

SAFETY DATA SHEET**T-4**

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	11.03.2014
Revision date	10.09.2021

1.1. Product identifier

Product name	T-4
Article no.	1476074, 1476076, 1476078

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

Use of the substance / mixture	Sanitizing cleaner
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1.3. Details of the supplier of the safety data sheet

Company name	Tandur h.f.
Office address	Hestháls 12
Postcode	110
City	Reykjavík
Country	ICELAND
Telephone number	00354 510 1200
Email	tandur@tandur.is
Website	www.tandur.is

1.4. Emergency telephone number

Emergency telephone	Telephone number: 112 Description: EMERGENCY SERVICES
	Telephone number: (+354)-543-2222 Description: EMERGENCY# POISON CENTER

SECTION 2: Hazards identification**2.1. Classification of the substance or mixture**

Classification according to Regulation (EC) No 1272/2008 [CLP / GHS]	Eye Dam. 1; H318
	Aquatic Acute 1; H400
	Aquatic Chronic 3; H412

2.2. Label elements

Hazard pictograms (CLP)



Composition on the label	Didecyltrimethylammonium chloride 1 - 5 % wt/wt
Signal word	Danger
Hazard statements	H318 Causes serious eye damage. H400 Very toxic to aquatic life. H412 Harmful 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. P301+P330+P331 IF SWALLOWED: Rinse mouth. Do NOT induce vomiting. P305+P351+P338 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. P309+P311 IF exposed or if you feel unwell: Call a POISON CENTER or doctor / physician. P391 Collect spillage. P501 Dispose of contents / container to a hazardous waste collection point or special requirements in accordance with local, regional or international regulations.

2.3. Other hazards

PBT / vPvB	This product does not contain any PBT or vPvB substances.
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SECTION 3: Composition / information on ingredients

3.2. Mixtures

Substance	Identification	Classification	Contents	Notes
Didecyltrimethylammonium chloride	CAS No.: 7173-51-5 EC No.: 230-525-2 Index No.: 612-131-00-6	Acute tox. 4; H302 Skin Corr 1B; H314 Aquatic Acute 1; H400	1 - 5 % wt/wt	
Propan-2-ol	CAS No.: 67-63-0 EC No.: 200-661-7 Index No.: 603-117-00-0	Flam. Liq. 2; H225 Eye Irrit. 2; H319 STOT SE 3; H336	1 - 5 % wt/wt	
Tetrasodium Ethylene Diamine Tetraacetate	CAS No.: 64-02-8 EC No.: 200-573-9 Index No.: 607-428-00-2	Acute tox. 4; H302 Eye Dam. 1; H318	1 - 5 % wt/wt	
Isotridecanoethoxylate	REACH Reg. No.: 02-2119552461-55-0000	Acute tox. 4; H302 Eye Dam. 1; H318	1 - 5 % wt/wt	

SECTION 4: First aid measures

4.1. Description of first aid measures

General	Call a POISON CENTER or doctor/physician if you feel unwell. Show this SDS.
Inhalation	If breathing is difficult, remove victim to fresh air and keep at rest in a position comfortable for breathing. Get medical attention immediately!
Skin contact	Flush skin thoroughly with water. Take off contaminated clothing and wash before reuse. Get medical attention if irritation persists after washing.
Eye contact	Promptly wash eyes with plenty of water while lifting the eye lids. Remove contact lenses, if present and easy to do. Continue rinsing. Get immediate medical advice/attention. Continue flushing during transport to hospital.
Ingestion	Rinse mouth thoroughly. Do NOT induce vomiting. Drink a few glasses of water or milk. Get immediate medical advice/attention.
Recommended personal protective equipment for first aid responders	Wear protective gloves / protective clothing / eye protection / face protection. See further section 8.2

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

Information for health personnel	May cause severe skin and eye damage.
Acute symptoms and effects	See further section 11.1 under "Potential Acute Effects"

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

SECTION 5: Firefighting measures

5.1. Extinguishing media

Suitable extinguishing media	Carbon dioxide or dry powder. Fight larger fires with water spray jet or alcohol-resistant foam
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5.2. Special hazards arising from the substance or mixture

Fire and explosion hazards	No unusual fire or explosion hazards noted.
Hazardous combustion products	Not known.

5.3. Advice for firefighters

Personal protective equipment	Wear respiratory protection. Wear protective gloves / protective clothing / eye protection / face protection.
Fire fighting procedures	Fight fire with normal precautions from a reasonable distance.

SECTION 6: Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures

General measures	Stop leak if safe to do so.
Personal protection measures	Wear protective gloves / protective clothing / eye protection / face protection.

Hazardous combustion products	Not known.
For emergency responders	Wear protective clothing as described in Section 8 of this safety data sheet. Call a POISON CENTER or doctor/physician if you feel unwell.

