

## 1 Identification

- **Product identifier:**
- **Trade name:** Descaler
- **Article number:** 141.811
- **Application of the substance / the preparation:** Cleaning material/ Detergent
- **Details of the supplier of the safety data sheet:**
- **Manufacturer/Supplier:**  
Schulz & Sohn GmbH  
Chemie-Erzeugnisse  
Hoeheweg 327  
D-40231 Duesseldorf  
sida@schulzchemie.com
- **Distributed by:**  
Thermoplan AG  
Thermoplan-Platz 1  
CH-6353 Weggis  
Tel.: +41 41 3921200  
thermoplan@thermoplan.ch
- **Information department:** Product safety department
- **Emergency telephone number:**

POISON CONTROL  
National Capital Poison Center  
Tel.: 1-800-222-1222

## 2 Hazard(s) identification

- **Classification of the substance or mixture:**  
Skin Irritation 2 H315 Causes skin irritation.  
Eye Damage 1 H318 Causes serious eye damage.

- **Label elements:**
- **GHS label elements**  
The product is classified and labeled according to the Globally Harmonized System (GHS).
- **Hazard pictograms:**



GHS05

- **Signal word:** Danger
- **Hazard-determining components of labeling:**  
Lactic acid
- **Hazard statements:**  
Causes skin irritation.  
Causes serious eye damage.
- **Precautionary statements:**  
Wear protective gloves / eye protection.  
If on skin: Wash with plenty of water.  
If in eyes: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.

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- **Classification system:**
- **NFPA ratings (scale 0 - 4):**



- **HMIS-ratings (scale 0 - 4):**



- **Other hazards:**
- **Results of PBT and vPvB assessment:**
- **PBT:** Not applicable.
- **vPvB:** Not applicable.

## 3 Composition/information on ingredients

- **Chemical characterization: Mixtures**
- **Description:** Mixture of the substances listed below with nonhazardous additions.

· **Dangerous components:**

CAS: 50-21-5 EINECS: 200-018-0	Lactic acid Eye Damage 1, H318; Skin Irritation 2, H315	5-<15%
CAS: 75-75-2 EINECS: 200-898-6	methanesulphonic acid Acute Toxicity - Dermal 3, H311; Skin Corrosion 1B, H314; Acute Toxicity - Oral 4, H302	<1%

## 4 First-aid measures

- **Description of first aid measures:**
- **After inhalation:** Supply fresh air; consult doctor in case of complaints.
- **After skin contact:** Immediately rinse with water.
- **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.
- **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:** Use fire fighting measures that suit the environment.
- **Special hazards arising from the substance or mixture:** No further relevant information available.
- **Advice for firefighters:**
- **Protective equipment:** