

SAFETY DATA SHEET

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

1.1 Product identifier

- Datasheet Number: SP112/SP122 Version 2.0.0
- Product Name: Stabilised Chlorine Tablets
- Chemical Name: Symclosene
- Synonyms: Trichloroisocyanuric acid, Trichloro-s-triazinetrione, Trichlor, 1,3,5-Triazine-2,4,6 (1H,3H,5H)-trione, 1,3,5-trichloro-, TCCA
- CAS Number: 87-90-1
- EC No.: 201-782-8
- Index No.: 613-031-00-5

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

- Use of the substance/mixture: Pool / spa treatment; Biocide
- Use advised against: No information available

1.3 Details of the supplier of the safety data sheet

- Name of Supplier: Total Pool Chemicals Ltd
- Address of Supplier: Unit 1-5 , Pool Bank Business Park
High Street, Tarvin
Chester
UK
CH3 8JH
- Telephone: +44 (0)1829 740290
- Email: sales@totalpool.co.uk

1.4 Emergency telephone number

- +44 (0)1829 740290 (Office Hours)

SECTION 2: Hazards identification

2.1 Classification of the substance or mixture

- Classification (REGULATION (EC) No 1272/2008) [CLP/GHS]: Ox. Sol. 2, H272; Acute Tox. 4, H302; Eye Irrit. 2, H319; STOT SE 3, H335; Aquatic Acute 1, H400; Aquatic Chronic 1, H410; EUH031
- Additional information: For full text of Hazard- and EU Hazard-statements: see section 16

2.2 Label elements



- Signal Word: Danger
- 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
 - P102 - Keep out of reach of children.
 - P210 - Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking.

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SECTION 2: Hazards identification (....)

P271 - Use only outdoors or in a well-ventilated area.
 P280: Wear protective gloves/protective clothing/eye protection/face protection.
 P305+P351+P338 - IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
 P337+P313 - If eye irritation persists: Get medical advice/attention.
 P501 - Dispose of contents/container to an authorised waste collection point

- Supplemental Hazard information (EU)
 EUH031 - Contact with acids liberates toxic gas.

2.3 Other hazards

- Not a PBT according to REACH Annex XIII
- Not a vPvB according to REACH Annex XIII

SECTION 3: Composition/information on ingredients

3.1 Substances

| Chemical Name | Conc. | CAS No. | EC No. | Classification (REGULATION (EC) No 1272/2008) [CLP/GHS] | SCL or M-Factor | REACH Registration Number | WEL/OEL |
|---------------|------------|---------|-----------|---|-----------------|---------------------------|---------|
| Symclosene | 98 - 100 % | 87-90-1 | 201-782-8 | Ox. Sol. 2, H272; Acute Tox. 4, H302; Eye Irrit. 2, H319; STOT SE 3, H335; Aquatic Acute 1, H400; Aquatic Chronic 1, H410; EUH031 | - | - | None |
| Other | 0 -2 % | - | - | Not Classified | - | - | None |

3.2 Mixtures

- Not applicable

SECTION 4: First aid measures

Rescuers should put on approved personal protective equipment (PPE) before administering first aid

Rescuers should take suitable precautions to avoid becoming casualties themselves

4.1 Description of first aid measures

- Contact with eyes
 If substance has got into eyes, immediately wash out with plenty of water for several minutes
 Irrigate eyes thoroughly whilst lifting eyelids
 Remove contact lenses, if present and easy to do. Continue rinsing.
 If eye irritation persists: Get medical advice/attention.
- Contact with skin
 After contact with skin, take off immediately all contaminated clothing, and wash immediately with plenty of soap and water
 Contaminated clothing should be laundered before reuse
 Get medical advice/attention.
- Ingestion
 Rinse mouth with water (do not swallow)
 Give plenty of water to drink
 Do NOT induce vomiting.
 Get immediate medical advice/attention.

SECTION 4: First aid measures (....)

- Inhalation
 - If breathing is difficult, remove victim to fresh air and keep at rest in a position comfortable for breathing.
 - IF exposed or concerned: Get medical advice/attention.

