

SAFETY DATA SHEET

Energi TM 20



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 18.12.2014
Revision date 23.11.2016

1.1. Product identifier

Product name Energi TM 20

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

Use of the substance/preparation Protection against corrosion and deposits in the steam plant.

1.3. Details of the supplier of the safety data sheet

Importer

Company name ARCON AS
Office address Haralds vei 12, 1470 LØRENSKOG
Postal address P.O. Box 225
Postcode 1471
City LØRENSKOG
Country Norway
Tel + 47 67 97 96 00
E-mail arcon@arcon-as.no
Website http://www.arcon-as.no
Enterprise no. 911 578 425
Contact person Tove Svardal - Mobile +47 959 77 876
Tove.Svardal@arcon-as.no

1.4. Emergency telephone number

SECTION 2: Hazards identification

2.1. Classification of substance or mixture

CLP Classification, Comments Classification according to Regulation (EC) No. 1272/2008 (CLP): Not classified.

2.2. Label elements

2.3. Other hazards

PBT / vPvB This product does not contain any substances classified as PBT or vPvB.

SECTION 3: Composition/information on ingredients

3.2. Mixtures

Substance	Identification	Classification	Contents
Sodium hydroxide	CAS no.: 1310-73-2 EC no.: 215-185-5 Index no.: 011-002-00-6 Registration number: 01-	Skin Corr 1A;H314; Note : T	5 - 10 %

	2119457892-27-xxxx		
	Synonyms: Sodium hydroxide		
(1-hydroxyethane-1,1-diyl)bis(phosphonic acid)	CAS no.: 2809-21-4	Acute tox. 4;H304;	1 - 5 %
	EC no.: 220-522-8	Eye Dam. 1;H318;	
	Registration number: 01-2119510391-53-xxxx	Met. Corr. 1;H290;	
Description of the mixture	The ingredients are individually labelled as irritating or corrosive. When the ingredients are mixed together correctly the product is a neutralized substance.		
	This product contains erythorbate, tannin.		

SECTION 4: First aid measures

4.1. Description of first aid measures

General	Immediately remove/take off all contaminated clothing. If necessary, loosen tight clothing, belts etc. to make it easier to breath. If there is a risk of unconsciousness, lay the person in recovery position. If breathing stops, provide artificial respiration. Remove/Take off immediately all contaminated clothing.
Inhalation	Move person into fresh air and keep warm and at rest.
Skin contact	Wash contaminated skin with water, if necessary also underneath the clothes.
Eye contact	Immediately flush eyes with plenty of water, while lifting the upper and lower eyelids. Continue to rinse for at least 15 minutes. If eye irritation persists: Get medical advice/attention.
Ingestion	Never give anything to drink to an unconscious person or a person who has convulsions. Rinse mouth. Give a couple of glasses of water or juice.

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

Information for health personnel	Treat symptomatically.
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4.3. Indication of any immediate medical attention and special treatment needed

Other Information	No additional information available.
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SECTION 5: Firefighting measures

5.1. Extinguishing media

Suitable extinguishing media	All known.
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5.2. Special hazards arising from the substance or mixture

Fire and explosion hazards	This product is not considered as flammable goods.
Hazardous combustion products	The following can be released in case of excessive heating: Carbon monoxide (CO). Phosphorus oxide.

5.3. Advice for firefighters

Personal protective equipment	Use personal protective equipment as required.
Fire fighting procedures	Cool containers exposed to heat with water spray.
Other Information	Excessive heat could result in drum bursting or melting.

SECTION 6: Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures

General measures	Wear protective clothing as described in Section 8 of this safety data sheet. Keep unauthorized personnel away from the spill area. Avoid skin contact/inhalation of spill/dust/vapor.
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6.1.1. For non-emergency personnel

Personal precautions	Keep unauthorized personnel away from the spill area.
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6.1.2. For emergency responders

For emergency responders Use personal protective equipment as required.

6.2. Environmental precautions

Environmental precautionary measures Avoid release to the environment. Inform the relevant authorities if environmental pollution occurs (sewers, waterways, soil or air). When used as recommended it will not impact treatment plants, but greater spillage of concentrated product may impact biological treatment plants by temporary consume oxygen.