6.2. Environmental precautions

Environmental precautionary measures	Avoid discharge into drains, water courses or onto the ground. Collect and dispose of spillage as indicated in section 13.
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6.3. Methods and material for containment and cleaning up

Cleaning method	Absorb in vermiculite, dry sand or earth and place into containers.
Containment	Store in a closed container.

6.4. Reference to other sections

Other instructions	See section 8 and 13 for further details.
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SECTION 7: Handling and storage

7.1. Precautions for safe handling

Handling	Provide easy access to water supply and eye wash facilities.
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Protective safety measures

Preventitive measures to protect the environment	Prevent the product to reach sewage water or drainage system undiluted or unneutralized. Collect spillage if possible.
Advice on general occupational hygiene	Private clothes and working clothes should be kept separately.

7.2. Conditions for safe storage, including any incompatibilities

Storage	Keep away from food, drink and animal feeding stuffs. Keep container tightly closed. Keep in original container.
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Conditions for safe storage

Requirements for storage rooms and vessels	Keep only in original container. Keep container tightly closed.
Storage temperature	Value: ~ 20 °C

7.3. Specific end use(s)

SECTION 8: Exposure controls / personal protection

8.1. Control parameters

Substance	Identification	Exposure limits	TWA Year
Didcyldimethylammonium chloride	CAS No.: 7173-51-5	Limit value (8 h) : 999 mg/m ³ Limit value (short term) Value: 1250 mg/m ³	

Propan-2-ol	CAS No.: 67-63-0	Limit value (8 h) : 400 ppm Limit value (8 h) : 999 mg/m ³ Limit value (short term) Value: 500 ppm Limit value (short term) Value: 1250 mg/m ³	TWA Year: 2011
Tetrasodium Ethylene Diamine Tetraacetate	CAS No.: 64-02-8		
Isotridecanoethoxylate			

DNEL / PNEC

Substance	Propan-2-ol
PNEC	Route of exposure: Water Value: 140,9 mg/l Reference: Marine water Route of exposure: Sewage treatment plant STP Value: 2251 mg/l Route of exposure: Sediment Value: 552 mg/kg Route of exposure: Soil Value: 28 mg/kg Route of exposure: Water Value: 140,9 mg/l Reference: Freshwater
Substance	Tetrasodium Ethylene Diamine Tetraacetate
DNEL	Group: Consumer Route of exposure: Long term (repeated) - Oral - Systemic effect Value: 25 mg/kg Group: Worker Route of exposure: Short term (acute) - Inhalation - Local effect Value: 2,5 mg/m ³ Group: Worker Route of exposure: Short term (acute) - Inhalation - Systemic effect Value: 2,5 mg/m ³ Group: Consumer Route of exposure: Short term (acute) - Inhalation - Systemic effect Value: 1,5 mg/m ³
PNEC	Route of exposure: Sewage treatment plant STP Value: 43 mg/l Route of exposure: Soil Value: 0,72 mg/kg

8.2. Exposure controls

Limitation of exposure on workplace

Personal protection equipment should be chosen according to the CEN standards and in discussion with the supplier of the personal protective equipment. Protective gloves and goggles are recommended. An eye wash bottle must be available at the work site.

Safety signs



Precautionary measures to prevent exposure

Instruction on measures to prevent exposure

Secure access of workers to safety information.

Organisational measures to prevent exposure

Avoid direct contact and/or splashes where possible. Train personnel.

Technical measures to prevent exposure

Avoid direct contact. Use through automatic spray or dosing systems. Cover open containers. Use safety glasses/goggles and protective clothing.

Eye / face protection

Eye protection

Use approved safety glasses, goggles or face shield. Safety glasses should have side shields.

Suitable eye protection

Safety glasses should have side shields.

Additional eye protection measures

Provide easy access to water supply and eye wash facilities.

Reference to relevant standard

EN 166

Hand protection

Hand protection

Chemical resistant gloves required for prolonged or repeated contact.

Skin- / hand protection, short term contact

Nitril rubber:
Penetration time: ≥ 30 min
Material thickness: $\geq 0,4$ mm

Skin- / hand protection, long term contact

Butylrubber:
Penetration time: ≥ 480 min
Material thickness: $\geq 0,7$ mm

Suitable gloves type

Butyl rubber. Nitrile. Chloroprene rubber. Polyvinyl chloride (PVC). Rubber (natural, latex).

Thickness of glove material

Value: $\geq 0,4$ mm

Reference to relevant standard

Chemical-resistant protective gloves (EN 374).

Respiratory protection

Respiratory protection

Personal protection is normally not required. If ventilation is inadequate and exposure to liquid particles cannot be avoided, wear appropriate breathing apparatus using A2B2+P3 filter (fulfilling EN 137/EN 138). Avoid breathing vapours, spray or mists.

