



DXT27

Material Safety Data Sheet

according to 1907/2006/EC
Revision: 28.08.2015

SECTION 1:

Identification of the substance/mixture and of the company/undertaking

1.1 Product identifier

Substance name : DXT27

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

Use of the Substance/Mixture : Active ingredient for biocidal products

1.3 Details of the supplier of the safety data sheet

Company : Cambridge Scientific Technologies Ltd, 40 Horsenden Lane South, Perivale, Middlesex, UB6 8AD, United Kingdom
Telephone: +44 20 7193 3341
E-mail address: info@cambtech.co.uk
Responsible/issuing person:

SECTION 2:

Hazards identification

2.1 Classification of the substance or mixture

REGULATION (EC) No 1272/2008

Skin corrosion; Category 1B

Acute aquatic toxicity; Category 1

Chronic aquatic toxicity; Category 2

H314 Causes severe skin burns and eye damage

H400 Very toxic to aquatic life.

H411 Toxic to aquatic life with long lasting effects.

67/548/EEC / 1999/45/EC

Causes burns.

Very toxic to aquatic organisms.

2.2 Label elements

Labelling according to EC Directives

REGULATION (EC) No 1272/2008

Pictogram:



Signal word:

Hazard statements

Precautionary statements

DANGER

H314: Causes severe skin burns and eye damage.

H400: Very toxic to aquatic life.

H411: Toxic to aquatic life with long lasting effects.

P273: Avoid release to the environment.

P280: Wear protective gloves/ protective clothing/ eye protection/ face protection.

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

P310: Immediately call a POISON CENTER or doctor/ physician.

Symbol(s)



Corrosive



Dangerous for the environment

R-phrases(s)

R3: Causes burns.

S-phrases(s)

R50: Very toxic to aquatic organisms.

S26: In case of contact with eyes, rinse immediately with plenty of water and seek medical advice.

S28: After contact with skin, wash immediately with plenty of water.

S36/37/39: Wear suitable protective clothing, gloves and eye/face protection.

S45: In case of accident or if you feel unwell, seek medical advice immediately (show the label where possible).

S61: Avoid release to the environment. Refer to special instructions/Safety data sheets.

Special labelling of certain mixtures

Use biocides safely. Always read the label and product information before use.

2.3

Other hazards

General advice :

No information available.

SECTION 3:**Composition/information on ingredients****3.1 Mixtures**

Substances / Mixtures:

Mixture

Hazardous components:

| CAS-No. | EC-No. / Registration number | Classification | Concentration |
|---|--|--|---------------|
| Didecyldimethylammonium chloride | | | < 10 % |
| 7173-51-5 | 230-525-2 | Acute Tox.; 3; H301 Skin Corr.; 1B; H314 Aquatic Acute; 1; H400 Aquatic Chronic; 1; H410 C, N; R22, R34, R50 | |
| Potassium carbonate | | | < 10 % |
| 584-08-7 | 209-529-3 | Skin Irrit.; 2; H315 Eye Irrit.; 2; H319 STOT SE; 3; H335 Xi; R36/37/38 | |
| 2-Aminoethanol | | | < 10 % |
| 141-43-5 | 205-483-3 | Acute Tox.; 4; H302 Acute Tox.; 4; H312 Acute Tox.; 4; H332 Skin Corr.; 1B; H314 C; R20/21/22, R34 | |
| Propan-2-ol | | | < 5 % |
| 67-63-0 | 200-661-7 / 01-2119457558-25- XXXX | Flam. Liq.; 2; H225 Eye Irrit.; 2; H319 STOT SE; 3; H336 F, Xi; R11, R36, R67 | |

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

For the full text of the R-phrases mentioned in this Section, see Section 16.

(*) Components with workplace control parameters See chapter 8

SECTION 4:

First aid measures

4.1 Description of first aid measures

Inhalation

Move to fresh air. If breathing is irregular or stopped, administer artificial respiration. Give oxygen. First aider needs to protect himself. Call a physician immediately.

