SAFETY DATA SHEET
According to Regulation (EC) No.1907/2006
Disicide® Concentrate

Valid from 2019-08-09 Version 1.0

1. IDENTIFICATION OF THE SUBSTANCE/PREPARATION AND THE COMPANY/UNDERTAKING

1.1. Product identifier

Trade name: Disicide® Concentrate
600 ml Art.nr. 035001 1500 ml Art.nr. 035002

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

Use of the Substance/Mixture: Biocides

Uses advised against: At this moment we have not identified any uses advised against

1.3 Details of the supplier of the safety data sheet

Manufacturer

Terapima Svenska AB
Smidesvägen 13
SE – 24534 Staffanstorp, Sweden
+46 46 238495
info@disicide.com

1.4 Emergency telephone number Please call your local emergency number

2. HAZARDS IDENTIFICATION

2.1 Classification of the substance or mixture
Classification according to Regulation (EC) No 1272/2008

Hazard class	Hazard category	Target Organs	Hazard statements
Skin corrosion	Category 1B	---	H314
Specific target organ toxicity – single exposure	Category 3	Respiratory system	H335
Acute aquatic toxicity	Category 1	---	H400
Chronic aquatic toxicity	Category 2	---	H411

For the full text of the H-Statements mentioned in this Section, see Section 16.

Most important adverse effects

Human Health

Chronic exposure damages the brain and the central nervous system.
Inhalation may cause the following effects: May cause respiratory irritation.
Skin contact may cause the following effects: Burns with pain, redness and wounds.
Eye contact may cause the following effects: Splashes in the eyes may cause painful burns, which may result in permanent damage to the eyes.

Physical and chemical hazards Strong heating may produce combustible vapours which can form explosive mixture with air. To be stored as flammable liquid.

Potential environmental effects Very toxic to aquatic life with long lasting effects.

2.2 Label elements
Labelling according to Regulation (EC) No 1272/2008

Hazard symbols:

Signal word: Danger

Hazard statements:
H314 Causes severe skin burns and eye damage.
H335 May cause respiratory irritation.
H410 Very toxic to aquatic life with long lasting effects.

Precautionary statements

Prevention:
P261 Avoid breathing dust/ fume/ gas/ mist/ vapours/ spray.
P273 Avoid release to the environment.
P280 Wear protective gloves/ protective clothing/ eye protection/ face protection.

Response:
P303 + P361 + P353 IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water/shower.

P304 + P340 + P310
IF INHALED: Remove person to fresh air and keep comfortable for breathing.
Immediately call a POISON CENTER/doctor.

P305 + P351 + P338 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.

Hazardous components which must be listed on the label:
• 2-aminoethanol • Didecyldimethyl ammonium chloride • Potassium carbonate • propan-2-ol

2.3. Other hazards
For Results of PBT and vPvB assessment see section 12.5.
Contains organic solvents. To be stored as flammable liquid.

3. COMPOSITION/INFORMATION ON INGREDIENTS

3.1 Mixtures

Hazardous components	Amount [%]	Classification (REGULATION (EC) No 1272/2008) Hazard class / Hazard category	Hazard statements
2-aminoethanol			
Index-No: 603-030-00-8	>= 5 - < 10	Acute Tox.4	H332
CAS-No: 141-43-5		Acute Tox.4	H312
EC-No: 205-483-3		Acute Tox.4	H302
EU REACH: 01-2119486455-28-xxxx		Skin Corr.1B	H314
Reg. No: -		STOT SE3	H335
		Aquatic Chronic3	H412
Didecyldimethylammonium chloride			
Index-No: 612-131-00-6	>= 5 - < 10	Acute Tox.3	H301
CAS-No: 7173-51-5		Skin Corr.1B	H314
EC-No: 230-525-2		Aquatic Chronic1	H410
		Aquatic Acute1	H400
Alcohols C16-18, ethoxylated			
CAS-No: 68439-49-6	>= 3 - < 10	Eye Irrit.2	H319
EC-No: 5002128			
Propan-2-ol			
Index-No: 603-117-00-0	>= 1 - < 3	Flam. Liq.2	H225
CAS-No. : 67-63-0		Eye Irrit.2	H319
EC-No. : 200-661-7		STOT SE3	H336
EU REACH: 01-2119457558-25-xxxx			
Reg. No. :			

For the full text of the H-Statements mentioned in this Section, see Section 16.

