

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

Printing date 31.03.2023

Version number 7 (replaces version 6)

Revision: 12.08.2021

SECTION 1: Identification of the substance/mixture and of the company/undertaking· **1.1 Product identifier**· **Trade name:** PressurePro Descaling Acid RM 101· **1.2 Relevant identified uses of the substance or mixture and uses advised against**

Restricted to professional users.

· **Application of the substance / the mixture** Descalant· **1.3 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

Kärcher (UK) Ltd.

Kärcher House

Brookhill Way

Banbury

Oxon OX16 3ED

Great Britain

Tel.: +44-1295-752-000

Internet: www.karcher.com· **Further information obtainable from:**

Regulatory Affairs

Tel.: +49-7195-14-0

productsafety.management@de.kaercher.com· **1.4 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)

SECTION 2: Hazards identification· **2.1 Classification of the substance or mixture**· **Classification according to Regulation (EC) No 1272/2008**

Met. Corr. 1 H290 May be corrosive to metals.

Skin Corr. 1B H314 Causes severe skin burns and eye damage.

Eye Dam. 1 H318 Causes serious eye damage.

STOT SE 3 H335 May cause respiratory irritation.

(Contd. on page 2)

GB

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

Printing date 31.03.2023

Version number 7 (replaces version 6)

Revision: 12.08.2021

Trade name: PressurePro Descaling Acid RM 101

(Contd. of page 1)

· 2.2 Label elements

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

The product is classified and labelled according to the GB CLP regulation.

· Hazard pictograms



GHS05 GHS07

· Signal word Danger

· Hazard-determining components of labelling:

hydrochloric acid

· Hazard statements

H290 May be corrosive to metals.

H314 Causes severe skin burns and eye damage.

H335 May cause respiratory irritation.

· Precautionary statements

P280 Wear protective gloves/protective clothing/eye protection/face protection.

P303+P361+P353 IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water [or shower].

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

P310 Immediately call a POISON CENTER/doctor.

P405 Store locked up.

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

· 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 Mixtures

· **Description:** Mixture consisting of the following components.

· Dangerous components:

<p>CAS: 7647-01-0 EINECS: 231-595-7 Index number: 017-002-00-2 Reg.nr.: 01-2119484862-27-xxxx</p>	<p>hydrochloric acid ☠ Met. Corr.1, H290; Skin Corr. 1A, H314; Eye Dam. 1, H318; ⚠ STOT SE 3, H335 Specific concentration limits: Skin Corr. 1A; H314: C ≥ 25 % Skin Corr. 1B; H314: 10 % ≤ C < 25 % Eye Dam. 1; H318: C ≥ 1 % STOT SE 3; H335: C ≥ 10 %</p>	<p>≥20-<25%</p>
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(Contd. on page 3)

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

Printing date 31.03.2023

Version number 7 (replaces version 6)

Revision: 12.08.2021

Trade name: PressurePro Descaling Acid RM 101

(Contd. of page 2)

CAS: 308062-28-4	dodecyldimethylamine oxide	≥0.1-<0.25%
EC number: 931-292-6	☠ Eye Dam. 1, H318; ☠ Aquatic Acute 1, H400; Aquatic Chronic 2, H411; ⚠ Acute Tox. 4, H302; Skin Irrit. 2, H315	
Reg.nr.: 01-2119490061-47-XXXX		

· **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**

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**

Call a doctor immediately.
Immediately wash with water and soap and rinse thoroughly.

· **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.
Seek immediate medical advice.
Do not induce vomiting; call for medical help immediately.
Drink plenty of water and provide fresh air. Call for a doctor immediately.

· **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**

CO₂, powder or water spray. Fight larger fires with water spray or alcohol resistant foam.

· **5.2 Special hazards arising from the substance or mixture** Hydrogen chloride (HCl)

· **5.3 Advice for firefighters**

· **Protective equipment:** No special measures required.

· **Additional information**

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

GB

(Contd. on page 4)

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

Printing date 31.03.2023

Version number 7 (replaces version 6)

Revision: 12.08.2021

Trade name: PressurePro Descaling Acid RM 101*(Contd. of page 3)***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:

Do not allow product to reach sewage system or any water course.

Inform respective authorities in case of seepage into water course or sewage system.

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.

Avoid contact with eyes and skin.

· 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.

· Information about storage in one common storage facility: Keep away from food, beverages and feed.

· Further information about storage conditions:

Store under lock and key and out of the reach of children.

Keep receptacle tightly sealed.

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

GB

(Contd. on page 5)

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

Printing date 31.03.2023

Version number 7 (replaces version 6)

Revision: 12.08.2021

Trade name: PressurePro Descaling Acid RM 101

(Contd. of page 4)

SECTION 8: Exposure controls/personal protection

· 8.1 Control parameters

· **Ingredients with limit values that require monitoring at the workplace:**

7647-01-0 hydrochloric acid

WEL	Short-term value: 8 mg/m ³ , 5 ppm Long-term value: 2 mg/m ³ , 1 ppm (gas and aerosol mists)
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· **DNELs**

308062-28-4 dodecyldimethylamine oxide

Dermal	DNEL	11 mg/kg*d (employee)
Inhalative	DNEL	15.5 mg/m ³ (Employee)

· 8.2 Exposure controls

· **Appropriate engineering controls** No further data; see item 7.

· **Individual protection measures, such as 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:**

Short term filter device:

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.

Filter A/P2.

· **Hand protection**

* chemical resistant protective gloves (EN 374)

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

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** Butyl rubber, BR

· **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:**

* butyl rubber 0,7 mm, 480 min (EN 374)

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

* nitril rubber 0,4 mm, 30 min (EN 374)

(Contd. on page 6)

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

Printing date 31.03.2023

Version number 7 (replaces version 6)

Revision: 12.08.2021

Trade name: PressurePro Descaling Acid RM 101

(Contd. of page 5)

· Eye/face protection



Tightly sealed goggles (EN 166)

· Body protection: Protective work clothing.

SECTION 9: Physical and chemical properties

· 9.1 Information on basic physical and chemical properties

· General Information

· Physical state	Fluid
· Colour:	Light red
· Odour:	Pungent
· Odour threshold:	Not determined.
· Melting point/freezing point:	undetermined
· Boiling point or initial boiling point and boiling range	100 °C
· Flammability	Not applicable.
· Lower and upper explosion limit	
· Lower:	Not determined.
· Upper:	Not determined.
· Flash point:	Not applicable
· Ignition temperature:	not applicable
· Decomposition temperature:	Not determined.
· pH at 20 °C	0
· pH-value 1 %:	0-2
· Viscosity:	
· Kinematic viscosity	Not determined.
· dynamic:	Not determined.
· Solubility	
· Water:	Fully miscible
· Partition coefficient n-octanol/water (log value)	Not determined.
· Vapour pressure:	Not determined.
· Density and/or relative density	
· Density at 20 °C:	1.108 g/cm ³
· Relative density	Not determined.
· Vapour density	Not determined.
· Relative gas density	Not determined.
· Particle characteristics	Not applicable.

· 9.2 Other information

· Appearance:	
· Form:	Fluid
· Important information on protection of health and environment, and on safety.	
· Auto-ignition temperature:	Product is not selfigniting.

(Contd. on page 7)

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

Printing date 31.03.2023

Version number 7 (replaces version 6)

Revision: 12.08.2021

Trade name: PressurePro Descaling Acid RM 101

(Contd. of page 6)

- | | |
|---|---|
| <ul style="list-style-type: none"> · Explosive properties: · Change in condition · Evaporation rate | <p>Product does not present an explosion hazard.</p> <p>Not determined.</p> |
|---|---|

