SAFETY DATA SHEET

Version: 4.1 Date: 10th May 2022

ACCORDING TO EC-REGULATIONS 1907/2006 (REACH), 1272/2008 (CLP) & 2015/830

SECTION 1: IDENTIFICATION OF THE SUBSTANCE/MIXTURE AND OF THE COMPANY/UNDERTAKING

1.1 Product identifier

Product name	Stabilised Chlorine Granules
Product Part Number	001
Unique Formula Identifier	2300-D0AX-900W-2P9V
Substance name	Troclosene sodium, dihydrate
Synonyms	Sodium dichloroisocyanurate dihydrate
CAS No.	51580-86-0
EINECS No.	220-767-7
Index No.	613-030-01-7

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

Identified Use(s)	Pool/ spa treatment; Biocide
Uses advised against	Anything other than the above.

1.3 Details of the supplier of the safety data sheet

Name of Supplier	Isell Ltd
Address of Supplier	Unit 5 Penrose House Treleigh Ind Est Redruth TR16 4DE
Telephone	01326 371482
E-mail (competent person)	info@pure-spa.co.uk

1.4 Emergency telephone number

Emergency Phone No.	0800 043 0891 (Technical) 0800 043 0892 (Emergency)	24 hours a day
Languages spoken	English	

SECTION 2: HAZARDS IDENTIFICATION

2.1 Classification of the substance or mixture

2.1.1 Regulation (EC) No. 1272/2008 (CLP)

Acute Tox. 4; H302
Eye Irrit. 2; H319
STOT SE 3; H335
Aquatic Acute 1; H400
Aquatic Chronic 1; H410

2.2 Label elements

According to Regulation (EC) No. 1272/2008 (CLP)

Product name: Stabilised Chlorine Granules

Hazard Pictogram(s)

Signal Word(s): Warning

Hazard Statement(s):
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 Statement(s):
P102: Keep out of reach of children.
P260: Do not breathe dust/fume/gas/mist/vapours/spray.
P271: Use only outdoors or in a well-ventilated area.

P273: Avoid release to the environment.
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 authorized waste collection point.

Supplemental information: 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

SUBSTANCE	CAS No.	EC No.	REACH Registration No.	%W/W
Troclosene sodium, dihydrate	51580-86-0	220-767-7	Not yet assigned in the supply chain	100%

SECTION 4: FIRST AID MEASURES

4.1 Description of first aid measures

Self-protection of the first aider: Avoid contact with skin and eyes. Avoid breathing dust. Remove contaminated clothing and footwear and wash before reuse.

Inhalation: If breathing is difficult, remove to fresh air and keep at rest in a position comfortable for breathing. Apply artificial respiration only if patient is not breathing. Call a POISON CENTER/doctor if you feel unwell.

Skin contact: IF ON SKIN: Wash with plenty of water. If skin irritation occurs: Get medical advice/attention.

Eye contact: IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. If irritation develops and persists, get medical attention.

Ingestion: IF SWALLOWED: Call a POISON CENTER/doctor if you feel unwell. Do NOT induce vomiting. If vomiting occurs turn patient on side. Do not give milk or alcoholic beverages. Rinse mouth with water but do not swallow. Never give anything by mouth to an unconscious person..

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 respiratory irritation. Inhalation of the dust may cause breathlessness, coughing, tightness of the chest and difficulty in breathing.

4.3 Indication of any immediate medical attention and special treatment needed

Treat symptomatically.

Notes to a physician: IF INHALED: Symptoms may be delayed for as long as 48 hours following exposure.