4.2 Most important symptoms and effects, both acute and delayed

- Contact with eyes
 - Causes severe irritation
 - Causes redness and swelling
- Contact with skin
 - May cause redness and irritation
- Ingestion
 - May cause nausea/vomiting
 - May cause diarrhoea
 - The ingestion of significant quantities may cause damage to digestive system
- Inhalation
 - May cause delayed pulmonary oedema
 - May cause respiratory tract irritation.
 - May cause shortness of breath
 - May cause coughing

4.3 Indication of any immediate medical attention and special treatment needed

- Treat symptomatically

SECTION 5: Firefighting measures

5.1 Extinguishing media

- Suitable extinguishing media: Water spray; water fog
- Unsuitable extinguishing media: Carbon dioxide; alcohol resistant foam; DO NOT USE dry extinguishers containing ammonium compounds such as dry powder.

5.2 Special hazards arising from the substance or mixture

- May intensify fire; oxidiser.
- Not combustible, but will contribute to the combustion of other materials. May cause violent, sometimes explosive reactions.
- In a fire or if heated, a pressure increase will occur and the container may burst
- Gives off irritating or toxic fumes (or gases) in a fire.
- Decomposition products may include oxygen, chlorine, nitrogen, nitrogen trichloride, cyanogen chloride, oxides of carbon, phosgene

5.3 Advice for firefighters

- Evacuate the area and keep personnel upwind
- Keep container(s) exposed to fire cool, by spraying with water
- Collect contaminated fire extinguishing water separately. This MUST not be discharged into drains. Prevent fire extinguishing water from contaminating surface or ground water.
- Special protective equipment: Wear self-contained breathing apparatus (SCBA). Wear full protective clothing including chemical protection suit.

SECTION 6: Accidental release measures

6.1 Personal precautions, protective equipment and emergency procedures

- Rescuers should take suitable precautions to avoid becoming casualties themselves



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SECTION 6: Accidental release measures (....)

- Only trained and authorised personnel should carry out emergency response
- Personal precautions for non-emergency personnel: Ensure adequate ventilation; Do not breathe dust; Wear protective clothing as per section 8; Wash thoroughly after handling.
- Personal precautions for emergency responders: Evacuate the area and keep personnel upwind; Wear self-contained breathing apparatus (SCBA); Wear suitable protective clothing, eye/face protection and gloves; Natural rubber are recommended

6.2 Environmental precautions

- Avoid release to the environment.
- Do not allow to enter public sewers and watercourses
- If contamination of drainage systems or water courses is unavoidable, immediately inform appropriate authorities

6.3 Methods and material for containment and cleaning up

- Stop leak if safe to do so.
- Avoid formation of dust
- Do not mix with water
- Contain and collect spillage with non-combustible, absorbent material e.g. sand, earth, vermiculite or diatomaceous earth and place in container for disposal
- Seal containers and label them
- Seek expert advice for removal and disposal of all contaminated materials and wastes
- Ventilate the area and wash spill site after material pick-up is complete

6.4 Reference to other sections

- See section(s): 7, 8 & 13

SECTION 7: Handling and storage**7.1 Precautions for safe handling**

- Use only in well ventilated areas
- Do not breathe dust
- Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking.
- Protect from moisture.
- Do not add water to the product, always add the product to large quantities of water.
- Do not mix with other chemicals
- Avoid contact with skin and eyes
- Wear protective clothing as per section 8
- Contaminated clothing should be laundered before reuse
- Contaminated work clothing should not be allowed out of the workplace.
- Use good personal hygiene practices
- Do not eat, drink or smoke when using this product.
- Wash thoroughly after handling.
- Ensure eyewash stations and safety showers are nearby

7.2 Conditions for safe storage, including any incompatibilities

- Keep in a cool, dry, well ventilated place
- Keep container tightly closed.
- Protect from moisture.
- Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking.
- Keep away from combustible material
- Keep away from food, drink and animal feedingstuffs
- Keep away from acid

