



# Safety Data Sheet

according to 29 CFR 1910.1200(g)

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

Revision date: 07/25/2023

Product code: 18450100\_USA

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## 1. Identification

### Product identifier

POWER steamer descaler 1845 0100

### Recommended use of the chemical and restrictions on use

#### Use of the substance/mixture

Descaling solution

#### Uses advised against

No information available.

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

#### Manufacturer

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

#### Supplier

Company name: Renfert USA  
Street: 3718 Illinois Avenue  
Place: USA-60174 St. Charles IL  
Telephone: (001) 800336-7422  
e-mail: Bob@RenfertUSA.com  
Contact person: Charlie Hagy Telephone: +1 (630) 5497380  
e-mail: Charlie@RenfertUSA.com  
Internet: www.renfert.com

### Emergency phone number:

USA: 800-222-1222 (National Poison Control number) | CA: British Columbia:  
800-567-8911 or 604-682-5050 Alberta: 1-800-332-1414 or 944-1414 Saskatchewan:  
1-866-454-1212 Manitoba: 1-855-776-4766 Ontario: 1-800-268-9017 Quebec:  
1-800-463-5060 New Brunswick: 911 New Foundland: 1-866-727-1110 Northwest  
Territories: 1-800-332-1414 Nova Scotia: 1-800-565-8161

## 2. Hazard(s) identification

### Classification of the chemical

#### 29 CFR Part 1910.1200

Acute toxicity: Acute Tox. 4 (inhalation)  
Skin corrosion/irritation: Skin Corr. 1B  
Serious eye damage/eye irritation: Eye Dam. 1

### Label elements

#### 29 CFR Part 1910.1200

Signal word: Danger

Pictograms:



#### Hazard statements

Causes severe skin burns and eye damage  
Harmful if inhaled

#### Precautionary statements

Do not breathe mist/vapors/spray  
Wear protective gloves/protective clothing/eye protection/face protection.  
If on skin (or hair): Take off immediately all contaminated clothing. Rinse skin with water/shower.  
If in eyes: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.  
Immediately call a poison center/doctor.

### Hazards not otherwise classified

Corrosive to the respiratory tract.  
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.



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### 3. Composition/information on ingredients

#### Mixtures

Chemical characterization  
DESCALERS

#### Hazardous components

CAS No	Components	Quantity
64-18-6	formic acid	15 - < 20 %

### 4. First-aid measures

#### 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.

#### Most important symptoms and effects, both acute and delayed

Causes severe skin burns and eye damage.

#### 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.

### 5. Fire-fighting measures

#### Extinguishing media

##### Suitable extinguishing media

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

#### Specific hazards arising from the chemical

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

#### Special protective equipment and precautions for fire-fighters

Do not inhale explosion and combustion gases.  
In case of fire: Wear self-contained breathing apparatus.

### 6. Accidental release measures

#### Personal precautions, protective equipment and emergency procedures

##### General advice

Use personal protection equipment.  
Provide adequate ventilation.

#### Environmental precautions

Do not allow to enter into surface water or drains.

#### 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.

#### Reference to other sections

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

### 7. Handling and storage

#### Precautions for safe handling

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**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.

**Further information on handling**

Personal protection equipment (PPE): see section 8

**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

**8. Exposure controls/personal protection****Control parameters****Exposure limits**

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

**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.

**9. Physical and chemical properties****Information on basic physical and chemical properties**

Physical state:	Liquid
Color:	light red
Odor:	stinging

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	<b>Test method</b>
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
Vapor pressure:	not determined
Density (at 20 °C):	1,030 - 1,050 g/cm <sup>3</sup>
Relative vapour density:	not determined

**Other information****Information with regard to physical hazard classes**Explosive properties  
not explosive.**Further Information**

No further relevant information available.

**10. Stability and reactivity****Reactivity**

No hazardous reaction when handled and stored according to provisions.

**Chemical stability**

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

**Possibility of hazardous reactions**

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

**Conditions to avoid**

Keep away from heat. Protect from sunlight.

**Incompatible materials**

Violent reaction with: Alkali (lye), Hydrogen peroxide

**Hazardous decomposition products**

No known hazardous decomposition products.

**11. Toxicological information****Information on toxicological effects****Acute toxicity**

Harmful if inhaled

**ATEmix calculated**

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

CAS No	Components				
	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**

Causes severe skin burns and eye damage

Causes serious eye damage

**Sensitizing 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.

**Specific target organ toxicity (STOT) - single exposure**

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



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**Specific target organ toxicity (STOT) - repeated exposure**

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

Carcinogenicity (OSHA): No ingredient of this mixture is listed.

Carcinogenicity (IARC): No ingredient of this mixture is listed.

Carcinogenicity (NTP): No ingredient of this mixture is listed.

**Aspiration hazard**

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

**Practical experience**

Corrosive to the respiratory tract.

**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.

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**12. Ecological information****Ecotoxicity**

There are no data available on the mixture itself.

**Persistence and degradability**

There are no data available on the mixture itself.

**Bioaccumulative potential**

No information available.

**Mobility in soil**

No information available.

**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.

**Other adverse effects**

The product is an acid. Before discharge into sewage plants the product normally needs to be neutralised.

**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.

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**13. Disposal considerations****Waste treatment methods****Disposal recommendations**

Before intended use: hazardous waste, Dispose of waste according to applicable legislation.

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.

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**14. Transport information****U.S. DOT 49 CFR 172.101****UN number or ID number:**

UN 3412

**Proper shipping name:**

FORMIC ACID

**Transport hazard class(es):**

8

**Packing group:**

II

**Hazard label:**

8



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**Marine transport (IMDG)**

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

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

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

**Environmental hazards**

ENVIRONMENTALLY HAZARDOUS: No

**Special precautions for user**

Further information: see section 6, 7, 8

**Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code**

not applicable

**15. Regulatory information****U.S. Regulations****National regulatory information**

SARA Section 304 CERCLA:

Formic acid (64-18-6): Reportable quantity = 5,000 (2270) lbs. (kg)

SARA Section 311/312 Hazards:

Formic acid (64-18-6): Fire hazard, Immediate (acute) health hazard

SARA Section 313 Toxic release inventory:

Formic acid (64-18-6): De minimis limit = 1.0 %, Reportable threshold = Standard

**State Regulations****Safe Drinking Water and Toxic Enforcement Act of 1986 (Proposition 65, State of California)**

This product can not expose you to chemicals known to the State of California to cause cancer, birth defects or other reproductive harm.

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

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

**16. Other information****Hazardous Materials Information Label (HMIS)**

Health: 3  
Flammability: 0  
Physical Hazard: 1  
Personal Protection: B

**Changes**

Revision date: 07/25/2023

Revision No: 1,2

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

**Abbreviations and acronyms**

PBT: persistent and bioaccumulative and toxic

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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)

**Other data**

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.

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