



Company Details:

**Waterwell Projects (PTY) LTD**

*Reg No. 2001/018862/07*

Waterwell Projects (PTY) LTD  
Unit 4/5 Megazone Park  
Hertford Junction R512  
Lanseria  
1748

Tel: 011 300 9917/8 or 073 077 0973

Fax: 086 605 9360

Poison Centre: 0800 333 444

## MATERIAL SAFETY DATA SHEET

### 1. IDENTIFICATION OF THE SUBSTANCE AND OF THE COMPANY

#### a) Identification of the substance or preparation :

- 1.1 Commercial name : Chlorine Feeder tabs ( 20g) tablets (packed 2kg or 20kg)
- 1.2 Chemical name : Trichloroisocyanuric acid (TCCA)  
1,3,5-trichlore-1,3,5-traizine-2,4,6 (1H,3H,5H)-trione.  
Trichlore-1,3,5-traizinetriene.
- 1.3. Chemical formula :  $C_3N_3O_3Cl_3$
- 1.4. CAS No : 87-90-1
- 1.5. EEC No : 201-782-8

#### b) Information of Importer/ Packer::

Zodiac Pool Care South Africa (PTY) LTD  
Private Bag X127  
Halfway House 1685  
Tel: 011 300 9917/8 or 011 237 3900  
Fax: 086 605 9360 or 011 314 5225

### 2. COMPOSITION / INFORMATION ON INGREDIENTS

Dangerous ingredient	% w/w	Hazard classification	Risk phrases
Trichloroisocyanuric acid	min. 99%	O-Xn	R-8-22-3136/37

### 3. DESCRIPTION OF HAZARDS

**Hazards to human beings:** Harmful by inhalation, ingestion, contact with skin and eyes

**Hazards for the environment:** Toxic for fishes and algae. It may give off chlorine in contact with other products.

### 4. FIRST AID MEASURES

<u>Hazards</u>	<u>Symptoms and effects</u>	<u>Actions to be taken</u>
4.1 Contact with the skin :	Redness, strong burning sensation, with eventual ulceration.	Remove contaminated clothes. Flush skin with plenty of water. If irritation persists, call a



Keep product in suitable closed containers (metallic or wooden containers must not be used), in a fresh, dry and ventilated place, far from any ignition source and other chemical products. If product is stored with other products, it should be placed in a separate compartment near the exit door, which should be free from obstacles, in order to take product away quickly if necessary.

## 8. EXPOSURE CONTROLS / PERSONAL PROTECTION

### 8.1 Control Parameters ACGIH :

Ingredient	EXPOSURE LEVELS	
	TVL TWA	TLV STEL
Trichloroisocyanuric acid	1.5 mg /m = 0.5 ppm For chlorine gas	3 mg/m = 1 ppm for Chlorine gas

### 8.2 Monitoring procedures :

Drager, etc.

### 8.3 Recommended personal protection :

#### 8.3.1 Breathing protection :

Full mask equipped with suitable filter (combined for dust and halogens).

#### 8.3.2 Hand protection :

Gloves, i.e. of polyethylene.

#### 8.3.3 Eye protection :

Goggles or shield.

#### 8.3.4 Skin protection :

Suitable working clothes fully protecting the body.

## 9. PHYSICAL AND CHEMICAL PROPERTIES

9.1 Aspect :	White powder (90) or granules (GR90)
9.2 Odour :	Slight chlorine odour
9.3 pH (1% solution) :	2.7 - 3.3
9.4 Boiling point / boiling range :	N.A.
9.5 Melting point / melting range :	225°C with decomposition
9.6 Flash point :	Over 250°C (ASTM-D-92)
9.7 Flammability :	Non flammable
9.8 Autoflammability	N.A.
9.9 Explosive properties :	It can only explode by reaction with other chemical products (acids, alkalis, nitrogen compounds, fats oils, etc.)
9.10 Comburent properties :	Although it is not combustible by itself, it favours combustion.
9.11 Vapour pressure :	N.A.
9.12 Bulk Density :	Approx. 1,000 kg/m
9.13 Solubility in water at 25°C :	12 g/litre
9.14 Fat solubility :	N.D.
9.15 Partition coefficient :	N.D.
n-octanol / water :	

## 10. STABILITY AND REACTIVITY

### 10.1 Stability :

Product is stable in normal storage conditions. Product loses less than 1% chlorine after one year at 40°C.

### 10.2 Conditions to avoid :

Humidity and temperatures over 50°C.

