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

1.1. Product identifier

Identification of the substance:	TROCLOSENE SODIUM,DIHYDRATE
Trade name:	SODIUM DICHLOROISOCYANURATE BIHYDRATE
Product type and use:	Mono-constituent substance organic
CAS number:	51580-86-0
EC number:	220-767-7
Registration Number:	listed in Art. 95 according to BPR
Index number:	613-030-01-7

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

Recommended use:	Sanitizer
Uses advised against:	N.A.

1.3. Details of the supplier of the safety data sheet

Company (UK):	Wilton Bradley Ltd 8 Wentworth Road, Heathfield Ind. Estate Newton Abbot TQ12 6TL
Company (EU)	Wilton Bradley Europe BV Barbara Strozzilan 201, 1083HN, Netherlands
Tel:	(UK) +44 (0) 1626 835400 (EU) +31 205 321 951
Web:	https://www.lay-z-spa.co.uk
Responsible:	sales@wiltonbradley.com

1.4. Emergency telephone number

IRELAND: National Poisons Information Centre (NPIC): +353 1 8092166
UK: National Health Service (NHS) (999 emergency call; 111 non-emergency call)
Emergency Action: In the event of a medical enquiry involving this product, please contact your doctor or local hospital accident and emergency department

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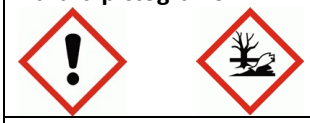
SECTION 2: Hazards identification

2.1. Classification of the substance or mixture - Regulation (EC) n. 1272/2008 (CLP)

Acute Tox. 4	Harmful if swallowed.	
Eye Irrit. 2	Causes serious eye irritation.	
STOT SE 3	May cause respiratory irritation.	
Aquatic Chronic 1	Very toxic to aquatic life with long lasting effects.	
Aquatic Acute 1	Very toxic to aquatic life.	
Adverse physicochemical, human health and environmental effects:	Physico-chemical hazards:	the product is not classified for this hazard class.
	Health hazards:	the product is harmful if swallowed, causes serious eye irritation and can irritate the respiratory tract.
	Environmental hazards:	the product is very toxic to aquatic life with long lasting effects.

2.2. Label elements - Regulation (EC) No 1272/2008 (CLP):

Hazard pictograms



Signal Word:	**Warning**	
Hazard statements	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	P261	Avoid breathing dust/fume/gas/mist/vapours/spray.
	P280	Wear protective gloves/protective clothing/eye protection/face protection/hearing protection/…
	P304+P340	IF INHALED: Remove person to fresh air and keep comfortable for breathing.
	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.
	P403+P233	Store in a well-ventilated place. Keep container tightly closed
Special Provisions:	EUH031	Contact with acids liberates toxic gas.
Special provisions according to Annex XVII of REACH and subsequent amendments:		None
2.3. Other hazards	This substance has no PBT, vPvB or endocrine disrupting properties Other Hazards: No other hazards	

SECTION 3: Composition/information on ingredients

3.1. Substances	Substance Identifications:	TROCLOSENE SODIUM,DIHYDRATE
	CAS number:	51580-86-0
	EC number:	220-767-7
	Index number:	613-030-01-7
	Registration Number	listed in Art. 95 according to BPR
3.2. Mixtures	N.A.	

SECTION 4: First aid measures

4.1. Description of first aid measures	
In case of skin contact:	Immediately take off all contaminated clothing.
	Areas of the body that have, or suspected of having, come into contact with the product must be rinsed immediately
	Wash thoroughly the body (shower or bath).
	After contact with skin, wash immediately with soap and plenty of water.
	Contaminated clothing should be laundered before use.
In case of eyes contact:	After contact with the eyes, rinse with water with the eyelids open for a sufficient length of time, then consult an ophthalmologist immediately.
	Protect uninjured eye.
In case of Ingestion:	Give nothing to eat or drink.
	Do not induce vomiting.
	Get medical advice/attention.
In case of Inhalation:	If breathing is difficult, remover person to fresh air and keep at rest in a position comfortable for breathing
	Consult a doctor immediately and show him SDS and packaging or hazard label.
4.2. Most important symptoms and effects, both acute and delayed	
	Harmful if swallowed
	Causes serious eye irritation
	It can irritate the respiratory tract
4.3. Indication of any immediate medical attention and special treatment needed	
	In case of accident or unwellness, seek medical advice immediately (show directions for use or safety data sheet if possible). See SECTION 11 for any additional information about the contents

