled according to the GB CLP regulation.

· Hazard pictograms GHS03, GHS07, GHS09

· Signal word Danger

· 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

P221 Take any precaution to avoid mixing with combustibles.

P261 Avoid breathing dust.

P273 Avoid release to the environment.

P280 Wear protective gloves/protective clothing/eye protection/face protection.

P301+P330+P331 IF SWALLOWED: Rinse mouth. Do NOT induce vomiting.

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

· Additional information:

EUH031 Contact with acids liberates toxic gas.

· 2.3 Other hazards

· Results of PBT and vPvB assessment

· **PBT:** Not applicable.

· **vPvB:** Not applicable.

GB

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SECTION 3: Composition/information on ingredients

- **3.1 Chemical characterisation: Substances**
- **CAS No. Description**
87-90-1 Trichloroisocyanuric acid
- **Identification number(s)**
- **EC number:** 201-782-8
- **Index number:** 613-031-00-5

SECTION 4: First aid measures

- **4.1 Description of first aid measures**
- **General information:**
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:**
Immediately rinse with water.
If skin irritation continues, consult a doctor.
- **After eye contact:**
Check for and remove any contact lenses.
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.
Do not induce vomiting; call for medical help immediately.
If vomiting occurs spontaneously, keep head below hips to prevent aspiration.
- **Information for doctor:** Treat symptomatically and supportively.
- **4.2 Most important symptoms and effects, both acute and delayed**
No further relevant information available.
- **4.3 Indication of any immediate medical attention and special treatment needed**
No further relevant information available.

SECTION 5: Firefighting measures

- **5.1 Extinguishing media**
- **Suitable extinguishing agents:**
Water spray
Use fire extinguishing methods suitable to surrounding conditions.
- **For safety reasons unsuitable extinguishing agents:**
Foam
ABC powder
Water with full jet
- **5.2 Special hazards arising from the substance or mixture**
Not combustible but enhances combustion of other substances.
Formation of toxic gases is possible during heating or in case of fire.
Risk of explosion on heating.

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- Many reactions may cause fire or explosion.
Strong oxidiser. Contact with combustible or flammable substances may cause fire.
- **5.3 Advice for firefighters**
 - **Protective equipment:**
 - Wear fully protective suit.
 - Wear self-contained respiratory protective device.
 - Do not inhale explosion gases or combustion gases.
 - **Additional information** Cool endangered receptacles with water spray.

SECTION 6: Accidental release measures

- **6.1 Personal precautions, protective equipment and emergency procedures**
 - Avoid formation of dust.
 - Ensure adequate ventilation
 - Remove persons from danger area.
- **6.2 Environmental precautions:**
 - Do not allow to penetrate the ground/soil.
 - Do not allow product to reach sewage system or any water course in the undiluted form.
- **6.3 Methods and material for containment and cleaning up:**
 - Pick up mechanically.
 - Send for recovery or disposal in suitable receptacles.
 - Do not use combustible materials such as paper towels to clean up spills.
 - Ensure adequate ventilation.
- **6.4 Reference to other sections**
 - See Section 7 for information on safe handling.
 - See Section 8 for information on personal protection equipment.
 - See Section 13 for disposal information.

SECTION 7: Handling and storage

- **7.1 Precautions for safe handling**
 - Ensure good ventilation/exhaustion at the workplace.
 - Prevent formation of dust.
- **Information about fire - and explosion protection:** Dust can combine with air to form an explosive mixture.
- **7.2 Conditions for safe storage, including any incompatibilities**
- **Storage:**
- **Requirements to be met by storerooms and receptacles:**
 - Do not store in aluminium or galvanised containers.
 - Prevent any seepage into the ground.
- **Information about storage in one common storage facility:**
 - Store away from flammable substances.
 - Do not store together with textiles.
 - Store away from reducing agents.
 - Do not store together with acids.
- **Further information about storage conditions:** Keep container tightly sealed.
- **Storage class:** 5.1 B

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- **7.3 Specific end use(s)** No further relevant information available.

