

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

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KÄRCHER

Printing date 20.09.2019

Version number 7

Revision: 09.04.2018

1 Identification of the hazardous chemical and of the supplier

· **Product identifier**

· **Trade name: RM 99**

· **Recommended use of the chemical and restrictions on use**

No further relevant information available.

· **Application of the substance / the mixture** High pressure cleaner

· **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

Karcher Cleaning Systems Sdn. Bhd.

No. 5 Jalan Perintis U1/52

Seksysen U1

Kawasan Perindustrian Temasya Glenmarie

40150 Shah Alam

Selangor Darul Ehsan

Malaysia

Phone: +60-3-55670510

Fax: +60-3-55670509

· **Further information obtainable from:**

Department PCD-D

Tel.: +49-7195-14-2548

Fax : +49-7195-14-3164

safetydata@karcher.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.

Aquatic Chronic 3 H412 Harmful to aquatic life with long lasting effects.

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· **Label elements**

· **GHS label elements**

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

· **Hazard pictograms**



GHS07

· **Signal word** Warning

· **Hazard statements**

H319 Causes serious eye irritation.

H412 Harmful to aquatic life with long lasting effects.

· **Precautionary statements**

P264 Wash thoroughly after handling.

P273 Avoid release to the environment.

P280 Wear 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.**

P337+P313 **If eye irritation persists: Get medical advice/attention.**

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

· **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.

3 Composition and information of the ingredients of the hazardous chemical

· **Chemical characterisation: Mixtures**

· **Description:** Cleaning agent

· **Dangerous components:**

112-34-5	2-(2-butoxyethoxy)ethanol ⚠ Eye Irrit. 2, H319	1-5%
68439-51-0	Fatty alcohol ethoxylate ⚠ Acute Tox. 4, H302; Eye Irrit. 2, H319; Aquatic Chronic 3, H412	≥2.5-≤5%
67-63-0	isopropanol ⚠ Flam. Liq. 2, H225; ⚠ Eye Irrit. 2, H319; STOT SE 3, H336	1-5%
	Polyamine, anionically modified ⚠ Eye Dam. 1, H318; ⚠ Acute Tox. 4, H332	≥1-≤3%

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95-14-7	benzotriazole ⚠ Aquatic Chronic 2, H411; ⚠ Acute Tox. 4, H302; Eye Irrit. 2, H319	≥1-≤2.5%
2605-79-0	decylidimethyl aminoxide ⚠ Eye Dam. 1, H318; ⚠ Aquatic Acute 1, H400; Aquatic Chronic 2, H411; ⚠ Acute Tox. 4, H302	≥1-≤2.5%

· **Additional information** For the wording of the listed hazard phrases refer to section 16.

4 First-aid measures

- **Description of first aid measures**
- **General information** Involve doctor immediately.
- **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.
- **After swallowing**
Rinse out mouth and then drink plenty of water.
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**
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.
- **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:**
Dilute with plenty of water.
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:**
Absorb with liquid-binding material (sand, diatomite, acid binders, universal binders).

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Ensure adequate ventilation.

· 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

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.

· 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: None.

· 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:

112-34-5 2-(2-butoxyethoxy)ethanol

TLV (USA)	Long-term value: 67.5* mg/m ³ , 10* ppm *Inhalable fraction and vapor
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IOELV (European Union)	Short-term value: 101.2 mg/m ³ , 15 ppm Long-term value: 67.5 mg/m ³ , 10 ppm
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67-63-0 isopropanol

PEL (USA)	Long-term value: 980 mg/m ³ , 400 ppm
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REL (USA)	Short-term value: 1225 mg/m ³ , 500 ppm
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	Long-term value: 980 mg/m ³ , 400 ppm
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TLV (USA)	Short-term value: 984 mg/m ³ , 400 ppm
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	Long-term value: 492 mg/m ³ , 200 ppm
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	BEI
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· DNELs

67-63-0 isopropanol

Oral	DNEL	26 mg/kg*d (consumer)
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<i>Dermal</i>	<i>DNEL</i>	888 mg/kg*d (employee) 319 mg/kg*d (consumer)
<i>Inhalative</i>	<i>DNEL</i>	500 mg/m ³ (employee) 89 mg/m ³ (consumer)

· Ingredients with biological limit values:

67-63-0 isopropanol

<i>BEI (USA)</i>	40 mg/L <i>Medium: urine</i> <i>Time: end of shift at end of workweek</i> <i>Parameter: Acetone (background, nonspecific)</i>
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· Exposure controls

· Personal protective equipment

· General protective and hygienic measures

Wash hands before breaks and at the end of work.

Do not inhale gases / fumes / aerosols.

· 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:

The glove material has to be impermeable and resistant to the product/ the substance/ the preparation.

Due to missing tests no recommendation to the glove material can be given for the product/ the preparation/ the chemical mixture.

Selection of the glove material on consideration of the penetration times, rates of diffusion and the degradation

· 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 of a maximum of 15 minutes gloves made of the following materials are suitable:

Nitrile rubber, NBR

· Not suitable are gloves made of the following materials:

Strong material gloves

Leather gloves

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· **Eye protection:**



Tightly sealed goggles (EN 166)

· **Body protection:** Light weight protective clothing

9 Physical and chemical properties

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

· **General Information**

· **Appearance:**

· Form:	Fluid
· Colour:	Colourless
· Odour:	Characteristic
· Odour threshold:	Not determined.