Appropriate environmental exposure control

Environmental exposure controls	Avoid discharge into drains, water courses or onto the ground. See further section 13.
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SECTION 9: Physical and chemical properties

9.1. Information on basic physical and chemical properties

Physical state	Clear liquid.
Colour	Colorless.
Odour	Chemical. Isopropanol.
pH	Status: In delivery state Value: ~ 12,2 Temperature: ~ 20 °C
Relative density	Value: = 1,02 g/ml Temperature: ~ 20 °C
Solubility in water	Fully miscible.
Viscosity	Comments: Not determined.

9.2. Other information

SECTION 10: Stability and reactivity

10.1. Reactivity

Reactivity	No specific reactivity hazards associated with this product.
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10.2. Chemical stability

Stability	The mixture is stable under normal storage and use conditions.
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10.3. Possibility of hazardous reactions

Possibility of hazardous reactions	No hazardous reactions known under normal storage and use conditions.
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10.4. Conditions to avoid

Conditions to avoid	None known under normal storage and use conditions.
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10.5. Incompatible materials

Materials to avoid	None in particular.
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10.6. Hazardous decomposition products

Hazardous decomposition products	No hazardous decomposition products.
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SECTION 11: Toxicological information

11.1. Information on hazard classes as defined in Regulation (EC) No 1272/2008

Substance	Didecyldimethylammonium chloride
Acute toxicity	Type of toxicity: Acute Effect tested: LD50 Route of exposure: Oral Value: = 645 mg/kg Animal test species: Rat Test reference: OECD 401
Substance	Propan-2-ol
Acute toxicity	Type of toxicity: Acute Effect tested: LD50 Route of exposure: Oral Value: = 5050 mg/kg Animal test species: Rat Type of toxicity: Acute Effect tested: LD50 Route of exposure: Dermal Value: ~ 12800 mg/kg Animal test species: Rabbit
Substance	Tetrasodium Ethylene Diamine Tetraacetate
Acute toxicity	Type of toxicity: Acute Effect tested: LD50 Route of exposure: Oral Value: ≥ 1780 mg/kg Animal test species: Rat Test reference: Non guideline test Type of toxicity: Acute Effect tested: LC50 Route of exposure: Inhalation. Duration: 6 h Value: ≥ 1 mg/l Animal test species: Rat Test reference: OECD 403 (EU.B.2)
Substance	Isotridecanoethoxylate
Acute toxicity	Type of toxicity: Acute Effect tested: LD50 Route of exposure: Oral Value: > 2000 mg/kg Animal test species: Rat Test reference: OECD guideline 423

Other information regarding health hazards

Inhalation	Spray mist irritates the respiratory system, and may cause coughing and difficulties in breathing.
Skin contact	Irritating and degreasing.
Eye contact	Risk of serious damage to eyes. Immediate first aid is necessary.

Ingestion	May cause irritation to the mouth and throat.
Sensitisation	No known effects.
Mutagenicity	No information available on mixture. However, studies have not shown any indication of mutagenicity of individual substances in the mixture.
Carcinogenicity, other information	No information or data available on mixture. However, there is no evidence of carcinogenicity on individual substances in the mixture.
Reproductive toxicity	No information or data available on mixture. However, studies have not shown any indication of reproductive toxicity for individual substances in the mixture.

11.2 Other information

SECTION 12: Ecological information

12.1. Toxicity

Substance	Didecyldimethylammonium chloride
Aquatic toxicity, fish	Value: ~ 0,97 mg/l Test duration: 96 h Species: Danio Rerio Method: OECD 203
Substance	Propan-2-ol
Aquatic toxicity, fish	Value: ~ 9600 mg/l Test duration: 96 h
Substance	Tetrasodium Ethylene Diamine Tetraacetate
Aquatic toxicity, fish	Value: > 100 mg/l Test duration: 96 h Species: Lepomis macrochirus Method: OPP 72-1, static (EPA)
Substance	Isotridecanoethoxylate
Aquatic toxicity, fish	Value: ~ 10 - 100 mg/l Test duration: 96 h Species: Leuciscus idus
Substance	Didecyldimethylammonium chloride
Aquatic toxicity, algae	Value: ~ 0,031 mg/l Test duration: 72 h Species: Pseudokirchnerella subcapitata Method: OECD 201
Substance	Tetrasodium Ethylene Diamine Tetraacetate
Aquatic toxicity, algae	Value: > 100 mg/l Test duration: 72 h Species: Scenedesmus obliquus Method: 88/302/EEC, Part C static
Substance	Isotridecanoethoxylate
Aquatic toxicity, algae	Value: ~ 10 - 100 mg/l Test duration: 72 h

