

**Safety Data Sheet**  
according to P.U.(A) 310/2013

Printing date 03.03.2023

Version number 3

Revision: 21.02.2023

**1 Identification of the hazardous chemical and of the supplier**

- **Product identifier**
- **Trade name:** Descaling powder RM 511
- **CAS Number:**  
5949-29-1
- **EC number:**  
201-069-1
- **Index number:**  
607-750-00-3
- **Recommended use of the chemical and restrictions on use** No further relevant information available.
- **Application of the substance / the mixture** Delimiting agent
- **Details of the supplier of the safety data sheet**
- **Manufacturer/Supplier:**  
  
**Alfred Kärcher SE & Co. KG**  
Alfred-Kärcher-Str. 28-40  
D - 71364 Winnenden  
Tel.: +49-7195-14-0  
  
**Karcher Cleaning Systems Sdn. Bhd.**  
No. 5 Jalan Perintis U1/52  
Kawasan Perindustrian Temasya Glenmarie  
40150 Shah Alam  
Selangor Darul Ehsan  
Malaysia  
Phone: +60-3-55670510  
  
Internet: [www.karcher.com](http://www.karcher.com)
- **Further information obtainable from:**  
  
Regulatory Affairs  
Tel.: +49-7195-14-0  
[productsafety.management@de.kaercher.com](mailto:productsafety.management@de.kaercher.com)
- **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)

**2 Hazard identification**

- **Classification of the substance or mixture**  
Eye Irrit. 2 H319 Causes serious eye irritation.  
STOT SE 3 H335 May cause respiratory irritation.

(Contd. on page 2)

MY

**Safety Data Sheet**  
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Version number 3

Revision: 21.02.2023

**Trade name: Descaling powder RM 511**

(Contd. of page 1)

- **Label elements**
- **GHS label elements**

The substance is classified and labelled according to the Globally Harmonised System (GHS).

- **Hazard pictograms**



GHS07

- **Signal word** Warning

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

citric acid ·H<sub>2</sub>O

- **Hazard statements**

H319 Causes serious eye irritation.

H335 May cause respiratory irritation.

- **Precautionary statements**

P261 Avoid breathing dust/fume/ gas/mist/vapours/spray.

P280 Wear eye protection / face protection.

P304+P340 IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing.

P305+P351+P338 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.

P405 Store locked up.

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

**3 Composition and information of the ingredients of the hazardous chemical**

- **Chemical characterisation: Substances**

- **CAS No. Description:**

5949-29-1 citric acid ·H<sub>2</sub>O

- **Identification number(s):**

- **EC number:** 201-069-1

- **Index number:** 607-750-00-3

**4 First-aid measures**

- **Description of first aid measures**

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

- **After skin contact** Generally the product does not irritate the skin.

- **After eye contact**

Rinse opened eye for several minutes under running water. If symptoms persist, consult a doctor.

- **After swallowing**

Rinse out mouth and then drink plenty of water.

(Contd. on page 3)

MY

**Safety Data Sheet**  
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Printing date 03.03.2023

Version number 3

Revision: 21.02.2023

**Trade name: Descaling powder RM 511***(Contd. of page 2)*

If symptoms persist consult doctor.

**· Information for doctor****· Most important symptoms and effects, both acute and delayed** No further relevant information available.**· Indication of any immediate medical attention and special treatment needed**

No further relevant information available.

**5 Fire-fighting measures****· Extinguishing media****· Suitable extinguishing agents**CO<sub>2</sub>, powder or water spray. Fight larger fires with water spray or alcohol resistant foam.**· Special hazards arising from the substance or mixture** No further relevant information available.**· Advice for firefighters****· Protective equipment:** No special measures required.**· Additional information**

Collect contaminated fire fighting water separately. It must not enter the sewage system.

**6 Accidental release measures****· Personal precautions, protective equipment and emergency procedures** Not required.**· Environmental precautions:**

Do not allow to enter sewers/ surface or ground water.

Do not allow to penetrate the ground/soil.

**· Methods and material for containment and cleaning up:** Pick up mechanically.**· 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.

**7 Handling and storage****· Handling****· Precautions for safe handling**

Prevent formation of dust.

Avoid contact with eyes and skin.

**· Information about fire - and explosion protection:** No special measures required.*(Contd. on page 4)*

MY

## Safety Data Sheet according to P.U.(A) 310/2013

Printing date 03.03.2023

Version number 3

Revision: 21.02.2023

**Trade name: Descaling powder RM 511**

(Contd. of page 3)

- **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:** Keep away from food, beverages and feed.
- **Further information about storage conditions:** Keep receptacle tightly sealed.
- **Specific end use(s)** No further relevant information available.

### 8 Exposure controls and personal protection

- **Additional information about design of technical facilities:** No further data; see item 7.
- **Control parameters**
- **Ingredients with limit values that require monitoring at the workplace:** Not required.
- **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.  
Avoid contact with the eyes and skin.
- **Respiratory protection:** Not necessary if room is well-ventilated.
- **Protection of hands:** Not required.
- **Material of gloves** Not required.
- **Penetration time of glove material** Not required.
- **Eye protection:**



Tightly sealed goggles (EN 166)

### 9 Physical and chemical properties

- **Information on basic physical and chemical properties**
- **General Information**
- **Appearance:**

Form:	Crystalline powder
Colour:	White
- **Odour:** Product specific
- **Odour threshold:** Not determined.
- **pH-value:** Not determined.
- **Change in condition**

Melting point/freezing point	151-157 °C
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(Contd. on page 5)

## Safety Data Sheet according to P.U.(A) 310/2013

Printing date 03.03.2023

Version number 3

Revision: 21.02.2023

**Trade name: Descaling powder RM 511**

(Contd. of page 4)