SECTION 5: Firefighting measures

5.1. Extinguishing media	
Suitable extinguishing media:	Powder, Foam, Carbon dioxide (CO2).
Extinguishing media which must not be used for safety reasons:	DO NOT USE ABC nitrogen-containing extinguishers due to the risk of violent chemical reaction. DO NOT USE dry extinguishers containing ammonium compounds such as dry powder.
5.2. Special hazards arising from the substance or mixture	
Combustion produces heavy smoke (COx, NOx, chlorates, borates)	
5.3. Advice for firefighters	Evacuate the area and keep personnel upwind.
	Special protective equipment: Wear self-contained breathing apparatus (SCBA). Wear full protective clothing including chemical protection suit.
	Collect the contaminated water used to extinguish the fire separately. Do not discharge it into the sewer system. Prevent fire extinguishing water from contaminating surface or ground water.
	Keep container(s) exposed to fire cool, by spraying with water
	If feasible from a safety point of view, move undamaged containers from the area of immediate danger.

SECTION 6: Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures

For non-emergency personnel:	Alert the personnel responsible for the management of such emergencies. Leave the accident area if you are not in possession of the personal protective equipment listed in section 8.
For emergency responders:	Remove all personnel not adequately equipped to deal with the emergency. Wear suitable personal protective equipment referred to in section 8 of the safety data sheet to prevent contamination of skin, eyes and personal clothing. Stop the leak if there is no danger. Make the area affected by the accident accessible to workers only after adequate reclamation has taken place. Ventilate the premises affected by the accident. Remove any metal containers and materials that may be damaged by the leak.
6.2. Environmental precautions	Suck up the leaked product into a suitable container. Evaluate the compatibility of the container to be used with the product, checking section 10. Absorb the remainder by mechanical means. Retain contaminated washing water and eliminate it. Avoid release to the environment. Do not allow to enter public sewers and watercourses In case of penetration into waterways, soil or sewer systems, inform the responsible authorities. The disposal of contaminated material must be carried out in accordance with the provisions of point 13 and local legislation.
6.3. Methods and material for containment and cleaning up	Other information / containment/ remediation: Evacuate the area and keep personnel upwind. Stop leak if safe to do so. Avoid formation of dust Small spills:- Wipe up spillage with damp absorbent cloth or towel. Large spills:- 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.

	Flush spill area with copious amounts of water once product has been collection and contained. DO NOT add water to spilled material. DO NOT use floor cleaning compounds to remove leaks The disposal of contaminated material must be carried out in accordance with the provisions of point 13 and local legislation.
6.4. Reference to other sections	See also section 7, 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 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 Don't use empty container before they have been cleaned. Before making transfer operations, assure that there aren't any incompatible material residuals in the containers.	
7.2. Conditions for safe storage, including any incompatibilities	Always keep in cool, dry, well ventilated areas. Keep containers tightly closed Protect from moisture Keep away from food, drink and feed.	
	Incompatible materials:	Acid, alkali, other chlorine agents, oils / fats and flammable materials.
	Indication for the premises:	Adequately ventilated rooms. Always keep in a well ventilated place. Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking
	Incompatible materials:	Keep away from acids. Instructions as regards storage premises: Cool and adequately ventilated.
7.3. Specific end use(s)	SEE SECTION 1.2 Industrial sector specific solutions: None in particular	

SECTION 8: Exposure controls/personal protection

8.1. Control parameters

Predicted No Effect Concentration (PNEC) values					
PNEC LIMIT	**Exposure Route**		**Exposure Frequency**		**Remark**
1.52 mg/l	Marine water		-		-
0.59 mg/l	Microorganisms in sewage treatments		-		-
7.56 mg/kg	Marine water sediments		-		-
0.756 mg/kg	Soil (agricultural)		-		-
Derived No Effect Level (DNEL) values					
Worker Indust	**Worker Profes**	**Consumer**	**Exposure Route**	**Exposure**	**Remark**

-	8.11 mg/m3	1.99 mg/m3	Human Inhalation	Long Term, systemic effects	-
-	2.3 mg/kg	1.15 mg/kg	Human Dermal	Long Term, systemic effects	-
-	-	1.15 mg/kg	Human	Long Term, systemic effects	-

Technical measures to prevent exposure
TROCLOSENE SODIUM,DIHYDRATE: The product does not contain substances for which there are community exposure limits in the workplace (OEL) that require the declaration in this Section. For the substances mentioned in this section, the DNEL / PNEC values are also reported (although the relevant REACH registration numbers are not available for these substances) in order to transmit as much information as possible to allow the identification and application of the appropriate risk management measures. It is recommended to consider in the risk assessment process the occupational exposure limit values provided by the ACGIH for inert dusts not otherwise classified (PNOC respirable fraction: 3 mg / mc; PNOC inhalable fraction: 10 mg / mc). If these limits are exceeded, it is recommended to use a type P filter whose class (1, 2 or 3) must be chosen based on the outcome of the risk assessment.

