



Safety data sheet according to 1907/2006/EC, Article 31

Printing date 10.04.2015

Version number 6


Revision: 10.04.2015

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

- **1.1 Product identifier**
- **Trade name: Alfa Caus**
- **1.2 Relevant identified uses of the substance or mixture and uses advised against**
No further relevant information available.
- **Application of the substance / the mixture** Industrial cleaner
- **1.3 Details of the supplier of the safety data sheet**
- **Manufacturer/Supplier:**
Alfa Laval Tumba AB
Hans Stahles väg 7
S-147 80 Tumba
Sweden
+46 8 530 650 00
info.se@alfalaval.com
- **Further information obtainable from:**
For further questions regarding the safety data sheet, please contact your local Alfa Laval Sales Company which you find at www.alfalaval.com or in section 16 "Other Information" in the end of the safety data sheet
- **1.4 Emergency telephone number:**
In the UK: For immediate, life-threatening emergencies, call 999
For health advice and information (24h) dial 111 (NHS direct).

In Europe: Call 112 and ask for poison information.

SECTION 2: Hazards identification

- **2.1 Classification of the substance or mixture**
- **Classification according to Regulation (EC) No 1272/2008**
Met. Corr.1 H290 May be corrosive to metals.
Skin Corr. 1A H314 Causes severe skin burns and eye damage.
- **2.2 Label elements**
- **Labelling according to Regulation (EC) No 1272/2008**
The product is classified and labelled according to the CLP regulation.
- **Hazard pictograms**

GHS05
- **Signal word** Danger
- **Hazard-determining components of labelling:**
sodium hydroxide
- **Hazard statements**
H290 May be corrosive to metals.
H314 Causes severe skin burns and eye damage.

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Precautionary statements

- P260 Do not breathe mist/vapours/spray.
P280 Wear protective gloves/protective clothing/eye protection/face protection.
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.
P310 Immediately call a POISON CENTER or doctor/physician.
P363 Wash contaminated clothing before reuse.

2.3 Other hazards**Results of PBT and vPvB assessment**

- **PBT:** Not applicable.
- **vPvB:** Not applicable.

SECTION 3: Composition/information on ingredients**3.2 Mixtures**

- **Description:** Mixture: consisting of the following components.

Dangerous components:

CAS: 1310-73-2 EINECS: 215-185-5	sodium hydroxide	Skin Corr. 1A, H314	5-15%
CAS: 657-84-1 EINECS: 211-522-5	sodium toluene-4-sulphonate	Eye Dam. 1, H318	5-10%

SECTION 4: First aid measures**4.1 Description of first aid measures****General information:**

Wash contaminated clothing before reuse.
Immediately remove any clothing soiled by the product.

- **After inhalation:** Supply fresh air; consult doctor if symptoms persists.

After skin contact:

Immediately wash with water and soap and rinse thoroughly.
If skin irritation continues, consult a doctor.

After eye contact:

Flush eyes with lukewarm water for 10-15 minutes. Transport the exposed person to hospital or an eye specialist. Continue rinsing eyes during transport.

After swallowing:

Rinse out mouth and then drink plenty of water.

If swallowed, do not induce vomiting: seek medical advice immediately and show this container or label.

- **4.2 Most important symptoms and effects, both acute and delayed**

No further relevant information available.

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- **4.3 Indication of any immediate medical attention and special treatment needed**
No further relevant information available.

SECTION 5: Firefighting measures

- **5.1 Extinguishing media**
- **Suitable extinguishing agents:**
Water
Foam
Fire-extinguishing powder
Carbon dioxide
Use fire extinguishing methods suitable to surrounding conditions.
- **For safety reasons unsuitable extinguishing agents:** Not applicable.
- **5.2 Special hazards arising from the substance or mixture**
During heating or in case of fire poisonous gases are produced.
Carbon monoxide and carbon dioxide
Nitrogen oxides (NO_x)
Sulphur dioxide (SO₂)
- **5.3 Advice for firefighters**
- **Protective equipment:**
Wear fully protective suit.
Wear self-contained respiratory protective device.

