



# Safety Data Sheet

according to Regulation (EC) No 1907/2006

**POWER steamer descaler****1845 0100**

Revision date: 25.07.2023

Product code: 18450100

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

### 1.1. Product identifier

POWER steamer descaler 1845 0100

### 1.2. Relevant identified uses of the substance or mixture and uses advised against

#### Use of the substance/mixture

Descaling solution

#### Uses advised against

No information available.

### 1.3. Details of the supplier of the safety data sheet

Company name: Renfert GmbH  
Street: Untere Giesswiesen 2  
Place: D-78247 Hilzingen  
Telephone: +49 7731 8208-0  
e-mail: info@renfert.com  
Contact person: Frau Andris  
e-mail: silke.andris@renfert.com  
Internet: www.renfert.com

### 1.4. Emergency telephone number:

IRL: 01 809 2566 (Healthcare Professionals) | GB: 0044 151 951 3317 (Health and Safety Executive (HSE) Chemicals)

## SECTION 2: Hazards identification

### 2.1. Classification of the substance or mixture

#### Regulation (EC) No 1272/2008

Acute Tox. 4; H332  
Skin Corr. 1B; H314  
Eye Dam. 1; H318

Full text of hazard statements: see SECTION 16.

### 2.2. Label elements

#### Regulation (EC) No 1272/2008

#### Hazard components for labelling

formic acid

#### Signal word:

Danger

#### Pictograms:



#### Hazard statements

H314 Causes severe skin burns and eye damage.  
H332 Harmful if inhaled.

#### Precautionary statements

P260 Do not breathe mist/vapours/spray.  
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.

#### Special labelling of certain mixtures

EUH071 Corrosive to the respiratory tract.

### 2.3. Other hazards

This product does not contain a substance that has endocrine disrupting properties with respect to humans as no components meets the criteria.

The substances in the mixture do not meet the PBT/vPvB criteria according to REACH, annex XIII.

## SECTION 3: Composition/information on ingredients

### 3.2. Mixtures

#### Chemical characterization

DESCALERS



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**Hazardous components**

CAS No	Chemical name			Quantity
	EC No	Index No	REACH No	
	Classification (Regulation (EC) No 1272/2008)			
64-18-6	formic acid			15 - < 20 %
	200-579-1	607-001-00-0	01-2119491174-37	
	Flam. Liq. 3, Acute Tox. 3, Acute Tox. 4, Skin Corr. 1A, Eye Dam. 1; H226 H331 H302 H314 H318			

Full text of H and EUH statements: see section 16.

**Specific Conc. Limits, M-factors and ATE**

CAS No	EC No	Chemical name	Quantity
	Specific Conc. Limits, M-factors and ATE		
64-18-6	200-579-1	formic acid	15 - < 20 %
	inhalation: LC50 = 7,85 mg/l (vapours); inhalation: ATE = 0,5 mg/l (dusts or mists); oral: LD50 = 730 mg/kg Skin Corr. 1A; H314: >= 90 - 100 Skin Corr. 1B; H314: >= 10 - < 90 Skin Irrit. 2; H315: >= 2 - < 10 Eye Irrit. 2; H319: >= 2 - < 10		

**SECTION 4: First aid measures****4.1. Description of first aid measures****General information**

Take off contaminated clothing and wash it before reuse.

**After inhalation**

Provide fresh air. IF INHALED: Remove person to fresh air and keep comfortable for breathing.

**After contact with skin**IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water [or shower].  
In case of skin irritation, consult a physician.**After contact with eyes**IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.  
If eye irritation persists: Get medical advice/attention.**After ingestion**IF SWALLOWED: rinse mouth. Do NOT induce vomiting.  
Call a physician immediately.**4.2. Most important symptoms and effects, both acute and delayed**

Causes severe skin burns and eye damage.

**4.3. Indication of any immediate medical attention and special treatment needed**Immediate medical treatment required because corrosive injuries that are not treated are hard to cure.  
Treat symptomatically.**SECTION 5: Firefighting measures****5.1. Extinguishing media****Suitable extinguishing media**

The product itself does not burn. Co-ordinate fire-fighting measures to the fire surroundings.