7.3 Specific end use(s)

- Pool / spa treatment

SECTION 8: Exposure controls/personal protection

8.1 Control parameters

- If this product contains ingredients with exposure limits, personal, workplace atmosphere or biological monitoring may be required to determine the effectiveness of the ventilation or other control measures and/or the necessity to use respiratory protective equipment.
Reference should be made to monitoring standards, such as the following: European Standard EN 689 (Workplace exposure - Measurement of exposure by inhalation to chemical agents - Strategy for testing compliance with occupational exposure limit values). European Standard EN 14042 (Workplace atmospheres. Guide for the application and use of procedures for the assessment of exposure to chemical and biological agents). European Standard EN 482 (Workplace exposure. General requirements for the performance of procedures for the measurement of chemical agents). Reference to national guidance documents for methods for the determination of hazardous substances will also be required.
- The UK HSE (EH40) recommends the following limits for dusts: 10 mg/m³ (8hr TWA) total inhalable dust; 4 mg/m³ (8hr TWA) total respirable dust
- Symclosene
 - (EU) OELV (short term limit value) (as chlorine) 0.5 ppm 1.5 mg/m³
 - WEL (short term limit value) (as chlorine) 0.5 ppm 1.5 mg/m³ (UK)
 - DNEL (inhalational) 8.04 mg/m³ Industry, Long Term, Systemic Effects
 - DNEL (dermal) 2.28 mg/kg (bw/day) Industry, Long Term, Systemic Effects
 - DNEL (inhalational) 1.98 mg/m³ Consumer, Long Term, Systemic Effects
 - DNEL (dermal) 1.14 mg/kg (bw/day) Consumer, Long Term, Systemic Effects
 - DNEL (oral) 1.14 mg/kg (bw/day) Consumer, Long Term, Systemic Effects
 - PNEC aqua (freshwater) 170 - 12 100 000 ng/l
 - PNEC aqua (intermittent releases, freshwater) 1.7 - 6 550 µg/l
 - PNEC aqua (marine water) 1.52 mg/l
 - PNEC (STP) 590 - 204 100 µg/l
 - PNEC sediment (freshwater) 7.56 mg/kg
 - PNEC sediment (marine water) 756 µg/kg
 - PNEC terrestrial (soil) 756 µg/kg

8.2 Exposure controls

- Selection and use of personal protective equipment should be based on a risk assessment of exposure potential
- Engineering controls
 - Ensure adequate ventilation
 - Engineering controls should be provided to prevent the need for ventilation
 - Use local exhaust ventilation and/or enclosures.
- Respiratory protection
 - In case of insufficient ventilation, wear suitable respiratory equipment
 - Where a reusable half mask respirator is required, use EN 140 mask and EN 143 particle filter, or EN 1827
 - Where a full face mask respirator is required, use EN 136, with particle filter EN 143
- Eye/face protection
 - Wear goggles giving complete eye protection approved to standard EN 166.
- Skin protection
 - Wear protective gloves. The selected protective gloves have to satisfy the specifications of EU Directive 89/686/EEC and standard EN 374.
 - The selection of a suitable glove depends on work conditions and whether the product is present on its own or in combination with other substances. Breakthrough time is dependent on the characteristics of the brand of glove used and the supplier should be consulted.
 - Wear suitable protective clothing
 - Contaminated work clothing should not be allowed out of the workplace.
 - Contaminated clothing should be laundered before reuse
- Hygiene measures

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SECTION 8: Exposure controls/personal protection (....)

Do not eat, drink or smoke when using this product.
 Use good personal hygiene practices
 Wash thoroughly after handling.
 Ensure eyewash stations and safety showers are nearby

- Environmental exposure controls
 Do not empty into drains
 Do not allow to penetrate the ground/soil.



SECTION 9: Physical and chemical properties

9.1 Information on basic physical and chemical properties

- Appearance: Solid, white tablets
- Odour: Smells of chlorine
- Odour threshold: 1 - 3 ppm (value for chlorine)
- pH: 2.6 - 3.2
- Melting point/freezing point: 246.8 - 440 °C
- Initial boiling point and boiling range: Not applicable
- Flashpoint: Not applicable
- Evaporation Rate: No information available
- Flammability (solid,gas): Not flammable
- Upper/lower flammability or explosive limits: Not applicable
- Vapour Pressure: 0.001 - 0.002 Pa @ 20 - 25 °C
- Vapour Density: No information available
- Relative Density: 2.07 @ 20 °C
- Solubility(ies): Solubility in water: 2 g/l @ 25 °C
- Partition Coefficient (n-Octanol/Water): Log Pow: -1.31 - 0.94 @ 25 °C
- Autoignition Temperature: No information available
- Decomposition temperature: 225 - 230 °C
- Viscosity: No information available
- Explosive Properties: Not applicable
- Oxidising properties: Oxidising

9.2 Other information

- Bulk Density: 850 kg/m³

SECTION 10: Stability and reactivity

10.1 Reactivity

- May intensify fire; oxidizer
- Do not use together with other products. May release dangerous gases (chlorine).