Skin contact

Take off all contaminated clothing immediately. After contact with skin, wash immediately with plenty of soap and water. Call a physician immediately.

Eye contact

Rinse immediately with plenty of water, also under the eyelids, for at least 15 minutes. Call a physician immediately.

Ingestion

Call a physician immediately. Clean mouth with water and drink afterwards plenty of water. Do not induce vomiting without medical advice. Never give anything by mouth to an unconscious person.

4.2 Most important symptoms and effects, both acute and delayed

Symptoms

No information available.

4.3 Indication of any immediate medical attention and special treatment needed

Treatment

No information available.

SECTION 5:

Firefighting measures

5.1 Extinguishing media

Suitable extinguishing media

Dry powder, Water spray, Foam

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.

Further information

Use water spray to cool unopened containers.

SECTION 6:

Accidental release measures

6.1 Personal precautions, protective equipment and emergency procedures

Personal precautions

Use respirator when performing operations involving potential exposure to vapour of the product.

6.2 Environmental precautions

Environmental precautions

Do not flush into surface water or sanitary sewer system.

6.3 Methods and materials for containment and cleaning up

Methods for 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

Additional advice

For personal protection see section 8.

SECTION 7:

Handling and storage

7.1 Precautions for safe handling

Advice on safe handling

Avoid contact with skin and eyes. Provide sufficient air exchange and/or exhaust in work rooms.

Advice on protection against fire and explosion

Take precautionary measures against static discharges.

7.2 Conditions for safe storage, including any incompatibilities

Requirements for storage areas and containers

Keep container tightly closed. To maintain product quality, do not store in heat or direct sunlight. Keep in a dry, cool and well-ventilated place.

7.3 Specific end use(s)

Specific use(s)

No information available.

SECTION 8:

Exposure controls/personal protection

8.1 Control parameters

Occupational Exposure Limits

| Components | CAS-No. | Value type (Form of exposure) | Control parameters | Basis |
|----------------|----------|-------------------------------|------------------------------------|--------------|
| 2-Aminoethanol | 141-43-5 | STEL | 4 ppm 10 mg/m ³ | SMAK |
| | | TWA | 2 ppm 5 mg/m ³ | SMAK |
| | | TWA | 1 ppm 2,5 mg/m ³ | ECTLV |
| | | STEL | 3 ppm 7,6 mg/m ³ | ECTLV |
| | | MAK (Vapor and aerosol.) | 2 ppm 5,1 mg/m ³ | DFG MAK |
| | | TWA | 3 ppm | ACGIH |
| | | STEL | 6 ppm | ACGIH |
| | | STEL | 6 ppm 15 mg/m ³ | NIOSH/GUID E |
| | | REL | 3 ppm 8 mg/m ³ | NIOSH/GUID E |
| Propan-2-ol | 67-63-0 | TWA | 200 ppm 500 mg/m ³ | SMAK |
| | | STEL | 400 ppm 1 000 mg/m ³ | SMAK |
| | | MAK | 200 ppm 500 mg/m ³ | DFG MAK |
| | | TWA | 200 ppm | ACGIH |
| | | STEL | 400 ppm | ACGIH |
| | | REL | 400 ppm 980 mg/m ³ | NIOSH/GUID E |
| | | STEL | 500 ppm 1 225 mg/m ³ | NIOSH/GUID E |

8.2 Exposure controls

Personal protective equipment

| | |
|--|---|
| Respiratory protection | In the case of vapour formation use a respirator with an approved filter. Respirator with a vapour filter (EN 141) Respirator with ABEK filter. |
| Hand protection | Suitable material : Nitrile rubber Break through time : > 480 min Take note of the information given by the producer concerning permeability and break through times, and of special workplace conditions (mechanical strain, duration of contact). |
| Eye protection | Tightly fitting safety goggles Face-shield |
| Skin and body protection | Choose body protection according to the amount and concentration of the dangerous substance at the work place. Rubber or plastic apron Rubber or plastic boots |
| Hygiene measures | Wash hands before breaks and immediately after handling the product. Avoid contact with skin, eyes and clothing. Remove and wash contaminated clothing and gloves, including the inside, before re-use. |
| Environmental exposure controls | |
| General advice | Do not flush into surface water or sanitary sewer system. |

