

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

Printing date 19.04.2019

Version number 5

Revision: 24.10.2018

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

· **1.1 Product identifier**

· **Trade name:** RM 93

· **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** Detergent

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

· **Manufacturer/Supplier:**

Alfred Kärcher SE & 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](http://www.karcher.com)

· **Further information obtainable from:**

Department PCD-D  
Tel.: +49-7195-14-2548  
Fax : +49-7195-14-3164  
[safetydata@karcher.com](mailto:safetydata@karcher.com)

· **1.4 Emergency telephone number:**

For Hazardous Materials [or Dangerous Goods] Incidents  
Spill, Leak, Fire, Exposure, or Accident  
Call CHEMTREC Day or Night  
Within USA and Canada: 1-800-424-9300  
Outside USA and Canada: +1 703-741-5970 (collect calls accepted)

**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. 1B H314 Causes severe skin burns and eye damage.

Eye Dam. 1 H318 Causes serious 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.

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· **Hazard pictograms**



GHS05

· **Signal word** *Danger*

· **Hazard-determining components of labelling:**

*phosphoric acid*

· **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.*

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

*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:** *Cleaning agent*

· **Dangerous components:**

CAS: 7664-38-2 EINECS: 231-633-2 Index number: 015-011-00-6 Reg.nr.: 01-2119485924-24-xxxx	<i>phosphoric acid</i> ☠ Met. Corr. 1, H290; Skin Corr. 1B, H314; Eye Dam. 1, H318	10-20%
CAS: 5329-14-6 EINECS: 226-218-8 Index number: 016-026-00-0 Reg.nr.: 01-2119488633-28-xxxx	<i>sulphamic acid</i> ⚠ Skin Irrit. 2, H315; Eye Irrit. 2, H319; Aquatic Chronic 3, H412	≥5-<10%
CAS: 69011-36-5 EC number: 931-138-8 Reg.nr.: 02-2119552461-55-XXXX	<i>isotridecanoethoxylate + 8 EO</i> ☠ Eye Dam. 1, H318; ⚠ Acute Tox. 4, H302	1-5%

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**· Regulation (EC) No 648/2004 on detergents / Labelling for contents**

non-ionic surfactants

<5%

**· Additional information** For the wording of the listed hazard 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**  
Seek medical treatment.  
In case of unconsciousness place patient stably in side position for transportation.  
Supply fresh air; consult doctor in case of complaints.
  - **After skin contact**  
Consult a doctor.  
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.  
Do not induce vomiting; call for medical help immediately.  
Drink plenty of water and provide fresh air. Call for a doctor immediately.
- **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**  
CO<sub>2</sub>, 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.
  - **Additional information**  
Collect contaminated fire fighting water separately. It must not enter the sewage system.

**SECTION 6: Accidental release measures**

- **6.1 Personal precautions, protective equipment and emergency procedures**  
Wear protective equipment. Keep unprotected persons away.

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- **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.  
Avoid contact with eyes and skin.
- **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:** Store only in the original receptacle.
  - **Information about storage in one common storage facility:**  
Keep away from food, beverages and feed.
  - **Further information about storage conditions:**  
Store under lock and key and out of the reach of children.  
Keep receptacle tightly sealed.
- **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:**

**7664-38-2 phosphoric acid**

IOELV	Short-term value: 2 mg/m <sup>3</sup> Long-term value: 1 mg/m <sup>3</sup>
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- **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

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Wash hands before breaks and at the end of work.

Do not inhale gases / fumes / aerosols.

Avoid contact with the eyes and skin.

· **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** Butyl rubber, BR

· **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 (EN 374)

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

\* nitril rubber 0,4 mm, 30 min (EN 374)

· **Eye protection:**



Tightly sealed goggles (EN 166)

· **Body protection:**

Apron

Boots

## SECTION 9: Physical and chemical properties

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

· **General Information**

· **Appearance:**

Form:	Fluid
Colour:	Colourless
· Odour:	Specific type
· Odour threshold:	Not determined.