SECTION 8: Exposure controls/personal protection

- **8.1 Control parameters**
- **Additional information about design of technical facilities:** No further data; see section 7.
- **Ingredients with limit values that require monitoring at the workplace:** Not required.
- **DNELs**
 - Workers - Inhalation; Long term systemic effects: 8.04 mg/m³
 - Workers - Dermal; Long term systemic effects: 2.28 mg/kg
 - General Population - Inhalation; Long term systemic effects: 1.98 mg/m³
 - General population - Dermal; Long term systemic effects: 1.14 mg/kg
 - General Population - Oral; Long term systemic effects: 1.14 mg/kg
- **PNECs**
 - Fresh water: 1.21 mg/l
 - Marine water: 1.52 mg/l
 - STP: 204.1 mg/l
 - Sediment (Freshwater): 7.56 mg/kg
 - Sediment (Marinewater): 0.756 mg/kg
- **Additional information:** The lists valid during the making were used as basis.
- **8.2 Exposure controls**
- **Personal protective equipment:**
- **General protective and hygienic measures:**
 - Do not eat, drink, smoke or sniff while working.
 - Do not breathe dust
 - A safe system of work must be formulated and followed to ensure safe working with this product. Relevant workers must receive suitable and sufficient training and supervision.
 - Ensure that eyewash stations and safety showers are close to the workstation location.
 - 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 and skin.
- **Respiratory protection:** Use suitable respiratory protective device in case of insufficient ventilation.
- **Protection of hands:**
 -  Protective gloves
 - The glove material has to be impermeable and resistant to the product/ the substance/ the preparation.
 - 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.
- **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.

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· **Eye protection:**



Tightly sealed goggles

· **Body protection:**

Protective work clothing

Body protection must be chosen depending on product properties, activity and possible exposure.

SECTION 9: Physical and chemical properties

· **9.1 Information on basic physical and chemical properties**

· **General Information**

· **Appearance:**

Form: Tablets

Colour: White

· **Odour:** Like chlorine

· **Odour threshold:** Not determined.

· **pH-value (10 g/l) at 20 °C:** 3

· **Change in condition**

Melting point/freezing point: Undetermined.

Initial boiling point and boiling range: Undetermined.

· **Flash point:** Not applicable.

· **Flammability (solid, gas):** Product is not flammable.

· **Decomposition temperature:** Not determined.

· **Ignition temperature:** Not determined.

· **Explosive properties:** Product does not present an explosion hazard.

· **Explosion limits:**

Lower: Not determined.

Upper: Not determined.

· **Vapour pressure:** Not applicable.

· **Density at 20 °C:** 2 g/cm³

· **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:** -1.31 log POW

· **Viscosity:**

Dynamic: Not applicable.

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Kinematic: Not applicable.

· **9.2 Other information** NOTE: The physical data presented above are typical values and should not be construed as a specification.

SECTION 10: Stability and reactivity

- **10.1 Reactivity** No further relevant information available.
- **10.2 Chemical stability**
- **Thermal decomposition / conditions to be avoided:** Risk of explosion on heating.
- **10.3 Possibility of hazardous reactions**
Risk of explosion on contact with combustible substances or incompatible substances.
Decomposes slowly on contact with water.
- **10.4 Conditions to avoid** No further relevant information available.
- **10.5 Incompatible materials:**
Substances specifically listed in section 10.3 as incompatible.
Combustible materials.
Organic solvents.
Strong acids.
Reducing agents
Amines.
Ammonia
Hypochlorous acid and Hypochlorites
- **10.6 Hazardous decomposition products:**
Chlorine
Chlorine compounds
Nitrogen oxides (NOx)
Carbon monoxide and carbon dioxide
Cyanates

SECTION 11: Toxicological information

- **11.1 Information on toxicological effects**
- **Acute toxicity**
Harmful if swallowed.
- **LD/LC50 values relevant for classification:**
- **87-90-1 Trichloroisocyanuric acid**
- Oral LD50 406 mg/kg (rat)
- **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.

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· **Additional toxicological information:**

ROUTES OF EXPOSURE: Can be absorbed into the body by inhalation and by ingestion.

INHALATION RISK: A harmful concentration of airborne particles can be reached quickly especially if powdered.

Inhalation may cause lung oedema, but only after initial corrosive effects on eyes and/or airways have become manifest. The symptoms of lung oedema often do not become manifest until a few hours have passed and they are aggravated by physical effort. Rest and medical observation are therefore essential. Immediate administration of an appropriate inhalation therapy by a doctor or a person authorized by him/her, should be considered.

· **Acute effects (acute toxicity, irritation and corrosivity)**

EFFECTS OF SHORT-TERM EXPOSURE: The substance irritates the eyes, the skin and the respiratory tract. Corrosive on ingestion.

· **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.

SECTION 12: Ecological information

· **12.1 Toxicity**

· **Aquatic toxicity:** No further relevant information available.

· **12.2 Persistence and degradability** No further relevant information available.

· **12.3 Bioaccumulative potential** Product is not expected to bioaccumulate.

· **12.4 Mobility in soil** No further relevant information available.

· **Ecotoxicological effects:**

· **Remark:** Very toxic for fish

· **Additional ecological information:**

· **General notes:**

Water hazard class 2 (German Regulation) (Assessment by list): 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

· **12.5 Results of PBT and vPvB assessment**

· **PBT:** Not applicable.