SECTION 5: FIREFIGHTING MEASURES

5.1	**Extinguishing media**	
	Suitable extinguishing media	Not flammable. In case of fire use extinguishing media appropriate to surrounding conditions.
	Unsuitable extinguishing media	Do not use water jet or waterspray; Do not use dry extinguishers containing ammonium compounds such as dry powder.
5.2	**Special hazards arising from the substance or mixture**	May decompose in a fire, giving off toxic and irritant vapours. Combustion products: Chlorine, hydrochloric acid, Nitrogen oxides
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. In case of fire: Wear self-contained breathing apparatus.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. Only trained and properly protected personnel must be involved in clean-up operations.
	For non-emergency personnel	Ensure adequate ventilation. Do not breathe dust. Wear protective clothing as per section 8. Wash thoroughly after handling.
	For emergency responders	Evacuate the area and keep personnel upwind. Wear self-contained breathing apparatus. Wear suitable protective clothing, including eye/face protection and gloves (nitrile are recommended).
6.2	**Environmental precautions**	Avoid release to 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**	Evacuate the area and keep personnel upwind. Provided it is safe to do so, isolate the source of the leak.Avoid dust formation. Do not mix with water. Transfer to a container for disposal. Dispose of this material and its container as hazardous waste
6.4	**Reference to other sections**	See sections 8 and 13

SECTION 7: HANDLING AND STORAGE

7.1	**Precautions for safe handling**	Use only in well-ventilated areas.Keep away from heat and sources of ignition.Do not breathe dust. . Do not add water to the product, always add the product to large quantities of water. 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.Wash hands thoroughly after handling.Do not eat, drink or smoke when using this product.
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 food, drink and animal feedingstuffs.Keep away from acid.
	Storage temperature	Store in a cool dry place.
	Incompatible materials	Incompatible with acids, ammonia, bases, calcium hypochlorite, reducing agents, organic solvents and compounds.
7.3	**Specific end use(s)**	Pool/ spa treatment

SECTION 8: EXPOSURE CONTROLS/PERSONAL PROTECTION

8.1	**Control parameters**	
8.1.1	**Occupational exposure limits**	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.

SUBSTANCE	CAS No.	LTEL (8 hr TWA ppm)	LTEL (8 hr TWA mg/m³)	STEL (ppm)	15 min STEL (mg/m³)	Note
Sodium Dichloroisocyanurate Dihydrate	51580-86-0	-	1.5g/m^3 (UK)		2.9mg/m^3 (UK)	

Source: Republic of Ireland notified product register

8.1.2 Biological limit value — Not assigned

8.1.3 PNECs and DNELs — Not established

8.2 Exposure controls

8.2.1 Appropriate engineering controls — Selection and use of personal protective equipment should be based on a risk assessment of exposure potential. Engineering controls should be provided to prevent the need for ventilation. Use with local exhaust ventilation. Store in a cool/low-temperature, well-ventilated (dry) place away from heat and ignition sources. Provide adequate ventilation when using the material and follow the principles of good occupational hygiene to control personal exposures. A washing facility/water for eye and skin cleaning purposes should be present. Protective clothing should be selected specifically for the working place, depending on concentration and quantity of the hazardous substances handled. The resistance of the protective clothing to chemicals should be ascertained with the respective supplier.

8.2.2 Individual protection measures, such as personal protective equipment — Wash hands before breaks and after work.Remove contaminated clothing and wash it before reuse. Keep good industrial hygiene. Wear appropriate personal protective equipment, avoid direct contact. Avoid contact with skin, eyes or clothing. Do not eat, drink or smoke at the work place.

Eye/ face protection

Use eye protection according to EN 166, designed to protect against dusts.

Skin protection

Hand 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.
Suitable glove material: Nitrile rubber, Thickness: 0.11 mm Breakthrough time: > 480 minutes.

Body protection: Wear suitable protective clothing. Contaminated clothing should be laundered before reuse. Contaminated work clothing should not be allowed out of the workplace.

