

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

Printing date 20.12.2014

Version number 7

Revision: 18.12.2014

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

· **1.1 Product identifier**

· **Trade name:** *RM 33 ASF*

· **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** *High pressure cleaner*

· **1.3 Details of the supplier of the safety data sheet**

· **Manufacturer/Supplier:**

*Alfred Kärcher GmbH & Co. KG
Alfred-Kärcher-Str. 28-40
D - 71364 Winnenden*

*Postfach 160
D - 71349 Winnenden*

*Tel.: +49-7195-14-0
Fax : +49-7195-14-2212*

www.karcher.com

· **Further information obtainable from:**

*Department PDE-D
Tel.: +49-7195-14-2398
Fax : +49-7195-14-3164
safetydata@karcher.com*

· **1.4 Emergency telephone number:** *Tel.: 0049 30 30686 790 Giftnotruf Berlin*

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.

Eye Dam. 1 H318 Causes serious eye damage.

· **Classification according to Directive 67/548/EEC or Directive 1999/45/EC**

C; Corrosive

R35: Causes severe burns.

· **Information concerning particular hazards for human and environment:**

The product has to be labelled due to the calculation procedure of the "General Classification guideline for preparations of the EU" in the latest valid version.

· **Classification system:**

The classification is according to the latest editions of the EU-lists, and extended by company and literature data.

· **2.2 Label elements**

· **Labelling according to Regulation (EC) No 1272/2008**

The product is classified and labelled according to the CLP regulation.

(Contd. on page 2)

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

Printing date 20.12.2014

Version number 7

Revision: 18.12.2014

Trade name: RM 33 ASF

(Contd. of page 1)

· **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.

· **Precautionary statements**

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.

P310 Immediately call a POISON CENTER/doctor.

P303+P361+P353 IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water/shower.

P405 Store locked up.

P501 Dispose of contents/container in accordance with local/regional/national/international regulations.

· **2.3 Other hazards**

The product does not contain any organic halogen compounds (AOX), nitrates, heavy metal compounds.

· **Results of PBT and vPvB assessment**

· **PBT:** *Not applicable.*

· **vPvB:** *Not applicable.*

SECTION 3: Composition/information on ingredients





· **3.2 Chemical characterisation: Mixtures**

· **Description:**

Mixture of substances listed below with non-hazardous additions.

Cleaning agent

· **Dangerous components:**

CAS: 1310-73-2 EINECS: 215-185-5 Index number: 011-002-00-6 Reg.nr.: 02-2119752469-26-XXXX	sodium hydroxide  C R35  Skin Corr. 1A, H314	>5%
CAS: 68515-73-1 NLP: 500-220-1 Reg.nr.: 01-2119488530-36	alkyl polyglucoside  Xi R41  Eye Dam. 1, H318	3,0-10%

(Contd. on page 3)



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

Printing date 20.12.2014

Version number 7

Revision: 18.12.2014

Trade name: RM 33 ASF

		(Contd. of page 2)
CAS: 68891-38-3 NLP: 500-234-8 Reg.nr.: 01-2119488639-16-XXXX	sodium lauryl ether sulfate  Xi R36/38  Skin Irrit. 2, H315; Eye Irrit. 2, H319	1-10%
· Regulation (EC) No 648/2004 on detergents / Labelling for contents		
non-ionic surfactants, anionic surfactants		< 5%
· Additional information For the wording of the listed risk phrases refer to section 16.		

* **SECTION 4: First aid measures**

- **4.1 Description of first aid measures**
- **General information**
Involve doctor immediately.
Immediately remove any clothing soiled by the product.
- **After inhalation**
In case of unconsciousness place patient stably in side position for transportation.
Supply fresh air; consult doctor in case of complaints.
- **After skin contact**
Immediately wash with water and soap and rinse thoroughly.
Immediately rinse with water.
- **After eye contact** Rinse opened eye for several minutes under running water. Then consult a doctor.
- **After swallowing**
Rinse out mouth and then drink plenty of water.
Drink plenty of water and provide fresh air. Call for a doctor immediately.
If symptoms persist consult doctor.
- **4.2 Most important symptoms and effects, both acute and delayed**
Causes severe skin burns and eye damage.
- **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**
CO₂, powder or water spray. Fight larger fires with water spray or alcohol resistant foam.
- **For safety reasons unsuitable extinguishing agents** Water with full jet.
- **5.2 Special hazards arising from the substance or mixture**
No further relevant information available.
- **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**
Wear protective equipment. Keep unprotected persons away.

(Contd. on page 4)

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

Printing date 20.12.2014

Version number 7

Revision: 18.12.2014

Trade name: RM 33 ASF

(Contd. of page 3)

- **6.2 Environmental precautions:**
Dilute with plenty of water.
Do not allow to enter sewers/ surface or ground water.
Do not allow to penetrate the ground/soil.
- **6.3 Methods and material for containment and cleaning up:**
Absorb with liquid-binding material (sand, diatomite, acid binders, universal binders).
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.