· **vPvB:** Not applicable.

· **12.6 Other adverse effects** No further relevant information available.

SECTION 13: Disposal considerations

· **13.1 Waste treatment methods**

· **Recommendation**

Recommended Hierarchy of Controls:

- Minimise waste;

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- Reuse if not contaminated;
- Recycle, if possible; or
- Safe disposal (if all else fails).

Contact waste processors for recycling information.

Must not be disposed together with household garbage. Do not allow product to reach sewage system.

Used, degraded or contaminated product may be classified as hazardous waste. Anyone classifying hazardous waste and determining its fate must be qualified in accordance with state and international legislation.

· **Uncleaned packaging:**




· **Recommendation:**

Do not mix with other waste streams.

Container remains hazardous when empty. Continue to observe all precautions.

Containers, even those that are "empty," may contain residues that can develop flammable and/or hazardous vapours upon heating. Do not cut, drill, grind, weld, or perform similar operations on or near empty containers.

SECTION 14: Transport information

· 14.1 UN-Number	UN2468
· ADR, IMDG, IATA	
· 14.2 UN proper shipping name	UN2468 TRICHLOROISOCYANURIC ACID, DRY mixture, ENVIRONMENTALLY HAZARDOUS
· ADR	TRICHLOROISOCYANURIC ACID, DRY mixture
· IMDG, IATA	
· 14.3 Transport hazard class(es)	
· ADR	
	
	
· Class	5.1 Oxidising substances.
· Label	5.1
· IMDG, IATA	
	
· Class	5.1 Oxidising substances.
· Label	5.1
· 14.4 Packing group	II
· ADR, IMDG, IATA	
· 14.5 Environmental hazards:	
· Special marking (ADR):	Symbol (fish and tree)

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· 14.6 Special precautions for user	Warning: Oxidising substances.
· Hazard identification number (Kemler code):	50
· EMS Number:	F-A,S-Q
· Stowage Category	A
· Handling Code	H1 Keep as dry as reasonably practicable
· 14.7 Transport in bulk according to Annex II of Marpol and the IBC Code	Not applicable.
· Transport/Additional information:	Not dangerous according to the above specifications.
· ADR	
· Limited quantities (LQ)	1 kg
· Excepted quantities (EQ)	Code: E2
	Maximum net quantity per inner packaging: 30 g
	Maximum net quantity per outer packaging: 500 g
· Transport category	2
· Tunnel restriction code	E
· IMDG	
· Limited quantities (LQ)	1 kg
· Excepted quantities (EQ)	Code: E2
	Maximum net quantity per inner packaging: 30 g
	Maximum net quantity per outer packaging: 500 g
· UN "Model Regulation":	UN 2468 TRICHLOROISOCYANURIC ACID, DRY MIXTURE, 5.1, II, ENVIRONMENTALLY HAZARDOUS

SECTION 15: Regulatory information

- **15.1 Safety, health and environmental regulations/legislation specific for the substance or mixture**
- **Directive 2012/18/EU**
- **Named dangerous substances - ANNEX I** Substance is not listed.
- **Seveso category**
- P8
- E1
- **Qualifying quantity (tonnes) for the application of lower-tier requirements** 50 t
- **Qualifying quantity (tonnes) for the application of upper-tier requirements** 200 t
- **15.2 Chemical safety assessment:** A Chemical Safety Assessment has not been carried out.

SECTION 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.

- **Department issuing SDS:** Product safety department.

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· Abbreviations and acronyms:

ADR: Accord relatif au transport international des marchandises dangereuses par route (European Agreement Concerning the International Carriage of Dangerous Goods by Road)
IMDG: International Maritime Code for Dangerous Goods
IATA: International Air Transport Association
GHS: Globally Harmonised System of Classification and Labelling of Chemicals
EINECS: European Inventory of Existing Commercial Chemical Substances
CAS: Chemical Abstracts Service (division of the American Chemical Society)
DNEL: Derived No-Effect Level (UK REACH)
PNEC: Predicted No-Effect Concentration (UK REACH)
LC50: Lethal concentration, 50 percent
LD50: Lethal dose, 50 percent
PBT: Persistent, Bioaccumulative and Toxic
vPvB: very Persistent and very Bioaccumulative
Ox. Sol. 2: Oxidizing solids – Category 2
Acute Tox. 4: Acute toxicity – Category 4
Eye Irrit. 2: Serious eye damage/eye irritation – Category 2
STOT SE 3: Specific target organ toxicity (single exposure) – Category 3
Aquatic Acute 1: Hazardous to the aquatic environment - acute aquatic hazard – Category 1
Aquatic Chronic 1: Hazardous to the aquatic environment - long-term aquatic hazard – Category 1

GB