



SAFETY DATA SHEET CLO-TABS

According to Regulation (EC) No 1907/2006, Annex II, as amended.

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

1.1. Product identifier

Product name CLO-TABS

Internal identification C052

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

Identified uses Disinfectant.

Uses advised against Use only for intended applications.

1.3. Details of the supplier of the safety data sheet

Supplier ARROW SOLUTIONS
RAWDON ROAD
MOIRA
SWADLINCOTE
DERBYSHIRE
DE12 6DA
TEL: +44 (0)1283 221044
FAX: +44 (0)1283 225731
sales@arrowchem.com

1.4. Emergency telephone number

Emergency telephone +44 (0) 777 8505 330 (24 hrs).

SECTION 2: Hazards identification

2.1. Classification of the substance or mixture

Classification (EC 1272/2008)

Physical hazards Not Classified

Health hazards Eye Irrit. 2 - H319 STOT SE 3 - H335

Environmental hazards Aquatic Acute 1 - H400 Aquatic Chronic 1 - H410

2.2. Label elements

Hazard pictograms



Signal word Warning

Hazard statements
H319 Causes serious eye irritation.
H335 May cause respiratory irritation.
H410 Very toxic to aquatic life with long lasting effects.

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Precautionary statements	P271 Use only outdoors or in a well-ventilated area.
	P273 Avoid release to the environment.
	P280 Wear protective gloves, eye and face protection.
	P337+P313 If eye irritation persists: Get medical advice/ attention.
	P391 Collect spillage.
	P402+P404 Store in a dry place. Store in a closed container.
	P501 Dispose of contents/ container in accordance with national regulations.

Supplemental label information	EUH031 Contact with acids liberates toxic gas.
	RCH002b For professional users only.

UFI	UFI: VW62-G1MW-W00V-MDA3
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Contains	troclosene sodium
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2.3. Other hazards

This product does not contain any substances classified as PBT or vPvB.

SECTION 3: Composition/information on ingredients

3.2. Mixtures

troclosene sodium		60-100%
CAS number: 2893-78-9	EC number: 220-767-7	
M factor (Acute) = 1	M factor (Chronic) = 1	
Classification		
Ox. Sol. 2 - H272		
Acute Tox. 4 - H302		
Eye Irrit. 2 - H319		
STOT SE 3 - H335		
Aquatic Acute 1 - H400		
Aquatic Chronic 1 - H410		
adipic acid		10-30%
CAS number: 124-04-9	EC number: 204-673-3	
Classification		
Eye Irrit. 2 - H319		
SODIUM CARBONATE		1-5%
CAS number: 497-19-8	EC number: 207-838-8	REACH registration number: 01-2119485498-19-XXXX
Classification		
Eye Irrit. 2 - H319		

The Full Text for all R-Phrases and Hazard Statements are Displayed in Section 16.

CLO-TABS

SECTION 4: First aid measures

4.1. Description of first aid measures

General information	Move affected person to fresh air and keep warm and at rest in a position comfortable for breathing. If medical advice is needed, have product container or label at hand. Show this Safety Data Sheet to the medical personnel.
Inhalation	Move affected person to fresh air and keep warm and at rest in a position comfortable for breathing.
Ingestion	Rinse mouth thoroughly with water. DO NOT induce vomiting. Get medical attention immediately.
Skin contact	Wash skin thoroughly with soap and water.
Eye contact	Rinse immediately with plenty of water. Remove contact lenses, if present and easy to do. Continue rinsing. Get medical attention if any discomfort continues.

4.2. Most important symptoms and effects, both acute and delayed

Inhalation	May cause respiratory irritation.
Ingestion	Gastrointestinal symptoms, including upset stomach.
Skin contact	No specific symptoms known.
Eye contact	Causes serious eye irritation.

4.3. Indication of any immediate medical attention and special treatment needed

Notes for the doctor	Treat symptomatically.
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SECTION 5: Firefighting measures

5.1. Extinguishing media

Suitable extinguishing media	Use fire-extinguishing media suitable for the surrounding fire.
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5.2. Special hazards arising from the substance or mixture

Specific hazards	Protection against nuisance dust must be used when the airborne concentration exceeds 10 mg/m ³ .
Hazardous combustion products	Thermal decomposition or combustion products may include the following substances: Carbon monoxide (CO). Carbon dioxide (CO ₂). Chlorine. Hydrogen chloride (HCl). Nitrous gases (NO _x).

