

## SAFETY DATA SHEET

## Harpixhreinsir

SDS according to Regulation (EC) No. 1907/2006 concerning the Registration, Evaluation, Authorisation and Restriction of Chemicals (REACH), Annex II-EU

**SECTION 1: Identification of the substance / mixture and of the company / undertaking**

Date issued	25.03.2015
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**1.1. Product identifier**

Product name	Harpixhreinsir
Article no.	1628204, 1628206

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

Relevant identified uses	PROC1 Use in closed process, no likelihood of exposure
Uses advised against	Use on in accordance with instructions.
The chemical can be used by the general public	No
The chemical is used by general public only	No

**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	<a href="mailto:tandur@tandur.is">tandur@tandur.is</a>
Website	<a href="http://www.tandur.is">www.tandur.is</a>

**1.4. Emergency telephone number**

Emergency telephone	Telephone number: 112 Description: EMERGENCY#  Telephone number: (+354)-543-2222 Description: POISON CENTER
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## SECTION 2: Hazards identification

### 2.1. Classification of the substance or mixture

Classification according to 67/548/EEC or 1999/45/EC	C; R35
Classification according to Regulation (EC) No 1272/2008 [CLP / GHS]	Skin Corr 1A; H314 Met. Corr. 1; H290

### 2.2. Label elements

#### Hazard pictograms (CLP)



Composition on the label	Sodium hydroxide 15 - 30 % wt/wt
Signal word	Danger
Hazard statements	H314 Causes severe skin burns and eye damage. H290 May be corrosive to metals.
Precautionary statements	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. 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.

### 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
Sodium hydroxide	CAS No.: 1310-73-2	C; R35	15 - 30 % wt/wt
	EC No.: 215-185-5	Skin Corr 1A; H314	
	Index No.: 011-002-00-6	Met. Corr. 1; H290	
	Synonyms for section 3: Caustic soda, Lye, Soda lye, Sodium hydrate		
C6 Alkyl glucoside	CAS No.: 54549-24-5	Xi; R41	1 - 5
	EC No.: 259-217-6	Eye Dam. 1; H318	
	REACH Reg. No.: 2119492545-29		
	Synonyms for section 3: C6 ALKYL GLUCOSIDE		

## 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 immediate medical advice/attention.
Skin contact	Rinse cautiously with water for several minutes. Take off contaminated clothing and wash before reuse. Get 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. Immediately call a POISON CENTER or doctor/physician.
Recommended personal protective equipment for first aid responders	Wear protective gloves / protective clothing / eye protection / face protection.

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

Information for health personnel	CORROSIVE PRODUCT: Contains CAUSTIC SODA
Acute symptoms and effects	Causes severe skin burns and eye damage. 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	Foam, carbon dioxide or dry powder.
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### 5.2. Special hazards arising from the substance or mixture

### 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

Personal protection measures	Wear protective gloves / protective clothing / eye protection / face protection. Call a POISON CENTER or doctor/physician if you feel unwell.
Hazardous combustion products	No data recorded.

#### 6.1.2. For emergency responders

For emergency responders	Wear protective gloves / protective clothing / eye protection / face protection. Call a POISON CENTER or doctor/physician if you feel unwell.
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## 6.2. Environmental precautions

Environmental precautionary measures	Avoid release to the environment. Collect spillage.
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## 6.3. Methods and material for containment and cleaning up

Cleaning method	Collect spillage.
Containment	Store in a closed container.

