

MATERIAL SAFETY DATA SHEET

Product Name: Stabilised Chlorine Tablets				
1. Chemical product and company identification				
Product name	Chlorine Tablets			
Chemical name	Trichloroisocyanuric acid			
Product type and use	Swimming pools			
Company identification	Total Pool Chemicals Ltd			
Address and telephone number	Unit 1, Pool Bank Park High Street, Tarvin, Chester CH3 8JH			
Emergency telephone number	01829 740290			
2. Composition/Information on ingredients				
Chemical Name	CAS No	Content (%)	Symbol	R-phrase(s)
1,3,5-Trichloro-1,3,5-triazine-2,4,6 (1H, 3H, 5H) – trione or Trichloro (iso) cyanuric acid	87-90-1	100 (approx)	Xn Harmful	R22 Harmful by ingestion R31 Contact with acids Liberates toxic gas R36/37 Irritating to eyes and Respiratory system
3. Hazards identification				
Oxidiser:	Irritating to respiratory system			
Inhalation	May cause irritation after long periods			
Skin Contact	Irritating to eyes			
Contact with eyes	Harmful if ingested			
Ingestion	Fire risk in case of decomposition; nitrogen trichloride			
Environmental risks	Formation may cause an explosion.			
4. First-aid measures				
General recommendations:	Seek medical advice.			
Inhalation:	Move the affected person from contaminated area			
Skin contact:	Remove contaminated clothing, wash with plenty of water			
Contact with eyes	Flush immediately under flowing water with eyelids held open			
Ingestion	Wash mouth out with water, drink water, milk or egg-white			

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<p>5. Fire-fighting measures</p> <ul style="list-style-type: none"> - Suitable - Unsuitable - Hazards arising - Protective equipment - Other precautions 	<p>Plenty of water Small quantities of water, foam, dry chemicals Combustion products, resulting gases Self-breathing apparatus, protective clothing Keep containers cool by spraying water</p>
<p>6. Accidental release measure</p> <p>Personal precautions:</p> <p>Environmental precautions:</p> <p>Methods for cleaning up:</p>	<p>Avoid dust formation Do not empty into drains or watercourses</p> <p>Flush minor spills with plenty of water taking into consideration the effect of active chlorine amount on the recipient water. Alternatively, they can be collected in clean, dry containers and disposed of by reduction with sodium sulphite under strictly controlled conditions and with trained personnel. Refer to manufacturer guidelines. If the collected product is moist or contaminated with reactive substance it must be destroyed as soon as possible.</p>
<p>7. Handling and Storage</p> <p>Handling</p> <p>Storage</p>	<p>Ensure good ventilation and exhaustion of the working area. Avoid contact with organic materials. This product fosters combustion. Keep away from all sources of heat and ignition. Do not smoke. Avoid dust formation. Take precautionary care against static discharges.</p> <p>Store in closed containers in dry, well ventilated area. Protect from moisture and heat. Recommended storage temperature <25°C. Can be subject to local storage regulations.</p>

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8. Exposure controls/Personal Protection	
Limit values	TLV not established. The chlorine limits are suggested: TLV/TWA = 0.5 ppm TLV/STEL = 1.0 ppm (ACGIH)
Personal protection:	Do not breathe dust. Avoid contact with eyes, skin and mucous membranes. Carefully wash hands and face during breaks and at end of work.
Respiratory protection:	Protective apparatus for chlorine and dust.
Hand protection:	Gloves.
Eye protection:	Chemical safety goggles.
Body protection:	Protective clothing, boots.
Other:	Eyewash bottle.
9. Physical and Chemical Properties	
Appearance:	
Form	Tablets
Colour	White
Odour	As of chlorine
Relevant data for safety:	
Change in physical state	
Boiling point	n.a.
Melting point (decomposes)	225 - 230°C
Flash point	n.a.
Flammability (solid, gas)	n.a.
Ignition temperature	n.a.
Autoflammability	n.a.
Oxidising properties	Oxidiser
Explosive properties	n.a.
Explosion limits - Lower	n.a.
- Upper	n.a.
Vapour pressure (20°C)	n.a.
Density (20°C)	n.a.
Bulk density	n.a.
Solubility in water (25°C)	approx 12 g/l
pH (1% in H ₂ O) (25°C)	2.7 – 3.3
Partition coefficient n-octanol/water (log POW 20°C)	n.d.
Viscosity (20°C)	n.a.

Product Name: Stabilised Chlorine Tablet	
<p>10. Stability and Reactivity Conditions to avoid</p> <p>Materials to avoid</p>	<p>Thermal decomposition: Decomposition occurs if heated above 200°C. Decomposition is self-sustained with emission of toxic gases (chlorine and traces of phosgene) and heat.</p> <p>Hazardous reactions: This product is a strong oxidiser. Avoid contact with any organic or inorganic oxidisable material. Contact with organic matter may cause fire. By contacts with acids decomposition occurs with chlorine development. Especially, avoid contact with nitrogen containing compounds like ammonia, urea, amines or similar. Small quantities of water react with evolution of violently explosive nitrogen trichloride.</p> <p>Other information: Thermally decomposing material can be controlled by flooding with a great amount of water.</p>
<p>11. Toxicological Information Oral LD50, rat (mg/kg) Eye irritation, rabbit Skin irritation, rabbit</p>	<p>800 mg/kg Severe Moderate</p>
<p>12. Ecological information</p>	<p>Utilise according to good manufacturing practice and avoid to empty into the environment. Evolving chlorine, this product is harmful to fishes and aquatic life. Classification according to the German law on water management: WGK = 2 (harmful), estimated.</p>
<p>13. Disposal Considerations Product: Contaminated Packaging:</p>	<p>Dispose according to local and national regulations. Handle contaminated containers as the product itself. Dispose of the packaging by incineration or dumping only after cleaning by destroying the product residues. Do not reuse the packaging, even after complete cleaning, but for chlorocyanurates.</p>
<p>14. Transport Information General information: Road transport: Sea transport: Marine pollutant: Air transport:</p>	<p>UN No 2468 Proper shipping name: Trichloroisocyanuric acid, dry. Packaging Group: II ADR/RID: Class 5.1 Item 26b IMO: Class 5.1 IMDG Code Page 5190 (Admt. 27-94) No. EmS 5.1 – 05 MFAG 740 ICAO/IATA: Class 5.1 – PAC 508 – CAC 511</p>

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Date: 21.01.08

Product Name: Stabilised Chlorine Tablets			
15. Regulatory Information:			
EC labelling:	Symbol:	O Xn	Oxidising. Harmful.
	R-Phrases:	R8 R22 R31 R36/37	Contact with combustible material may cause fire. Harmful if swallowed. Contact with acids liberates toxic gas. Irritating to eyes and respiratory system
	S- Phrases	S2 S8 S26 S41 S46	Keep out of reach of children. Keep container dry. In case of contact with eyes, rinse immediately with plenty of water and seek medical advice. In case of fire and /or explosion do not breathe fumes. If swallowed, seek medical advice immediately and show this container or label.
	Warning!		Do not use together with other products. May release dangerous gases (chlorine).
Description:			Trichloroisocyanuric acid
16. Other information		n.a. = not applicable n.d. = not determined	
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.			