Respiratory protection

No respiratory protection is needed if ventilation/extraction is adequate, otherwise wear approved dust mask. Recommended: EN143 Type A-P2

Thermal hazards — not applicable

8.2.3 Environmental exposure controls — Avoid release to the environment.

SECTION 9: PHYSICAL AND CHEMICAL PROPERTIES

9.1 Information on basic physical and chemical properties

Appearance	White solid
Odour	Characteristic chlorine odour
Odour threshold	1-3ppm (value for chlorine)
pH	7 (10% aqueous solution)
Melting point/freezing point	No information available.
Initial boiling point and boiling range	No information available.
Flash point	No information available.
Evaporation rate	No information available.
Flammability (solid, gas)	No information available.
Upper/lower flammability or explosive limits	not applicable
Vapour pressure	< 0.006 Pa @ 20 °C
Vapour density	No information available.
Relative density	1.97
Solubility(ies)	248.2 g/L (pH 4.47)
Partition coefficient: n-octanol/water	No information available.
Auto-ignition temperature	No information available.
Decomposition temperature	252ºC
Viscosity	not applicable
Explosive properties	Non-explosive
Oxidising properties	Not oxidising.

9.2 Other information None Known

SECTION 10: STABILITY AND REACTIVITY

10.1	**Reactivity**	No information available.
10.2	**Chemical stability**	Considered stable under normal conditions.
10.3	**Possibility of hazardous reactions**	Contact with acids liberates toxic gas.
10.4	**Conditions to avoid**	Avoid dust formation. Do not mix with water.Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking.
10.5	**Incompatible materials**	Incompatible with acids, ammonia, bases, calcium hypochlorite, reducing agents, organic solvents and compounds.
10.6	**Hazardous decomposition products**	Decomposition products may include chlorine, hydrochloric acid, nitrogen oxides

SECTION 11: TOXICOLOGICAL INFORMATION

11.1 Information on toxicological effects

Acute Toxicity - Ingestion	Acute Tox 4; H302: Harmful if swallowed. Harmonised Classification LD50 (rat,oral): 1,823 mg/kg bw/day (US-EPA) LD50 (rat,oral): 1,671 mg/kg bw/day (ECHA)
Acute Toxicity - Inhalation	Based on available data, the classification criteria are not met.
Acute Toxicity - Skin contact	Based on available data, the classification criteria are not met.
Skin corrosion/irritation	Based on available data, the classification criteria are not met.
Serious eye damage/irritation	Eye Irrit. 2; H319 : Causes serious eye irritation. Harmonised Classification
Respiratory or skin sensitisation	Based on available data, the classification criteria are not met.
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	STOT SE 3; H335: May cause respiratory irritation. Harmonised Classification Decomposes when wet to evolve chlorine gas. Inhalation of chlorine will result in severe respiratory irritation. Delayed effects can include shortness of breath, severe headache, pulmonary oedema and pneumonia
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.

11.2 Other information None Known

SECTION 12: ECOLOGICAL INFORMATION

12.1 Toxicity Aquatic Acute 1, Very toxic to aquatic life.

	Aquatic Chronic 1, Very toxic to aquatic life with long lasting effects.
Troclosene sodium, dihydrate	Harmonised Classification Aquatic Acute 1, H400 Aquatic Chronic 1, H410 96h LC_{50} (fish) 0.23 - 0.24 mg/L (EPA OTS 797.1400, Fish Acute Toxicity Test)

12.2	**Persistence and degradability**	This substance is not readily biodegradable.
12.3	**Bioaccumulative potential**	Not anticipated to bioaccumulate
12.4	**Mobility in soil**	Soluble in water. The product is predicted to have high mobility in soil.
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**	None Known

SECTION 13: DISPOSAL CONSIDERATIONS

13.1	**Waste treatment methods**	Avoid release to the environment.Do not allow to enter drains, sewers or watercourses.Disposal should be in accordance with local, state or national legislation.Do not reuse empty containers without commercial cleaning or reconditioning.Uncleaned empties should be disposed of in the same manner as the contents.
13.2	**Additional information**	Neutralisation is normally necessary before waste water is discharged into water treatment plants.