8.2. Exposure controls

Eye protection:	Wear safety glasses that meet the European standard for eye protection, EN166.
Chemical protection clothing.	
Protection for skin:	
Protection for hands:	Suitable chemical resistant safety gloves (EN 374) also with prolonged, direct contact (Recommended: Protective index 6, corresponding > 480 minutes of permeation time according to EN 374
Respiratory protection:	Mask with filter type A, B, E, K, P (for particulate matter) Dust filter device (DIN EN 143).
Thermal Hazards:	For emergency conditions, use an approved positive pressure self-contained breathing apparatus. In confined or poorly ventilated areas, use approved self-contained breathing apparatus or positive pressure air line with self-contained auxiliary air supply
Environmental exposure controls:	Data not available.
Hygienic and Technical measures	N.A.

SECTION 9: Physical and chemical properties

9.1. Information on basic physical and chemical properties	Physical State:	Solid
	Appearance and colour:	Granules white
	Odour:	like: Chlorine
	pH:	N.A.
	Kinematic viscosity:	N.A.
	Melting point / freezing point:	N.A.
	Initial boiling point and boiling range:	N.A.
	Flash point:	N.A.
	Upper/lower flammability or explosive limits:	N.A.
	Vapour density:	N.A.
	Vapour pressure:	0.01 (kPa 50°C).
	Relative density:	0.97 g/ml
	Solubility in water:	Soluble
	Solubility in oil:	N.A.
	Partition coefficient (n-octanol/water):	N.A.
	Auto-ignition temperature:	N.A.
	Decomposition temperature:	250.00 °C

	Flammability:	N.A.
	Volatile Organic compounds - VOCs	N.A.
Particle characteristics:	Particle size:	N.A.
9.2. Other information	Explosive properties:	NO
	Oxidizing properties:	NO
	No other relevant information	

SECTION 10: Stability and reactivity

10.1. Reactivity	Stable under recommended storage conditions. Hypochlorous acid occurs when the product is spread in water.
10.2. Chemical stability	Stable under recommended storage and handling conditions.
10.3. Possibility of hazardous reactions	Risk of ignition or formation of flammable gases or vapours with combustible substances / organic substances.
10.4. Conditions to avoid	Protect from moisture. Incompatible products.
10.5. Incompatible materials	Acid, alkali, other chlorine agents, oils / fats and flammable materials.
10.6. Hazardous decomposition products	COx, NOx, chlorates

SECTION 11: Toxicological information
11.1. Information on hazard classes as defined in Regulation (EC) No 1272/2008

Toxicological Information of the Substance

a) acute toxicity	The product is classified: Acute Tox. 4(H302) LD50 Oral Rat = 1671 mg/kg bw LD50 Skin Rat > 5000 mg/kg bw LC50 Inhalation Dust Rat > 0.27 mg/l 4h
b) skin corrosion/irritation	Not classified Based on available data, the classification criteria are not met
c) serious eye damage/irritation	The product is classified: Eye Irrit. 2(H319)
d)respiratory or skin sensitisation	Not classified Based on available data, the classification criteria are not met
e) germ cell mutagenicity	Not classified Based on available data, the classification criteria are not met
f) carcinogenicity	Not classified Based on available data, the classification criteria are not met
g) reproductive toxicity	Not classified Based on available data, the classification criteria are not met
h) STOT-single exposure	The product is classified: STOT SE 3(H335)
i) STOT-repeated exposure	Not classified Based on available data, the classification criteria are not met No Observed Adverse Effect Level Oral Rat = 115 mg/kg
j) aspiration hazard	Not classified Based on available data, the classification criteria are not met

11.2. Information on other hazards
Endocrine disrupting properties: This substance has no endocrine disrupting properties