4. FIRST AID MEASURES

4.1. Description of first aid measures

If inhaled: Move to fresh air. Consult a physician.

In case of skin contact: Wash off immediately with soap and plenty of water.
Remove contaminated clothing and shoes. Call a physician immediately.

In case of eye contact: Rinse immediately with plenty of water, also under the eyelids.
Remove contact lenses. Continue rinsing eyes during transport to hospital.

If swallowed: Call a physician immediately. Rinse mouth with water. Drink 1 or 2 glasses of water.
DO NOT induce vomiting unless directed to do so by a physician or poison control center.

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

Symptoms: See Section 11 for more detailed information on health effects and symptoms.

Effects: See Section 11 for more detailed information on health effects and symptoms.

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

Treatment: Treat symptomatically. No further information available.

5. FIRE-FIGHTING MEASURES

5.1. Extinguishing media

Suitable extinguishing media: Water spray, foam, dry powder or CO2.
Unsuitable extinguishing media: High volume water jet

5.2. Special hazards arising from the substance or mixture

Specific hazards during firefighting: Heating or fire can release toxic gas.

5.3. Advice for firefighters

Special protective equipment for firefighters: In the event of fire, wear self-contained breathing apparatus. Wear personal protective equipment. Choose protective equipment according to size of fire.

Further advice: No further information available.

6. ACCIDENTAL RELEASE MEASURES

6.1. Personal precautions, protective equipment and emergency procedures

Personal precautions:
Wear personal protective equipment. Use the indicated respiratory protection if the occupational exposure limit is exceeded and/or in case of product release (dust).

6.2. Environmental precautions

Should not be released into the environment. Local authorities should be advised if significant spillages cannot be contained.

6.3. Methods and materials for containment and cleaning up

Contain spillage, and then collect with non-combustible absorbent material, (e.g. sand, earth, diatomaceous earth, vermiculite) and place in container for disposal according to local / national regulations (see section 13).

6.4. Reference to other sections

For personal protection see section 8.

7. HANDLING AND STORAGE

7.1. Precautions for safe handling
Advice on safe handling:
Handle in accordance with good industrial hygiene and safety practice.

Hygiene measures:
Smoking, eating and drinking should be prohibited in the application area. Contaminated work clothing should not be allowed out of the workplace. Wash hands before breaks and at the end of workday. Keep away from food, drink and animal feedingstuffs.

7.2. Conditions for safe storage, including any incompatibilities
Requirements for storage areas and containers: Storage must follow the regulations for flammable liquids.

7.3. Specific end use(s)
Specific use(s): No information available.

8. EXPOSURE CONTROLS/PERSONAL PROTECTION

8.1 Control Parameters

Component: 2-aminoethanol CAS-No. 141-43-5 Other Occupational Exposure Limit Values

EU. Indicative Exposure Limit Values in Directives 91/322/EEC, 2000/39/EC, 2006/15/EC, 2009/161/EU, Time Weighted Average (TWA): 1 ppm, 2,5 mg/m3 Indicative

EU. Indicative Exposure Limit Values in Directives 91/322/EEC, 2000/39/EC, 2006/15/EC, 2009/161/EU, Short Term Exposure Limit (STEL): 3 ppm, 7,6 mg/m3 Indicative

8.2. Exposure controls

Personal protective equipment

Respiratory protection
Advice: Required, if exposure limit is exceeded (e.g. OEL). Recommended Filter type:A

Hand protection
Advice: Wear suitable gloves.

