SAFETY DATA SHEET

NOVADAN® **Klortabs** NOVADAN®

The safety data sheet is in accordance with Commission Regulation (EU) 2015/830 of 28 May 2015 amending Regulation (EC) No 1907/2006 of the European Parliament and of the Council on the Registration, Evaluation, Authorisation and Restriction of Chemicals (REACH)

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

Date issued	10.04.2012
Revision date	19.08.2020

1.1. Product identifier

Product name	Klortabs
Article no.	12336, 12353, 17498, 18018

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

Product group	Chlorine containing disinfectant.
Use of the substance / preparation	Disinfectant.
Relevant identified uses	SU1 Agriculture, forestry, fishery SU3 Industrial uses: Uses of substances as such or in preparations at industrial sites SU4 Manufacture of food products SU22 Professional uses: publicly accessible (administration, education, entertainment, services, craftsmen) PC8 Biocidal Products (e.g. Disinfectants, pest control) PROC10 Roller application or brushing PROC19 Manual activities involving hand contact. ERC8B Wide dispersive indoor use of reactive substances in open systems
Uses advised against	No specific uses advised against are identified.

1.3. Details of the supplier of the safety data sheet

Distributor

Company name	Novadan ApS
Postal address	Platinvej 21
Postcode	DK-6000
City	Kolding
Country	Danmark
Telephone number	+ 45 76 34 84 00
Fax	+ 45 75 50 43 70

Email	sds@novadan.dk
Website	www.novadan.dk

1.4. Emergency telephone number

Emergency telephone	Description: UK: NHS: 111 EI: National Poisons Information Centre, 24/7: 01 809 2166

SECTION 2: Hazards identification

2.1. Classification of the substance or mixture

Classification according to Regulation (EC) No 1272/2008 [CLP / GHS]	Acute Tox. 4; H302 Skin Irrit. 2; H315 Eye Irrit. 2; H319 STOT SE 3; H335 Aquatic Acute 1; H400 Aquatic Chronic 1; H410
Substance / mixture hazardous properties	For further information, please refer to section 11.

2.2. Label elements

Hazard pictograms (CLP)

Composition on the label	Cl active 550 g/kg, Troclosene sodium, dihydrate
Signal word	Warning
Hazard statements	H302 Harmful if swallowed. EUH 031 Contact with acids liberates toxic gas. H315 Causes skin irritation. H319 Causes serious eye irritation. H335 May cause respiratory irritation. H410 Very toxic to aquatic life with long lasting effects.
Precautionary statements	P280 Wear eye protection/protective gloves. P273 Avoid release to the environment. P302+P352 IF ON SKIN: Wash with plenty of soap and water. P305+P351+P338 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. P301+P312 IF SWALLOWED: Call a POISON CENTER or doctor / physician if you feel unwell. P402+P404 Store in a dry place. Store in a closed container.

2.3. Other hazards

Hazard description, general	Do not mix with acid or acid containing products: toxic chlorine gas may be

	formed.
Health effect	Harmful if swallowed. Liberated dust may irritate throat and respiratory system and cause coughing. See section 11 for additional information on health hazards.
Environmental effects	The product contains a substance which is hazardous to aquatic organisms and which may cause long term adverse effects in the aquatic environment. See section 12 as well. This product does not contain any PBT or vPvB substances.

SECTION 3: Composition / information on ingredients

3.2. Mixtures

Substance	Identification	Classification	Contents	Notes
Troclosene sodium, dihydrate	CAS No.: 51580-86-0 EC No.: 220-767-7 Index No.: 613-030-01-7 REACH Reg. No.: 01-2119489371-33-xxxx	Acute Tox. 4; H302 Skin Irrit. 2; H315 Eye Irrit. 2; H319 STOT SE 3; H335 Aquatic Acute 1; H400 Aquatic Chronic 1; H410 EUH 031	60 - 100 %	

Substance comments

Regulation (EC) No 648/2004 of the European Parliament and of the Council of 31 March 2004 on detergents:
30-100%: Disinfectant .
The full text for all hazard statements is displayed in section 16.

SECTION 4: First aid measures

4.1. Description of first aid measures

General	Remove affected person from source of contamination.
Inhalation	Fresh air. Get medical attention if any discomfort continues. In case of chlorine poisoning: Move injured person to fresh air and after that to hospital.
Skin contact	Remove contaminated clothes and rinse skin thoroughly with water. Get medical attention if irritation persists after washing.
Eye contact	Immediately flush with plenty of water for up to 15 minutes. Remove any contact lenses and open eyelids widely. If irritation persists: Continue flushing during transport to hospital. Bring these instructions.
Ingestion	Rinse mouth thoroughly with water and give large amounts of milk or water to people not unconscious. Get medical attention if any discomfort continues.
Recommended personal protective equipment for first aid responders	Wear necessary protective equipment. For personal protection, see section 8.

