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SAFETY DATA SHEET

Glerhreinsir

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	19.01.2015
١	Revision date	25.03.2021

1.1. Product identifier

Product name	Glerhreinsir
Article no.	1624004, 1624012

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

Use of the substance / mixture	Cleaning agent.
The chemical can be used by the	Yes
general public	
The chemical is used by general	No
public only	

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# POISON CENTER
	Telephone number: (+354)-543-2222 Description: EMERGENCY# POISON CENTER

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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]

Eye Irrit. 2; H319

2.2. Label elements

Hazard pictograms (CLP)



Signal word

Warning

Hazard statements

H319 Causes serious eye irritation.

Precautionary statements

P264 Wash hands thoroughly after handling.

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. P337+P313 If eye irritation persists: Get medical advice / attention.

2.3. Other hazards

PBT / vPvB

This product does not contain any PBT or vPvB substances.

SECTION 3: Composition / information on ingredients

3.2. Mixtures

Substance	Identification	Classification	Contents	Notes
Ethanol	CAS No.: 64-17-5 EC No.: 200-578-6 Index No.: 603-002-00-5 REACH Reg. No.: 01-211945761	Flam. Liq. 2; H225 Eye Irrit. 2; H319	3 - 10 % wt/wt	
3-Butoxypropan-2-ol	CAS No.: 5131-66-8 EC No.: 225-878-4 Index No.: 603-052-00-8 REACH Reg. No.: 01-2119475527-28	Eye Irrit. 2;H319 Skin Irrit. 2;H315	1 - 5 % wt/wt	
1-Methoxy-2-propanol	CAS No.: 107-98-2 EC No.: 203-539-1 Index No.: 603-064-00-3 REACH Reg. No.: 01-2119457435-35	Flam. Liq. 3;H226 STOT SE 3;H336	1 - 5 % wt/wt	

SECTION 4: First aid measures

4.1. Description of first aid measures

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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	If skin irritation occurs: Get medical advice/attention.
Eye contact	Promptly wash eyes with plenty of water while lifting the eye lids. Get medical attention immediately!
Ingestion	Rinse mouth thoroughly. Drink a few glasses of water or milk. Get immediate medical advice/attention.
Recommended personal	Sjá 8.2
protective equipment for first aid	
responders	

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

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	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	Use personal protective equipment as required.
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	Avoid release to the environment. Collect and dispose of spillage as indicated in
measures	section 13.

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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

Protective safety measures

Preventititve 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	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 for safe storage

Requirements for storage rooms	
and vessels	

Keep only in original container.

7.3. Specific end use(s)

SECTION 8: Exposure controls / personal protection

8.1. Control parameters

Substance	Identification	Exposure limits	TWA Year
Ethanol	CAS No.: 64-17-5	Limit value (8 h) : 1000 ppm Limit value (8 h) : 1920 mg/ m3	TWA Year: 2011
3-Butoxypropan-2-ol	CAS No.: 5131-66-8		
1-Methoxy-2-propanol	CAS No.: 107-98-2	Limit value (8 h): 100 ppm Limit value (8 h): 375 mg/ m3 Limit value (short term) Value: 150 ppm Limit value (short term) Value: 560 mg/m3	TWA Year: 2011

DNEL / PNEC

Substance	Ethanol
DNEL	Group: Worker
	Route of exposure: Long term (repeated) - Inhalation - Systemic effect

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Value: 950 mg/m3

Group: Worker

Route of exposure: Long term (repeated) - Dermal - Systemic effect

Value: 343 mg/kg bw/day

PNEC Route of exposure: Water

Value: 0,79 mg/l

Reference: Marine water

Route of exposure: Sewage treatment plant STP

Value: 580 mg/l

Route of exposure: Water

Value: 0,96 mg/l Reference: Fresh water

Substance 3-Butoxypropan-2-ol

DNEL Group: Consumer

Route of exposure: Long term (repeated) - Dermal - Systemic effect

Value: 16 mg/kg

Group: Consumer

Route of exposure: Long term (repeated) - Oral - Systemic effect

Value: 8,75 mg/kg

Group: Consumer

Route of exposure: Long term (repeated) - Inhalation - Systemic effect

Value: 33,8 mg/m3

Group: Worker

Route of exposure: Long term (repeated) - Inhalation - Systemic effect

Value: 270,5 mg/m3

Group: Worker

Route of exposure: Long term (repeated) - Dermal - Systemic effect

Value: 44 mg/kg

PNEC Route of exposure: Sediment

Value: 0,236 mg/kg d.w.