**5.2. Special hazards arising from the substance or mixture**

Thermal decomposition can lead to the escape of irritating gases and vapours.

**5.3. Advice for firefighters**Do not inhale explosion and combustion gases.  
In case of fire: Wear self-contained breathing apparatus.**SECTION 6: Accidental release measures****6.1. Personal precautions, protective equipment and emergency procedures****General advice**Use personal protection equipment.  
Provide adequate ventilation.**6.2. Environmental precautions**

Do not allow to enter into surface water or drains.

**6.3. Methods and material for containment and cleaning up****Other information**

Absorb with liquid-binding material (sand, diatomaceous earth, acid- or universal binding agents). Treat the recovered material as prescribed in the section on waste disposal.

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**6.4. Reference to other sections**

Safe handling: see section 7  
 Personal protection equipment: see section 8  
 Disposal: see section 13

**SECTION 7: Handling and storage**

**7.1. Precautions for safe handling**

**Advice on safe handling**

Avoid contact with skin, eyes and clothes. Handle and open container with care. Do not eat, drink or smoke when using this product. Use only outdoors or in a well-ventilated area.

**Advice on protection against fire and explosion**

No special fire protection measures are necessary.

**Advice on general occupational hygiene**

Remove contaminated, saturated clothing immediately. Avoid contact with skin, eyes and clothes. Wash hands before breaks and after work. Keep away from food, drink and animal feedingstuffs.

**7.2. Conditions for safe storage, including any incompatibilities**

**Requirements for storage rooms and vessels**

Keep only in the original container in a cool, well-ventilated place.  
 Unsuitable container/equipment material: Zinc, Aluminium, Light metal

**Hints on joint storage**

Do not store together with: alkalines

**Further information on storage conditions**

Keep container tightly closed in a cool, well-ventilated place.  
 storage temperature: 5°C - 40°C

**7.3. Specific end use(s)**

Please refer to our internet website for more information. [www.renfert.com](http://www.renfert.com)  
 To avoid risks to human health and the environment, comply with the instructions for use.

**SECTION 8: Exposure controls/personal protection**

**8.1. Control parameters**

**Occupational exposure limits**

CAS No	Substance	ppm	mg/m <sup>3</sup>	fib/cm <sup>3</sup>	Category	Origin
64-18-6	Formic acid	5	9		TWA (8 h)	

**8.2. Exposure controls**



**Appropriate engineering controls**

See section 7. No additional measures necessary.

**Individual protection measures, such as personal protective equipment**

**Eye/face protection**

Wear eye/face protection.

**Hand protection**

When handling with chemical substances, protective gloves must be worn with the CE-label including the four control digits. (EN ISO 374)

Tested protective gloves must be worn

Suitable material: CR (polychloroprene, chloroprene rubber) Butyl caoutchouc (butyl rubber) FKM (fluoro rubber)

Thickness of the glove material: 0,5 mm

Breakthrough time: > 8 Stunden

For special purposes, it is recommended to check the resistance to chemicals of the protective gloves mentioned above together with the supplier of these gloves.

The quality of the protective gloves resistant to chemicals must be chosen as a function of the specific working place concentration and quantity of hazardous substances.

**Respiratory protection**

Provide adequate ventilation.

Respiratory protection necessary at: aerosol or mist formation

**Environmental exposure controls**

Do not allow to enter into surface water or drains.

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**SECTION 9: Physical and chemical properties****9.1. Information on basic physical and chemical properties**

Physical state: Liquid  
 Colour: light red  
 Odour: stinging  
 Odour threshold: not determined

**Test method**

Melting point/freezing point: not determined  
 Boiling point or initial boiling point and boiling range: 100 °C Literaturwert  
 Flammability: not applicable  
 Lower explosion limits: not applicable  
 Upper explosion limits: not applicable  
 Flash point: not applicable  
 Auto-ignition temperature: not determined  
 Decomposition temperature: not determined  
 pH-Value (at 20 °C): > 0,8 - < 1,3  
 Viscosity / kinematic: not determined  
 Water solubility: miscible  
 Partition coefficient n-octanol/water: not determined  
 Vapour pressure: not determined  
 Density (at 20 °C): 1,030 -1,050 g/cm<sup>3</sup>  
 Relative vapour density: not determined

**9.2. Other information****Information with regard to physical hazard classes**

Explosive properties  
 not explosive.