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

Acute symptoms and effects	Dust in the eyes will cause irritation. Dust may irritate respiratory system or lungs. Irritating to skin.
Delayed symptoms and effects	No known long term effects.

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

Other information	If unconscious: Call an ambulance/physician immediately. Show this Safety Data Sheet.

SECTION 5: Firefighting measures

5.1. Extinguishing media

Suitable extinguishing media	Use fire-extinguishing media appropriate for surrounding materials.

5.2. Special hazards arising from the substance or mixture

Fire and explosion hazards	This product is not flammable. During fire, gases hazardous to health may be formed.
Hazardous combustion products	Toxic gases/vapours/fumes of: Chlorine. and Hydrogen chloride (HCl).

5.3. Advice for firefighters

Personal protective equipment	Wear necessary protective equipment. For personal protection, see section 8.
Fire fighting procedures	Reference is made to the company fire procedure. If risk of water pollution occurs, notify appropriate authorities. Avoid breathing fire vapours.

SECTION 6: Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures

Personal protection measures	Wear necessary protective equipment. For personal protection, see section 8.

6.2. Environmental precautions

Environmental precautionary measures	Avoid release to the environment. Contact local authorities in case of spillage to drain/aquatic environment.

6.3. Methods and material for containment and cleaning up

Cleaning method	Sweep up and place into an appropriate container. Wash contaminated area with water.

6.4. Reference to other sections

Other instructions	See section 8 and section 13.

SECTION 7: Handling and storage

7.1. Precautions for safe handling

Handling	Avoid inhalation of dust and contact with skin and eyes. Use work methods which minimize spreading of vapours, dust, smoke, aerosols, splashes etc. to the extent technically possible.

7.2. Conditions for safe storage, including any incompatibilities

Storage	Store in tightly closed original container in a dry and cool place. Keep away from food, drink and animal feeding stuffs. Store protected from acids.

Conditions for safe storage

Storage stability	Durability: 36 months.

7.3. Specific end use(s)

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

SECTION 8: Exposure controls / personal protection

8.1. Control parameters

Substance	Identification	Exposure limits	TWA Year
Chlorine	CAS No.: 7782-50-5		

DNEL / PNEC

Summary of risk management measures, human	Data lacking.
Summary of risk management measures, environment	Data lacking.

8.2. Exposure controls

Safety signs

Precautionary measures to prevent exposure

Technical measures to prevent exposure	Personal protection equipment should be chosen according to the CEN standards and in discussion with the supplier of the personal protective equipment.

Eye / face protection

Suitable eye protection	Wear approved safety goggles. EN 166.

Hand protection

Skin- / hand protection, long term contact	For prolonged or repeated skin contact use suitable protective gloves. Use protective gloves made of: Neoprene. Nitrile. Butyl rubber.
Hand protection, comments	Breakthrough time for nitrile rubber, neoprene and butyl rubber is approx. 3 hours. The recommendation is a qualified estimate based on knowledge of the components. Elastic gloves stretch when used as glove thickness and thus the breakthrough time reduced. The EN 374-3 standard test is performed at 23°C, but the practical temperature of the glove is approx. 35°C.

	The breakthrough time of the different glove guides, is therefor reduced by a factor 3.

Skin protection

Additional skin protection measures	No special precautions.

Respiratory protection

Respiratory protection necessary at	Under normal conditions of use respiration protection should not be required. In case of inadequate ventilation use suitable respirator. Wear respiratory protection with combination filter (dust and gas filter). Type B/P2.

Thermal hazards

Thermal hazards	See section 5.

Appropriate environmental exposure control

Environmental exposure controls	See section 6.

SECTION 9: Physical and chemical properties

9.1. Information on basic physical and chemical properties

Physical state	Tablets.
Colour	White.
Odour	Chlorine.
Odour limit	Comments: No data recorded.
pH	Status: In delivery state Comments: Technically not feasible. Status: In aqueous solution Value: 6 - 7 Comments: 1%
Melting point / melting range	Value: > 100 °C
Boiling point / boiling range	Value: > 100 °C
Flash point	Value: > 100 °C
Evaporation rate	Comments: Not relevant.
Flammability (solid, gas)	No data recorded.
Explosion limit	Comments: Not relevant.
Vapour pressure	Comments: No data recorded.
Vapour density	Comments: Not relevant.
Bulk density	Comments: No data recorded.
Solubility	Medium: Water Value: 260 g/l Temperature: 25 °C

Partition coefficient: n-octanol/ water	Comments: No data recorded.
Spontaneous combustability	Comments: Not relevant.
Decomposition temperature	Value: 175 - 246 °C
Viscosity	Comments: Not relevant.
Explosive properties	Not explosive.
Oxidising properties	Strong oxidiser.