· **Information with regard to physical hazard classes**

- | | |
|--|-----------------------------|
| · Explosives | Void |
| · Flammable gases | Void |
| · Aerosols | Void |
| · Oxidising gases | Void |
| · Gases under pressure | Void |
| · Flammable liquids | Void |
| · Flammable solids | Void |
| · Self-reactive substances and mixtures | Void |
| · Pyrophoric liquids | Void |
| · Pyrophoric solids | Void |
| · Self-heating substances and mixtures | Void |
| · Substances and mixtures, which emit flammable gases in contact with water | Void |
| · Oxidising liquids | Void |
| · Oxidising solids | Void |
| · Organic peroxides | Void |
| · Corrosive to metals | May be corrosive to metals. |
| · Desensitised explosives | Void |

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 and stored according to specifications.
- **10.3 Possibility of hazardous reactions**
Reacts with strong alkali
Forms hydrogen in aqueous solution with metals
Reacts with light alloys to form hydrogen
- **10.4 Conditions to avoid** No further relevant information available.
- **10.5 Incompatible materials:** No further relevant information available.
- **10.6 Hazardous decomposition products:**
Hydrogen chloride (HCl)
Chlorine

GB

(Contd. on page 8)

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

Printing date 31.03.2023

Version number 7 (replaces version 6)

Revision: 12.08.2021

Trade name: PressurePro Descaling Acid RM 101

(Contd. of page 7)

SECTION 11: Toxicological information

· **11.1 Information on hazard classes as defined in Regulation (EC) No 1272/2008**

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

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

308062-28-4 dodecyldimethylamine oxide

Oral	LD50	1064 mg/kg (Rat)
Dermal	LD50	>2000 mg/kg (Rat)

- **Skin corrosion/irritation** Causes severe skin burns and eye damage.
- **Serious eye damage/irritation** Causes serious eye damage.
- **Respiratory or skin sensitisation** Based on available data, the classification criteria are not met.
- **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** May cause respiratory irritation.
- **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.

· **11.2 Information on other hazards**

· **Endocrine disrupting properties**

None of the ingredients is listed.

SECTION 12: Ecological information

· **12.1 Toxicity**

· **Aquatic toxicity:**

7647-01-0 hydrochloric acid

LC50/96 h	3.25 mg/l (Lepomis macrochirus)
EC50/48 h	4.92 mg/l (Daphnia magna)
EC50	0.23 mg/l (STP)

308062-28-4 dodecyldimethylamine oxide

LC50/96 h	2.67 mg/l (fish)
EC50/48 h	3.1 mg/l (Daphnia magna)
EC10/18 h	24 mg/l (Pseudomonas putida)
ErC50/72h	0.143 mg/l (Pseudokirchneriella subcapitata)
NOEC	0.42 mg/l (Pimephales promelas)
	0.067 mg/l (F16)
	0.7 mg/l (Daphnia magna)

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

(Contd. on page 9)

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

Printing date 31.03.2023

Version number 7 (replaces version 6)

Revision: 12.08.2021

Trade name: PressurePro Descaling Acid RM 101

(Contd. of page 8)

- **12.3 Bioaccumulative potential** No further relevant information available.

- **12.4 Mobility in soil** No further relevant information available.

- **12.5 Results of PBT and vPvB assessment**

- **PBT:** Not applicable.

- **vPvB:** Not applicable.

- **12.6 Endocrine disrupting properties**

The product does not contain substances with endocrine disrupting properties.

- **12.7 Other adverse effects**

- **Additional ecological information:**

- **COD-value:** 9.000 mg/l

- **General notes:**

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

The product does not contain organic complexing agents.

Must not reach sewage water or drainage ditch undiluted or unneutralised.

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

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.

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**

20 01 29*	detergents containing hazardous substances
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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.

GB

(Contd. on page 10)

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

Printing date 31.03.2023



Version number 7 (replaces version 6)

Revision: 12.08.2021

Trade name: PressurePro Descaling Acid RM 101

(Contd. of page 9)

