

SAFETY DATA SHEET

TK-OXOGEL

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	07.02.2014
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Revision date	06.04.2021
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1.1. Product identifier

Product name	TK-OXOGEL
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Article no.	1476136, 1476138, 1476139
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1.2. Relevant identified uses of the substance or mixture and uses advised against

Use of the substance / mixture	Foam cleaner.
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Industrial use	Yes
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Professional use	Yes
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Consumer use	No
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1.3. Details of the supplier of the safety data sheet

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

Emergency telephone	Telephone number: 112 Description: NEYÐARNÚMER
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	Telephone number: 543-2222 Description: EITRUNARMÍÐSTÖÐ
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SECTION 2: Hazards identification

2.1. Classification of the substance or mixture

Classification according to Regulation (EC) No 1272/2008 [CLP / GHS]	Skin Corr. 1A; H314
	Aquatic Acute 1; H400
	Met. Corr. 1; H290

2.2. Label elements

Hazard pictograms (CLP)



Composition on the label	Sodium hydroxide 5 - 15 % wt/wt, Sodium hypochlorite 1 - 5 % wt/wt
Signal word	Danger
Hazard statements	H314 Causes severe skin burns and eye damage. H400 Very toxic to aquatic life. EUH 031 Contact with acids liberates toxic gas.
Precautionary statements	P260 Do not breathe dust / fume / gas / mist / vapours / spray. P264 Wash hands thoroughly after handling. 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. P303+P361+P353 IF ON SKIN (or hair): Remove / Take off immediately all contaminated clothing. Rinse skin with water / shower. P363 Wash contaminated clothing before reuse. P304+P340 IF INHALED: Remove person to fresh air and keep comfortable for breathing. P310 Immediately call a POISON CENTER or doctor / physician. P321 Specific treatment (see section 4 on this label). P305+P351+P338 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. P391 Collect spillage. P405 Store locked up. P501 Dispose of contents/container to an approved waste disposal plant

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
Sodium hydroxide	CAS No.: 1310-73-2 EC No.: 215-185-5 Index No.: 011-002-00-6	Skin Corr 1A; H314 Met. Corr. 1; H290	5 - 15 % wt/wt	

Sodium hypochlorite, solution ...% Cl active	CAS No.: 7681-52-9 EC No.: 231-668-3 Index No.: 017-011-00-1	Skin Corr. 1B;H314 Aquatic Acute 1;H400 EUH031 Note : B	1 - 5 % wt/wt
Amines, C12-14-Alkyldimethyl, N-Oxides	CAS No.: 308062-28-4 EC No.: 931-292-6	Eye Dam. 1; H318 Aquatic Acute 1; H400 Skin Irrit. 2; H315	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 if any discomfort continues.
Skin contact	Flush skin thoroughly with water. Take off contaminated clothing and wash before reuse. Get immediate medical advice/attention.
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 medical attention immediately! Continue flushing during transport to hospital.
Ingestion	Rinse mouth thoroughly. 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	CORROSIVE PRODUCT: Contains CAUSTIC SODA and SODIUM HYPOCHLORITE
Acute symptoms and effects	Causes severe skin burns and eye damage. Ingestion will result in strong caustic effect on mouth and throat and to the danger of perforation of oesophagus and stomach.

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

SECTION 5: Firefighting measures

5.1. Extinguishing media

Suitable extinguishing media	Water spray, foam, dry powder or carbon dioxide.
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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.
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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.

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 release to the environment. Collect and dispose of spillage as indicated in section 13.

6.3. Methods and material for containment and cleaning up

Containment

Store in a closed container.

6.4. Reference to other sections

Other instructions

See section 8 and 13 for further details.

SECTION 7: Handling and storage

7.1. Precautions for safe handling

Handling

Provide easy access to water supply and eye wash facilities.

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

Alkalis. Avoid contact with skin and eyes. Keep away from food, drink and animal feeding stuffs. Keep container tightly closed. Keep in original container. Store protected from acids.

Conditions to avoid

Store away from acids.

Conditions for safe storage

Technical measures and storage conditions

Alkalis.

Requirements for storage rooms and vessels

Keep only in original container.

Advice on storage compatibility

Alkalis.