Eye protection
Advice: Tightly fitting safety goggles

Skin and body protection
Advice: Complete suit protecting against chemicals

9. PHYSICAL AND CHEMICAL PROPERTIES

9.1. Information on basic physical and chemical properties

Form:	Liquid
Colour:	Blue
Odour:	No data available
Odour Threshold:	No data available
pH:	12,9 (20 °C)
Freezing point:	No data available
Boiling point:	No data available
Flash point:	> 65 °C
Evaporation rate:	No data available
Flammability (solid, gas):	No data available
Upper explosion limit:	No data available
Lower explosion limit:	No data available
Vapour pressure:	23 hPa (20 °C)

Relative vapour density:	No data available
Density:	1,06 g/cm3 (20 °C)
Water solubility:	Completely soluble
Partition coefficient:	N-octanol/water: no data available
Auto-ignition temperature:	No data available
Thermal decomposition:	No data available
Viscosity, dynamic:	30 mPa.s (20 °C)
Explosivity:	The product does not present an explosion hazard.
Oxidizing properties:	No data available

9.2. Other information
No further information available.

10. STABILITY AND REACTIVITY

10.1. Reactivity
Advice: Stable at normal ambient temperature and pressure.

10.2. Chemical stability
Advice: No decomposition if stored and applied as directed. No further information available.

10.3. Possibility of hazardous reactions
Hazardous reactions: No information available.

10.4. Conditions to avoid
Conditions to avoid: Protect from frost, heat and sunlight.

10.5. Incompatible materials
Materials to avoid: No information available.

10.6. Hazardous decomposition products
Hazardous decomposition products No information available.

11. TOXICOLOGICAL INFORMATION

11.1. Information on toxicological effects

Data for the product **Acute toxicity**

Oral
Acute toxicity estimate: > 2000 mg/kg) (Calculation method)

Inhalation
Acute toxicity estimate: > 20 mg/l (4 h; vapour) (Calculation method)

Dermal
Acute toxicity estimate: > 2000 mg/kg) (Calculation method)

Irritation

Skin
Result: May cause burns with pain, redness and wounds.

Eyes
Result: Splash in the eyes may cause painful burns, and may result in permanent damage to the eyes.

Sensitisation
No data available

CMR effects

CMR Properties

Carcinogenicity:	No data available
Mutagenicity:	No data available
Reproductive toxicity:	No data available

Specific Target Organ Toxicity

Single exposure	No data available
Repeated exposure	No data available

Other toxic properties

Repeated dose toxicity	No data available
Aspiration hazard	No data available

Further information

Experience with human exposure	Contains organic solvents. Chronic exposure damages the brain and the central nervous system**.**

Component: didecyldimethylammonium chloride CAS-No. 7173-51-5

Acute toxicity

Oral

LD50	238 mg/kg (Rat) (OECD Test Guideline 401)

Dermal

LD50	3342 mg/kg (Rabbit)

Component: 2-aminoethanol CAS-No. 141-43-5

Acute toxicity

Oral

LD50 Oral	1089 mg/kg (Rat) (OECD Test Guideline 401) Cause serious burns with severe pains, vomiting, pains in the stomach, possibly chock and damaged kidneys. The burn may occur even if only small amounts have been swallowed.

Inhalation

LC50	> 1,3 mg/l (Rat; 6 h; vapour) Harmful by inhalation. Inhalation may cause pain to nose and throat, cough, headache and poorly.

12. ECOLOGICAL INFORMATION

12.1. Toxicity

Component: didecyldimethylammonium chloride CAS-No. 7173-51-5

Acute toxicity

Fish

LC50	0,19 mg/l (Pimephales promelas (fathead minnow); 96 h) (US-EPA)

Toxicity to daphnia and other aquatic invertebrates

EC50	0,062 mg/l (Daphnia magna; 48 h) (Immobilization; EPA-FIFRA)

Algae

ErC50 0,026 mg/l (Pseudokirchneriella subcapitata (green algae); 96 h)
(Growth inhibition; OECD Test Guideline 201)

Bacteria

EC50 11 mg/l (activated sludge; 3 h) (Respiration inhibition; OECD Test Guideline 209)

Chronic toxicity

Fish

NOEC 0,032 mg/l (Danio rerio (zebra fish); 34 d) (OECD Test Guideline 210)