## 6.4. Reference to other sections

Other instructions	See 8.2
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# SECTION 7: Handling and storage

## 7.1. Precautions for safe handling

Handling	First-aid equipment, including eye wash bottle, must be available at the work site.
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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	Corrosive storage. Keep in original container. Store protected from acids. Keep container tightly closed. Keep away from food, drink and animal feeding stuffs.
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## Conditions for safe storage

Technical measures and storage conditions	Alkalis.
Advice on storage compatability	Alkalis.
Storage temperature	Value: ~ 20 °C

## 7.3. Specific end use(s)

Specific use(s)	Sjá 1.2
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# SECTION 8: Exposure controls / personal protection

## 8.1. Control parameters

Substance	Identification	Exposure limits	TWA Year
Sodium hydroxide	CAS No.: 1310-73-2 EC No.: 215-185-5	<b>Limit value (short term)</b> Value: 2 mg/m3	TWA Year: 2011

	Index No.: 011-002-00-6 Synonyms for section 3: Caustic soda, Lye, Soda lye, Sodium hydrate
C6 ALKYL GLUCOSIDE	CAS No.: 54549-24-5 EC No.: 259-217-6 REACH Reg. No.: 2119492545-29 Synonyms for section 3: C6 ALKYL GLUCOSIDE
Substance	C6 ALKYL GLUCOSIDE
Technical measures to prevent exposure	Ensure that eyewash stations are close to the workstation location
Recommended type of equipment	In the case of vapour formation use a respirator with an approved filter.
Suitable gloves type	Neoprene. Nitrile.
Eye protection	Use approved safety glasses, goggles or face shield.
Skin protection (except hands)	Wear appropriate clothing to prevent repeated or prolonged skin contact.
Environmental exposure controls	Do not flush into surface water or sanitary sewer system
Substance	Sodium hydroxide
DNEL	<p><b>Group:</b> Worker <b>Route of exposure:</b> Long term (repeated) - Inhalation - Local effect <b>Value:</b> 1 mg/m3</p> <p><b>Group:</b> Consumer <b>Route of exposure:</b> Long term (repeated) - Inhalation - Local effect <b>Value:</b> 1 mg/m3</p> <p><b>Group:</b> Consumer <b>Route of exposure:</b> Short term (acute) - Dermal - Local effect <b>Value:</b> 2%</p> <p><b>Group:</b> Worker <b>Route of exposure:</b> Short term (acute) - Dermal - Local effect <b>Value:</b> 2%</p>
Substance	C6 ALKYL GLUCOSIDE
DNEL	<p><b>Group:</b> Worker <b>Route of exposure:</b> Long term (repeated) - Inhalation - Systemic effect <b>Value:</b> 420 mg/m3</p> <p><b>Group:</b> Consumer <b>Route of exposure:</b> Long term (repeated) - Oral - Systemic effect <b>Value:</b> 35,7 mg/kg bw/day</p> <p><b>Group:</b> Consumer <b>Route of exposure:</b> Long term (repeated) - Inhalation - Systemic effect <b>Value:</b> 124 mg/m3</p> <p><b>Group:</b> Worker <b>Route of exposure:</b> Long term (repeated) - Dermal - Systemic effect <b>Value:</b> 595000 mg/kg bg/day</p>

PNEC

**Group:** Consumer**Route of exposure:** Long term (repeated) - Dermal - Systemic effect**Value:** 357000 mg/kg bw/day**Route of exposure:** Water**Value:** 0,01 mg/l**Reference:** Marine water**Route of exposure:** Soil**Value:** 0,654 mg/kg dry weight**Route of exposure:** Sediment**Value:** 0,0410 mg/day dry weight**Reference:** Marine sediment**Route of exposure:** Sediment**Value:** 0,410 mg/kg dry weight**Reference:** Fresh water sediment**Route of exposure:** Sewage treatment plant STP**Value:** 100 mg/l**Route of exposure:** Water**Value:** 0,1 mg/l**Reference:** Fresh water

## 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.

### 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

Use only through automatic dosing systems. Use safety glasses/goggles and protective clothing.

## 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).

Tasks needing respiratory protection

Not determined.