Additional information on storage conditions	Store away from acids.
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
Sodium hydroxide	CAS No.: 1310-73-2	Limit value (short term) Value: 2 mg/m3	TWA Year: 2011
Sodium hypochlorite, solution ...% Cl active	CAS No.: 7681-52-9		
Amines, C12-14-Alkyldimethyl, N-Oxides	CAS No.: 308062-28-4		

DNEL / PNEC

Substance	Sodium hydroxide
DNEL	<p>Group: Worker Route of exposure: Long term (repeated) - Inhalation - Local effect Value: 1 mg/m3</p> <p>Group: Consumer Route of exposure: Long term (repeated) - Inhalation - Local effect Value: 1 mg/m3</p> <p>Group: Consumer Route of exposure: Short term (acute) - Dermal - Local effect Value: 2%</p> <p>Group: Worker Route of exposure: Short term (acute) - Dermal - Local effect Value: 2%</p>
Substance	Sodium hypochlorite, solution ...% Cl active
DNEL	<p>Group: Consumer Route of exposure: Long term (repeated) - Dermal - Local effect Value: 0,5%</p> <p>Group: Worker Route of exposure: Long term (repeated) - Inhalation - Local effect Value: 1,55 mg/m3</p> <p>Group: Worker Route of exposure: Long term (repeated) - Inhalation - Systemic effect Value: 1,55 mg/m3</p> <p>Group: Worker Route of exposure: Short term (acute) - Inhalation - Systemic effect Value: 3,1 mg/m3</p>

PNEC	Group: Worker Route of exposure: Short term (acute) - Inhalation - Local effect Value: 3,1 mg/m ³
	Group: Consumer Route of exposure: Long term (repeated) - Oral - Systemic effect Value: 0,26 mg/kg
	Group: Worker Route of exposure: Long term (repeated) - Dermal - Local effect Value: 0,5%
	Route of exposure: Air Value: 0,00026 mg/m ³
	Route of exposure: Sewage treatment plant STP Value: 0,03 mg/l
	Route of exposure: Water Value: 0,00021 mg/l
Substance	Amines, C12-14-Alkyldimethyl, N-Oxides
DNEL	Group: Consumer Route of exposure: Long term (repeated) - Inhalation - Systemic effect Value: 3,8 mg/m ³
	Group: Worker Route of exposure: Long term (repeated) - Dermal - Systemic effect Value: 11 mg/kg/day
	Group: Worker Route of exposure: Long term (repeated) - Inhalation - Systemic effect Value: 15,5 mg/m ³ 8h
	Group: Consumer Route of exposure: Long term (repeated) - Oral - Systemic effect Value: 0,44 mg/kg/day
	Group: Consumer Route of exposure: Long term (repeated) - Dermal - Systemic effect Value: 5,5 mg/kg/day
	Route of exposure: Water Value: 0,0335 mg/l Reference: Freshwater
PNEC	Route of exposure: Sewage treatment plant STP Value: 24 mg/kg
	Route of exposure: Water Value: 0,00335 mg/l Reference: Marine water
	Route of exposure: Sediment Value: 5,24 mg/kg Reference: Fresh water

Route of exposure: Sediment

Value: 0,524 mg/kg

Reference: Marine water

Route of exposure: Soil

Value: 1,02 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

Where possible: use through foam systems and 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).
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Skin protection

Skin protection (except hands)	Wear suitable protective clothing as protection against splashing or contamination.
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Respiratory protection

Respiratory protection	Under normal conditions of use respiration protection should not be required. In case of inadequate ventilation or risk of inhalation of vapours, use suitable respiratory equipment with combination filter (type A2/P2).
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Appropriate environmental exposure control

Environmental exposure controls	Should not reach sewage or drainage system undiluted or unneutralized.
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SECTION 9: Physical and chemical properties

9.1. Information on basic physical and chemical properties

Physical state	Clear liquid.
Colour	Green yellow.
Odour	Klórlykt
pH	Value: > 12,5 Temperature: ~ 20 °C
Vapour pressure	Comments: Not determined.
Vapour density	Comments: Not determined.
Relative density	Value: = 1,15 g/ml Temperature: ~ 20 °C
Solubility in water	Fully miscible.

