

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

Printing date 07.12.2014

Version number 4

Revision: 06.12.2013

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

- **1.1 Product identifier**
- **Trade name: RM 25 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** Toilet 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](http://www.karcher.com)

- **Further information obtainable from:**  
Department PDE-D  
Tel.: +49-7195-14-2398  
Fax : +49-7195-14-3164  
[safetydata@karcher.com](mailto: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 Directive 67/548/EEC or Directive 1999/45/EC**  
C; Corrosive  
R34: Causes 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 EU guidelines:**  
The product has been marked in accordance with EU Directives / respective national laws.

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· **Code letter and hazard designation of product:**



C Corrosive

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

hydrochloric acid  
phosphoric acid  
but-2-yne-1,4-diol

· **Risk phrases:**

34 Causes burns.

· **Safety phrases:**

23 Do not breathe vapour/spray.  
26 In case of contact with eyes, rinse immediately with plenty of water and seek medical advice.  
28 After contact with skin, wash immediately with plenty of water.  
36/37/39 Wear suitable protective clothing, gloves and eye/face protection.  
45 In case of accident or if you feel unwell, seek medical advice immediately (show the label where possible).  
51 Use only in well-ventilated areas.  
60 This material and its container must be disposed of as hazardous waste.

· **Special labelling of certain preparations:**

Contains but-2-yne-1,4-diol. May produce an allergic reaction.

· **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  
Mixture consisting of the following components.

· **Dangerous components:**

CAS: 7664-38-2 EINECS: 231-633-2 Index number: 015-011-00-6 Reg.nr.: 02-2119752438-31-0000	phosphoric acid  C R34  Met. Corr.1, H290; Skin Corr. 1B, H314	10-25%
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










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CAS: 69011-36-5 EC number: 931-138-8 Reg.nr.: 02-2119552461-55-XXXX	isotridecanoethoxylate + 8 EO  Xn R22;  Xi R41  Eye Dam. 1, H318;  Acute Tox. 4, H302	3,0-10%
CAS: 7647-01-0 EINECS: 231-595-7 Index number: 017-002-01-X	hydrochloric acid  C R34;  Xi R37  Skin Corr. 1B, H314;  STOT SE 3, H335	3,0-10%
CAS: 110-65-6 EINECS: 203-788-6 Index number: 603-076-00-9	but-2-yne-1,4-diol  T R23/25;  C R34;  Xn R21-48/22;  Xi R43  Acute Tox. 3, H301;  Acute Tox. 3, H331;  STOT RE 2, H373;  Skin Corr. 1B, H314;  Acute Tox. 4, H312;  Skin Sens. 1, H317	<1,0%
· Regulation (EC) No 648/2004 on detergents / Labelling for contents		
non-ionic surfactants		5 - 15%
· 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**  
If skin irritation continues, 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.  
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** Corneal 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**  
In case of fire, the following can be released:

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- Carbon monoxide (CO)
- Hydrogen chloride (HCl)
- **5.3 Advice for firefighters**
- **Protective equipment:** Wear fully protective suit.

### **SECTION 6: Accidental release measures**

- **6.1 Personal precautions, protective equipment and emergency procedures**  
Wear protective equipment. Keep unprotected persons away.
- **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:**  
Store only in the original receptacle.  
Provide acid-resistant floor.
- **Information about storage in one common storage facility:** Not required.
- **Further information about storage conditions:**  
Store under lock and key and out of the reach of children.  
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.

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· **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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**7647-01-0 hydrochloric acid**

IOELV	Short-term value: 15 mg/m <sup>3</sup> , 10 ppm Long-term value: 8 mg/m <sup>3</sup> , 5 ppm
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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  
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:**

Use suitable respiratory protective device when high concentrations are present.  
Short term filter device:  
filter E

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:**

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



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:**

Fluorocarbon rubber (Viton)

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

\* nitril rubber 0,4 mm, 30 min

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· **Eye protection:**



Tightly sealed goggles.

· **Body protection:**

Acid resistant protective clothing  
Boots

**SECTION 9: Physical and chemical properties**

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

· **General Information**

· **Appearance:**

· <b>Form:</b>	Fluid
· <b>Colour:</b>	Red
· <b>Odour:</b>	Fruit-like
· <b>Odour threshold:</b>	Not determined.

· <b>pH-value at 20 °C:</b>	0,2
· <b>pH-value 1 %:</b>	2,0

· **Change in condition**

· <b>Melting point/Melting range:</b>	-2,0 °C
· <b>Boiling point/Boiling range:</b>	100 °C

· <b>Flash point:</b>	Not applicable
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· <b>Flammability (solid, gaseous)</b>	Not applicable.
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· <b>Ignition temperature:</b>	200 °C
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· <b>Decomposition temperature:</b>	Not determined.
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· <b>Self-igniting:</b>	Product is not selfigniting.
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· <b>Danger of explosion:</b>	Product does not present an explosion hazard.
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· **Explosion limits:**

· <b>Lower:</b>	Not determined.
· <b>Upper:</b>	Not determined.

· <b>Vapour pressure:</b>	Not determined.
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· <b>Density at 20 °C:</b>	1,094 g/cm <sup>3</sup>
· <b>Relative density</b>	Not determined.
· <b>Vapour density</b>	Not determined.
· <b>Evaporation rate</b>	Not determined.