**Further Information**

No further relevant information available.

**SECTION 10: Stability and reactivity****10.1. Reactivity**

No hazardous reaction when handled and stored according to provisions.

**10.2. Chemical stability**

The product is chemically stable under recommended conditions of storage, use and temperature.

**10.3. Possibility of hazardous reactions**

Violent reaction with: Alkali (lye), Oxidizing agent, Peroxides, Amines

**10.4. Conditions to avoid**

Keep away from heat. Protect from sunlight.

**10.5. Incompatible materials**

Violent reaction with: Alkali (lye), Hydrogen peroxide

**10.6. Hazardous decomposition products**

No known hazardous decomposition products.

**SECTION 11: Toxicological information****11.1. Information on hazard classes as defined in Regulation (EC) No 1272/2008****Acute toxicity**

Harmful if inhaled.

**ATEmix calculated**

ATE (inhalation dust/mist) 2,500 mg/l

CAS No	Chemical name					
	Exposure route	Dose	Species	Source	Method	
64-18-6	formic acid					
	oral	LD50 730 mg/kg	Rat	IUCLID	OECD 401	
	inhalation (4 h) vapour	LC50 7,85 mg/l	Rat	IUCLID	OECD 403	
	inhalation dust/mist	ATE 0,5 mg/l				

**Irritation and corrosivity**



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Causes severe skin burns and eye damage.

Causes serious eye damage.

**Sensitising effects**

Based on available data, the classification criteria are not met.

**Carcinogenic/mutagenic/toxic effects for reproduction**

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.

**Practical experience**

Corrosive to the respiratory tract.

**11.2. Information on other hazards****Endocrine disrupting properties**

This product does not contain a substance that has endocrine disrupting properties with respect to humans as no components meets the criteria.

**Further information**

The product has not been tested. The statement is derived from the properties of the single components.

To avoid risks to human health and the environment, comply with the instructions for use.

**SECTION 12: Ecological information****12.1. Toxicity**

Based on available data, the classification criteria are not met.

CAS No	Chemical name					
	Aquatic toxicity	Dose	[h]   [d]	Species	Source	Method
64-18-6	formic acid					
	Acute fish toxicity	LC50	130 mg/l	96 h	Leuciscus idus	IUCLID
	Acute algae toxicity	ErC50	1000 mg/l	72 h	Desmodesmus subspicatus	
	Acute crustacea toxicity	EC50	365 mg/l	48 h	Daphnia magna	IUCLID

**12.2. Persistence and degradability**

Product is acid. The product needs to apply neutralizing agents before draining to wastewater treatment plants.

**12.3. Bioaccumulative potential**

No information available.

**Partition coefficient n-octanol/water**

CAS No	Chemical name	Log Pow
64-18-6	formic acid	-0,54

**12.4. Mobility in soil**

No information available.

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

The substances in the mixture do not meet the PBT/vPvB criteria according to REACH, annex XIII.

**12.6. Endocrine disrupting properties**

This product does not contain a substance that has endocrine disrupting properties with respect to non-target organisms as no components meets the criteria.

**12.7. Other adverse effects**

No information available.

**Further information**

The product has not been tested. The statement is derived from the properties of the single components. Do not allow uncontrolled discharge of product into the environment.

**SECTION 13: Disposal considerations****13.1. Waste treatment methods****Disposal recommendations**

Before intended use: hazardous waste, Dispose of waste according to applicable legislation. The allocation of waste identity numbers/waste descriptions must be carried out according to the EEC, specific to the industry and process.

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After intended use: The product is an acid. Before discharge into sewage plants the product normally needs to be neutralised. Disposable via wastewater, if previously agreed with your local sewage treatment plant.

**Contaminated packaging**

Handle contaminated packages in the same way as the substance itself.

**SECTION 14: Transport information****Land transport (ADR/RID)**

**14.1. UN number or ID number:** UN 3412  
**14.2. UN proper shipping name:** FORMIC ACID mit mind. 10 Masse-%, aber höchstens 85 Masse-% Säure  
**14.3. Transport hazard class(es):** 8  
**14.4. Packing group:** II  
Hazard label: 8

**Marine transport (IMDG)**

**14.1. UN number or ID number:** UN 3412  
**14.2. UN proper shipping name:** FORMIC ACID with not less than 10% but not more than 85% acid by mass  
**14.3. Transport hazard class(es):** 8  
**14.4. Packing group:** II  
Hazard label: 8

**Air transport (ICAO-TI/IATA-DGR)**

**14.1. UN number or ID number:** UN 3412  
**14.2. UN proper shipping name:** FORMIC ACID with not less than 10% but not more than 85% acid by mass  
**14.3. Transport hazard class(es):** 8  
**14.4. Packing group:** II  
Hazard label: 8

**14.5. Environmental hazards**

ENVIRONMENTALLY HAZARDOUS: No

**14.6. Special precautions for user**

Further information: see section 6, 7, 8

**14.7. Maritime transport in bulk according to IMO instruments**

not applicable

**SECTION 15: Regulatory information****15.1. Safety, health and environmental regulations/legislation specific for the substance or mixture****EU regulatory information**

Restrictions on use (REACH, annex XVII):

Entry 3, Entry 40

**National regulatory information**

Employment restrictions:

Observe restrictions to employment for juveniles according to the 'juvenile work protection guideline' (94/33/EC). Observe employment restrictions under the Maternity Protection Directive (92/85/EEC) for expectant or nursing mothers.

Water hazard class (D):

1 - slightly hazardous to water

**Additional information**

Regulation (EC) No. 1005/2009 on substances that lead to the depletion of the ozone layer: not applicable  
REGULATION (EU) 2019/1021 OF THE EUROPEAN PARLIAMENT AND OF THE COUNCIL on persistent organic pollutants: not applicable



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Regulation (EU) No. 649/2012 of the European parliament and of the council concerning the export and import of dangerous chemicals: not applicable

## SECTION 16: Other information

### Changes

Abs. 2, 9, 10, 11, 16 \* Data changed compared with the previous version.

### Abbreviations and acronyms

PBT: persistent and bioaccumulative and toxic

vPvB: very persistent, very bioaccumulative

CAS: Chemical Abstracts Service (division of the American Chemical Society)

ATE: Acute Toxicity Estimate

LD50: lethal dose, 50%

LC50: lethal concentration, 50%

ADR: Accord européen relatif au transport international des marchandises Dangereuses par Route (European Agreement concerning the International Carriage of Dangerous Goods by Road)

RID: Règlement concernant le transport international ferroviaire de marchandises Dangereuses (Regulations Concerning the International Transport of Dangerous Goods by Rail)

IMDG: International Maritime Code for Dangerous Goods

ICAO: International Civil Aviation Organization

MARPOL: International Convention for the Prevention of Marine Pollution from Ships

VOC: volatile organic compound(s)

### Classification for mixtures and used evaluation method according to Regulation (EC) No 1272/2008 [CLP]

Classification	Classification procedure
Acute Tox. 4; H332	Calculation method
Skin Corr. 1B; H314	Calculation method
Eye Dam. 1; H318	Calculation method

### Relevant H and EUH statements (number and full text)

H226	Flammable liquid and vapour.
H302	Harmful if swallowed.
H314	Causes severe skin burns and eye damage.
H318	Causes serious eye damage.
H331	Toxic if inhaled.
H332	Harmful if inhaled.
EUH071	Corrosive to the respiratory tract.

### Further Information

The above information describes exclusively the safety requirements of the product and is based on our present-day knowledge. The information is intended to give you advice about the safe handling of the product named in this safety data sheet, for storage, processing, transport and disposal. The information cannot be transferred to other products. In the case of mixing the product with other products or in the case of processing, the information on this safety data sheet is not necessarily valid for the new made-up material. Restricted to professional users.

*(The data for the hazardous ingredients were taken respectively from the last version of the sub-contractor's safety data sheet.)*