## Hand protection

Hand protection	Wear protective gloves.
Skin- / hand protection, long term contact	Butylrubber: Penetration time: $\geq 480$ min Material thickness: $\geq 0,7$ mm
Suitable gloves type	Butyl rubber. Nítrígúmmí Chloroprene rubber. Polyvinyl chloride (PVC). Rubber (natural, latex).
Reference to relevant standard	EN 374
Thickness of glove material	Value: 0,5-0,7 mm

## 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

## Skin protection

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

Exposure controls and personal protection, additional information	To be used only in closed systems (CIP).
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## SECTION 9: Physical and chemical properties

### 9.1. Information on basic physical and chemical properties

Physical state	Colourless liquid.
Colour	Colourless.
Odour	No characteristic odour.
pH	Status: In delivery state Value: $> 12,5$
Bulk density	Value: $= 1,33$ g/ml Temperature: $\sim 20$ °C
Solubility in water	Fully miscible.

### 9.2. Other information

## Physical hazards

Metal corrosion

Corrosive to aluminium and other light metals.

## SECTION 10: Stability and reactivity

### 10.1. Reactivity

Reactivity

Reactivity issues of concern are mainly due to the caustic soda content of the mixture. Caustic soda is a highly reactive substance. It is corrosive on live tissue. It corrodes light metals such as aluminium, releasing hydrogen gas as a byproduct. It may also damage certain types of surface material such as some different floor types. These effects of caustic soda 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.

### 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

May attack light-alloy metals and liberate hydrogen gas. The solution is strongly alkaline and reacts with strong acids with heat generation.

### 10.5. Incompatible materials

Materials to avoid

Acid reactive. Will corrode copper, zinc, aluminium and their alloys.

### 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

#### Toxicological data for substances

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

	<b>Effect tested:</b> LD50 <b>Route of exposure:</b> Dermal <b>Value:</b> = 1350 mg/kg <b>Animal test species:</b> Rabbit <b>Test reference:</b> Method not given
	<b>Type of toxicity:</b> Acute <b>Effect tested:</b> LC50 <b>Route of exposure:</b> Inhalation. <b>Value:</b> = 4800 mg/l <b>Animal test species:</b> Mouse <b>Test reference:</b> Method not given
Inhalation	Dust irritates the respiratory system, and may cause coughing and difficulties in breathing. Dust is corrosive.
Skin contact	Corrosive. Burning pain and severe corrosive skin damage.
Eye contact	Risk of serious damage to eyes.
Ingestion	Causes severe burns.
Mutagenicity	No data recorded.
Carcinogenicity, other information	No data recorded.
Reproductive toxicity	No data recorded.
Substance	C6 Alkyl glucoside
Inhalation	May cause irritation to the respiratory system.
Skin contact	May cause irritation.
Eye contact	Risk of serious damage to eyes.
Ingestion	May cause irritation to the mouth and throat.
General respiratory or skin sensitisation	Not sensitizing.

### Other information regarding health hazards

General	This substance is corrosive.
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### Potential acute effects

Inhalation	Highly Corrosive. Serious damage to the lining of nose, throat and lungs.
Skin contact	Causes severe burns.
Eye contact	Highly Corrosive. Risk of serious damage to eyes. Immediate first aid is necessary.
Ingestion	Corrosive. Even small amounts may cause serious damage.

### Carcinogenic, Mutagenic or Reprotoxic

Carcinogenicity, other information	No information or data available on mixture. However, there is no evidence of carcinogenicity on individual substances in the mixture.
Mutagenicity	No information available on mixture. However, studies have not shown any

Reproductive toxicity	<p>indication of mutagenicity of individual substances in the mixture.</p> <p>No information or data available on mixture. However, studies have not shown any indication of reproductive toxicity for individual substances in the mixture.</p>
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## SECTION 12: Ecological information