SECTION 6: Accidental release measures

- **6.1 Personal precautions, protective equipment and emergency procedures**
See Section 8 for information on personal protection equipment.
Wear protective equipment. Keep unprotected persons away.
Do not breathe vapour.
Do not get in eyes, on skin, or on clothing.
- **6.2 Environmental precautions:**
Dilute with plenty of water.
Do not allow to enter sewers/ surface or ground water.
Send for recovery or disposal in suitable receptacles.
- **6.3 Methods and material for containment and cleaning up:**
Dilute with plenty water.
Absorb with liquid-binding material (sand, diatomite, acid binders, universal binders, sawdust).
Use neutralising agent.
Dispose contaminated material as waste according to item 13.
Ensure adequate ventilation.
- **6.4 Reference to other sections**
See Section 7 for information on safe handling.
See Section 8 for information on personal protection equipment.
See Section 13 for disposal information.

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SECTION 7: Handling and storage

- **7.1 Precautions for safe handling**
When diluting always pour product into water and not vice versa.
Ensure good ventilation/exhaustion at the workplace.
Prevent formation of aerosols.
When using do not eat, drink or smoke.
See Section 8 for information on personal protection equipment.
Avoid contact with skin and eyes.
Ensure that washing facilities are available at the work place.
- **Information about fire - and explosion protection:** No special measures required.
- **7.2 Conditions for safe storage, including any incompatibilities**
- **Storage:**
- **Requirements to be met by storerooms and receptacles:**
Keep container tightly closed.
Keep only in original container.
Store in a dry place.
- **Information about storage in one common storage facility:** Do not store together with acids.
- **Further information about storage conditions:**
Keep container tightly sealed.
Protect from frost.
- **7.3 Specific end use(s)**
Industrial cleaner
Only for trade users / technical specialists

SECTION 8: Exposure controls/personal protection

- **Additional information about design of technical facilities:** No further data; see item 7.
 - **8.1 Control parameters**
 - **Ingredients with limit values that require monitoring at the workplace:**
- | | |
|-----------------------------------|---------------------------------------|
| 1310-73-2 sodium hydroxide | |
| WEL | Short-term value: 2 mg/m ³ |
- **DNELs**
1310-73-2 Sodium hydroxide: Hazard via inhalation route: Long time exposure: 1 mg/m³, Overall assessment factor: 1, Dose descriptor starting point: NOAEC.
 - **Additional information:** The lists valid during the making were used as basis.
 - **8.2 Exposure controls**
 - **Personal protective equipment:**
 - **General protective and hygienic measures:**
No further data; see item 7.
Keep away from foodstuffs, beverages and feed.
Immediately remove all soiled and contaminated clothing
Wash hands before breaks and at the end of work.
Avoid contact with the eyes and skin.
Use only in well-ventilated areas.

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In case of insufficient ventilation, wear suitable respiratory equipment.

· **Respiratory protection:**



In case of brief exposure or low pollution use respiratory filter device. In case of intensive or longer exposure use self-contained respiratory protective device.

Filter P2

· **Protection of hands:**



Protective gloves

The glove material has to be impermeable and resistant to the product/ the substance/ the preparation. Selection of the glove material on consideration of the penetration times, rates of diffusion and the degradation

· **Material of gloves**

Chloroprene rubber, CR

Natural rubber, NR

The selection of the suitable gloves does not only depend on the material, but also on further marks of quality and varies from manufacturer to manufacturer. As the product is a preparation of several substances, the resistance of the glove material can not be calculated in advance and has therefore to be checked prior to the application.

· **Penetration time of glove material**

The exact break through time has to be found out by the manufacturer of the protective gloves and has to be observed.

· **Eye protection:**

Face protection



Tightly sealed goggles

· **Body protection:** Use protective suit.

SECTION 9: Physical and chemical properties

· **9.1 Information on basic physical and chemical properties**

· **General Information**

· **Appearance:**

Form:

Fluid

Colour:

Yellowish

· **Odour:**

Undistinguishable.

· **Odour threshold:**

Not determined.

· **pH-value at 20 °C:**

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· Change in condition	
Melting point/Melting range:	Undetermined.
Boiling point/Boiling range:	> 100 °C
· Flash point:	> 100 °C
· Flammability (solid, gaseous):	Not applicable.
· Ignition temperature:	
Decomposition temperature:	Not determined.
· Self-igniting:	Product is not selfigniting.
· Danger of explosion:	Product does not present an explosion hazard.
· Explosion limits:	
Lower:	Not determined.
Upper:	Not determined.
· Vapour pressure:	Not determined.
· Density at 20 °C:	1.17 g/cm ³
· Relative density	Not determined.
· Vapour density	Not determined.
· Evaporation rate	Not determined.
· Solubility in / Miscibility with water:	Fully miscible.
· Partition coefficient (n-octanol/water):	Not determined.
· Viscosity:	
Dynamic:	Not determined.
Kinematic:	Not determined.
· Solvent content:	
Organic solvents:	0.0 %
· 9.2 Other information	No further relevant information available.

