KÄRCHER

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

Printing date 22.03.2024 Version number 11 Revision: 10.10.2023

1 Identification of the hazardous chemical and of the supplier

· **Product identifier**

· **Trade name: PressurePro Solar Cleaner RM 99**

· **Recommended use of the chemical and restrictions on use** Restricted to professional users.
· **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
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

· **Further information obtainable from:**

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

· **Label elements**
· **GHS label elements** The product is classified and labelled according to the Globally Harmonised System (GHS).

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· **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 hands 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.

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%
67-63-0	isopropanol Flam. Liq. 2, H225; Eye Irrit. 2, H319; STOT SE 3, H336	1-5%
68439-51-0	Fatty alcohol ethoxylate Acute Tox. 4, H302; Eye Irrit. 2, H319; Aquatic Chronic 3, H412	≥2.5-<5%
	Polyamine, anionically modified Eye Dam. 1, H318; Acute Tox. 4, H332	≥1-<3%
95-14-7	benzotriazole Aquatic Chronic 2, H411; Acute Tox. 4, H302; Eye Irrit. 2, H319	≥1-<2.5%
2605-79-0	decyldimethyl 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**
· **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.

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· **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.

· **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).
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.

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· **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:** Keep receptacle tightly sealed.

· **Specific end use(s)** No further relevant information available.

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8 Exposure controls and personal protection

· **Additional information about design of technical facilities:** No further data; see section 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: 10* ppm *Inhalable fraction and vapor
IOELV (European Union)	Short-term value: 101.2 mg/m³, 15 ppm Long-term value: 67.5 mg/m³, 10 ppm
67-63-0 isopropanol	
PEL (USA)	Long-term value: 980 mg/m³, 400 ppm
REL (USA)	Short-term value: 1225 mg/m³, 500 ppm Long-term value: 980 mg/m³, 400 ppm
TLV (USA)	Short-term value: 400 ppm Long-term value: 200 ppm BEI, A4

· **DNELs**		
67-63-0 isopropanol		
Oral	DNEL	26 mg/kg×d (consumer)
Dermal	DNEL	888 mg/kg×d (employee)
		319 mg/kg×d (consumer)
Inhalative	DNEL	500 mg/m3 (employee)
		89 mg/m3 (consumer)

· **PNECs**	
67-63-0 isopropanol	
PNEC	140.9 mg/l (freshwater)
	140.9 mg/l (marine water)
	140.9 mg/l (STP)
	2251 mg/l (STP)
PNEC sediment	552 mg/kg (freshwater)
	552 mg/kg (marine water)

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PNEC soil	28 mg/kg (soil)

· **Ingredients with biological limit values:**

67-63-0 isopropanol

BEI (USA)	40 mg/L Medium: urine Time: end of shift at end of workweek Parameter: Acetone (background, nonspecific)

· **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:**

Protective gloves.

· **Material of gloves** Butyl rubber, BR
· **Penetration time of glove material**
The exact break trough time has to be found out by the manufacturer of the protective gloves and has to be observed.
· **Eye protection:**

Tightly sealed goggles (EN 166)

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9 Physical and chemical properties

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

Form:	Fluid
Colour:	Colourless
· **Odour:**	Alcohol-like
· **Odour threshold:**	Not determined.
· **pH-value at 20 °C:**	9
· **pH-value 1 %:**	7-9
· **Change in condition**	
Melting point/freezing point	-1 °C
Initial boiling point and boiling range	100 °C

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· **Flash point:**	62 °C (Closed Cup)
· **Flammability (solid, gas)**	Not applicable.
· **Auto-ignition temperature**	not applicable
· **Decomposition temperature:**	Not determined.
· **Auto-ignition temperature**	Product is not selfigniting.
· **Explosive properties:**	Not determined.
· **Explosion limits:**	
Lower:	Not determined.
Upper:	Not determined.
· **Vapour pressure:**	Not determined.
· **Density at 20 °C:**	1.006 g/cm³
· **Relative density**	Not determined.
· **Vapour density**	Not determined.
· **Evaporation rate**	Not determined.
· **Solubility in / Miscibility with**	
Water:	Fully miscible
· **Partition coefficient: n-octanol/water**	Not determined.
· **Viscosity:**	
dynamic:	Not determined.
kinematic:	Not determined.
· **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

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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:**		
112-34-5 2-(2-butoxyethoxy)ethanol		
Oral	LD50	2410 mg/kg (mouse) (OECD 401)
Dermal	LD50	2764 mg/kg (Rabbit)
67-63-0 isopropanol		
Oral	LD50	5840 mg/kg (Rat) (OECD 401)
Dermal	LD50	13900 mg/kg (Rabbit) (OECD 402)
95-14-7 benzotriazole		
Oral	LD50	500 mg/kg (Rat)
2605-79-0 decyldimethyl aminoxide		
Oral	LD50	301-2000 mg/kg (Rat)

· **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 (carcinogenity, 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** Based on available data, the classification criteria are not met.
· **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:**	
112-34-5 2-(2-butoxyethoxy)ethanol	
LC50/96 h	1300 mg/l (Lepomis macrochirus)
EC10/16 h	1170 mg/l (Pseudomonas putida)
EC50/24 h	2850 mg/l (Daphnia magna) (DIN 38412)
NOEC	>100 mg/l (Desmodesmus subspicatus)
67-63-0 isopropanol	
LC50/96 h	9640 mg/l (Pimephales promelas)
EC50/48 h	13299 mg/l (Daphnia magna)
EC50/72 h	>1000 mg/l (Desmodesmus subspicatus)

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EC10/18 h	>1000 mg/l (Pseudomonas putida) (DIN 38412)
95-14-7 benzotriazole	
LC50/96 h	180 mg/l (Danio rerio) (OECD 203)
EC50/48 h	15.8 mg/l (Aquatic invertebrates) (OECD 202)
EC50	1060 mg/l /3 h (STP) (OECD 209)
ErC10/72h	1.18 mg/l (Pseudokirchneriella subcapitata)
2605-79-0 decyldimethyl aminoxide	
LC50/96 h	31.8 mg/l (Brachydanio rerio) (OECD 203)
EC50/48 h	3.43 mg/l (Daphnia magna) (OECD 202)
EC50/72 h	0.16 mg/l (Pseudokirchneriella subcapitata) (OECD 201)

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

· **Degree of elimination:**	
112-34-5 2-(2-butoxyethoxy)ethanol	
OECD 301C	80-90 % (28 d)
OECD 301E	>70 % (28 d)
OECD 302B	100 % (28 d)

· **Behaviour in environmental systems:**

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

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

· **Additional ecological information:**

· **General notes:**

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

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 liqid waste.

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.

Danger to drinking water if even small quantities leak into the ground.

· **Results of PBT and vPvB assessment**

· **PBT:** Not applicable.

· **vPvB:** Not applicable.

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

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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 29*	detergents containing hazardous substances

· **Uncleaned packaging:**
· **Recommendation:**
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, IMDG, IATA**	Void
· **UN proper shipping name** · **ADR, 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.
· **Transport in bulk according to Annex II of Marpol and the IBC Code**	Not applicable.
· **UN "Model Regulation":**	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.

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· **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@karcher.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
ELINCS: European List of Notified Chemical Substances
CAS: Chemical Abstracts Service (division of the American Chemical Society)
DNEL: Derived No-Effect Level (REACH)
PNEC: Predicted No-Effect Concentration (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 99/4 2·707