Aquatic invertebrates

NOEC 0,010 mg/l (Daphnia magna (Water flea); 21 d)
(Reproductive toxicity; OECD Test Guideline 211)

M-Factor

M-Factor (Acute Aquat. Tox.) 10

M-Factor (Chron. Aquat. Tox.) 1

Component: 2-aminoethanol ***CAS-No. 141-43-5***

Acute toxicity

Fish

LC50 170 mg/l (Carassius auratus (goldfish); 96 h) (static test; APHA 1971)

LC50 349 mg/l (Cyprinus carpio (Carp); 96 h) (semi-static test;
Tested according to Directive 92/69/EEC.)

Toxicity to daphnia and other aquatic invertebrates

EC50 65 mg/l (Daphnia magna; 48 h)

Algae

EC50 22 mg/l (Scenedesmus subspicatus; 72 h) (Growth inhibition;
Tested according to Directive 92/69/EEC.)

EC50 2,5 mg/l (Scenedesmus capricornutum (fresh water algae); 72 h)
(Growth inhibition; OECD Test Guideline 201)

Bacteria

EC20 > 1000 mg/l (activated sludge; 0,5 h) (OECD Test Guideline 209)
EC50 110 mg/l (Pseudomonas putida; 16 h) (DIN 38412)

EC50 > 1000 mg/l (activated sludge; 3 h) (OECD Test Guideline 209

Chronic toxicity
Fish

NOEC **1,2 mg/l (Oryzias latipes (Orange-red killifish); 30 d)**

Aquatic invertebrates

NOEC 0,85 mg/l (Daphnia magna (Water flea); 21 d) (OECD Test Guideline 211)

12.2 Persistence and degradability

Inhalation

Result No data available

Component: didecyldimethyl ammonium chloride CAS-No. 7173-51-5

Persistence and degradability

Biodegradability

Result 72 % (Exposure Time: 28 d)(OECD Test Guideline 301B)Readily biodegradable.

Result 91 % (Exposure Time: 24 - 70 d)(OECD 303 A)

Component: 2-aminoethanol CAS-No. 141-43-5

Persistence and degradability

Biodegradability

Result > 90 % (aerobic; activated sludge; Exposure Time: 21 d)(OECD Test Guideline 301A)
Readily biodegradable.

12.3 Bioaccumulative potential

Component: didecyldimethyl ammonium chloride CAS-No. 7173-51-5

Bioaccumulation

Result BCF: 2,1 Bioaccumulation is not expected.

Component: 2-aminoethanol CAS-No. 141-43-5

Bioaccumulation

Result log Kow -1,91
Bioaccumulation is not expected.

12.4. Mobility in soil

Component: 2-aminoethanol CAS-No. 141-43-5

Mobility The substance will not evaporate into the atmosphere from the water surface.
Not expected to adsorb on soil.

12.5. Results of PBT and vPvB assessment

Data for the product

Results of PBT and vPvB assessment

Result This substance/mixture contains no components considered to be either persistent, bioaccumulative and toxic (PBT), or very persistent and very bioaccumulative (vPvB) at levels of 0.1% or higher.

12.6. Other adverse effects

Data for the product

Additional ecological information

Result Very toxic to aquatic life with long lasting effects.

13. DISPOSAL CONSIDERATIONS

13.1. Waste treatment methods

Product
Eliminate waste in conditions authorized by the regulations. Store waste in containers provided for this purpose.
Do not dump in drains, water sheets or the ground.

Contaminated packaging
Packaging that cannot be cleaned are to be disposed of in the same manner as the product.

European Waste Catalogue Number
No waste code according to the European Waste Catalogue can be assigned for this product, as the intended use dictates the assignment. The waste code is established in consultation with the regional waste disposer.