10.2 Chemical stability

- Stable under normal conditions
- May decompose on exposure to air and moisture

10.3 Possibility of hazardous reactions

- May intensify fire; oxidizer
- Heating may cause a fire or explosion.

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SECTION 10: Stability and reactivity (....)

- Reacts with combustible material
- Wet material may generate nitrogen trichloride, an explosion hazard
- Contact with acids liberates toxic gas.

10.4 Conditions to avoid

- Avoid formation of dust
- Avoid contact with moisture
- Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking.

10.5 Incompatible materials

- Incompatible with acids, ammonia, bases, floor sweeping compounds, calcium hypochlorite, reducing agents, organic solvents and compounds

10.6 Hazardous decomposition products

- Decomposition products may include oxygen, chlorine, nitrogen, nitrogen trichloride, cyanogen chloride, oxides of carbon, phosgene
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SECTION 11: Toxicological information

11.1 Information on toxicological effects

- Acute Toxicity
Harmful if swallowed.

Substances

| Chemical Name | LD50 (oral, rat) | LC50 (inhalation, rat) | LD50 (dermal, rabbit) |
|---------------|---------------------|---------------------------|--------------------------|
| Symclosene | 406 mg/kg | > 50 mg/l (1 h) | > 2 000 mg/kg |

- 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
- Germ cell mutagenicity
No evidence of mutagenic effects
- Carcinogenicity
No evidence of carcinogenic effects
- Reproductive toxicity
No evidence of reproductive effects
- Specific target organ toxicity (STOT) - single exposure
May cause respiratory irritation.
- Specific target organ toxicity (STOT) - repeated exposure
Based on available data, the classification criteria are not met

Substances

| Chemical Name | NOAEL (oral, rat) | NOAEC (inhalation, rat) | NOAEL (dermal, rat) |
|---------------|------------------------|-------------------------------|------------------------|
| Symclosene | 114 - 914 mg/kg bw/day | 31 mg/m ³ | No data available |

- Aspiration hazard
Based on available data, the classification criteria are not met
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SECTION 11: Toxicological information (....)

- Contact with eyes
 - Causes severe irritation
 - Causes redness and swelling
- Contact with skin
 - May cause redness and irritation
- Ingestion
 - May cause nausea/vomiting
 - May cause diarrhoea
 - The ingestion of significant quantities may cause damage to digestive system
- Inhalation
 - May cause delayed pulmonary oedema
 - May cause respiratory tract irritation.
 - May cause shortness of breath
 - May cause coughing

SECTION 12: Ecological information

12.1 Toxicity

- Very toxic to aquatic life with long lasting effects.
- Syclosene
 - LC50 (fish) 230 - 8 000 000 µg/l (4 days)
 - EC50 (aquatic algae) 170 µg/l (48 hr)
 - EC50 (aquatic algae) 100 mg/l (72 hr)

12.2 Persistence and degradability

- Inherently biodegradable

12.3 Bioaccumulative potential

- No information available

12.4 Mobility in soil

- Large volumes may penetrate soil and contaminate groundwater

12.5 Results of PBT and vPvB assessment

- Not a PBT according to REACH Annex XIII
- Not a vPvB according to REACH Annex XIII

12.6 Other adverse effects

- Do not empty into drains

SECTION 13: Disposal considerations

13.1 Waste treatment methods

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

13.2 Classification

- The waste must be identified according to the List of Wastes (2000/532/EC)
- Hazardous Property Code(s): HP 2 Oxidising; HP 4 Irritant; HP 6 Acute Toxicity; HP 14 Ecotoxic

SECTION 14: Transport information

14.1 UN number

- UN No.: 2468

14.2 UN proper shipping name

- Proper Shipping Name: TRICHLOROISOCYANURIC ACID, DRY

14.3 Transport hazard class(es)

- Hazard Class: 5.1

14.4 Packing group

- Packing Group: II

14.5 Environmental hazards

- Marine pollutant

14.6 Special precautions for user

- Keep away from heat and direct sunlight.
- Ensure adequate ventilation

14.7 Transport in bulk according to Annex II of Marpol and the IBC Code

- Not applicable

14.8 Road/Rail (ADR/RID)

- Proper Shipping Name: TRICHLOROISOCYANURIC ACID, DRY
- ADR UN No.: 2468
- ADR Hazard Class: 5.1
- ADR Packing Group: Not applicable
- Tunnel Code: E
- LQ: 1 kg