6.3. Methods and material for containment and cleaning up

Cleaning method Contain spillage with clay, soil or vermiculite. Collect spillage for reclamation or disposal in sealed containers via a licensed waste contractor. Flush area with water. Small spills (<50 ltr) may be diluted and flushed away with large amounts of water. Beware of slippery floors.

Clean up Collect spillage for reclamation or disposal in sealed and marked containers via a licensed waste contractor.

6.4. Reference to other sections

Other instructions See section 8. See section 13.

Additional information No additional information available.

SECTION 7: Handling and storage

7.1. Precautions for safe handling

Handling Wear protective clothing as described in Section 8 of this safety data sheet. Never mix the product with other chemicals without checking for possible risks. Avoid spill, skin and eyecontact. Provide adequate ventilation.

7.2. Conditions for safe storage, including any incompatibilities

Storage Store in tightly closed container or in an approved dosing unit of polyethylene or stainless steel in a cool or tempered room.

Other Information If the product gets in contact with air or gets elevated pH it will be darker.

Conditions To Avoid Avoid contact with: Zinc, copper and aluminum.

Conditions for safe storage

Advice on storage compatability Keep away from: Strong acids. Oxidizing agents.

7.3. Specific end use(s)

Specific use(s) See section 1.2.

SECTION 8: Exposure controls/personal protection

8.1. Control parameters

Occupational Exposure limit values

Substance	Identification	Value	TWA Year
Sodium hydroxide	CAS no.: 1310-73-2	8-hour TWA: 2 mg/m3	2011
	EC no.: 215-185-5	T	
	Index no.: 011-002-00-6	15 min.: 2 mg/m3	
	Registration number: 01-2119457892-27-xxxx		
	Synonyms: Sodium hydroxide		

DNEL / PNEC from substances

Substance	Sodium hydroxide
DNEL	Group: Worker Exposure route: Dermal Exposure frequency: Short term (acute) Type of effect: Local effect Value: 2%
DNEL	Group: Worker

Exposure route: Inhalation
Exposure frequency: Long term (repeated)
Type of effect: Local effect
Value: 1mg/m³

8.2. Exposure controls

Precautionary measures to prevent exposure

Appropriate engineering controls	Provide adequate ventilation.
Instruction on measures to prevent exposure	Observe any occupational exposure limits for the product or ingredients.

Respiratory protection

Tasks needing respiratory protection	Use respiratory protection with particle filter if aerosols is generated.
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Hand protection

Hand protection	Use protective gloves when handling this product over a long period.
Suitable materials	PVC Rubber gloves.

Eye / face protection

Eye protection	Tightly fitted safety glasses. Face shield.
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Skin protection

Skin protection (except hands)	Wear suitable protective clothing to prevent skin contact.
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Hygiene / Environmental

Specific hygiene measures	Wash hands at the end of each work shift and before eating, smoking and using the toilet
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Appropriate environmental exposure control

Environmental exposure control remarks	Do not release this product to the environment.
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SECTION 9: Physical and chemical properties

9.1. Information on basic physical and chemical properties

Physical state	Liquid.
Colour	Brown.
Odour	Non or uncharacteristically.
pH (as supplied)	Value: ~ 8,3
Freezing point	Value: -2 °C
Boiling point / boiling range	Value: 102 °C
Flash point	Value: > 100 °C
Density	Value: 1,042 g/cm ³
Solubility in water	Easily soluble in water.
Partition coefficient: n-octanol/water	Value: < 1

9.2. Other information

Other physical and chemical properties

Physical and chemical properties	Ignition temperature: >150oC
Comments	No additional information available.

SECTION 10: Stability and reactivity

10.1. Reactivity

Reactivity	Stable under normal conditions for storage and use.
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10.2. Chemical stability

Stability	Stable under normal conditions.
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10.3. Possibility of hazardous reactions

Possibility of hazardous reactions	It is unlikely that hazardous polymerisation will occur.
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10.4. Conditions to avoid

Conditions to avoid Erythorbic acid will break down after contact with air for some time and lose its ability to reduce oxygen.

10.5. Incompatible materials

Materials to avoid Strong electrolytes causing precipitation. Oxidising agents.