9.2. Other information

Other physical and chemical properties

Comments	No data recorded.

SECTION 10: Stability and reactivity

10.1. Reactivity

Reactivity	There are no known reactivity hazards associated with this product.

10.2. Chemical stability

Stability	Stable under normal temperature conditions and recommended use.

10.3. Possibility of hazardous reactions

Possibility of hazardous reactions	Generates toxic gas when in contact with acid.

10.4. Conditions to avoid

Conditions to avoid	Water, moisture, acids and heating.

10.5. Incompatible materials

Materials to avoid	Strong acids. Acids, oxidising.

10.6. Hazardous decomposition products

Hazardous decomposition products	Chlorine gas and hydrogen chloride may be formed in a fire or by heating.

SECTION 11: Toxicological information

11.1. Information on toxicological effects

Substance	Troclosene sodium, dihydrate
Acute toxicity	**Effect tested:** LC50 **Route of exposure:** Inhalation. **Duration:** 4 hour(s) **Value:** 0,27 - 1,17 mg/l **Animal test species:** Rat

	Effect tested: LD50 **Route of exposure:** Dermal **Value:** > 5000 mg/kg **Animal test species:** Rabbit **Effect tested:** LD50 **Route of exposure:** Oral **Value:** 1671 mg/kg **Animal test species:** Rat
Other toxicological data	Toxicological tests on the product has not been performed.

Other information regarding health hazards

Assessment of acute toxicity, classification	Harmful if swallowed.
Inhalation	Dust may irritate respiratory system or lungs.
Skin contact	Prolonged or repeated contact with skin may cause redness, itching, irritation and eczema/chapping.
Eye contact	Irritating and may cause redness and pain.
Ingestion	Harmful if swallowed. Ingestion may cause irritation of the gastrointestinal tract, vomiting and diarrhoea.
Sensitisation	No evidence for respiratory nor skin sensitization.
Assessment of germ cell mutagenicity, classification	No evidence for germ cell mutagenicity.
Assessment of carcinogenicity, classification	No evidence for carcinogenicity.
Assessment of reproductive toxicity, classification	No evidence for reproductive toxicity.
Assessment of specific target organ toxicity - single exposure, classification	Dust irritates the respiratory system, and may cause coughing and difficulties in breathing.
Assessment of specific target organ toxicity - repeated exposure, classification	No evidence for STOT-repeated exposure.
Assessment of aspiration hazard, classification	No evidence for aspiration hazard.

Symptoms of exposure

Other information	No specific symptoms noted.

SECTION 12: Ecological information

12.1. Toxicity

Substance	Troclosene sodium, dihydrate
Aquatic toxicity, fish	**Toxicity type:** Acute **Value:** 0,23 mg/l **Exposure time:** 96 hour(s)

	Species: Fish **Method:** LC50
Substance	Troclosene sodium, dihydrate
Aquatic toxicity, algae	**Toxicity type:** Acute **Value:** 872 mg/l **Exposure time:** 48 hour(s) **Method:** ErC 50
Substance	Troclosene sodium, dihydrate
Aquatic toxicity, crustacean	**Toxicity type:** Acute **Value:** 0,17 mg/l **Exposure time:** 48 hour(s) **Species:** Daphnia magna **Method:** EC50
Ecotoxicity	The product contains a substance which is very toxic to aquatic organisms and which may cause long term adverse effects in the aquatic environment. Contains a substance (Aquatic Acute 1; H400 or Aquatic Chronic 1; H410) that falls within the scope of the multiplication factor rule.

12.2. Persistence and degradability

Persistence and degradability description/evaluation	The product solely consists of inorganic compounds which are not biodegradable.
Substance	Troclosene sodium, dihydrate
Biodegradability	**Value:** 2 % **Test period:** 28 day(s)

12.3. Bioaccumulative potential

Bioaccumulation, evaluation	The product is not bioaccumulating.

12.4. Mobility in soil

Mobility	The product is water soluble and may spread in water systems.

12.5. Results of PBT and vPvB assessment

Results of PBT and vPvB assessment	Not Classified as PBT/vPvB by current EU criteria.

12.6. Other adverse effects

Additional ecological information	None.

