



Safety Data Sheet

according to 29 CFR 1910.1200(g)

POWER steamer descaler**1845 0100**

Revision date: 03/24/2022

Product code: 18450100_USA

Page 1 of 7

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

Telefax: +49 7731 8208-70

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
e-mail: Charlie@RenfertUSA.com
Internet: www.renfert.com

Telephone: +1 (630) 5497380

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

3. Composition/information on ingredients

Mixtures



Safety Data Sheet

according to 29 CFR 1910.1200(g)

POWER steamer descaler**1845 0100**

Revision date: 03/24/2022

Product code: 18450100_USA

Page 2 of 7

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

Advice on safe handling

Avoid contact with eyes and skin. 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.

Safety Data Sheet

according to 29 CFR 1910.1200(g)

POWER steamer descaler

1845 0100

Revision date: 03/24/2022

Product code: 18450100_USA

Page 3 of 7

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 ³	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

Test method

Changes in the physical state

Melting point/freezing point: not determined

**Safety Data Sheet**

according to 29 CFR 1910.1200(g)

POWER steamer descaler**1845 0100**

Revision date: 03/24/2022

Product code: 18450100_USA

Page 4 of 7

Boiling point or initial boiling point and boiling range: 100 °C Literaturwert

Flash point: > 76 °C

Flammability

Solid/liquid: not applicable

Gas: not applicable

Explosive properties

not explosive.

Lower explosion limits: not applicable

Upper explosion limits: not applicable

Auto-ignition temperature: not determined

Self-ignition temperature

Solid: not determined

Gas: not determined

Decomposition temperature: not determined

pH-Value (at 20 °C): 1 DIN 19261

Viscosity / dynamic: not determined

Viscosity / kinematic: not determined

Water solubility: miscible

Solubility in other solvents

not determined

Partition coefficient n-octanol/water: not determined

Vapor pressure: not determined

Density (at 20 °C): 1,030 - 1,050 g/cm³

Relative vapour density: not determined

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

Sustaining combustion: Not sustaining combustion

Oxidizing properties

Not oxidising.

Other safety characteristics

Evaporation rate: not determined

Further Information

No data 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)

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

**Safety Data Sheet**

according to 29 CFR 1910.1200(g)

POWER steamer descaler**1845 0100**

Revision date: 03/24/2022

Product code: 18450100_USA

Page 5 of 7

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.

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**

No information available.

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.

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.

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.

14. Transport information

**Safety Data Sheet**

according to 29 CFR 1910.1200(g)

POWER steamer descaler**1845 0100**

Revision date: 03/24/2022

Product code: 18450100_USA

Page 6 of 7

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

**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 OF THE EUROPEAN PARLIAMENT AND OF THE COUNCIL on substances that deplete 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 hazardous chemicals: not applicable

**Safety Data Sheet**

according to 29 CFR 1910.1200(g)

POWER steamer descaler**1845 0100**

Revision date: 03/24/2022

Product code: 18450100_USA

Page 7 of 7

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

Health:	3
Flammability:	0
Physical Hazard:	1
Personal Protection:	B
Revision date:	03/24/2022
Revision No:	1,1

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)

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.

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