9.2. Other information

Physical hazards

Metal corrosion	Corrosive to aluminium and other light metals.
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SECTION 10: Stability and reactivity

10.1. Reactivity

Reactivity	Reactivity issues of concern are mainly due to sodium hydroxide and sodium hypochlorite which are present in the mixture. Both are corrosive. Sodium hypochlorite will react with acids to release toxic chlorine gas. These effects become less and less significant as the mixture is diluted with water. If the mixture is stored and used as recommended there should be no danger due to its reactivity.
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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	May attack light-alloy metals and liberate hydrogen gas. The solution is strongly alkaline and reacts with strong acids with heat generation.
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10.5. Incompatible materials

Materials to avoid	Reacts with acids releasing toxic chlorine gas. Will corrode copper, zinc, aluminium and their alloys.
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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	Sodium hydroxide
Acute toxicity	Type of toxicity: Acute Effect tested: LD50 Route of exposure: Oral Value: = 1350 mg/kg Animal test species: Rat Test reference: Method not given

Type of toxicity: Acute
Effect tested: LD50
Route of exposure: Dermal
Value: = 1350 mg/kg
Animal test species: Rabbit
Test reference: Method not given

Type of toxicity: Acute
Effect tested: LC50
Route of exposure: Inhalation.
Value: = 4800 mg/l
Animal test species: Mouse
Test reference: Method not given

Substance	Sodium hypochlorite, solution ...% Cl active
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Acute toxicity	Type of toxicity: Acute Effect tested: LD50 Route of exposure: Oral Value: > 1100 mg/kg Animal test species: Rat Test reference: OECD 401
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	Type of toxicity: Acute Effect tested: LD50 Route of exposure: Dermal Value: > 20000 mg/kg Animal test species: Rabbits Test reference: OECD 402
	Type of toxicity: Acute Effect tested: LC50 Route of exposure: Inhalation. Value: > 10,5 mg/l Animal test species: Rat Test reference: OECD 403
Substance	Amines, C12-14-Alkyldimethyl, N-Oxides
Acute toxicity	Type of toxicity: Acute Effect tested: LD50 Route of exposure: Oral Value: = 1064 mg/kg Animal test species: Rat

Other information regarding health hazards

Inhalation	May cause bronchospasm in chlorine sensitive individuals. Severe irritant, may cause respiratory tract irritation.
Skin contact	Ætandi. Getur valdið alvarlegum brunasárum.
Eye contact	Highly Corrosive. Causes serious eye damage. Immediate first aid is necessary.
Ingestion	Highly Corrosive. May cause burns in mucous membranes, throat, oesophagus and stomach.
Mutagenicity	Engar upplýsingar til um blöndu. Varðandi einstök efni í blöndunni þá eru engar vísbendingar um stökkbreytandi áhrif.
Carcinogenicity, other information	Engar upplýsingar til um blöndu. Varðandi einstök efni í blöndunni þá eru engar vísbendingar um krabbameinsvaldandi áhrif.
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

Comments	See 4.1
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SECTION 12: Ecological information

12.1. Toxicity

Substance	Sodium hydroxide
Aquatic toxicity, fish	Value: = 196 mg/l Test duration: 96 h Species: Various species
Substance	Sodium hypochlorite, solution ...% Cl active

Aquatic toxicity, fish	Value: = 0,06 mg/l Test duration: 96 h Species: Rainbow trout Method: Not given
Substance	Amines, C12-14-Alkyldimethyl, N-Oxides
Aquatic toxicity, fish	Value: = 2,67 mg/l Test duration: 96 h
Substance	Sodium hydroxide
Aquatic toxicity, algae	Value: = 22 mg/l Test duration: 0,25 h Species: Photobacterium phsophoreum Method: Method not given
Substance	Sodium hypochlorite, solution ...% Cl active
Aquatic toxicity, algae	Value: = 0,0021 mg/l Test duration: 168 h Species: Not specified Method: Not given
Substance	Amines, C12-14-Alkyldimethyl, N-Oxides
Aquatic toxicity, algae	Value: = 0,143 mg/l Test duration: 72 H
Substance	Sodium hydroxide
Aquatic toxicity, crustacean	Value: = 40,4 mg/l Test duration: 48 h
Substance	Sodium hypochlorite, solution ...% Cl active
Aquatic toxicity, crustacean	Value: = 0,141 mg/l Test duration: 48 h Species: Daphnia magna Method: OECD 202
Substance	Amines, C12-14-Alkyldimethyl, N-Oxides
Aquatic toxicity, crustacean	Value: = 3,1 mg/l Test duration: 48 H