5.3. Advice for firefighters

Protective actions during firefighting	No specific firefighting precautions known.
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SECTION 6: Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures

Personal precautions	Wear suitable protective equipment, including gloves, goggles/face shield, respirator, boots, clothing or apron, as appropriate. Avoid contact with skin, eyes and clothing. Avoid inhalation of dust. Provide adequate ventilation. Do not touch or walk into spilled material. Avoid contact with contaminated tools and objects. Do not handle broken packages without protective equipment. Wash thoroughly after dealing with a spillage.
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6.2. Environmental precautions

Environmental precautions	Do not discharge into drains or watercourses or onto the ground.
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CLO-TABS

6.3. Methods and material for containment and cleaning up

Methods for cleaning up Wear suitable protective equipment, including gloves, goggles/face shield, respirator, boots, clothing or apron, as appropriate. Avoid generation and spreading of dust. Provide adequate ventilation. Absorb spillage with non-combustible, absorbent material. Neutralise spilled material with crushed limestone, slaked lime (calcium hydroxide), soda ash (sodium carbonate) or sodium bicarbonate. Collect and place in suitable waste disposal containers and seal securely. Collect spillage for reclamation or disposal in sealed containers via a licensed waste contractor. Flush contaminated area with plenty of water. Wash thoroughly after dealing with a spillage.

6.4. Reference to other sections

Reference to other sections Wear protective clothing as described in Section 8 of this safety data sheet.

SECTION 7: Handling and storage

7.1. Precautions for safe handling

Usage precautions Wear protective gloves. Avoid spilling. Provide adequate ventilation. Avoid inhalation of dust. Avoid handling which leads to dust formation. Avoid contact with skin and eyes. Do not eat, drink or smoke when using this product. Container must be kept tightly closed when not in use. Avoid release to the environment. Avoid contact with contaminated tools and objects. Do not handle broken packages without protective equipment. Wash hands thoroughly after handling.

7.2. Conditions for safe storage, including any incompatibilities

Storage precautions Store in tightly-closed, original container in a dry and cool place. Keep only in the original container. Protect from sunlight. Store at temperatures between 4°C and 40°C.

Storage class Miscellaneous hazardous material storage. Acid-reactive storage.

7.3. Specific end use(s)

Specific end use(s) The identified uses for this product are detailed in Section 1.2.

SECTION 8: Exposure controls/Personal protection

8.1. Control parameters

Occupational exposure limits

Short-term exposure limit (15-minute): WEL 1.5 mg/m³ 0.5 ppm

Long-term exposure limit (8-hour TWA): WEL 4.0 mg/m³ respirable dust

Long-term exposure limit (8-hour TWA): WEL 10 mg/m³ inhalable dust

WEL = Workplace Exposure Limit

troclosene sodium (CAS: 2893-78-9)

DNEL Consumer - Dermal; Long term systemic effects: 1.15 mg/kg/day
 Consumer - Inhalation; Long term systemic effects: 1.99 mg/m³
 Consumer - Oral; Long term systemic effects: 1.15 mg/kg/day

SODIUM CARBONATE (CAS: 497-19-8)

DNEL Industry - Inhalation; Long term local effects: 10 mg/m³
 Consumer - Inhalation; Short term local effects: 10 mg/m³

8.2. Exposure controls

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Protective equipment



Appropriate engineering controls

No specific ventilation requirements.

Eye/face protection

No specific eye protection required during normal use. Eyewear complying with an approved standard should be worn if a risk assessment indicates eye contact is possible. Personal protective equipment for eye and face protection should comply with European Standard EN166. The following protection should be worn: Tight-fitting safety glasses.