· pH-value at 20 °C:	9
· pH-value 1 %:	8.5

· **Change in condition**

· Melting point/freezing point	-1 °C
· Initial boiling point and boiling range	100 °C

· Flash point:	62 °C
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· Flammability (solid, gas)	Not applicable.
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· Ignition temperature:	not applicable
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· Decomposition temperature:	Not determined.
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· Auto-ignition temperature	Product is not selfigniting.
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· Explosive properties:	Product does not present an explosion hazard.
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· **Explosion limits:**

· Lower:	Not determined.
· Upper:	Not determined.

· Vapour pressure:	Not determined.
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· Density at 20 °C:	1.006 g/cm ³
· Relative density	Not determined.
· Vapour density	Not determined.
· Evaporation rate	Not determined.

· **Solubility in / Miscibility with**

· Water:	Fully miscible
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· Partition coefficient: n-octanol/water	Not determined.
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· **Viscosity:**

· dynamic:	Not determined.
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kinematic at 20 °C:	3 mm ² /s
· Solvent content:	
Organic solvents:	9.0 %
VOC (EC)	9.00 %
· Other information	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.
- **Hazardous decomposition products:** No dangerous decomposition products known

11 Toxicological information

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

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

112-34-5 2-(2-butoxyethoxy)ethanol		
Dermal	LD50	2,700 mg/kg (can)
Inhalative	LC50	3,384 mg/kg (Rat)
67-63-0 isopropanol		
Dermal	LD50	12,800 mg/kg (can)
		12,800 mg/kg (rabbit)
Inhalative	LC50	5,280 mg/kg (Rat)
95-14-7 benzotriazole		
Oral	LD50	615 mg/kg (mouse)
		560 mg/kg (Rat)
Dermal	LD50	>10,000 mg/kg (rabbit)
5064-31-3 nitrilotriacetate, trisodium salt		
Oral	LD50	1,470 mg/kg (Rat)
Dermal	LD50	>10,000 mg/kg (can)

- **Primary irritant effect:**
- **Serious eye damage or eye irritation** Irritating effect.

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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.

12 Ecological information

· **Toxicity**

· **Aquatic toxicity:**

112-34-5 2-(2-butoxyethoxy)ethanol

LC50/96 h	1,300 mg/l (<i>Lepomis macrochirus</i>)
EC10/16 h	1,170 mg/l (<i>Pseudomonas putida</i>)
EC50/24 h	2,850 mg/l (<i>Daphnia magna</i>) (DIN 38412)
NOEC	>100 mg/l (<i>Desmodesmus subspicatus</i>)

67-63-0 isopropanol

LC50/96 h	9,640 mg/l (<i>Pimephales promelas</i>)
EC50/48 h	13,299 mg/l (<i>Daphnia magna</i>)
EC50/72 h	>1,000 mg/l (<i>Desmodesmus subspicatus</i>)
EC10/18 h	>1,000 mg/l (<i>Pseudomonas putida</i>) (DIN 38412)

95-14-7 benzotriazole

LC50/96 h	25 mg/l (<i>Pimephales promelas</i>)
	25 mg/l (<i>Lepomis macrochirus</i>)
	39 mg/l (<i>Oncorhynchus mykiss</i>)
EC50/48 h	141.6 mg/l (<i>Daphnia magna</i>)
EC50/72 h	91-141 mg/l (<i>Scenedesmus quadricauda</i>)
EC10/18 h	0.97 mg/l (<i>Daphnia magna</i>)

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

· **Other information:** The product is biodegradable.

· **Behaviour in environmental systems:**

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

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

· **Additional ecological information:**

· **COD-value:** 356000 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.

The contained organic complexing agents reach a DOC-elimination grade of 80% (corresponding to No. 406 of Annex "Analytic and measuring methods") and with this meet the tightened demands of Annex 49 of the revised Direction on liquid waste.

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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**

07 06 01*	aqueous washing liquids and mother liquors
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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.

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:**

· **Marine pollutant:** No

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

· **Transport in bulk according to Annex II of**

Marpol and the IBC Code Not applicable.

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· **UN "Model Regulation":** Void

15 Regulatory information

- **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.
- **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.

- **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
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)
DNEL: Derived No-Effect Level (REACH)
LC50: Lethal concentration, 50 percent
LD50: Lethal dose, 50 percent
PBT: Persistent, Bioaccumulative and Toxic
vPvB: very Persistent and very Bioaccumulative
Flam. Liq. 2: Flammable liquids – Category 2
Acute Tox. 4: Acute toxicity - oral – Category 4
Eye Dam. 1: Serious eye damage or eye irritation – Category 1
Eye Irrit. 2: Serious eye damage or eye irritation – Category 2
STOT SE 3: Specific target organ toxicity (single exposure) – Category 3
Aquatic Acute 1: Hazardous to the aquatic environment - acute hazard – Category 1
Aquatic Chronic 2: Hazardous to the aquatic environment - chronic hazard – Category 2
Aquatic Chronic 3: Hazardous to the aquatic environment - chronic hazard – Category 3
- *** Data compared to the previous version altered.**
- 0-011-339-0 RM 99/2-1 1-831

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