· pH-value at 20 °C: 1.2

· pH-value 1 %: 2.1

· **Change in condition**

Melting point/freezing point: 0 °C

Initial boiling point and boiling range: 100 °C

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· <b>Flash point:</b>	<i>Not applicable</i>
· <b>Flammability (solid, gaseous)</b>	<i>Not applicable.</i>
· <b>Ignition temperature:</b>	<i>not applicable</i>
· <b>Decomposition temperature:</b>	<i>Not determined.</i>
· <b>Auto-ignition temperature:</b>	<i>Product is not selfigniting.</i>
· <b>Explosive properties:</b>	<i>Product does not present an explosion hazard.</i>
· <b>Explosion limits:</b>	
<b>Lower:</b>	<i>Not determined.</i>
<b>Upper:</b>	<i>Not determined.</i>
· <b>Vapour pressure:</b>	<i>Not determined.</i>
· <b>Density at 20 °C:</b>	<i>1.118 g/cm<sup>3</sup></i>
· <b>Relative density</b>	<i>Not determined.</i>
· <b>Vapour density</b>	<i>Not determined.</i>
· <b>Evaporation rate</b>	<i>Not determined.</i>
· <b>Solubility in / Miscibility with Water:</b>	<i>Fully miscible</i>
· <b>Partition coefficient: n-octanol/water:</b>	<i>Not determined.</i>
· <b>Viscosity:</b>	
<b>dynamic at 20 °C:</b>	<i>40 mPas</i>
<b>kinematic:</b>	<i>Not determined.</i>
· <b>Solvent content:</b>	
<b>VOC (EC)</b>	<i>0.00 %</i>
<b>Solids content:</b>	<i>23.9 %</i>
· <b>9.2 Other information</b>	<i>No further relevant information available.</i>

**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**  
*Forms hydrogen in aqueous solution with metals*  
*Reacts with alkali and metals*  
*Reacts with light alloys to form hydrogen*
- **10.4 Conditions to avoid** *No further relevant information available.*
- **10.5 Incompatible materials:** *No further relevant information available.*

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

### SECTION 11: Toxicological information

· **11.1 Information on toxicological effects**

· **Acute toxicity** Based on available data, the classification criteria are not met.

· **LD/LC50 values relevant for classification:**

<b>7664-38-2 phosphoric acid</b>		
Oral	LD50	2,600 mg/kg (Rat)
Dermal	LD50	2,740 mg/kg (can)
<b>5329-14-6 sulphamic acid</b>		
Inhalative	LC50	3,160 mg/kg (Rat)
<b>69011-36-5 isotridecanoethoxylate + 8 EO</b>		
Oral	ATE	500 mg/kg (Rat)

· **Primary irritant effect:**

· **Skin corrosion/irritation**

Causes severe skin burns and eye damage.

· **Serious eye damage/irritation**

Causes serious eye damage.

· **Respiratory or skin sensitisation** Based on available data, the classification criteria are not met.

· **CMR effects (carcinogenicity, mutagenicity and toxicity for reproduction)**

· **Germ cell mutagenicity** Based on available data, the classification criteria are not met.

· **Carcinogenicity** Based on available data, the classification criteria are not met.

· **Reproductive toxicity** Based on available data, the classification criteria are not met.

· **STOT-single exposure** Based on available data, the classification criteria are not met.

· **STOT-repeated exposure** Based on available data, the classification criteria are not met.

· **Aspiration hazard** Based on available data, the classification criteria are not met.

### SECTION 12: Ecological information

· **12.1 Toxicity**

· **Aquatic toxicity:**

<b>7664-38-2 phosphoric acid</b>	
LC50/96 h	138 mg/l ( <i>Gambusia affinis</i> )
EC50	270 mg/l ( <i>bacteria</i> )
<b>5329-14-6 sulphamic acid</b>	
LC50/96 h	70.3 mg/l ( <i>Pimephales promelas</i> )
EC10/16 h	>1,000 mg/l ( <i>Pseudomonas putida</i> )
<b>69011-36-5 isotridecanoethoxylate + 8 EO</b>	
LC50/96 h	1-10 mg/l ( <i>Leuciscus idus</i> )
EC50/48 h	1-10 mg/l ( <i>Aquatic invertebrates</i> )
EC50/72 h	1-10 mg/l ( <i>Aquatic plants</i> )

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· **12.2 Persistence and degradability**

**69011-36-5 isotridecanoethoxylate + 8 EO**

Bismuth-act. sup.  $\geq 90$  % (mod. OECD 301 E)

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

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

· **Additional ecological information:**

· **COD-value:** 89 mg/l

· **General notes:**

The product does not contain organic complexing agents.