Hand protection

Chemical-resistant, impervious gloves complying with an approved standard should be worn if a risk assessment indicates skin contact is possible. To protect hands from chemicals, gloves should comply with European Standard EN374. The selected gloves should have a breakthrough time of at least 4 hours. The breakthrough time for any glove material may be different for different glove manufacturers. When used with mixtures, the protection time of gloves cannot be accurately estimated. Protective gloves should have a minimum thickness of 0.15 mm. Glove thickness is not necessarily a good measure of glove resistance as the permeation rate will depend on the exact glove composition. Considering the data specified by the glove manufacturer, check during use that the gloves are retaining their protective properties and change them as soon as any deterioration is detected. The choice of protective gloves depends upon the chemicals being handled, and the conditions of work and use. Repeated exposure to chemicals will degrade the ability of the glove to provide resistance to chemicals. Specific work environments and material handling practices may vary, therefore safety procedures should be developed for each intended application. Gloves made from the following material may provide suitable chemical protection: Nitrile rubber. Rubber (natural, latex). Neoprene.

Hygiene measures

Wash hands thoroughly after handling. Take off contaminated clothing and wash it before reuse.

Respiratory protection

No specific requirements are anticipated under normal conditions of use. Respiratory protection complying with an approved standard should be worn if a risk assessment indicates inhalation of contaminants is possible. Respirator selection must be based on exposure levels, the hazards of the product and the safe working limits of the selected respirator. Ensure all respiratory protective equipment is suitable for its intended use and is 'CE'-marked. Respiratory protection must be used if the airborne contamination exceeds the recommended occupational exposure limit. Protection against nuisance dust must be used when the airborne concentration exceeds 10 mg/m³. If ventilation is inadequate, suitable respiratory protection must be worn. Use approved respirator if air contamination is above an acceptable level. Half mask and quarter mask respirators with replaceable filter cartridges should comply with European Standard EN140. Gas and combination filter cartridges should comply with European Standard EN14387. Particulate filters should comply with European Standard EN143. Check that the respirator fits tightly and the filter is changed regularly. Wear a respirator fitted with the following cartridge: Particulate filter, type P1. Dust and mist filter.

Environmental exposure controls

Store in a demarcated bunded area to prevent release to drains and/or watercourses.

SECTION 9: Physical and chemical properties

9.1. Information on basic physical and chemical properties

Appearance	Tablet.
Colour	White.

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Odour	Chlorine.
pH	pH (diluted solution): ~ 5.0 @ 1.0 %
Melting point	Not determined.
Initial boiling point and range	Not relevant.
Flash point	Not relevant.
Evaporation rate	Not relevant.
Flammability (solid, gas)	Not relevant.
Upper/lower flammability or explosive limits	Not relevant.
Other flammability	Not relevant.
Vapour pressure	Not relevant.
Bulk density	Not determined.
Solubility(ies)	Soluble in water.
Partition coefficient	Not relevant.
Auto-ignition temperature	Not determined.
Decomposition Temperature	Not determined.
Viscosity	Not relevant.
Explosive properties	Not considered to be explosive.
Oxidising properties	Does not meet the criteria for classification as oxidising.
Comments	Information declared as "Not available" or "Not applicable" is not considered to be relevant to the implementation of the proper control measures.

9.2. Other information

Other information Not determined.

SECTION 10: Stability and reactivity

10.1. Reactivity

Reactivity The following materials may react with the product: Acids.

10.2. Chemical stability

Stability Stable at normal ambient temperatures and when used as recommended.

10.3. Possibility of hazardous reactions

Possibility of hazardous reactions Reactions with the following materials may cause explosions: Organic nitro compounds.

10.4. Conditions to avoid

Conditions to avoid Avoid contact with acids.

10.5. Incompatible materials

Materials to avoid Acids - oxidising. Acids - organic. Acids - non-oxidising. Flammable/combustible materials. Organic nitro compounds.

10.6. Hazardous decomposition products

CLO-TABS

Hazardous decomposition products Thermal decomposition or combustion products may include the following substances: Carbon monoxide (CO). Carbon dioxide (CO₂). Chlorine. Hydrogen chloride (HCl). Nitrous gases (NO_x).

SECTION 11: Toxicological information

11.1. Information on toxicological effects

Acute toxicity - oral

Notes (oral LD₅₀) Based on available data the classification criteria are not met.

ATE oral (mg/kg) 2,527.99

Acute toxicity - dermal

Notes (dermal LD₅₀) Based on available data the classification criteria are not met. Read-across data.

Acute toxicity - inhalation

Notes (inhalation LC₅₀) Based on available data the classification criteria are not met. Read-across data.