SECTION 10: Stability and reactivity

- **10.3 Possibility of hazardous reactions**
Contact with acids releases flammable gases.
Reacts with base metals forming hydrogen.
- **10.4 Conditions to avoid** Do not store together with acids.
- **10.5 Incompatible materials:**
Keep away from acids.
Store away from metals.
- **10.6 Hazardous decomposition products:**
In case of fire, the following can be released:
Carbon monoxide and carbon dioxide

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Nitrogen oxides (NOx)
Sulphur dioxide

SECTION 11: Toxicological information

11.1 Information on toxicological effects

Acute toxicity:

1310-73-2 sodium hydroxide

Oral	LD50	2000 mg/kg (rat)
	LDLo	500 mg/kg (rabbit) (LDLo)

Primary irritant effect:

on the skin: Strong caustic effect on skin and mucous membranes.

on the eye:

Strong caustic effect.

Irritating effect.

Sensitisation: No sensitising effects known.

Additional toxicological information:

The product shows the following dangers according to the calculation method of the General EU Classification Guidelines for Preparations as issued in the latest version:

Causes severe burns.

Swallowing will lead to a strong caustic effect on mouth and throat and to the danger of perforation of esophagus and stomach.

Repeated dose toxicity

1310-73-2 sodium hydroxide

Inhalative	Repeated Dose Toxicity	(No information available) 10 weeks; 20 minutes, 2 times/week.
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SECTION 12: Ecological information

12.1 Toxicity

1310-73-2 sodium hydroxide

EC50	>100 mg/L (daphnia) (OECD Guideline 202 (Daphnia sp. Acute Immobilisati)
Germ Cell Mutagenicity (Bacterial mutation assay)	(Bacteria) (Bacterial Forward Mutation Assay)
LC50	189 mg/L (Fish) (OECD Guideline 203 (Fish, Acute Toxicity Test)) 48 h, Leuciscud idus melanotus

Aquatic toxicity: No further relevant information available.

12.2 Persistence and degradability

The surfactants contained in the product correspond to the legislation on the environmental compatibility of detergents and are biodegradable.

12.3 Bioaccumulative potential No further relevant information available.

12.4 Mobility in soil No further relevant information available.

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- **Ecotoxicological effects:**
- **Behaviour in sewage processing plants:**
- **Type of test Effective concentration Method Assessment**
1310-73-2 Sodium hydroxide: Short-term toxicity to aquatic invertebrates: Ceriodaphnia sp., Reliability: 2 (reliable with restrictions), Salinity: 500 µS/cm, Duration: 48 h, Endpoint: EC50, Effect concentration: 40.4 mg/L, Author: Warne M.St.J. and A.D. Schifko, Year: 1999, Title: Toxicity of Laundry Detergent Components to a Freshwater Cladoceran and their Contribution to Detergent Toxicity Bibliographic source: Ecotoxicology and Environmental Safety,44, 196-206.
- **Additional ecological information:**
- **General notes:**
Water hazard class 1 (German Regulation) (Self-assessment): slightly hazardous for water
Do not allow undiluted product or large quantities of it to reach ground water, water course or sewage system.
Must not reach sewage water or drainage ditch undiluted or unneutralised.
Rinse off of bigger amounts into drains or the aquatic environment may lead to increased pH-values. A high pH-value harms aquatic organisms. In the dilution of the use-level the pH-value is considerably reduced, so that after the use of the product the aqueous waste, emptied into drains, is only low water-dangerous.
- **12.5 Results of PBT and vPvB assessment**
- **PBT:** Not applicable.
- **vPvB:** Not applicable.
- **12.6 Other adverse effects** No further relevant information available.

SECTION 13: Disposal considerations

- **13.1 Waste treatment methods**
- **Recommendation**
Must not be disposed together with household garbage. Do not allow product to reach sewage system.

· **European waste catalogue**

07 00 00	WASTES FROM ORGANIC CHEMICAL PROCESSES
07 06 00	wastes from the MFSU of fats, grease, soaps, detergents, disinfectants and cosmetics
07 06 08*	other still bottoms and reaction residues

- **Uncleaned packaging:**
- **Recommendation:**
Rinse cautiously with water for several minutes.
Packagings that may not be cleansed are to be disposed of in the same manner as the product.
- **Recommended cleansing agents:** Water, if necessary together with cleansing agents.