*

SECTION 7: Handling and storage

- **7.1 Precautions for safe handling**
Ensure good ventilation/exhaustion at the workplace.
Prevent formation of aerosols.
- **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:**
Use only receptacles specifically permitted for this substance/product.
Unsuitable material for receptacle: aluminium.
- **Information about storage in one common storage facility:** *Not required.*
- **Further information about storage conditions:** *Keep receptacle tightly sealed.*
- **Storage class VCI-storage class:** *8B - not flammable corrosive substances*
- **7.3 Specific end use(s)** *No further relevant information available.*

*

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:**
The product does not contain any relevant quantities of materials with critical values that have to be monitored at the workplace.
- **8.2 Exposure controls**
- **Personal protective equipment**
- **General protective and hygienic measures**
Keep away from foodstuffs, beverages and feed.
Immediately remove all soiled and contaminated clothing
Wash hands before breaks and at the end of work.
Do not inhale gases / fumes / aerosols.
Avoid contact with the eyes and skin.

(Contd. on page 5)

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

Printing date 20.12.2014

Version number 7

Revision: 18.12.2014

Trade name: RM 33 ASF

(Contd. of page 4)

· **Respiratory protection:**

Filter A/P2.

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.

Not necessary if room is well-ventilated.

· **Protection of hands:**



Protective gloves.

· **Material of gloves**

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.

· **For the permanent contact gloves made of the following materials are suitable:**

* butyl rubber 0,7 mm, 480 min

· **As protection from splashes gloves made of the following materials are suitable:**

* nitril rubber 0,4 mm, 30 min

· **Eye protection:**



Tightly sealed goggles.

· **Body protection:**

Alkaline resistant protective clothing

Boots

SECTION 9: Physical and chemical properties

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

· **General Information**

· **Appearance:**

Form:	Fluid
Colour:	Yellow
Odour:	Odourless
Odour threshold:	Not determined.

· pH-value at 20 °C:	13
	1 % 13

· pH-value 1 %:	12,8
-----------------	------

· **Change in condition**

Melting point/Melting range:	undetermined
------------------------------	--------------

(Contd. on page 6)

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

Printing date 20.12.2014

Version number 7

Revision: 18.12.2014

Trade name: RM 33 ASF

(Contd. of page 5)

Boiling point/Boiling range:	100 °C
· Flash point:	> 100 °C
· Flammability (solid, gaseous)	Not applicable.
· Ignition temperature:	200 °C
· 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 at 20 °C:	23 hPa
· Density at 20 °C:	1,28 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 at 20 °C:	13 mPas
kinematic:	Not determined.
· Solvent content:	
Organic solvents:	0,0 %
VOC (EC)	0,00 %
Solids content:	30,4 %
· 9.2 Other information	No further relevant information available.

*

SECTION 10: Stability and reactivity

- **10.1 Reactivity** corresponds to 10.3
- **10.2 Chemical stability**
- **Thermal decomposition / conditions to be avoided:**
No decomposition if used according to specifications.
- **10.3 Possibility of hazardous reactions**
Reacts with light alloys to form hydrogen
Corrodes aluminium
Strong exothermic reaction with acids
- **10.4 Conditions to avoid** No further relevant information available.
- **10.5 Incompatible materials:**
Not compatible with alkali-sensitive substances like Sn, Zn, Al and paintings.

(Contd. on page 7)

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

Printing date 20.12.2014

Version number 7

Revision: 18.12.2014

Trade name: RM 33 ASF

(Contd. of page 6)

· **10.6 Hazardous decomposition products:** No dangerous decomposition products known

SECTION 11: Toxicological information

· **11.1 Information on toxicological effects**

· **Acute toxicity:**

· **Primary irritant effect:**

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

· **on the eye:** Strong caustic effect.

· **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.

Corrosive

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

SECTION 12: Ecological information

· **12.1 Toxicity**

· **Aquatic toxicity:**

1310-73-2 sodium hydroxide

EC50/15 min 22 mg/l (Photobacterium phosphoreum)

EC50/48 h 76 mg/l (Daphnia magna)

LC50/96 h 125 mg/l (Gambusia affinis)

68515-73-1 alkyl polyglucoside

EC50/48 h >100 mg/l (Daphnia magna)

LC50/96 h 126 mg/l (fish)

68891-38-3 sodium lauryl ether sulfate

EC50 > 100 mg/l (bacteria)

LC50 > 10 - 100 mg/l (fish)

· **12.2 Persistence and degradability** No further relevant information available.

· **12.3 Bioaccumulative potential** No further relevant information available.

· **12.4 Mobility in soil** No further relevant information available.