Skin corrosion/irritation

Skin corrosion/irritation Based on available data the classification criteria are not met. Read-across data.

Serious eye damage/irritation

Serious eye damage/irritation Causes serious eye irritation.

Respiratory sensitisation

Respiratory sensitisation Based on available data the classification criteria are not met. Read-across data.

Skin sensitisation

Skin sensitisation Based on available data the classification criteria are not met. Read-across data.

Germ cell mutagenicity

Genotoxicity - in vitro Does not contain any substances known to be mutagenic.

Carcinogenicity

Carcinogenicity Does not contain any substances known to be carcinogenic.

Reproductive toxicity

Reproductive toxicity - fertility Does not contain any substances known to be toxic to reproduction.

Specific target organ toxicity - single exposure

STOT - single exposure A single exposure may cause the following adverse effects: Chronic respiratory failure.

Target organs Respiratory system, lungs

Specific target organ toxicity - repeated exposure

STOT - repeated exposure Based on available data the classification criteria are not met. Read-across data.

Aspiration hazard

Aspiration hazard Not anticipated to present an aspiration hazard, based on chemical structure.

Inhalation May cause respiratory system irritation.

Ingestion Gastrointestinal symptoms, including upset stomach.

Skin contact No specific health hazards known.

Eye contact Causes serious eye irritation.

Acute and chronic health hazards Irritating to eyes. May cause respiratory system irritation.

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Route of exposure	Skin and/or eye contact Inhalation
Target organs	Eyes Respiratory system, lungs
Medical symptoms	Irritation of eyes and mucous membranes. Respiratory system irritation.

Toxicological information on ingredients.

troclosene sodium

Acute toxicity - oral

Acute toxicity oral (LD₅₀ mg/kg) 1,671.0

Species Rat

ATE oral (mg/kg) 1,671.0

SODIUM CARBONATE

Acute toxicity - oral

Acute toxicity oral (LD₅₀ mg/kg) 2,800.0

Species Rat

Acute toxicity - dermal

Acute toxicity dermal (LD₅₀ mg/kg) 2,000.01

Species Rabbit

ATE dermal (mg/kg) 2,000.01

SECTION 12: Ecological information

Ecotoxicity Very toxic to aquatic life with long lasting effects.

12.1. Toxicity

Acute aquatic toxicity

Acute toxicity - fish Not determined.

Chronic aquatic toxicity

Chronic toxicity - fish early life stage Not determined.

Ecological information on ingredients.

troclosene sodium

Acute aquatic toxicity

LE(C)₅₀ 0.1 < L(E)C50 ≤ 1

M factor (Acute) 1

Acute toxicity - aquatic invertebrates EC₅₀, 48 hours: <1.0mg/l mg/l, Daphnia magna

Chronic aquatic toxicity

NOEC 0.001 < NOEC ≤ 0.01

CLO-TABS

Degradability	Rapidly degradable
M factor (Chronic)	1

SODIUM CARBONATE

Acute aquatic toxicity

Acute toxicity - fish	LC ₅₀ , 96 hours: 300 mg/l, Lepomis macrochirus (Bluegill)
Acute toxicity - aquatic invertebrates	EC ₅₀ , 48 hours: 265 mg/l, Daphnia magna

12.2. Persistence and degradability

Persistence and degradability There are no data on the degradability of this product.

12.3. Bioaccumulative potential

Bioaccumulative potential No data available on bioaccumulation.

Partition coefficient Not relevant.

12.4. Mobility in soil

Mobility The product is soluble in water.

12.5. Results of PBT and vPvB assessment

Results of PBT and vPvB assessment This product does not contain any substances classified as PBT or vPvB.

12.6. Other adverse effects

Other adverse effects Not determined.

SECTION 13: Disposal considerations

13.1. Waste treatment methods

Disposal methods Disposal of this product, process solutions, residues and by-products should at all times comply with the requirements of environmental protection and waste disposal legislation and any local authority requirements.

SECTION 14: Transport information

General For limited quantity packaging/limited load information, consult the relevant modal documentation using the data shown in this section.

Special Provisions note This product is exempt from ADR and IMDG classification under special provision SP375. Therefore a limited quantities diamond is not required.

