SAFETY DATA SHEET
Caustic Soda 50%

1. IDENTIFICATION OF THE SUBSTANCE/PREPARATION AND OF THE COMPANY/UNDERTAKING

Product name	Caustic Soda 50%
Synonyms, trade names	Natronlut 50%
Supplier	Acinor AS Titangt. 13 1630 Gamle Fredrikstad Norway Tel: +47 69 38 40 82 Fax: +47 69 38 40 84 E-mail: rolf.egil@acinor.no www.acinor.no
Contact person	Rolf Egil de Flon (E-mail: rolf.egil@acinor.no)
Emergency telephone number	National Poisons Information Service (NPIS), phone 0844 892 0111. WEB: http://www.toxbase.org
EC No.	215-185-5
CAS No.	1310-73-2
Reg.No. REACH	01-2119457892-27

2. HAZARDS IDENTIFICATION

HEALTH RISK: Causes severe burns.
Not regarded as a fire hazard or an environmental hazard under current legislation.

Symbol(s)

Contains	sodium hydroxide
Risk phrases	R-35 Causes severe burns.
Safety phrases	S-1/2 Keep locked up and out of reach of children. S-26 In case of contact with eyes, rinse immediately with plenty of water and seek medical advice. S-36/37/39 Wear suitable protective clothing, gloves and eye/face protection. S-45 In case of accident or if you feel unwell, seek medical advice immediately (show the label where possible).

CLP

Hazard pictograms

Signal word	Danger
Hazard statements	Skin Corr. 1A: H314 Causes severe skin burns and eye damage.
Precautionary statements	P405 Store locked up. P102 Keep out of reach of children. P101 If medical advice is needed, have product container or label at hand. 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. P273 Avoid release to the environment.

3. COMPOSITION/INFORMATION ON INGREDIENTS

Ingredients

Name	EC No.	CAS No.	Content	Symbol	Classification
Water	231-791-2	7732-18-5	45-95 %	-	
sodium hydroxide	215-185-5	1310-73-2	5-55 %	C	R-35

CLP

Name	CAS No.	REACH No.	Content	Symbol	Classification
Water	7732-18-5		45-95 %		
sodium hydroxide	1310-73-2		5-55 %	GHS05, , Danger	Skin Corr. 1A: H314

Section 16 contains detailed classification phrases.

4. FIRST AID MEASURES

General	Remove victim immediately from source of exposure. Provide rest, warmth and fresh air. When unconscious, loosen tight clothing and position in secured recovery position. Secure open airways by bending head backwards, cleaning the mouth and removing false teeth. When breathing is difficult, properly trained personnel may assist affected person by administering 100% oxygen. If breathing stops, provide artificial respiration.
Inhalation	Move the exposed person to fresh air at once. To hospital or physician.
Ingestion	DO NOT INDUCE VOMITING! Rinse mouth thoroughly. NEVER MAKE AN UNCONSCIOUS PERSON VOMIT OR DRINK FLUIDS! Get medical attention immediately!
Skin	Chemical burns must be treated by a physician. Promptly flush contaminated skin with water. Promptly remove clothing if soaked through and flush the skin with water. Important to remove the substance from the skin immediately. Get medical attention immediately.
Eyes	Promptly wash eyes with plenty of water while lifting the eye lids. Make sure to remove any contact lenses from the eyes before rinsing. Get medical attention immediately. Continue to rinse.

5. FIRE-FIGHTING MEASURES

Extinguishing media	Use extinguishing media appropriate for surrounding fire. Do not use direct water flow, risk for spreading the fire.

Special fire fighting procedures	Move container from fire area if it can be done without risk. If possible, fight fire from protected position. Use pressurised air mask if substance is involved in a fire. Use special protective clothing. Regular protection may not be safe.
Hazardous combustion products	Explosive gases/vapours/fumes.
Protective measures in fire	Wear self-contained breathing apparatus (SCBA) to prevent contact with thermal decomposition products.

6. ACCIDENTAL RELEASE MEASURES

Personal protection	Avoid inhalation of vapours and spray mist and contact with skin and eyes. Wear appropriate personal protective equipment - see Section 8.
Environmental protection	Avoid discharge into drains, water courses or onto the ground. Prevent spillage entering a watercourse or sewer, contaminating soil or vegetation. If this is not possible notify police and appropriate authorities immediately.
Spill cleanup methods	Limit spread of spilled material. Runoff or release to sewer, waterway or ground is forbidden. Absorb with sand, earth or an inert material. Collect and reclaim or dispose in sealed containers in licensed waste. Small amounts could be picked up using moist disposable cloth. Wash the spill area with water.

7. HANDLING AND STORAGE

Usage precautions	Avoid spilling, skin and eye contact. Avoid handling that generates vapors. Never add water to acid! Ventilate well, avoid breathing vapours. Use approved respirator if air contamination is above accepted level.
Storage precautions	Keep away from acids. Keep in cool, dry, ventilated storage and closed containers. Protect from light, including direct sunrays. Use containers made of: Acid resistant steel. Do not use aluminum containers. Aluminium. Zinc. Lead. Tin.
Storage criteria	Corrosive storage.

8. EXPOSURE CONTROLS/PERSONAL PROTECTION

Ingredient name	CAS no.	Reference	LT Exp 8 Hrs	ST Exp 15 Min	Date
sodium hydroxide	1310-73-2	AN.		2 mg/m3	

Ingredient comments WEL = Workplace exposure limits. SK= Skin absorbance, Rep= Reproduction, Carc= Carcinogenic Senz= Sensitisers, Mut= Carcinogenic

Protective equipment

Process conditions	Use engineering controls to reduce air contamination to permissible exposure level. Provide eyewash, quick drench.
Ventilation	Provide adequate general and local exhaust ventilation. Provide corrosion-resistant local exhaust ventilation.
Respirators	Combined gas cartridge/filter (acid gases and dust, filter B/P2). At work in confined or poorly ventilated spaces, respiratory protection with air supply must be used.
Protective gloves	For exposure of 4 to 8 hours use gloves made of: Polyvinyl chloride (PVC). Neoprene. 4H. Nitrile. Use gloves with long sleeves.
Eye protection	If risk of splashing, wear safety goggles or face shield.