10.6. Hazardous decomposition products

Hazardous decomposition products Excessive heating will release phosphorus and carbon monoxide.

SECTION 11: Toxicological information**11.1. Information on toxicological effects****Toxicological Information:**

LD50 oral **Value:** > 2000 mg/kg
Animal test species: Rat

LD50 dermal **Value:** > 2000 mg/kg
Animal test species: Rabbit

Toxicological data for substances**Potential acute effects**

Eye contact May cause burning and temporary redness.

Ingestion Ingestion of large amounts may cause stomach pains.

Delayed effects / repeated exposure

Sensitisation No data available.

Carcinogenic, Mutagenic or Reprotoxic

Carcinogenicity human experience No data available.

Mutagenicity No data available.

Reproductive Toxicity, human experience No data available.

SECTION 12: Ecological information**12.1. Toxicity**

Acute aquatic, fish **Value:** > 100 mg/l
Method of testing: LC50
Duration: 96 h

Acute aquatic, algae **Value:** > 100 mg/l
Method of testing: IC50
Duration: 72 h

Acute aquatic, Daphnia **Value:** > 100 mg/l
Method of testing: EC50
Duration: 48 h

Toxicological data for substances

Substance Sodium hydroxide

Acute aquatic, fish **Value:** 35-189 mg/l
Method of testing: LC50
Duration: 96 h

Acute aquatic, Daphnia **Value:** 40,4 mg/l
Method of testing: EC50
Duration: 48 h

12.2. Persistence and degradability

Persistence and degradability description No data available.

12.3. Bioaccumulative potential

Bioaccumulative potential No indication that this product has a bioaccumulation potential.

12.4. Mobility in soil

Mobility Soluble in water.

12.5. Results of PBT and vPvB assessment

PBT assessment results The component(s) in this product are not identified as PBT.

vPvB evaluation results The component(s) in this product are not identified as vPvB.

12.6. Other adverse effects

Additional ecological information Contaminated area should be kept under observation after spillage with regards to the possibility of spreading to vulnerable water sources or cropland. In case of a large local spillage would the risk of environmental impact be lack of oxygen. Greater spillage of concentrated product may consume oxygen in biological treatment plants, but when used as recommended it will not impact treatment plants. The complexing agent binds to the cations which separates from water. The product has a low potential for accumulation in organisms. The product contains no organically bound halogens which can contribute to wastewater AOX-value.

SECTION 13: Disposal considerations

13.1. Waste treatment methods

EWC waste code EWC: 160509 discarded chemicals other than those mentioned in 16 05 06, 16 05 07 or 16 05 08

EWL Packing This material and its container must be disposed of in a safe way. Care should be taken when handling emptied containers that have not been cleaned or rinsed out. Empty containers or liners may retain some product residues. Avoid dispersal of spilt material and runoff and contact with soil, waterways, drains and sewers.

SECTION 14: Transport information

14.1. UN number

Comments This material has to be transported in a warm zone (must not freeze).

14.2. UN proper shipping name

Comments Not applicable.

14.3. Transport hazard class(es)

Comments Not applicable.

14.4. Packing group

14.5. Environmental hazards

Comments See section 12 in this SDS.

14.6. Special precautions for user

Special safety precautions for user Avoid contact with eyes and skin.

14.7. Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code

SECTION 15: Regulatory information

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

Declaration no. 035012

References (laws/regulations) Regulation no 1272/2008 of the European parliament and of the council on classification, labelling, packaging of substances and mixtures.

15.2. Chemical safety assessment

Chemical Safety Assessment

No chemical safety assessment has been carried out.

SECTION 16: Other information

Supplier's notes

The information provided in this SDS is correct to the best of our knowledge, information and belief at the date of its publication. The information given is designed only as a guide for safe handling and use of this material and is not to be considered as a warranty or quality specification. The above information relates only to this specific product and may not be valid used in combination with any other materials or in any process or if the material is altered or processed, unless specified in the text.

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

R35 Causes severe burns.

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

H318 Causes Serious eye damage.
H290 May be corrosive to metals.
H304 May be fatal if swallowed and enters airways.
H314 Causes severe skin burns and eye damage.

Version

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Responsible for safety data sheet

ARCON AS

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