12.2. Persistence and degradability

Substance	Sodium hypochlorite, solution ...% Cl active
Biodegradability	Comments: Not relevant.
Persistence and degradability, comments	Engar upplýsingar til um blöndu. Varðandi einstök lífræn efni í blöndunni þá flokkast þau öll sem auðveldlega niðurbjótanleg í náttúrunni.

12.3. Bioaccumulative potential

Bioaccumulative potential	Engar upplýsingar til um blöndu. Varðandi einstök efni í blöndunni þá eru engar vísbendingar um uppsöfnunarhættu í lífverum.
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12.4. Mobility in soil

12.5. Results of PBT and vPvB assessment

PBT assessment results	This product does not contain any PBT or vPvB substances.
Substance	Sodium hypochlorite, solution ...% Cl active
PBT assessment results	This substance is not classified as PBT or vPvB.
Substance	Amines, C12-14-Alkyldimethyl, N-Oxides
PBT assessment results	Not Classified as PBT/vPvB by current EU criteria.
vPvB evaluation results	Þessi vara inniheldur engin PBT eða vPvB efni.

12.6. Endocrine disrupting properties

12.7. Other adverse effects

SECTION 13: Disposal considerations

13.1. Waste treatment methods

National regulations	Reglugerð 184/2002 um skrá yfir spilliefni og annan úrgang. 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	1719
IMDG	1719
ICAO/IATA	1719

14.2. UN proper shipping name

ADR/RID/ADN	CAUSTIC ALKALI LIQUID, N.O.S.
IMDG	CAUSTIC ALKALI LIQUID, N.O.S.
ICAO/IATA	CAUSTIC ALKALI LIQUID, N.O.S.

14.3. Transport hazard class(es)

ADR/RID/ADN	8
IMDG	8
ICAO/IATA	8

14.4. Packing group

ADR/RID/ADN	II
IMDG	II
ICAO/IATA	II

14.5. Environmental hazards**14.6. Special precautions for user****14.7. Maritime transport in bulk according to IMO instruments****ADR/RID Other information**

Hazard No.	80
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IMDG Other information

EmS	F-A, S-B
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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>Reglugerð nr. 1907/2006 og síðan 750/2008 um skráningu, mat, leyfisveitingu og takmarkanir er varða efni (efnareglur REACH).</p> <p>Breytingar sem gerðar voru á II viðauka REACH reglugerðar með EB reglugerð nr. 453/2010 til að samræma kröfurnar við nýjar reglur um flokkun og merkingu (CLP reglugerðin 1272/2008).</p> <p>Reglugerð EB nr. 1272/2008 um flokkun, merkingu og pökkun efna og blandna, sem breytir og kemur í stað tilskipana 67/548/EBE og 1999/45/EB, og breytir reglugerð (EB) nr. 1907/2006 (REACH).</p> <p>Reglugerðir EB nr. 790/2009 og 286/2011 um breytingar á reglugerðum Evrópuþingsins og ráðsins (EB) nr. 1272/2008 í því skyni að laga hana að tækniframförum.</p> <p>Lög nr. 61/2013 - Efnalög meginmarkmið þeirra er að tryggja öryggi neytenda við meðferð á efnum og efnablöndum þannig að þau valdi ekki tjóni á heilsu manna, dýra eða umhverfi.</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>H290 May be corrosive to metals.</p> <p>H314 Causes severe skin burns and eye damage.</p> <p>H315 Causes skin irritation.</p> <p>H318 Causes serious eye damage.</p> <p>H400 Very toxic to aquatic life.</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	Section 2: Applicable precautionary statements were added.
Revision responsible	Alfred Aðalsteinsson (M.Sc. Chemistry); email: alfred@tandur.is
Version	7
Prepared by	Birgir Ö. Gudmundsson (Ph.D Chemistry); email: birgir@tandur.is