SECTION 14: Transport information

<ul style="list-style-type: none"> · 14.1 UN number or ID number · ADR, IMDG, IATA 	<p style="text-align: center;">UN1789</p>
<ul style="list-style-type: none"> · 14.2 UN proper shipping name · ADR · IMDG, IATA 	<p style="text-align: center;">1789 HYDROCHLORIC ACID HYDROCHLORIC ACID</p>
<ul style="list-style-type: none"> · 14.3 Transport hazard class(es) · ADR 	<div style="text-align: center;">  </div> <p style="text-align: center;">8 (C1) Corrosive substances.</p>
<ul style="list-style-type: none"> · Class · Label 	<p style="text-align: center;">8</p>
<ul style="list-style-type: none"> · IMDG, IATA 	<div style="text-align: center;">  </div> <p style="text-align: center;">8 Corrosive substances.</p>
<ul style="list-style-type: none"> · Class · Label 	<p style="text-align: center;">8</p>
<ul style="list-style-type: none"> · 14.4 Packing group · ADR, IMDG, IATA 	<p style="text-align: center;">II</p>
<ul style="list-style-type: none"> · 14.5 Environmental hazards: · Marine pollutant: 	<p style="text-align: center;">No</p>
<ul style="list-style-type: none"> · 14.6 Special precautions for user · Hazard identification number (Kemler code): · EMS Number: · Segregation groups · Stowage Category 	<p style="text-align: center;">Warning: Corrosive substances. 80 F-A,S-B (SGG1) Acids E</p>
<ul style="list-style-type: none"> · 14.7 Maritime transport in bulk according to IMO instruments 	<p style="text-align: center;">Not applicable.</p>
<ul style="list-style-type: none"> · Transport/Additional information: 	<hr style="border-top: 1px dashed black;"/> <ul style="list-style-type: none"> · ADR · Limited quantities (LQ) · Excepted quantities (EQ) <p style="text-align: center;">1L Code: E2 Maximum net quantity per inner packaging: 30 ml Maximum net quantity per outer packaging: 500 ml</p>
<ul style="list-style-type: none"> · Transport category 	<p style="text-align: center;">2</p>

(Contd. on page 11)

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

Printing date 31.03.2023

Version number 7 (replaces version 6)

Revision: 12.08.2021

Trade name: PressurePro Descaling Acid RM 101

(Contd. of page 10)

· Tunnel restriction code	E
· IMDG	1L
· Limited quantities (LQ)	Code: E2
· Excepted quantities (EQ)	Maximum net quantity per inner packaging: 30 ml Maximum net quantity per outer packaging: 500 ml
· UN "Model Regulation":	UN 1789 HYDROCHLORIC ACID, 8, II

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.
- **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.
H302 Harmful if swallowed.
H314 Causes severe skin burns and eye damage.
H315 Causes skin irritation.
H318 Causes serious eye damage.
H335 May cause respiratory irritation.
H400 Very toxic to aquatic life.
H411 Toxic to aquatic life with long lasting effects.

- **Contact:**

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

- **Abbreviations and acronyms:**

RID: Règlement international concernant le transport des marchandises dangereuses par chemin de fer (Regulations Concerning the International Transport of Dangerous Goods by Rail)
ICAO: International Civil Aviation Organisation
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

(Contd. on page 12)

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

Printing date 31.03.2023

Version number 7 (replaces version 6)

Revision: 12.08.2021

Trade name: PressurePro Descaling Acid RM 101*(Contd. of page 11)*

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)
DNEL: Derived No-Effect Level (UK REACH)
LC50: Lethal concentration, 50 percent
LD50: Lethal dose, 50 percent
PBT: Persistent, Bioaccumulative and Toxic
vPvB: very Persistent and very Bioaccumulative
Met. Corr. 1: Corrosive to metals – Category 1
Acute Tox. 4: Acute toxicity – Category 4
Skin Corr. 1A: Skin corrosion/irritation – Category 1A
Skin Corr. 1B: Skin corrosion/irritation – Category 1B
Skin Irrit. 2: Skin corrosion/irritation – Category 2
Eye Dam. 1: Serious eye damage/eye irritation – Category 1
STOT SE 3: Specific target organ toxicity (single exposure) – Category 3
Aquatic Acute 1: Hazardous to the aquatic environment - acute aquatic hazard – Category 1
Aquatic Chronic 2: Hazardous to the aquatic environment - long-term aquatic hazard – Category 2

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

· 0-011-132-0 RM 101/8 2-431