### 10.3 Materials to avoid :

Product attacks metal in general. It reacts with water (in small quantities which may moisten product, but great quantities of water are necessary to extinguish a fire), oxidant and reducing agents, acids, alkalis, nitrogen products, ammonium salts, urea, amines, quaternary ammonium derivatives, oils, fats, peroxides, cationic tensioactives, etc.

### 10.4 Hazardous decomposition products :

In combination with the above mentioned products, it decomposes and gives off a great quantity of heat, chlorine, nitrogen trichloride, etc. with subsequent danger of explosion if nitrogen trichloride level is high enough.

## 11. TOXICOLOGICAL INFORMATION

11.1	Acute LD50 oral rat :	406 mg / kg
11.2	LDL oral human :	3,570 mg / kg
11.3	Acute LD50 dermal rabbit :	20 g / kg
11.4	Sensitization :	N.D.
11.5	Carcinogenicity :	N.D.
11.6	Mutagenicity :	N.D.
11.7	Reproductive toxicity :	N.D.

## 12. ECOLOGICAL INFORMATION

### 12.1 General information on substance behaviour in the environment :

Toxic for fish and algae. Do not pour directly into rivers lakes, etc. Product hydrolyses in diluted aqueous solution giving off hypochlorous and cyanuric acids. The first one is transformed into chloride with time and the action of the sunrays. The second one is biodegradable and practically non toxic. Therefore, the diluted solution can be directly poured to the sewer system, depending on the applicable local regulations, provided the chlorine content is of 0 ppm.

12.2	Mobility :	N.D.
12.3	Persistence and degradability :	N.D.
12.4	Bioaccumulation potential :	N.D.
12.5	Aquatic toxicity :	N.D.
12.6	COT theoretical :	0.15 g C / g

## 13. DISPOSAL CONSIDERATIONS

### 13.1 Disposal of material :

Proceed as follows : add 2.5 kg of sodium carbonate to 20 litres of water, stir and

dissolve. Slowly (in about 0.5 hours) add 1 kg of product. Let stand for at least 10 hours. Slowly add (in about 0.5 hours) while stirring 0.5 kg of sodium sulphite. Then check if there is some free-chlorine left. If necessary add more sodium sulphite until chlorine value is 0. Neutralise if necessary.

The above operations should be carried out in the open air wearing suitable equipment (i.e. full mask with halogen filter and goggles), as chlorine gas may be feed off. The container and stirring rod should be of corrosion-resistant materials (i.e. plastic, etc.)

#### **13.2 Disposal of packaging :**

Used packagings can be disposed of at an authorised dump.

#### **13.3 Disposal of waste :**

The waste obtained as mentioned in paragraph 13.1 diluted in a great quantity of water can be poured to the sewer, according to the local regulations, as it only contains a mixture of salts and cyanuric acid which is biodegradable.

Another disposal method for dry product is by incineration mixing product with solvents. The incinerator should be provided with a washing system for chlorine combustion gases.

Disposal of product should be carried out according to local or national regulations on industrial waste disposal.

### **14. TRANSPORT INFORMATION**

<b>14.1 Labelling for transportation :</b>	Oxidising agent 5.1 (black bomb on yellow background).
<b>14.2 Substance for identification :</b>	50-2468
<b>14.3 ADR / RID ;</b>	5.1, 26 b
<b>14.4 IMDG :</b>	5.1 / II UN 2468
<b>14.5 ICAO / IATA</b>	5.1 UN 2468

### **15. REGULATORY INFORMATION**

<b>15.1 EEC No :</b>	201-782-8
<b>15.2 Hazard Symbol :</b>	O : Oxidising Xn : Harmful
<b>15.3 R and S phrases :</b>	
R 8	Contact with combustible materials may cause fire.
R22	Harmful if swallowed.
R31	Contact with acids liberates toxic gas.
R36/37	Irritating to eyes and respiratory system.
S 2	Keep out of reach of children.
S 8	Keep container dry.
S 26	In case of contact with eyes rinse immediately with plenty of water and seek medical advice.
S 41	In case of fire and / or explosion, do not breathe fumes.
S 46	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).

## 16. ANY OTHER RELEVANT INFORMATION ;

The above information is also provided with regard to law 31 / 1995 of the 8 November B.O.E.10-11-95 and the E.U. Directive 89/391 on labour risks.

N.A. = non applicable

N..D. = non defined

*The information herein is given in good faith and to the best of our knowledge at the current date. The accomplishment of the instructions herein does not exempt the user from following the legal and administrative regulations relative to product, environmental safety and hygiene, which are user's own responsibility. In case of mixture with other substances, ensure that other risks are not generated.*

*Revised: 30 October 2013*