14.9 Sea (IMDG)

- Proper Shipping Name: TRICHLOROISOCYANURIC ACID, DRY
- IMDG UN No.: 2468
- IMDG Hazard Class: 5.1
- IMDG Pack Group.: II

14.10 Air (ICAO/IATA)

- Proper Shipping Name: TRICHLOROISOCYANURIC ACID, DRY
- ICAO UN No.: 2468
- ICAO Hazard Class: 5.1
- ICAO Packing Group: II

SECTION 15: Regulatory information

15.1 Safety, health and environmental regulations/legislation specific for the substance or mixture

- This safety data sheet is provided in compliance with REACH Regulation (EC) No 1907/2006 as amended by Regulation (EU) 2015/830



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SECTION 15: Regulatory information (....)

- Regulation (EC) No. 1272/2008 on the classification, labelling and packaging of substances and mixtures (CLP Regulation) applies in Europe
- This product is covered by the EU Biocides Regulation 528/2012 (EU BPR)
- This product is covered by EU Directive 2012/18/EU (the Seveso III Directive)
- Symclosene is listed in Annex III of REACH as # Suspected acutely toxic via the oral route: The Danish QSAR database contains information indicating that the substance is predicted as toxic via the oral route. # Harmonised classification for acute toxicity: The substance has the following harmonised classification in Annex VI of CLP: Acute Tox. 4 # Harmonised classification for aquatic toxicity: The substance has the following harmonised classification in Annex VI of CLP: Aquatic Acute 1; The substance has the following harmonised classification in Annex VI of CLP: Aquatic Chronic 1 # Harmonised classification for eye irritation: The substance has the following harmonised classification in Annex VI of CLP: Eye Irrit. 2 # Harmonised classification for specific target organ toxicity: The substance has the following harmonised classification in Annex VI of CLP: STOT SE 3 # Suspected hazardous to the aquatic environment: The Danish QSAR database contains information indicating that the substance has a 96h LC50 to fish of <1 mg/L; The Danish QSAR database contains information indicating that the substance has a 48h EC50 to Daphnia of <1 mg/L # Suspected persistent in the environment: The Danish QSAR database contains information indicating that the substance is predicted as non readily biodegradable # Suspected respiratory sensitiser: The Toolbox profiler 'Respiratory sensitisation' gives an alert for respiratory sensitisation # Suspected skin irritant: The Danish QSAR database contains information indicating that the substance is predicted as skin irritant

15.2 Chemical safety assessment

- A REACH chemical safety assessment has not been carried out

SECTION 16: Other information

The statements made herein are based on our best present experience and are intended to describe product safety requirements. They should not therefore be considered as a warranty of specific properties.

Sources of data: Information from published literature and supplier safety data sheets

Revision No. 2.0.0. Revised September 2020.

Changes made: Revisions to all sections to conform to Regulation (EU) 2015/830

Text not given with phrase codes where they are used elsewhere in this safety data sheet:

- H272: May intensify fire; oxidizer
- 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

Acronyms

- ATE: Acute Toxicity Estimate
- CAS: Chemical Abstracts Service
- DNEL: Derived No-Effect Level
- EC: European Community
- EC50: Effective Concentration, 50%
- GHS: Globally Harmonised System
- LC50: Lethal Concentration, 50%
- LD50: Lethal Dose, 50%
- NOAEC: No observed adverse effect concentration
- NOAEL: No observed adverse effect level
- OEL: Occupational Exposure Limit
- PBT: Persistent, Bioaccumulative and Toxic
- PNEC: Predicted No-Effect Concentration



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SECTION 16: Other information (....)

- REACH: Registration, Evaluation, Authorisation and Restriction of Chemicals
 - SCL: Specific Concentration Limit
 - vPvB: very Persistent and very Bioaccumulative
 - WEL: Workplace Exposure Limit
- end of safety datasheet ---
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