· **Ecotoxicological effects:**

· **Other information:** 430 mg/l (0,3 %)

· **Additional ecological information:**

· **CSB-value:** 1.960.000 mg/l

· **General notes:**

The surfactant(s) contained in this preparation complies (comply) with the biodegradability criteria as laid down in Regulation (EC) No.648/2004 on detergents. Data to support this assertion are held at the disposal of the competent authorities of the Member States and will be made available to them, at their direct request or at the request of a detergent manufacturer.

Do not allow product to reach ground water, water course or sewage system.

Must not reach sewage water or drainage ditch undiluted or unneutralised.

(Contd. on page 8)

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

Printing date 20.12.2014

Version number 7

Revision: 18.12.2014

Trade name: RM 33 ASF

(Contd. of page 7)

*Danger to drinking water if even small quantities leak into the ground.
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.

Must be specially treated adhering to official regulations.

· **European waste catalogue**

06 02 04*	sodium and potassium hydroxide
-----------	--------------------------------

· **Uncleaned packaging:**

· **Recommendation:** Non contaminated packagings may be recycled.

· **Recommended cleansing agents:** Water, if necessary together with cleaning agents.

* **SECTION 14: Transport information**

· **14.1 UN-Number**

· **ADR, IMDG, IATA** UN1824

· **14.2 UN proper shipping name**

· **ADR** 1824 SODIUM HYDROXIDE SOLUTION
· **IMDG, IATA** SODIUM HYDROXIDE SOLUTION

· **14.3 Transport hazard class(es)**

· **ADR**



· **Class** 8 (C5) Corrosive substances.

· **Label** 8

· **IMDG, IATA**

· **Class** 8 Corrosive substances.

· **14.4 Packing group**

· **ADR, IMDG, IATA** II

(Contd. on page 9)

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

Printing date 20.12.2014

Version number 7

Revision: 18.12.2014

Trade name: RM 33 ASF

(Contd. of page 8)

· 14.5 Environmental hazards:	
· Marine pollutant:	No
· 14.6 Special precautions for user	Warning: Corrosive substances.
· Danger code (Kemler):	80
· EMS Number:	F-A,S-B
· Segregation groups	Alkalis
· 14.7 Transport in bulk according to Annex II of MARPOL73/78 and the IBC Code	Not applicable.
· Transport/Additional information:	
· ADR	
· Limited quantities (LQ)	1L
· Excepted quantities (EQ)	Code: E2 Maximum net quantity per inner packaging: 30 ml Maximum net quantity per outer packaging: 500 ml
· Transport category	2
· Tunnel restriction code	E
· IMDG	
· Limited quantities (LQ)	1L
· Excepted quantities (EQ)	Code: E2 Maximum net quantity per inner packaging: 30 ml Maximum net quantity per outer packaging: 500 ml
· UN "Model Regulation":	UN1824, SODIUM HYDROXIDE SOLUTION, 8, II

*

SECTION 15: Regulatory information

- **15.1 Safety, health and environmental regulations/legislation specific for the substance or mixture**
- **National regulations**
- **Information about limitation of use:**
Employment restrictions concerning juveniles must be observed.
- **15.2 Chemical safety assessment:** A Chemical Safety Assessment has not been carried out.

*

SECTION 16: Other information

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. A product information sheet can be provided if requested.

- **Relevant phrases**
H314 Causes severe skin burns and eye damage.
H315 Causes skin irritation.

(Contd. on page 10)

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

Printing date 20.12.2014

Version number 7

Revision: 18.12.2014

Trade name: RM 33 ASF

(Contd. of page 9)

H318 Causes serious eye damage.

H319 Causes serious eye irritation.

R35 Causes severe burns.

R36/38 Irritating to eyes and skin.

R41 Risk of serious damage to eyes.

· **Department issuing MSDS: PDE-D**

· **Contact:**

Department PDE-D

Tel.: +49-7195-14-2398

Fax : +49-7195-14-3164

safetydata@karcher.com

· **Abbreviations and acronyms:**

RID: Règlement international concernant le transport des marchandises dangereuses par chemin de fer (Regulations Concerning the International Transport of Dangerous Goods by Rail)

IATA-DGR: Dangerous Goods Regulations by the "International Air Transport Association" (IATA)

ICAO: International Civil Aviation Organisation

ICAO-TI: Technical Instructions by the "International Civil Aviation Organisation" (ICAO)

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)

VOC: Volatile Organic Compounds (USA, EU)

Met. Corr. 1: Corrosive to metals, Hazard Category 1

Skin Corr. 1A: Skin corrosion/irritation, Hazard Category 1A

Skin Irrit. 2: Skin corrosion/irritation, Hazard Category 2

Eye Dam. 1: Serious eye damage/eye irritation, Hazard Category 1

Eye Irrit. 2: Serious eye damage/eye irritation, Hazard Category 2

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

· 0.011-661.0

RM 33/6.1

1.948