SECTION 14: TRANSPORT INFORMATION

		ADR/RID	**IMDG**	**IATA/ICAO**
14.1	**UN number**	UN 3077	UN 3077	UN 3077
14.2	**UN proper shipping name**	ENVIRONMENTALLY HAZARDOUS SUBSTANCE, SOLID, N.O.S. (Sodium dichloroisocyanurate, dihydrate)	ENVIRONMENTALLY HAZARDOUS SUBSTANCE, SOLID, N.O.S.(Sodium dichloroisocyanurate, dihydrate)	ENVIRONMENTALLY HAZARDOUS SUBSTANCE, SOLID, N.O.S.(Sodium dichloroisocyanurate, dihydrate)
14.3	**Transport hazard class(es)**	9	9	9
14.4	**Packing group**	III	III	III
14.5	**Environmental hazards**	Environmentally hazardous substance	Classified as a Marine Pollutant.	Environmentally hazardous substance
14.6	**Special precautions for user**	See Section: 2		
14.7	**Transport in bulk according to Annex II of Marpol and the IBC Code**	No information available.	No information available.	No information available.

SECTION 15: REGULATORY INFORMATION

15.1	**Safety, health and environmental regulations/legislation specific for the substance or mixture**	
15.1.1	**EU regulations**	REACH Regulation (EC) No. 1907/2006 Regulation (EU) No. 528/2012 on biocides EU Directive 2012/18/EU (the Seveso III Directive).
	Authorisations and/or restrictions on use	Not restricted for the intended use(s) of the product.
15.1.2	**National regulations**	
	GB BPR - 01. GB List of Active Substances	Yes (Please refer to the GB List of Active Substances available on the HSE website for further details: https://www.hse.gov.uk/biocides/uk-list-active-substances.htm)
	UK REACH - 06. Annex XVII (Restrictions)	Not restricted for the intended use(s) of the product.
15.2	**Chemical Safety Assessment**	A REACH chemical safety assessment has not been carried out.

SECTION 16: OTHER INFORMATION

The following sections contain revisions or new statements: New format has been issued, all sections have been updated to include new information. Review SDS with care.

References:
Existing Safety Data Sheet (SDS)
Harmonised Classification(s) for Troclosene sodium, dihydrate (CAS No. 51580-86-0).
Troclosene Sodium (CAS No:2893-78-9) ECHA Registration
Republic of Ireland notified product register

EU Classification: This Safety Data Sheet was prepared in accordance with EC Regulation (EC) 1907/2006 (REACH), 1272/2008 (CLP) & 2015/830.

Legend

ADR: European Agreement concerning the International Carriage of Dangerous Goods by Road
ATE: Acute Toxicity Estimate
CLP: Regulation (EC) No 1272/2008 on classification, labelling and packaging of substances and mixtures
DNEL: Derived no effect level
EC50: Effective Concentration, 50%
IATA: International Air Transport Association
ICAO: International Civil Aviation Organization
LC50: Lethal concentration at which 50% of the population is killed
LD50: Lethal Dose, 50%
LTEL: Long term exposure limit
MDG: International Maritime Dangerous Goods
NOAEC: No observed adverse effect concentration
NOAEL: No observed adverse effect level
NOEC: no observed effect concentration
OEL: Occupational Exposure Limit
PBT: PBT: Persistent, Bioaccumulative and Toxic
PNEC: Predicted No Effect Concentration
SCL: Specific Concentration Limit
STEL: Short term exposure limit
vPvB: very Persistent and very Bioaccumulative
WEL: Workplace Exposure Limit

Hazard classification / Classification code:	**Hazard Statement(s)**
Acute Tox. 4; Acute Toxicity, Category 4	H302: Harmful if swallowed.
Eye Irrit. 2; eye Irritation, Category 2	H319: Causes serious eye irritation.
STOT SE 3; Specific target organ toxicity — single exposure, Category 3	H335: May cause respiratory irritation
Aquatic Acute 1; Hazardous to the aquatic environment, acute, Category 1	H400: Very toxic to aquatic life.
Aquatic Chronic 1; Hazardous to the aquatic environment, Chronic , Category 1	H410: Very toxic to aquatic life with long lasting effects.
	EUH031: Contact with acids liberates toxic gas

Training advice: Consideration should be given to the work procedures involved and the potential extent of exposure as they may determine whether a higher level of protection is required.

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