Substance	Didecyldimethylammonium chloride
Aquatic toxicity, crustacean	Value: ~ 0,029 mg/l Test duration: 48 h Species: Daphnia magna Method: OECD 202
Substance	Propan-2-ol
Aquatic toxicity, crustacean	Value: ~ 1400 mg/l Test duration: 48 h
Substance	Isotridecanoethoxylate
Aquatic toxicity, crustacean	Value: ~ 10 - 100 mg/l Test duration: 48 h

12.2. Persistence and degradability

Persistence and degradability, comments	No information available on mixture. However, individual substances are all classified as readily biodegradable.
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12.3. Bioaccumulative potential

Bioaccumulative potential	The product does not contain any substances that are bioaccumulating. Therefore, the mixture is not expected to be bioaccumulating.
Substance	Tetrasodium Ethylene Diamine Tetraacetate
Bioconcentration factor (BCF)	Value: = 1,8 Method: Method not given

12.4. Mobility in soil

12.5. Results of PBT and vPvB assessment

PBT assessment results	No data available on mixture. Contains no PBT or vPvB substances. See section 2.3
Substance	Didecyldimethylammonium chloride
PBT assessment results	Not Classified as PBT/vPvB by current EU criteria.
Substance	Propan-2-ol
PBT assessment results	This substance is not classified as PBT or vPvB.
Substance	Tetrasodium Ethylene Diamine Tetraacetate
PBT assessment results	Not Classified as PBT/vPvB by current EU criteria.
Substance	Isotridecanoethoxylate
PBT assessment results	Not Classified as PBT/vPvB by current EU criteria.
vPvB evaluation results	No data available on mixture. Contains no PBT or vPvB substances. See section 2.3

12.6. Endocrine disrupting properties

12.7. Other adverse effects

SECTION 13: Disposal considerations

13.1. Waste treatment methods

Specify the appropriate methods of disposal	Avoid release to the environment. Dispose of waste and residues in accordance with local authority requirements.
Relevant waste regulation	Regulation no. 737/2003
Hazardous waste product	Avoid release to the environment.
Hazardous waste packing	Avoid release to the environment.
Product classified as hazardous waste	Yes
Packaging classified as hazardous waste	Yes
EWC waste code	EWC: 070601 aqueous washing liquids and mother liquors
National regulations	Regulation 184/2002 Regulation 786/1999
Other information	Disposal to licensed waste disposal site in accordance with local Waste Disposal Authority.

SECTION 14: Transport information

14.1. UN number

ADR/RID/ADN	3082
IMDG	3082
ICAO/IATA	3082

14.2. UN proper shipping name

ADR/RID/ADN	ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S.
IMDG	ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S.
ICAO/IATA	ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S.

14.3. Transport hazard class(es)

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

14.4. Packing group

ADR/RID/ADN	III
IMDG	III
ICAO/IATA	III

14.5. Environmental hazards

IMDG Marine pollutant	Yes
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14.6. Special precautions for user

14.7. Maritime transport in bulk according to IMO instruments

ADR/RID Other information

Hazard No.	90
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IMDG Other information

EmS	F-A, S-F
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SECTION 15: Regulatory information

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

Legislation and regulations	<p>This safety datasheet is in compliance with the following EU legislation and its adaptations - as far as applicable:</p> <p>Regulation 1907/2006 and later 750/2008 concerning the Registration, Evaluation, Authorisation and Restriction of Chemicals (REACH). Amendments on Annex II of the REACH regulation with EU regulation 453/2010.</p> <p>Regulation (EC) No. 1272/2008 on classification, labelling and packaging of substances and mixtures which replaces EU legislations 67/548/EEC og 1999/45/EEC and changes regulation No. 1907/2006.</p>
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15.2. Chemical safety assessment

Chemical safety assessment performed	No
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SECTION 16: Other information

List of relevant H-phrases (Section 2 and 3)	<p>H302 Harmful if swallowed.</p> <p>H314 Causes severe skin burns and eye damage.</p> <p>H318 Causes serious eye damage.</p> <p>H400 Very toxic to aquatic life.</p> <p>H412 Harmful to aquatic life with long lasting effects.</p>
Abbreviations and acronyms used	<p>CLP: Classification, labelling and packaging</p> <p>GHS: Globally Harmonized System.</p> <p>DNEL: Derived No Effect Limit (afleidd áhrifaleysismörk).</p> <p>PBT: Persistent, Bioaccumulative and Toxic</p> <p>PNEC: Predicted No Effect Concentration</p> <p>vPvB: Very Persistent and very Bioaccumulative</p> <p>REACH: Registration, Evaluation, Authorization and Restriction of Chemicals.</p>
Information added, deleted or revised	<p>10.09.2021:</p> <p>Section 2: Outdated hazard statements and hazard signs removed</p> <p>Section 2: Hazard statement added along with applicable precautionary statements.</p>
Revision responsible	Alfred Aðalsteinsson (M.Sc. Chemistry); email: alfred@tandur.is

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