DXT55

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 : DXT55

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	H314 Causes severe skin burns and eye damage
Acute aquatic toxicity; Category 1	H400 Very toxic to aquatic life.
Chronic aquatic toxicity; Category 2	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: DANGER

Hazard statements
H314: Causes severe skin burns and eye damage.
H400: Very toxic to aquatic life.
H411: Toxic to aquatic life with long lasting effects.

Precautionary statements
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.

67/548/EEC / 1999/45/EC

Symbol(s)

Corrosive

Dangerous for the environment

R-phrase(s) R3: Causes burns.
R50: Very toxic to aquatic organisms.

S-phrase(s) 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/m3	SMAK
		TWA	2 ppm 5 mg/m3	SMAK
		TWA	1 ppm 2,5 mg/m3	ECTLV
		STEL	3 ppm 7,6 mg/m3	ECTLV
		MAK (Vapor and aerosol.)	2 ppm 5,1 mg/m3	DFG MAK
		TWA	3 ppm	ACGIH
		STEL	6 ppm	ACGIH
		STEL	6 ppm 15 mg/m3	NIOSH/GUIDE
		REL	3 ppm 8 mg/m3	NIOSH/GUIDE
Propan-2-ol	67-63-0	TWA	200 ppm 500 mg/m3	SMAK
		STEL	400 ppm 1 000 mg/m3	SMAK
		MAK	200 ppm 500 mg/m3	DFG MAK
		TWA	200 ppm	ACGIH
		STEL	400 ppm	ACGIH
		REL	400 ppm 980 mg/m3	NIOSH/GUIDE
		STEL	500 ppm 1 225 mg/m3	NIOSH/GUIDE

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/cm3 (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 Method: US-EPA
Genotoxicity in vitro	negative Ames test, Salmonella typhimurium Method: OECD Test Guideline 471 negative Chromosome aberration test in vitro, Chinese hamster ovary cells negative Gene mutation, Chinese hamster ovary cells
Genotoxicity in vivo	negative Chromosome aberration test in vivo Application Route: Oral Species: Rat Method: OECD Test Guideline 475
2-Aminoethanol	(CAS-No.: 141-43-5)
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:

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

Toxicity

Toxicity to fish (LC50)	150 mg/l Species: Oncorhynchus mykiss (rainbow trout) Acute toxicity Exposure time: 96 h
Toxicity to daphnia and other aquatic invertebrates (EC50)	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 Exposure time: 72 h
Toxicity to bacteria (EC50)	> 1 000 mg/l Species: activated sludge Respiration inhibition Exposure time: 3 h Method: OECD Test Guideline 209
Toxicity to bacteria (EC10)	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	Dispose of in accordance with local regulations. Contact waste disposal services.
Contaminated packaging	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.