Other Protection	Wear appropriate clothing to prevent any possibility of liquid contact and repeated or prolonged vapour contact.
Hygienic work practices	Wash promptly if skin becomes wet or contaminated. Promptly remove any clothing that becomes wet or contaminated. Wash at the end of each work shift and before eating, smoking and using the toilet.

9. PHYSICAL AND CHEMICAL PROPERTIES

Appearance	Fluid.		
Colour	Colourless.		
Odour	No characteristic odour.		
Solubility description	Very soluble in water.		
Boiling point (°C, interval)	~145	**Pressure**	
Melting/freezing point (°C, interval)	-12		
Specific gravity	1,63		
Vapour pressure	0,4 kPa	**Temperature (°C)**	40
pH-value, conc. solution	>14		

10. STABILITY AND REACTIVITY

Stability	Stable under normal temperature conditions and recommended use. Hygroscopic.
Hazardous polymerisation	Will not polymerise.
Materials to avoid	Acids. Water, steam, water mixtures. Corrosive to some metals as zinc and aluminium, evolving hydrogen gas that may form explosive mixtures with air.
Hazardous decomp. products	No hazardous decomposition compounds at recommended use.

11. TOXICOLOGICAL INFORMATION

Toxic dose - LD 50:	> 500 (25 %) mg/kg (oral rabbit)
Toxic dose - LD 50:	1350 mg/kg (skin rabbit)
Sensitization	No allergic reaction is known.
Genotoxicity	No known heritable or mutagenic effects.
Carcinogenicity	This substance has no evidence of carcinogenic properties.
Reproduction toxicity	No known hazardous effects on reproduction, fertility or to the unborn child.
Inhalation	Will cause severe burning in mouth and respiratory system.
Ingestion	Causes severe burns. May cause burns in mucous membranes, throat, oesophagus and stomach.
Skin	Causes severe burns. May cause serious chemical burns of the skin.
Eyes	Causes severe burns. Vapour or spray may cause eye damage, impaired sight or blindness. Risk of permanent corneal damage, loss of sight and blindness.
Health warnings	The product causes severe burns. Prolonged or repeated exposure could result in permanent injury.
Route of entry	Inhalation. Ingestion. Skin and/or eye contact.
Medical considerations	In case of eyedamage, continue to flush with water all the way to the doctor. Chemical burns to skin may be treated as fire caused wounds. Splash in eye requires examination by eye specialist.

12. ECOLOGICAL INFORMATION

Ecotoxicological data	Acute toxicity. LC50 24 hours 180 mg/l Carp Acute toxicity. LC50 96 hours 125 mg/l Mosquito fish Acute toxicity. LC50 48 hours 99 mg/l Bluegill
EC 50, 48 Hrs, Daphnia, mg/l:	30
Ecotoxicity	Release of concentrated product into sewage will increase the pH in the water, and the necessity of neutralization has to be evaluated.
Mobility	Easily soluble in water.
Bioaccumulative potential	No bioaccumulation expected.
Persistence and degradability	The product contains essential inorganic compounds and the biodegradability is therefore not relevant.

13. DISPOSAL CONSIDERATIONS

General/cleaning	The product is hazardous waste.
Disposal methods	Confirm disposal procedures with environmental engineer and local regulations.
Waste class	06 02 04* sodium and potassium hydroxide
Contaminated packaging	The product packaging must be disposed of in compliance with the country specific regulations.

14. TRANSPORT INFORMATION

Label for conveyance

Proper shipping name (national)	Natriumhydroksidløsning
Proper shipping name (international)	Sodium hydroxide, solution
ROAD TRANSPORT (ADR):	
UN no. road	1824
ADR class	Class 8: Corrosive substances.
ADR Hazard labels	8
Classification code	C5
ADR packing group	II
Hazard no. (ADR)	80 Corrosive or slightly corrosive substance.
Hazard no. (ADR)	80
RAIL TRANSPORT (RID):	
RID class no.	8
RID Hazard labels	8
RID packing group	II
SEA TRANSPORT (IMDG):	
UN no. sea	1824
IMDG class	8
IMDG packing group	II
EmS no.	F-A, S-B
AIR TRANSPORT (IATA-DGR / ICAO-TI):	

UN no., air	1824
IATA/ICAO class	8
IATA/ICAO packing group	II

15. REGULATORY INFORMATION

Lists of references (Norway)	National regulations for health, fire and environment labelling. Acts relating to Working Environment, Pollution Controlt, Prevention of Fire, Explosion and Accidents. Norwegian Component List, CLP00. Authorities: Norwegian Labour Inspection Authority, Directorate for Civil Protection and Emergency Planning, Norwegian Petroleum Directorate, Petroleum Safety Authority Norway.Transport legislation: ADR/RID, IMDG, IATA/ICAO. EU-regulation: 1272/2008/EC (CLP00), 453/2010/EC (CLP).
Product declaration number (Norway)	93940
EC no.	215-185-5

16. OTHER INFORMATION

Explanations to R-phrases in section 3	R-35 Causes severe burns.
Explanations to classification in section 3	H314 Causes severe skin burns and eye damage.

*** Information revised since the previous version of the SDS**

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