SECTION 12: Ecological information
12.1. Toxicity

Adopt good working practices, so that the product is not released into the environment.			
Eco-Toxicological Information:	Very toxic to aquatic organisms. Very toxic to aquatic life with long lasting effects.		
List of Eco-Toxicological properties of the product	The product is classified: Aquatic Chronic 1(H410), Aquatic Acute 1(H400)		
	a) Aquatic acute toxicity :	LC50 Fish Oncorhynchus mykiss = 0.24 mg/L 96h	
	b) Aquatic acute toxicity :	LC50 Daphnia Daphnia magna = 0.196 mg/kg dry weight soil 48h	
12.2. Persistence and degradability	N.A.		
12.3. Bio-accumulative potential	Bioaccumulation	Test	Value
	Not bio-accumulative	Kow - Partition coefficient	-0.005
12.4. Mobility in soil	N.A.		
12.5. Results of PBT and vPvB assessment	This substance has no PBT, vPvB or endocrine disrupting properties		
12.6 Endocrine disrupting properties	This substance has no endocrine disrupting properties		
12.7 Other adverse effects	N.A.		

SECTION 13: Disposal considerations

13.1. Waste treatment methods

Recover if possible. In so doing, comply with the local and national regulations currently in force.

SECTION 14: Transport information

14.1. UN number or ID number		3077	
14.2. UN proper shipping name	ADR-Shipping Name:	ENVIRONMENTALLY HAZARDOUS SUBSTANCE, SOLID, N.O.S.	
	IATA-Technical name:	ENVIRONMENTALLY HAZARDOUS SUBSTANCE, SOLID, N.O.S.	
	IMDG-Technical name:	ENVIRONMENTALLY HAZARDOUS SUBSTANCE, SOLID, N.O.S.	
14.3. Transport hazard class(es)	ADR-Class:	9	
	IATA-Class:	9	
	IMDG-Class:	9	
14.4. Packing group	ADR-Packing Group:	III	
	IATA-Packing group:	III	
	IMDG-Packing group:	III	
14.5. Environmental hazards	Marine pollutant:	Yes	
	Environmental Pollutant:	Yes	
	IMDG-EMS:	F-A, S-F	
14.6. Special precautions for user	Road and Rail (ADR-RID):	ADR-Label:	9
		ADR - Hazard identification number:	90
		ADR-Special Provisions:	274 335 375 601
		ADR-Transport category (Tunnel restriction code):	3 (-)
	Air (IATA):	IATA-Passenger Aircraft:	956
		IATA-Cargo Aircraft:	956
		IATA-Label:	9
		IATA-Subsidiary hazards:	
		IATA-Erg:	9L
		IATA-Special Provisions:	A97 A158 A179 A197 A215
	Sea (IMDG):	IMDG-Stowage Code:	Category A SW23
		IMDG-Stowage Note:	-

		IMDG-Subsidiary hazards:	-
		IMDG-Special Provisions:	274 335 966 967 969
14.7. Maritime transport in bulk according to IMO instruments		N.A.	

SECTION 15: Regulatory information

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

Dir. 98/24/EC (Risks related to chemical agents at work)			
Dir. 2000/39/EC (Occupational exposure limit values)			
Regulation (EC) n. 1907/2006 (REACH)			
Regulation (EC) n. 1272/2008 (CLP)			
Regulation (EC) n. 790/2009 (ATP 1 CLP) and (EU) n. 758/2013			
Regulation (EU) n. 286/2011 (ATP 2 CLP)			
Regulation (EU) n. 618/2012 (ATP 3 CLP)			
Regulation (EU) n. 487/2013 (ATP 4 CLP)			
Regulation (EU) n. 944/2013 (ATP 5 CLP)			
Regulation (EU) n. 605/2014 (ATP 6 CLP)			
Regulation (EU) n. 2015/1221 (ATP 7 CLP)			
Regulation (EU) n. 2016/918 (ATP 8 CLP)			
Regulation (EU) n. 2016/1179 (ATP 9 CLP)			
Regulation (EU) n. 2017/776 (ATP 10 CLP)			
Regulation (EU) n. 2018/669 (ATP 11 CLP)			
Regulation (EU) n. 2018/1480 (ATP 13 CLP)			
Regulation (EU) n. 2019/521 (ATP 12 CLP)			
Regulation (EU) n. 2020/878			
Restrictions related to the product or the substances contained according to Annex XVII Regulation (EC) 1907/2006 (REACH) and subsequent modifications:			-
Restrictions related to the product:		None	
Restrictions related to the substances contained:		75	
Provisions related to directive EU 2012/18 (Seveso III):	**Seveso III category according Annex 1, part 1**	**Lower-tier threshold (tonnes)**	**Upper-tier threshold (tonnes)**
	Product belongs to category: E1	100	200
Regulation (EU) No 649/2012 (PIC regulation)		No substances listed	
German Water Hazard Class.		Class 2: hazardous for water.	
SVHC Substances:		No Chemical Safety Assessment has been carried out for the substance.	