<b>Initial boiling point and boiling range</b>	undetermined
· <b>Flash point:</b>	345 °C (Closed Cup)
· <b>Flammability (solid, gas)</b>	Product is not flammable.
· <b>Ignition temperature:</b>	not applicable
· <b>Decomposition temperature:</b>	Not determined.
· <b>Auto-ignition temperature</b>	Not determined.
· <b>Explosive properties:</b>	Product does not present an explosion hazard.
· <b>Explosion limits:</b>	
Lower:	Not determined.
Upper:	Not determined.
· <b>Vapour pressure:</b>	Not applicable.
· <b>Density at 20 °C:</b>	1.542 g/cm <sup>3</sup>
· <b>Bulk density:</b>	850-950 kg/m <sup>3</sup>
· <b>Relative density</b>	Not determined.
· <b>Vapour density</b>	Not applicable.
· <b>Evaporation rate</b>	Not applicable.
· <b>Solubility in / Miscibility with Water at 25 °C:</b>	676 g/l
· <b>Partition coefficient: n-octanol/water</b>	Not determined.
· <b>Viscosity:</b>	
dynamic:	Not applicable.
kinematic:	Not applicable.
Solids content:	100.0 %
· <b>Other information</b>	No further relevant information available.

### 10 Stability and reactivity

- **Reactivity** corresponds to 10.3
- **Chemical stability**
- **Thermal decomposition / conditions to be avoided:**  
No decomposition if used according to specifications.
- **Possibility of hazardous reactions** No dangerous reactions known
- **Conditions to avoid** No further relevant information available.
- **Incompatible materials:** No further relevant information available.

(Contd. on page 6)

MY

## Safety Data Sheet according to P.U.(A) 310/2013

Printing date 03.03.2023

Version number 3

Revision: 21.02.2023

**Trade name: Descaling powder RM 511**

(Contd. of page 5)

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

### 11 Toxicological information

· **Information on toxicological effects**

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

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

**5949-29-1 citric acid ·H<sub>2</sub>O**

Oral	LD50	5400 mg/kg (mouse) (OECD 401)
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· **Primary irritant effect:**

· **Skin corrosion or irritation** Based on available data, the classification criteria are not met.

· **Serious eye damage or eye irritation** Causes serious eye irritation.

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

· **Additional toxicological information:**

· **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.

· **Specific target organ toxicity (STOT) – single exposure** May cause respiratory irritation.

· **Specific target organ toxicity (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.

### 12 Ecological information

· **Toxicity**

· **Aquatic toxicity:**

**5949-29-1 citric acid ·H<sub>2</sub>O**

LC50/96 h	440-760 mg/l (Leuciscus idus) (OECD 203)
LC50/24 h	1535 mg/l (Daphnia magna)
LC50/168 h	425 mg/l (Scenedesmus quadricauda)
LC50/16 h	>10000 mg/l (Pseudomonas putida)
EC50/72 h	120 mg/l (Daphnia magna)

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

· **Behaviour in environmental systems:**

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

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

(Contd. on page 7)

MY

## Safety Data Sheet according to P.U.(A) 310/2013

Printing date 03.03.2023

Version number 3

Revision: 21.02.2023

**Trade name: Descaling powder RM 511**

(Contd. of page 6)

· **Additional ecological information:**

· **General notes:**

Do not allow undiluted product or large quantities of it to reach ground water, water course or sewage system.

· **Results of PBT and vPvB assessment**

· **PBT:** Not applicable.

· **vPvB:** Not applicable.

· **Other adverse effects** No further relevant information available.

### 13 Disposal information

· **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 14*	acids
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· **Uncleaned packaging:**

· **Recommendation:**

Non contaminated packagings may be recycled.

Empty contaminated packagings thoroughly. They may be recycled after thorough and proper cleaning.

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

### 14 Transportation information

· **UN-Number**

· **ADR, ADN, IMDG, IATA** Void

· **UN proper shipping name**

· **ADR, ADN, IMDG, IATA** Void

· **Transport hazard class(es)**

· **ADR, ADN, IMDG, IATA**

· **Class** Void

· **Packing group**

· **ADR, IMDG, IATA** Void

· **Environmental hazards:** Not applicable.

· **Special precautions for user** Not applicable.

(Contd. on page 8)

## Safety Data Sheet according to P.U.(A) 310/2013

Printing date 03.03.2023

Version number 3

Revision: 21.02.2023

**Trade name: Descaling powder RM 511**

(Contd. of page 7)

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|---|-----------------|
| · <b>Transport in bulk according to Annex II of Marpol and the IBC Code</b> | Not applicable. |
| · <b>UN "Model Regulation":</b>   | Void            |

### 15 Regulatory information

- **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.
- **Chemical safety assessment:** A Chemical Safety Assessment has not been carried out.

### 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.

· **Contact:**

Regulatory Affairs  
Tel.: +49-7195-14-0  
productsafety.management@de.kaercher.com

· **Abbreviations and acronyms:**

ADR: Accord relatif au transport international 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  
EINECS: European Inventory of Existing Commercial Chemical Substances  
CAS: Chemical Abstracts Service (division of the American Chemical Society)  
LC50: Lethal concentration, 50 percent  
LD50: Lethal dose, 50 percent  
PBT: Persistent, Bioaccumulative and Toxic  
vPvB: very Persistent and very Bioaccumulative  
Eye Irrit. 2: Serious eye damage or eye irritation – Category 2  
STOT SE 3: Specific target organ toxicity (single exposure) – Category 3

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

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|---------------|---------|-------|
| · 0-011-032-0 | RM511/4 | 2-442 |
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