14.1. UN number

UN No. (ADR/RID)	3077
UN No. (IMDG)	3077
UN No. (ICAO)	3077

14.2. UN proper shipping name

Proper shipping name (ADR/RID)	ENVIRONMENTALLY HAZARDOUS SUBSTANCE, SOLID, N.O.S.(sodium troclosene)
Proper shipping name (IMDG)	ENVIRONMENTALLY HAZARDOUS SUBSTANCE, SOLID, N.O.S.(sodium troclosene)
Proper shipping name (ICAO)	ENVIRONMENTALLY HAZARDOUS SUBSTANCE, SOLID, N.O.S.(sodium troclosene)

CLO-TABS

14.3. Transport hazard class(es)

ADR/RID class	9
ADR/RID classification code	M7
ADR/RID label	9
IMDG class	9
ICAO class/division	9

Transport labels



14.4. Packing group

ADR/RID packing group	III
IMDG packing group	III
ICAO packing group	III

14.5. Environmental hazards

Environmentally hazardous substance/marine pollutant



14.6. Special precautions for user

EmS	F-A, S-F
ADR transport category	3
Emergency Action Code	2Z
Hazard Identification Number (ADR/RID)	90
Tunnel restriction code	(-)

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

Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code Not applicable.

SECTION 15: Regulatory information

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

UFI	UFI: VW62-G1MW-W00V-MDA3
National regulations	Control of Substances Hazardous to Health Regulations 2002 (as amended).
EU legislation	Regulation (EC) No 1272/2008 of the European Parliament and of the Council of 16 December 2008 on classification, labelling and packaging of substances and mixtures (as amended). Commission Regulation (EU) No 2015/830 of 28 May 2015.
Guidance	Workplace Exposure Limits EH40.

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15.2. Chemical safety assessment

No chemical safety assessment has been carried out.

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SECTION 16: Other information

Abbreviations and acronyms used in the safety data sheet	<p>ATE: Acute Toxicity Estimate.</p> <p>ADR: European Agreement concerning the International Carriage of Dangerous Goods by Road.</p> <p>CAS: Chemical Abstracts Service.</p> <p>DNEL: Derived No Effect Level.</p> <p>EC₅₀: 50% of maximal Effective Concentration.</p> <p>IATA: International Air Transport Association.</p> <p>IMDG: International Maritime Dangerous Goods.</p> <p>LC₅₀: Lethal Concentration to 50 % of a test population.</p> <p>LD₅₀: Lethal Dose to 50% of a test population (Median Lethal Dose).</p> <p>NOEC: No Observed Effect Concentration.</p> <p>PBT: Persistent, Bioaccumulative and Toxic substance.</p> <p>REACH: Registration, Evaluation, Authorisation and Restriction of Chemicals Regulation (EC) No 1907/2006.</p> <p>UN: United Nations.</p> <p>vPvB: Very Persistent and Very Bioaccumulative.</p>
Classification abbreviations and acronyms	<p>Acute Tox. = Acute toxicity</p> <p>Aquatic Acute = Hazardous to the aquatic environment (acute)</p> <p>Aquatic Chronic = Hazardous to the aquatic environment (chronic)</p> <p>Eye Irrit. = Eye irritation</p> <p>Ox. Sol. = Oxidising solid</p> <p>STOT SE = Specific target organ toxicity-single exposure</p>
Revision comments	NOTE: Lines within the margin indicate significant changes from the previous revision.
Revision date	21/10/2019
Revision	4.0
Supersedes date	19/01/2016
SDS number	11996
Hazard statements in full	<p>H272 May intensify fire; oxidiser.</p> <p>H302 Harmful if swallowed.</p> <p>H319 Causes serious eye irritation.</p> <p>H335 May cause respiratory irritation.</p> <p>H400 Very toxic to aquatic life.</p> <p>H410 Very toxic to aquatic life with long lasting effects.</p>

This information relates only to the specific material designated and may not be valid for such material used in combination with any other materials or in any process. Such information is, to the best of the company's knowledge and belief, accurate and reliable as of the date indicated. However, no warranty, guarantee or representation is made to its accuracy, reliability or completeness. It is the user's responsibility to satisfy himself as to the suitability of such information for his own particular use.