· **Solubility in / Miscibility with**

· <b>Water:</b>	Fully miscible
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· <b>Partition coefficient (n-octanol/water):</b>	Not determined.
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- |                                |  |
|--------------------------------|--|
| · <b>Viscosity:</b>            |  |
| <i>dynamic at 20 °C:</i>       | 4,8 mPas                                   |
| <i>kinematic:</i>              | Not determined.                            |
| · <b>Solvent content:</b>      |  |
| <i>Organic solvents:</i>       | 0,0 %                                      |
| <i>VOC (EC)</i>                | 0,00 %                                     |
| <i>Solids content:</i>         | 26,0 %                                     |
| · <b>9.2 Other information</b> | 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 alkali (lyes)  
Forms hydrogen in aqueous solution with metals  
Corrodes aluminium
- **10.4 Conditions to avoid** No further relevant information available.
- **10.5 Incompatible materials:** No further relevant information available.
- **10.6 Hazardous decomposition products:** No dangerous decomposition products known
- **Additional information:** .

### SECTION 11: Toxicological information

- **11.1 Information on toxicological effects**
- **Acute toxicity:**

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

#### 7664-38-2 phosphoric acid

Oral	LD50	2600 mg/kg (Rat)
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Dermal	LD50	2740 mg/kg (can)
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#### 69011-36-5 isotridecanoethoxylate + 8 EO

Oral	ATE	500 mg/kg (Rat)
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#### 7647-01-0 hydrochloric acid

Inhalative	LC50	900 mg/kg (rabbit)
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#### 110-65-6 but-2-yne-1,4-diol

Inhalative	LC50	104 mg/kg (Rat)
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- **Primary irritant effect:**
- **on the skin:** Strong caustic effect on skin and mucous membranes.
- **on the eye:** Strong caustic effect.
- **Sensitisation:** Sensitising effect by skin contact is possible by prolonged exposure.

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· **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:**

**7664-38-2 phosphoric acid**

EC50 270 mg/l (bacteria)

LC50/96 h 138 mg/l (*Gambusia affinis*)

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

EC50/48 h 1 - 10 mg/l (Aquatic invertebrates)

EC50/72 h 1 - 10 mg/l (Aquatic plants)

LC50/96 h 1 - 10 mg/l (*Leuciscus idus*)

· **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:**

· **CSB-value:** 880.000 mg/l

· **General notes:**

The product does not contain organic complexing agents.

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.

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 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.

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**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 01 04*	phosphoric and phosphorous acid
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· **Uncleaned packaging:**

· **Recommendation:**

Packagings that may not be cleansed are to be disposed of in the same manner as the product.

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** UN1805

· **14.2 UN proper shipping name**

· **ADR** 1805 PHOSPHORIC ACID, SOLUTION  
· **IMDG, IATA** PHOSPHORIC ACID, SOLUTION

· **14.3 Transport hazard class(es)**

· **ADR**



· **Class** 8 (C1) Corrosive substances.

· **Label** 8

· **IMDG, IATA**



· **Class** 8 Corrosive substances.

· **Label** 8

· **14.4 Packing group**

· **ADR, IMDG, IATA** III

· **14.5 Environmental hazards:**

· **Marine pollutant:** No

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<ul style="list-style-type: none"><li>· <b>14.6 Special precautions for user</b></li><li>· <b>Danger code (Kemler):</b></li><li>· <b>EMS Number:</b></li><li>· <b>Segregation groups</b></li></ul>	<p>Warning: Corrosive substances. 80 F-A,S-B Acids</p>
<ul style="list-style-type: none"><li>· <b>14.7 Transport in bulk according to Annex II of MARPOL73/78 and the IBC Code</b></li></ul>	<p>Not applicable.</p>
<b>· Transport/Additional information:</b>	
<hr style="border-top: 1px dashed black;"/>	
<ul style="list-style-type: none"><li>· <b>ADR</b></li><li>· <b>Limited quantities (LQ)</b></li><li>· <b>Excepted quantities (EQ)</b></li></ul>	<p>5L Code: E1 Maximum net quantity per inner packaging: 30 ml Maximum net quantity per outer packaging: 1000 ml</p>
<ul style="list-style-type: none"><li>· <b>Transport category</b></li><li>· <b>Tunnel restriction code</b></li></ul>	<p>3 E</p>
<hr style="border-top: 1px dashed black;"/>	
<ul style="list-style-type: none"><li>· <b>IMDG</b></li><li>· <b>Limited quantities (LQ)</b></li><li>· <b>Excepted quantities (EQ)</b></li></ul>	<p>5L Code: E1 Maximum net quantity per inner packaging: 30 ml Maximum net quantity per outer packaging: 1000 ml</p>

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**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**  
H290 May be corrosive to metals.  
H301 Toxic if swallowed.  
H302 Harmful if swallowed.  
H312 Harmful in contact with skin.  
H314 Causes severe skin burns and eye damage.  
H317 May cause an allergic skin reaction.  
H318 Causes serious eye damage.

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*H331 Toxic if inhaled.*

*H335 May cause respiratory irritation.*

*H373 May cause damage to organs through prolonged or repeated exposure.*

*R21 Harmful in contact with skin.*

*R22 Harmful if swallowed.*

*R23/25 Toxic by inhalation and if swallowed.*

*R34 Causes burns.*

*R37 Irritating to respiratory system.*

*R41 Risk of serious damage to eyes.*

*R43 May cause sensitisation by skin contact.*

*R48/22 Harmful: danger of serious damage to health by prolonged exposure if swallowed.*

· **Department issuing MSDS: PDE-D**

· **Contact:**

Department PDE-D

Tel.: +49-7195-14-2398

Fax : +49-7195-14-3164

safetydata@karcher.com

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

· 0.011-702.0 / RM 25/9 / 1524