SECTION 13: Disposal considerations

13.1. Waste treatment methods

Appropriate methods of disposal for the chemical	Do not empty into drains; dispose of this material and its container at hazardous or special waste collection point. Dispose of waste and residues in accordance with local authority requirements. -

Appropriate methods of disposal for the contaminated packaging	Dispose unused product and the packaging in accordance with local requirements.
EWC waste code	EWC waste code: 0706 wastes from the MFSU of fats, grease, soaps, detergents, disinfectants and cosmetics Classified as hazardous waste: Yes
EWL packing	EWC waste code: 0706 wastes from the MFSU of fats, grease, soaps, detergents, disinfectants and cosmetics Classified as hazardous waste: Yes
Other information	When handling waste, consideration should be made to the safety precautions applying to handling of the product. Waste code applies to product remnants in pure form.

SECTION 14: Transport information

14.1. UN number

ADR/RID/ADN	3077
IMDG	3077
ICAO/IATA	3077
Comments	Since the product is only classified as dangerous to the environment accordingly to the conventions of transport, containers less or equal to 5 kg or litres are excluded from the dangerous goods regulations, ADR+RID - SP375 / IMDG - 2. 10.2.7 / IATA - A195

14.2. UN proper shipping name

Proper shipping name English ADR/RID/ADN	ENVIRONMENTALLY HAZARDOUS SUBSTANCE, SOLID, N.O.S.
ADR/RID/ADN	ENVIRONMENTALLY HAZARDOUS SUBSTANCE, SOLID, N.O.S.
Technical name/danger releasing substance ADR/RID/ADN	Troclosennatrium, dihydrat
IMDG	ENVIRONMENTALLY HAZARDOUS SUBSTANCE, SOLID, N.O.S.
Technical name/danger releasing substance IMDG	Troclosene sodium, dihydrate
ICAO/IATA	ENVIRONMENTALLY HAZARDOUS SUBSTANCE, SOLID, N.O.S.
Technical name/danger releasing substance ICAO/IATA	Troclosene sodium, dihydrate

14.3. Transport hazard class(es)

ADR/RID/ADN	9
Classificaton code ADR/RID/ADN	M7
IMDG	9
ICAO/IATA	9

14.4. Packing group

ADR/RID/ADN	III

IMDG	III
ICAO/IATA	III

14.5. Environmental hazards

ADR/RID/ADN	Danger label for "Environmental hazard" should be used if packagings with more than 5 liters or 5 kilos are transported.
IMDG	Danger label for "Environmental hazard" should be used if packagings with more than 5 liters or 5 kilos are transported.
IMDG Marine pollutant	Yes

14.6. Special precautions for user

Special safety precautions for user	Not relevant.

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

Product name	ENVIRONMENTALLY HAZARDOUS SUBSTANCE, SOLID, N.O.S.

Additional information

Hazard label ADR/RID/ADN	9
Hazard label IMDG	9
Hazard label ICAO/IATA	9

ADR/RID Other information

Tunnel restriction code	-
Transport category	3
Hazard No.	90
Other applicable information ADR/RID	90

IMDG Other information

EmS	F-A, S-F

SECTION 15: Regulatory information

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

Other label information	For professional users only. As a general rule, persons under 18 years of age are not allowed to work with this product. Users must be carefully instructed in the proper work procedure, the dangerous properties of the product and the necessary safety instructions.
Legislation and regulations	The Management of Health and Safety at Work Regulations 1999 (SI 1999 No. 3242), with amendments. Regulation (EC) No 1907/2006 of the European Parliament and of the Council of 18 December 2006 concerning the Registration, Evaluation, Authorisation and

Restriction of Chemicals (REACH), establishing a European Chemicals Agency, amending Directive 1999/45/EC and repealing Council Regulation (EEC) No 793/93 and Commission Regulation (EC) No 1488/94 as well as Council Directive 76/769/EEC and Commission Directives 91/155/EEC, 93/67/EEC, 93/105/EC and 2000/21/EC, including amendments.
The List of Wastes (England) (Amendment) Regulations 2005. (SI 2005 No. 895).
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, amending and repealing Directives 67/548/EEC and 1999/45/EC, and amending Regulation (EC) No 1907/2006.
REGULATION (EU) No 528/2012 OF THE EUROPEAN PARLIAMENT AND OF THE COUNCIL of 22 May 2012 concerning the making available on the market and use of biocidal products.

15.2. Chemical safety assessment

Chemical safety assessment performed	No

SECTION 16: Other information

List of relevant H-phrases (Section 2 and 3)	EUH 031 Contact with acids liberates toxic gas. H302 Harmful if swallowed. H315 Causes skin irritation. 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.
Training advice	No particular training or education is required but the user must be familiar with this SDS. Users must be carefully instructed in the proper work procedure, the dangerous properties of the product and the necessary safety instructions.
Information added, deleted or revised	Relevant changes compared to the previous version of the safety data sheet are indicated with verticle lines in the left margin.
Version	2
Prepared by	MP