15.2. Chemical safety assessment

SECTION 16: Other information

Description

Code	EUH031	Contact with acids liberates toxic gas.
	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.
Code	**Hazard class and hazard category**	**Description**
3.1/4/Oral	Acute Tox. 4	Acute toxicity (oral), Category 4

3.3/2	Eye Irrit. 2	Eye irritation, Category 2
3.8/3	STOT SE 3	Specific target organ toxicity - single exposure, Category 3
4.1/A1	Aquatic Acute 1	Acute aquatic hazard, category 1
4.1/C1	Aquatic Chronic 1	Chronic (long term) aquatic hazard, category 1

The information contained herein is based on our state of knowledge at the above-specified date. It refers solely to the product indicated and it is the duty of the user to ensure that this information is appropriate and complete with respect to the specific use intended.

This MSDS cancels and replaces any preceding release.

Main bibliographic sources:

ECDIN - Environmental Chemicals Data and Information Network - Joint Research Centre, Commission of the European Communities

SAX's DANGEROUS PROPERTIES OF INDUSTRIAL MATERIALS - Eight Edition - Van Nostrand Reinold

Legend to abbreviations and acronyms used in the safety data sheet:

ACGIH: American Conference of Governmental Industrial Hygienists
ADR: European Agreement concerning the International Carriage of Dangerous Goods by Road.
AND: European Agreement concerning the International Carriage of Dangerous Goods by Inland Waterways
ATE: Acute Toxicity Estimate
ATEmix: Acute toxicity Estimate (Mixtures)
BCF: Biological Concentration Factor
BEI: Biological Exposure Index
BOD: Biochemical Oxygen Demand
CAS: Chemical Abstracts Service (division of the American Chemical Society).
CAV: Poison Center
CE: European Community
CLP: Classification, Labeling, Packaging.
CMR: Carcinogenic, Mutagenic and Reprotoxic
COD: Chemical Oxygen Demand
COV: Volatile Organic Compound
CSA: Chemical Safety Assessment
CSR: Chemical Safety Report
DMEL: Derived Minimal Effect Level
DNEL: Derived No Effect Level.
DPD: Dangerous Preparations Directive
DSD: Dangerous Substances Directive
EC50: Half Maximal Effective Concentration
ECHA: European Chemicals Agency
EINECS: European Inventory of Existing Commercial Chemical Substances.
ES: Exposure Scenario
GefStoffVO: Ordinance on Hazardous Substances, Germany.
GHS: Globally Harmonized System of Classification and Labeling of Chemicals.
IARC: International Agency for Research on Cancer
IATA: International Air Transport Association.
IATA-DGR: Dangerous Goods Regulation by the "International Air Transport Association" (IATA).
IC50: half maximal inhibitory concentration
ICAO: International Civil Aviation Organization.
ICAO-TI: Technical Instructions by the "International Civil Aviation Organization" (ICAO).
IMDG: International Maritime Code for Dangerous Goods.
INCI: International Nomenclature of Cosmetic Ingredients.
IRCCS: Scientific Institute for Research, Hospitalization and Health Care
KAFH: KAFH
KSt: Explosion coefficient.
LC50: Lethal concentration, for 50 percent of test population.
LD50: Lethal dose, for 50 percent of test population.
LDLo: Leathal Dose Low
N.A.: Not Applicable
N/A: Not Applicable

N/D: Not defined/ Not available
NA: Not available
NIOSH: National Institute for Occupational Safety and Health
NOAEL: No Observed Adverse Effect Level
OSHA: Occupational Safety and Health Administration
PBT: Persistent, Bioaccumulative and Toxic
PGK: Packaging Instruction
PNEC: Predicted No Effect Concentration.
PSG: Passengers
RID: Regulation Concerning the International Transport of Dangerous Goods by Rail.
STEL: Short Term Exposure limit.
STOT: Specific Target Organ Toxicity.
TLV: Threshold Limiting Value.
TWATLV: Threshold Limit Value for the Time Weighted Average 8 hour day. (ACGIH Standard).
vPvB: Very Persistent, Very Bioaccumulative.
WGK: German Water Hazard Class.