### 12.1. Toxicity

### 12.2. Persistence and degradability

Substance	Sodium hydroxide
Aquatic toxicity, fish	<p><b>Value:</b> = 196 mg/l</p> <p><b>Test duration:</b> 96 h</p> <p><b>Species:</b> Various species</p>
Aquatic toxicity, algae	<p><b>Value:</b> = 22 mg/l</p> <p><b>Test duration:</b> 0,25 h</p> <p><b>Species:</b> Photobacterium phsophoreum</p> <p><b>Method:</b> Method not given</p>
Aquatic toxicity, crustacean	<p><b>Value:</b> = 40,4 mg/l</p> <p><b>Test duration:</b> 48 h</p>
Substance	C6 Alkyl glucoside
Aquatic toxicity, fish	<p><b>Value:</b> &gt; 100 mg/l</p> <p><b>Test duration:</b> 96 h</p>
Aquatic toxicity, algae	<p><b>Value:</b> &gt; 100</p> <p><b>Test duration:</b> 72 h</p>
Aquatic toxicity, crustacean	<p><b>Value:</b> &gt; 100 mg/l</p> <p><b>Test duration:</b> 48 h</p> <p><b>Species:</b> Daphnia magna (Water flea)</p> <p><b>Comments:</b> The value is estimated from tests on similar products.</p>
PBT assessment results	Not Classified as PBT/vPvB by current EU criteria.
Persistence and degradability, comments	No information available on mixture. However, individual substances are all classified as readily biodegradable.

### 12.3. Bioaccumulative potential

Bioaccumulative potential	No data recorded.
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### 12.4. Mobility in soil

Mobility	The product is not classified as dangerous for the environment. However, the high alkalinity (pH value > 12,5) of the product may have harmful local effects on the ecosystem.
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### 12.5. Results of PBT and vPvB assessment

PBT assessment results	This product does not contain any PBT or vPvB substances.
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### 12.6. 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	Reglugerð 737/2003
Hazardous waste packing	Avoid release to the environment.
EWC waste code	EWC: 200115 alkalines
National regulations	Reglugerð um skrá yfir spilliefni og annan úrgang: 184/2002; breytingarreglugerð: 428/2003
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	1824
IMDG	1824
ICAO/IATA	1824

### 14.2. UN proper shipping name

ADR/RID/ADN	SODIUM HYDROXIDE SOLUTION
IMDG	SODIUM HYDROXIDE SOLUTION
ICAO/IATA	SODIUM HYDROXIDE SOLUTION

### 14.3. Transport hazard class(es)

ADR/RID/ADN	8
Hazard No.	80
RID	8
ADN	8
IMDG	8
ICAO/IATA	8

### 14.4. Packing group

RID	II
IMDG	II
ICAO/IATA	II

### 14.5. Environmental hazards

### 14.6. Special precautions for user

EmS

F-A, S-B

## 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

Reglugerð nr. 1907/2006 og síðan 750/2008 um skráningu, mat, leyfisveitingu og takmarkanir er varða efni (efnareglur REACH).  
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).  
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).  
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.  
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.

#### 15.2. Chemical safety assessment

Chemical safety assessment  
performed

No

### SECTION 16: Other information

#### Hazard symbol



Corrosive

##### R-phrases

R35 Causes severe burns.

##### S-phrases

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.  
S45 In case of accident or if you feel unwell, seek medical advice immediately (show the label where possible).  
S36/37/39 Wear suitable protective clothing, gloves and eye/face protection.

Classification according to  
Regulation (EC) No 1272/2008  
[CLP / GHS]

Met. Corr. 1; H290;  
Skin Corr 1A; H314;

List of relevant R-phrases (under  
headings 2 and 3).

R41 Risk of serious damage to eyes.  
R35 Causes severe burns.

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

H318 Causes Serious eye damage.  
H290 May be corrosive to metals.

## Abbreviations and acronyms used

H314 Causes severe skin burns and eye damage.

GHS: Globally Harmonized System

CLP: Classification, labelling and packaging

DNEL: Derived No Effect Limit (afleidd áhrifaleysismörk).

PBT: Persistent, Bioaccumulative and Toxic

PNEC: Predicted No Effect Concentration

vPvB: Very Persistent and very Bioaccumulative

REACH: Regulation, Evaluation, Authorization and Restriction of Chemicals.

## Prepared by

Birgir Ö. Gudmundsson (Ph.D Chemistry); email: birgir@tandur.is

**Exposure Scenario Format (1) worker activities/exposure****1. Exposure Scenario****Section 2****Section 3****Section 4****Section 5**