The product does not contain organically bounded halogens (AOX-free).

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 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 decreased pH-values. A low pH-value harms aquatic organisms. In the dilution of the use-level the pH-value is considerably increased, 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**

20 01 29\* | detergents containing hazardous substances

· **Uncleaned packaging:**

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

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

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**SECTION 14: Transport information**

· <b>14.1 UN-Number</b> · <b>ADR, IMDG, IATA</b>	UN1805
· <b>14.2 UN proper shipping name</b> · <b>ADR</b> · <b>IMDG, IATA</b>	1805 PHOSPHORIC ACID, SOLUTION PHOSPHORIC ACID, SOLUTION
· <b>14.3 Transport hazard class(es)</b> · <b>ADR</b>	
	
· <b>Class</b> · <b>Label</b>	8 (C1) Corrosive substances. 8
· <b>IMDG, IATA</b>	
	
· <b>Class</b> · <b>Label</b>	8 Corrosive substances. 8
· <b>14.4 Packing group</b> · <b>ADR, IMDG, IATA</b>	III
· <b>14.5 Environmental hazards:</b> · <b>Marine pollutant:</b>	No
· <b>14.6 Special precautions for user</b> · <b>Danger code (Kemler):</b> · <b>EMS Number:</b> · <b>Stowage Category</b>	Warning: Corrosive substances. 80 F-A,S-B A
· <b>14.7 Transport in bulk according to Annex II of Marpol and the IBC Code</b>	Not applicable.
· <b>Transport/Additional information:</b>	
· <b>ADR</b> · <b>Limited quantities (LQ)</b> · <b>Excepted quantities (EQ)</b>	5L Code: E1 Maximum net quantity per inner packaging: 30 ml Maximum net quantity per outer packaging: 1000 ml
· <b>Transport category</b> · <b>Tunnel restriction code</b>	3 E

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· <b>IMDG</b>	
· <b>Limited quantities (LQ)</b>	5L
· <b>Excepted quantities (EQ)</b>	Code: E1 Maximum net quantity per inner packaging: 30 ml Maximum net quantity per outer packaging: 1000 ml
· <b>UN "Model Regulation":</b>	UN 1805 PHOSPHORIC ACID, SOLUTION, 8, III

### **SECTION 15: Regulatory information**

- **15.1 Safety, health and environmental regulations/legislation specific for the substance or mixture**
- **Directive 2012/18/EU**
- **Named dangerous substances - ANNEX I** None of the ingredients is listed.
- **REGULATION (EC) No 1907/2006 ANNEX XVII** Conditions of restriction: 3
- **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**  
H290 May be corrosive to metals.  
H302 Harmful if swallowed.  
H314 Causes severe skin burns and eye damage.  
H315 Causes skin irritation.  
H318 Causes serious eye damage.  
H319 Causes serious eye irritation.  
H412 Harmful to aquatic life with long lasting effects.
- **Department issuing SDS:** PCD-D
- **Contact:**  
Department PCD-D  
Tel.: +49-7195-14-2548  
Fax : +49-7195-14-3164  
safetydata@karcher.com
- **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

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*ELINCS: European List of Notified Chemical Substances*

*CAS: Chemical Abstracts Service (division of the American Chemical Society)*

*VOC: Volatile Organic Compounds (USA, EU)*

*LC50: Lethal concentration, 50 percent*

*LD50: Lethal dose, 50 percent*

*PBT: Persistent, Bioaccumulative and Toxic*

*vPvB: very Persistent and very Bioaccumulative*

*Met. Corr.1: Corrosive to metals – Category 1*

*Acute Tox. 4: Acute toxicity – Category 4*

*Skin Corr. 1B: Skin corrosion/irritation – Category 1B*

*Skin Irrit. 2: Skin corrosion/irritation – Category 2*

*Eye Dam. 1: Serious eye damage/eye irritation – Category 1*

*Eye Irrit. 2: Serious eye damage/eye irritation – Category 2*

*Aquatic Chronic 3: Hazardous to the aquatic environment - long-term aquatic hazard – Category 3*

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

· 0-011-664-0

RM 93/2-1

1-864