SECTION 9:

Physical and chemical properties

| | | |
|------------|--|------------------------------------|
| 9.1 | Information on basic physical and chemical properties | |
| | Physical state | liquid |
| | Colour | light yellow |
| | Odour | characteristic |
| | pH | 12,9 (20 °C) |
| | Melting point/range | no data available |
| | Boiling point/boiling range | no data available |
| | Flash point | > 65 °C |
| | Vapour pressure | 23 hPa (20 °C) |
| | Density | 1,06 g/cm ³ (20 °C) |
| | Water solubility | completely miscible |
| | Auto-flammability | not auto-flammable |
| | Viscosity, dynamic | 30 mPa.s (20 °C) |
| | Explosivity | Classification Code: Not explosive |
| 9.2 | Other information | |
| | no data available | |

SECTION 10:

Stability and reactivity

| | | |
|-------------|---|--|
| 10.1 | Reactivity | Stable under recommended storage conditions. |
| 10.2 | Chemical stability | Stable under normal conditions |
| 10.3 | Possibility of hazardous reactions | Exothermic reaction with strong acids. Stable under normal conditions. |
| 10.4 | Conditions to avoid | no data available |
| 10.5 | Incompatible materials | Acids |
| 10.6 | Hazardous decomposition products | No decomposition if stored normally. |

SECTION 11:

Toxicological information

11.1 Information on toxicological effects

Additional advice

If ingested, severe burns of the mouth and throat, as well as a danger of perforation of the oesophagus and the stomach.

The following toxicological data refer to:

Didecyldimethylammonium chloride

(CAS-No.: 7173-51-5)

Information on toxicological effects

Acute oral toxicity (LD50)

238 mg/kg
Species: Rat
Method: OECD Test Guideline 401

Acute dermal toxicity (LD50)

3 342 mg/kg
Species: Rabbit

Skin irritation

irritating
Species: Rabbit
Exposure time: 3 min
Method: OECD Test Guideline 404

Sensitisation

not sensitizing
Species: Guinea pig
Buehler Test

Genotoxicity in vitro

Method: US-EPA
negative
Ames test, Salmonella typhimurium
Method: OECD Test Guideline 471
negative
Chromosome aberration test in vitro, Chinese hamster ovary cells
negative

Genotoxicity in vivo

Gene mutation, Chinese hamster ovary cells
negative
Chromosome aberration test in vivo
Application Route: Oral
Species: Rat
Method: OECD Test Guideline 475

2-Aminoethanol

Information on toxicological effects

Acute oral toxicity (LD50)

1 510 mg/kg
Species: Rat

Acute dermal toxicity (LD50)

1 025 mg/kg
Species: Rabbit
Exposure time: 24 h

Skin irritation

Corrosive
Species: Rabbit
Exposure time: 4 h

Eye irritation

Corrosive
Species: Rabbit

Genotoxicity in vitro

negative
Ames test

Genotoxicity in vivo

negative
In vivo micronucleus test

SECTION 12:

Ecological information

| | | |
|------|---|--|
| 12.1 | Toxicity Toxicity to fish | no data available |
| 12.2 | Persistence and degradability Biodegradability | no data available |
| 12.3 | Bio-accumulative potential Bioaccumulation | no data available |
| 12.4 | Mobility in soil Behaviour in environmental compartments | no data available |
| 12.5 | Results of PBT and vPvB assessment Assessment | This mixture contains no substance considered to be persistent, bio-accumulating and toxic (PBT). This mixture contains no substance considered to be very persistent and very bio-accumulating (vPvB). |
| 12.6 | Other adverse effects Additional advice | No data is available on the product itself. Do not flush into surface water or sanitary sewer system. Discharge into the environment must be avoided. |