14. TRANSPORT INFORMATION

14.1. UN number 1903

14.2. UN proper shipping name

ADR DISINFECTANT, LIQUID, CORROSIVE, N.O.S.
(Didecyldimethylammonium chloride, Ethanolamine)

RID DISINFECTANT, LIQUID, CORROSIVE, N.O.S.
(Didecyldimethylammonium chloride, Ethanolamine)

IMDG DISINFECTANT, LIQUID, CORROSIVE, N.O.S.
(Didecyldimethylammonium chloride, Ethanolamine)

14.3. Transport hazard class(es)

ADR-Class	8
(Labels; Classification Code; Hazard identification No; Tunnel restriction code)	8; C9; 80; (E)
RID-Class	8
(Labels; Classification Code; Hazard identification No)	8; C9; 80
IMDG-Class	8
(Labels; EmS)	8; F-A, S-B

14.4. Packaging group

ADR III
RID III
IMDG III

14.5. Environmental hazards

Environmentally hazardous according to ADR Yes
Environmentally hazardous according to RID Yes
Marine Pollutant according to IMDG-Code Yes

14.6. Special precautions for user Not applicable.

15. REGULATORY INFORMATION

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

Data for the product

Pregnant and nursing women may not be exposed to the product. Take in consideration the national regulation. As a principal rule, persons under 18 years are not allowed to work with this substance. Only persons, who are thoroughly instructed in the dangerous properties and the necessary safety precautions of the substance, are allowed to work with it.

15.2. Chemical safety assessment

No data available

16. OTHER INFORMATION

Full text of H-Statements referred to under sections 2 and 3.

H225 Highly flammable liquid and vapour.
H301 Toxic if swallowed.
H302 Harmful if swallowed.
H312 Harmful in contact with skin.
H314 Causes severe skin burns and eye damage.
H315 Causes skin irritation.
H319 Causes serious eye irritation.
H332 Harmful if inhaled.
H335 May cause respiratory irritation.
H336 May cause drowsiness or dizziness.
H400 Very toxic to aquatic life.
H410 Very toxic to aquatic life with long lasting effects.
H411 Toxic to aquatic life with long lasting effects.
H412 Harmful to aquatic life with long lasting effects.

Abbreviations and Acronyms

BCF Bioconcentration factor
BOD Biochemical oxygen demand
CAS Chemical Abstracts Service
CLP Classification, Labelling and Packaging
CMR Carcinogenic, mutagenic or toxic to reproduction
COD Chemical oxygen demand
DNEL Derived no-effect level
EINECS European Inventory of Existing Commercial Chemical Substances
ELINCS European List of Notified Chemical Substances
GHS Globally Harmonized System of Classification and Labelling of Chemicals
LC50 Median lethal concentration
LOAEC Lowest observed adverse effect concentration
LOAEL Lowest observed adverse effect level
LOEL Lowest observed effect level
NLP No-longer polymer
NOAEC No observed adverse effect concentration
NOAEL No observed adverse effect level
NOEC No observed effect concentration
NOEL No observed effect level
OECD Organisation for Economic Cooperation and Development
OEL Occupational exposure limit
PBT Persistent, bioaccumulative and toxic
PNEC Predicted no-effect concentration
STOT Specific target organ toxicity
SVHC Substance of very high concern

UVCB Substance of unknown or variable composition, complex reaction products or biological materials
vPvB Very persistent and very bioaccumulative

Key literature references and sources for data
Supplier information and data from the "Database of registered substances" of the European Chemicals Agency (ECHA) were used to create this safety data sheet.

Methods used for product classification
The classification for human health, physical and chemical hazards and environmental hazards were derived from a combination of calculation methods and if available test data.

Hints for trainings
The workers have to be trained regularly on the safe handling of the products based on the information provided in the Safety Data Sheet and the local conditions of the workplace. National regulations for the training of workers in the handling of hazardous materials must be adhered to.

Indicates updated section.
The information provided in this Safety Data Sheet is correct to our knowledge at the date of its revision. The information given only describes the products with regard to safety arrangements and is not to be considered as a warranty or quality specification and does not constitute a legal relationship. The information contained in this Safety Data Sheet relates only to the specific material designated and may not be valid for such material used in combination with any other material or in any process, unless specified in the text.

Mixing ratio: 1:32
30 ml Disicide Concentrate to 1000 ml water.