SECTION 14: Transport information

- **14.1 UN-Number**
- **ADR, IMDG, IATA** UN1824

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<ul style="list-style-type: none"> · 14.2 UN proper shipping name · ADR · IMDG, IATA 	<p>1824 SODIUM HYDROXIDE SOLUTION SODIUM HYDROXIDE SOLUTION</p>
<ul style="list-style-type: none"> · 14.3 Transport hazard class(es) · ADR, IMDG, IATA 	
<div style="text-align: center;">  </div> <ul style="list-style-type: none"> · Class · Label 	<p>8 Corrosive substances. 8</p>
<ul style="list-style-type: none"> · 14.4 Packing group · ADR, IMDG, IATA 	<p>II</p>
<ul style="list-style-type: none"> · 14.5 Environmental hazards: · Marine pollutant: 	<p>No</p>
<ul style="list-style-type: none"> · 14.6 Special precautions for user · Danger code (Kemler): · EMS Number: · Segregation groups 	<p>Warning: Corrosive substances. 80 F-A,S-B Alkalis</p>
<ul style="list-style-type: none"> · 14.7 Transport in bulk according to Annex II of MARPOL73/78 and the IBC Code 	<p>Not applicable.</p>
<ul style="list-style-type: none"> · Transport/Additional information: 	
<ul style="list-style-type: none"> · ADR · Limited quantities (LQ) · Excepted quantities (EQ) 	<p>1L Code: E2 Maximum net quantity per inner packaging: 30 ml Maximum net quantity per outer packaging: 500 ml</p>
<ul style="list-style-type: none"> · Transport category · Tunnel restriction code 	<p>2 E</p>
<ul style="list-style-type: none"> · IMDG · Limited quantities (LQ) · Excepted quantities (EQ) 	<p>1L Code: E2 Maximum net quantity per inner packaging: 30 ml Maximum net quantity per outer packaging: 500 ml</p>
<ul style="list-style-type: none"> · UN "Model Regulation": 	<p>UN1824, SODIUM HYDROXIDE SOLUTION, 8, II</p>

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SECTION 15: Regulatory information

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

EU regulation (EC) no 1272/2008 (CLP)
EC DIRECTIVE 2008/98/EC (waste)
EU Regulation (EC) no.1907/2006 (REACH)

• 15.2 Chemical safety assessment: A Chemical Safety Assessment has not been carried out.

SECTION 16: Other information

www.alfalaval.com

This information is based on our present knowledge. However, this shall not constitute a guarantee for any specific product features and shall not establish a legally valid contractual relationship.

LIMITATION OF LIABILITY

This document is only intended to be used as guidance as regards the risks of which we are aware that are associated with the product. Every individual who works with the product or in close proximity of it must receive suitable training. Individuals who come into contact with the product must be capable of using their own judgement as regards conditions or methods for handling, storing and using the product. Alfa Laval is not liable for demands, losses or damage of any kind that arise from flaws or deficiencies in this document or from using, handling, storing or disposing of the product unless it can be proven that Alfa Laval has acted in a grossly negligent manner. Beyond what has been agreed upon and specified in writing with Alfa Laval in the individual case, Alfa Laval makes no promises or assumes any liability, including but not limited to implicit guarantees regarding marketability or appropriateness in terms of both the information provided in this document and the product to which the information refers. Please contact your local Alfa Laval Sales Company for further questions:

• Relevant phrases

H314 Causes severe skin burns and eye damage.
H318 Causes serious eye damage.

• Department issuing MSDS: Alfa Laval Materials and Chemistry Centre (MACC)

• Contact:

Argentina: alfa.consulta@alfalaval.com
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Abbreviations and acronyms:

ADR: Accord européen sur le transport des marchandises dangereuses par Route (European Agreement concerning the International Carriage of Dangerous Goods by Road)
IMDG: International Maritime Code for Dangerous Goods
IATA: International Air Transport Association
GHS: Globally Harmonised System of Classification and Labelling of Chemicals
EINECS: European Inventory of Existing Commercial Chemical Substances
ELINCS: European List of Notified Chemical Substances
CAS: Chemical Abstracts Service (division of the American Chemical Society)
DNEL: Derived No-Effect Level (REACH)
Met. Corr. 1: Corrosive to metals, Hazard Category 1
Skin Corr. 1A: Skin corrosion/irritation, Hazard Category 1A
Eye Dam. 1: Serious eye damage/eye irritation, Hazard Category 1

*** Data compared to the previous version altered.**