The following ecotoxicological data refer to:

| | |
|--|--|
| Didcyldimethylammonium chloride | (CAS-No.: 7173-51-5) |
| Toxicity | |
| Toxicity to fish (LC50) | 0,19 mg/l Species: Pimephales promelas (fathead minnow) Acute toxicity Exposure time: 96 h Method: US-EPA |
| Toxicity to fish (NOEC) | 0,032 mg/l Species: Danio rerio (zebra fish) Chronic toxicity Exposure time: 34 d Method: OECD Test Guideline 210 |
| Toxicity to daphnia and other aquatic invertebrates (EC50) | 0,062 mg/l Species: Daphnia magna (Water flea) Immobilization Exposure time: 48 h Method: EPA-FIFRA |
| (NOEC) | 0,010 mg/l Species: Daphnia magna (Water flea) Reproduction Test Exposure time: 21 d Method: OECD Test Guideline 211 |
| Toxicity to algae (ErC50) | 0,026 mg/l Species: Pseudokirchneriella subcapitata (green algae) |

| | |
|-------------------------------------|---------------------------------|
| | Growth inhibition |
| | Exposure time: 96 h |
| | Method: OECD Test Guideline 201 |
| M-Factor (Acute aquatic toxicity) | 10 |
| M-Factor (Chronic aquatic toxicity) | 1 |
| Toxicity to bacteria (EC50) | 11 mg/l |
| | Species: activated sludge |
| | Respiration inhibition |
| | Exposure time: 3 h |
| | Method: OECD Test Guideline 209 |

Persistence and degradability

Biodegradability

Modified Sturm Test: 72 %
 Readily biodegradable
 Testing period: 28 d
 Method: OECD Test Guideline 301B
 Die-Away Test: 93,3 %
 Testing period: 28 d
 OECD Confirmatory Test: 91 %
 Testing period: 24 - 70 d
 Method: OECD Test Guideline 303 A
 The surfactant(s) contained in this mixture complies(comply) with the biodegradability criteria as laid down in Regulation (EC) No.648/2004 on detergents. Data to support this assertion are held at the disposal of the competent authorities of the Member States and will be made available to them, at their direct request or at the request of a detergent manufacturer.

Behaviour in environmental compartments

Mobility in soil
 Method: US-EPA

2-Aminoethanol

Toxicity

(CAS-No.: 141-43-5)

Toxicity to fish (LC50)

150 mg/l
 Species: Oncorhynchus mykiss (rainbow trout)
 Acute toxicity

Toxicity to daphnia and other aquatic invertebrates (EC50)

Exposure time: 96 h
 120 mg/l
 Species: Daphnia magna (Water flea)
 Immobilization
 Exposure time: 24 h
 Method: OECD Test Guideline 202

Toxicity to algae (EC50)

15 mg/l
 Species: Desmodesmus subspicatus (green algae)
 Growth inhibition

Toxicity to bacteria (EC50)

Exposure time: 72 h
 > 1 000 mg/l
 Species: activated sludge
 Respiration inhibition
 Exposure time: 3 h

| | |
|-----------------------------|--|
| Toxicity to bacteria (EC10) | Method: OECD Test Guideline 209 6 300 mg/l Species: Pseudomonas putida Growth inhibition Exposure time: 16 h Method: DIN 38412 Part 8 |
|-----------------------------|--|

| | |
|--|---|
| Persistence and degradability Biodegradability | Modified Sturm Test: > 80 % Readily biodegradable Testing period: 19 d Method: OECD Test Guideline 301B |
|--|---|

SECTION 13:
Disposal considerations

| | |
|--|---|
| 13.1 Waste treatment methods Product Contaminated packaging | Dispose of in accordance with local regulations. Contact waste disposal services. Dispose of as unused product. |
|--|---|