Comments: Marine water sediment

Route of exposure: Sewage treatment plant STP

Value: 10 mg/l

Route of exposure: Sediment **Value:** 2,36 mg/kg d.w. **Reference:** Fresh water

Route of exposure: Water Value: 0,0525 mg/l Reference: Marine

Route of exposure: Water Value: 0,525 mg/l Reference: Fresh water Route of exposure: Soil Glerhreinsir - Version 2 Page 6 of 12

Reference: 0,16 mg/kg d.w. Substance 1-Methoxy-2-propanol **DNEL** Group: Consumer Route of exposure: Long term (repeated) - Dermal - Systemic effect Value: 18,1 mg/kg **Group:** Consumer Route of exposure: Long term (repeated) - Inhalation - Systemic effect Value: 43,9 g/m3 Group: Consumer Route of exposure: Long term (repeated) - Oral - Systemic effect Value: 3,3 mg/kg Group: Worker Route of exposure: Short term (acute) - Inhalation - Local effect **Value:** 553,5 mg/m3 Group: Worker Route of exposure: Long term (repeated) - Inhalation - Systemic effect Value: 369 mg/m3 Group: Worker Route of exposure: Long term (repeated) - Dermal - Systemic effect Value: 50,6 mg/kg **PNEC** Route of exposure: Sediment Value: 41,6 mg/kg Reference: Fresh water sediment Route of exposure: Water Value: 10 mg/l Reference: Ferskvatn Route of exposure: Sewage treatment plant STP Value: 100 mg/l Route of exposure: Soil Value: 2,47 mg/kg Route of exposure: Sediment Value: 4,17 mg/kg Reference: Marine water sediment

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.

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Safety signs



Precautionary measures to prevent exposure

Instruction on measures to prevent exposure

Secure access of workers to safety information.

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.
Reference to relevant standard	EN 166

Hand protection

Hand protection Protective gloves are recommended.

Respiratory protection

Respiratory protection Under normal conditions of use respiration protection should not be required.

Appropriate environmental exposure control

Environmental exposure controls Should

Should not reach sewage or drainage system undiluted or unneutralized.

SECTION 9: Physical and chemical properties

9.1. Information on basic physical and chemical properties

Physical state	Clear liquid.
Colour	Blue.
рН	Status: In delivery state Value: ~ 10,4 Temperature: ~ 20 °C
Melting point / melting range	Comments: Not determined.
Boiling point / boiling range	Comments: Not determined.
Vapour density	Comments: Not determined.
Relative density	Value: = 1,0 g/ml Temperature: ~ 20 °C
Solubility in water	Fully miscible.
Viscosity	Comments: Not determined.

9.2. Other information

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SECTION 10: Stability and reactivity

10.1. Reactivity

Reactivity There are no known reactivity hazards associated with this product.

10.2. Chemical stability

Stability The mixture is stable under normal storage and use conditions.

10.3. Possibility of hazardous reactions

Possibility of hazardous reactions
No hazardous reactions known under normal storage and use conditions.

10.4. Conditions to avoid

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

10.5. Incompatible materials

Materials to avoid None in particular.

10.6. Hazardous decomposition products

Hazardous decomposition products

No hazardous decomposition products.

SECTION 11: Toxicological information

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

Substance	3-Butoxypropan-2-ol
Acute toxicity	Type of toxicity: Acute Effect tested: LD50 Route of exposure: Dermal Value: > 2000 mg/kg Animal test species: Rat Type of toxicity: Acute Effect tested: LD50 Route of exposure: Oral Value: = 3300 mg/kg Animal test species: Rat
Substance	1-Methoxy-2-propanol
Acute toxicity	Type of toxicity: Acute Effect tested: LC50 Route of exposure: Inhalation. Duration: 6 h Value: = 27596 mg/l Animal test species: Rat Type of toxicity: Acute Effect tested: LD50 Route of exposure: Dermal

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Value: = 2000 mg/kg Animal test species: Rabbit

Type of toxicity: Acute Effect tested: LD50 Route of exposure: Oral Value: = 4016 mg/kg Animal test species: Rat

