

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

Printing date 08.02.2016

Version number 10

Revision: 21.05.2014

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

· **1.1 Product identifier**

· **Trade name:** **RM 110 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** Scale inhibitor

· **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 PCD-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 Regulation (EC) No 1272/2008**  
The product is not classified according to the CLP regulation.

· **2.2 Label elements**

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

· **Hazard pictograms** Void

· **Signal word** Void

· **Hazard statements** Void

· **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.

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

· **3.2 Chemical characterisation: Mixtures**

· **Description:** Mixture of substances listed below with non-hazardous additions.

· **Dangerous components:** Void

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

|  |      |
|--|------|
| phosphonates, preservation agents (METHYLISOTHIAZOLINONE, BENZISOTHIAZOLINONE) | < 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** No special measures required.

· **After inhalation** Supply fresh air; consult doctor in case of complaints.

· **After skin contact** Rinse with warm water.

· **After eye contact** Rinse opened eye for several minutes under running water.

· **After swallowing**

Rinse out mouth and then drink plenty of water.

If symptoms persist consult doctor.

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

No further relevant information available.

· **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:** No special measures required.

**SECTION 6: Accidental release measures**

· **6.1 Personal precautions, protective equipment and emergency procedures** Not required.

· **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).

· **6.4 Reference to other sections**

No dangerous substances are released.

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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** No special measures required.
- **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:** No special requirements.
- **Information about storage in one common storage facility:** Not required.
- **Further information about storage conditions:** None.
- **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**  
The usual precautionary measures are to be adhered to when handling chemicals.
- **Respiratory protection:** Not necessary if room is well-ventilated.
- **Protection of hands:** Not required.
- **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.
- **Eye protection:** Goggles recommended during refilling.

\*

### **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> | Yellow |

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|   |   |
|---|---|
| · <b>Odour:</b>                                   | Product specific                              |
| · <b>Odour threshold:</b>                         | Not determined.                               |
| · <b>pH-value at 20 °C:</b>                       | 7,1   |
| · <b>pH-value 1 %:</b>                            | 7,2   |
| · <b>Change in condition</b>                      |   |
| <b>Melting point/Melting range:</b>               | 0 °C  |
| <b>Boiling point/Boiling range:</b>               | 100 °C  |
| · <b>Flash point:</b>                             | Not applicable                                |
| · <b>Flammability (solid, gaseous)</b>            | Not applicable.                               |
| · <b>Ignition temperature:</b>                    | not applicable                                |
| · <b>Decomposition temperature:</b>               | Not determined.                               |
| · <b>Self-igniting:</b>                           | Product is not selfigniting.                  |
| · <b>Danger of explosion:</b>                     | Product does not present an explosion hazard. |
| · <b>Explosion limits:</b>                        |   |
| <b>Lower:</b>                                     | Not determined.                               |
| <b>Upper:</b>                                     | Not determined.                               |
| · <b>Oxidising properties</b>                     | no  |
| · <b>Vapour pressure:</b>                         | Not determined.                               |
| · <b>Density at 20 °C:</b>                        | 1,02 g/cm <sup>3</sup>                        |
| · <b>Relative density</b>                         | Not determined.                               |
| · <b>Vapour density</b>                           | Not determined.                               |
| · <b>Evaporation rate</b>                         | Not determined.                               |
| · <b>Solubility in / Miscibility with</b>         |   |
| <b>Water:</b>                                     | Fully miscible                                |
| · <b>Partition coefficient (n-octanol/water):</b> | Not determined.                               |
| · <b>Viscosity:</b>                               |   |
| <b>dynamic:</b>                                   | Not determined.                               |
| <b>kinematic at 20 °C:</b>                        | 3 s (DIN 53211/4)                             |
| · <b>Solvent content:</b>                         |   |
| <b>Organic solvents:</b>                          | 0,0 %   |
| <b>VOC (EC)</b>                                   | 0,00 %  |
| <b>Solids content:</b>                            | 4,1 %   |
| · <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.

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- **10.3 Possibility of hazardous reactions** No dangerous reactions known
- **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

### **SECTION 11: Toxicological information**

- **11.1 Information on toxicological effects**
- **Acute toxicity** Based on available data, the classification criteria are not met.
- **Primary irritant effect:**
- **Skin corrosion/irritation** Based on available data, the classification criteria are not met.
- **Serious eye damage/irritation** Based on available data, the classification criteria are not met.
- **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:** No further relevant information available.
- **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.
- **Additional ecological information:**
- **CSB-value:** 22000 mg/l
- **General notes:**  
Do not allow undiluted product or large quantities of it to reach ground water, water course or sewage system.
- **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**  
Hand over to hazardous waste disposers.  
Small amounts may be diluted with plenty of water and washed away. Dispose of bigger amounts in accordance with Local Authority requirements.

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- **Uncleaned packaging:**
- **Recommendation:** Non contaminated packagings may be recycled.
- **Recommended cleansing agents:** Water, if necessary together with cleaning agents.

**SECTION 14: Transport information**

- |   |  |
|---|--|
| · <b>14.1 UN-Number</b><br>· <b>ADR, ADN, IMDG, IATA</b>                                    | Void   |
| · <b>14.2 UN proper shipping name</b><br>· <b>ADR, ADN, IMDG, IATA</b>                      | Void   |
| · <b>14.3 Transport hazard class(es)</b><br>· <b>ADR, ADN, IMDG, IATA</b><br>· <b>Class</b> | Void   |
| · <b>14.4 Packing group</b><br>· <b>ADR, IMDG, IATA</b>                                     | Void   |
| · <b>14.5 Environmental hazards:</b><br>· <b>Marine pollutant:</b>                          | No   |
| · <b>14.6 Special precautions for user</b>  | Not applicable.                                      |
| · <b>14.7 Transport in bulk according to Annex II of Marpol and the IBC Code</b>            | Not applicable.                                      |
| · <b>Transport/Additional information:</b>  | Not dangerous according to the above specifications. |
| · <b>UN "Model Regulation":</b>   | Void   |

**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.
- **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.*

- **Department issuing MSDS:** PCD-D
- **Contact:**  
Department PCD-D  
Tel.: +49-7195-14-2398  
Fax : +49-7195-14-3164

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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)*

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

*PBT: Persistent, Bioaccumulative and Toxic*

*vPvB: very Persistent and very Bioaccumulative*

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

· 0,011-730,0                      RM110/20                      1,854

EU