SECTION 14:
Transport information

| | |
|------------------------------------|---|
| IATA | |
| 14.1 UN number | 1903 |
| 14.2 Proper shipping name | Disinfectant, liquid, corrosive, n.o.s. (2-Aminoethanol, Didecyldimethylammonium chloride) |
| 14.3 Transport hazard class | 8 |
| 14.4 Packing group | III |
| Labels | 8 |
| 14.5 Environmental hazards | no |

| | |
|------------------------------------|---|
| IMDG | |
| 14.1 UN number | 1903 |
| 14.2 Proper shipping name | Disinfectant, liquid, corrosive, n.o.s. (2-Aminoethanol, Didecyldimethylammonium chloride) |
| 14.3 Transport hazard class | 8 |
| 14.4 Packing group | III |
| Labels | 8 |
| EmS Number 1 | F-A |
| EmS Number 2 | S-B |
| 14.5 Environmental hazards | Marine pollutant: yes |

| | |
|------------------------------------|---|
| ADR | |
| 14.1 UN number | 1903 |
| 14.2 Proper shipping name | DISINFECTANT, LIQUID, CORROSIVE, N.O.S. (2-Aminoethanol, Didecyldimethylammonium chloride) |
| 14.3 Transport hazard class | 8 |
| 14.4 Packing group | III |
| Classification Code | C9 |
| Hazard Identification Number | 80 |
| Labels | 8 |
| 14.5 Environmental hazards | yes |

| | | |
|------------|-------------------------------------|---|
| RID | | |
| 14.1 | UN number | 1903 |
| 14.2 | Proper shipping name | DISINFECTANT, LIQUID, CORROSIVE, N.O.S. (2-Aminoethanol, Didecyldimethylammonium chloride) |
| 14.3 | Transport hazard class | 8 |
| 14.4 | Packing group | III |
| | Classification Code | C9 |
| | Hazard Identification Number | 80 |
| | Labels | 8 |
| 14.5 | Environmental hazards | YES |

| | | |
|------------|--|---|
| DOT | | |
| 14.1 | UN number | 1903 |
| 14.2 | Proper shipping name | Disinfectants, liquid, corrosive n.o.s. (2-Aminoethanol, Didecyldimethylammonium chloride) |
| 14.3 | Transport hazard class | 8 |
| 14.4 | Packing group | III |
| | Labels | 8 |
| | Emergency Response Guidebook Number | 153 |
| 14.5 | Environmental hazards | no |

| | | |
|------------|---|---|
| TDG | | |
| 14.1 | UN number | 1903 |
| 14.2 | Proper shipping name | DISINFECTANT, LIQUID, CORROSIVE, N.O.S. (2-Aminoethanol, Didecyldimethylammonium chloride) |
| 14.3 | Transport hazard class | 8 |
| 14.4 | Packing group | III |
| | Labels | 8 |
| 14.5 | Environmental hazards | No |
| 14.6 | Special precautions for user | None |
| 14.7 | 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 | |
| | This safety datasheet complies with the requirements of Regulation (EC) No. 1907/2006. | |
| | National legislation | |
| | Water contaminating class (Germany) | WGK 2: water endangering |
| 15.2 | Chemical Safety Assessment | not required |

SECTION 16:

Other information

| | |
|----------------------------------|-------------------------------------|
| Full text of H-Statements | |
| 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. |

Full text of R-Phrases

| | |
|-----------|---|
| R11 | Highly flammable |
| R20/21/22 | Harmful by inhalation, in contact with skin and if swallowed. |
| R22 | Harmful if swallowed. |
| R34 | Causes burns. |
| R36 | Irritating to eyes. |
| R36/37/38 | Irritating to eyes, respiratory system and skin. |
| R50 | Very toxic to aquatic organisms. |
| R67 | Vapours may cause drowsiness and dizziness. |

This version replaces all previous versions.

The information provided in this Safety Data Sheet is correct to the best of our knowledge, information and belief at the date of its publication. The information given is designed only as a guidance for safe handling, use, processing, storage, transportation, disposal and release and is not to be considered a warranty or quality specification. The 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, unless specified in the text.