Other information regarding health hazards

Inhalation	No specific health warnings noted.
Skin contact	May cause irritation.
Eye contact	Irritating.
Ingestion	May cause irritation to the mouth and throat.
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 carciogenicity 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	Ethanol
Aquatic toxicity, fish	Value: = 14,2 g/L Test duration: 96 h Species: Pimephales promelas Method: US EPA method E03-05
Substance	3-Butoxypropan-2-ol
Aquatic toxicity, fish	Value: ~ 560 - 1000 mg/l Test duration: 96 h
Substance	1-Methoxy-2-propanol
Aquatic toxicity, fish	Value: = 6812 mg/l Test duration: 96 h Species: Leuciscus idus
Substance	Ethanol
Aquatic toxicity, algae	Value: = 22,6 g/L Test duration: 9 d Species: Nostoc species Method: OECD Guideline 201
Substance	3-Butoxypropan-2-ol

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Aquatic toxicity, algae	Value: > 1000 mg/l Test duration: 96 h Species: Selenastrum capricornutum
Substance	Ethanol
Aquatic toxicity, crustacean	Value: = 5012 mg/l Test duration: 48 h Species: Ceriodaphnia dubia Method: ASTM E729-80
Substance	3-Butoxypropan-2-ol
Aquatic toxicity, crustacean	Value: > 1000 mg/l Test duration: 48 h Species: Daphnia magna
Substance	1-Methoxy-2-propanol
Aquatic toxicity, crustacean	Value: = 23300 mg/l Test duration: 48 h Method: Daphnia magna

12.2. Persistence and degradability

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

12.3. Bioaccumulative potential

Bioaccumulative potential	The product does not contain any substances expected to be bioaccumulating.
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12.4. Mobility in soil

12.5. Results of PBT and vPvB assessment

PBT assessment results	Not Classified as PBT/vPvB by current EU criteria.
Substance	Ethanol
PBT assessment results	Not Classified as PBT/vPvB by current EU criteria.
Substance	3-Butoxypropan-2-ol
PBT assessment results	Not Classified as PBT/vPvB by current EU criteria.
Substance	1-Methoxy-2-propanol
PBT assessment results	Not Classified as PBT/vPvB by current EU criteria.

12.6. Endocrine disrupting properties

12.7. Other adverse effects

SECTION 13: Disposal considerations

13.1. Waste treatment methods

Specify the appropriate methods	Avoid release to the environment. Dispose of waste and residues in accordance
of disposal	with local authority requirements.

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Relevant waste regulation	Regulation no. 737/2003
Hazardous waste product	Avoid release to the environment.
Hazardous waste packing	Avoid release to the environment.
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
- 14.2. UN proper shipping name
- 14.3. Transport hazard class(es)
- 14.4. Packing group
- 14.5. Environmental hazards
- 14.6. Special precautions for user
- 14.7. Maritime transport in bulk according to IMO instruments

SECTION 15: Regulatory information

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

Legislation and regulations	Regulation (EC) No 1907/2006 of the European Parliament and of the Council of 18 December 2006 concerning the Registration, Evaluation, Authorisation and Restriction of Chemicals (REACH), establishing a European Chemicals Agency, amending Directive 1999/45/EC and repealing Council Regulation (EEC) No 793/93 and Commission Regulation (EC) No 1488/94 as well as Council Directive 76/
	769/EEC and Commission Directives 91/155/EEC, 93/67/EEC, 93/105/EC and 2000/21/EC, including amendments.

15.2. Chemical safety assessment

Chemical safety assessment performed

No

SECTION 16: Other information

List of relevant H-phrases (Section 2 and 3)

H225 Highly flammable liquid and vapour.
H315 Causes skin irritation.

H319 Causes serious eye irritation.

Abbreviations and acronyms used CLP: Classification, labelling and packaging

GHS: Globally Harmonized System.

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	DNEL: Derived No Effect Limit (afleidd áhrifaleysismörk). PBT: Persistent, Bioaccumulative and Toxic PNEC: Predicted No Effect Concentration vPvB: Very Persistent and very Bioaccumulative REACH: Registration, Evaluation, Authorization and Restriction of Chemicals.
Information added, deleted or revised	Section 2: Applicable precautionary statements were added.
Revision responsible	Alfred Aðalsteinsson (M.Sc. Chemistry); email: alfred@tandur.is
Version	2
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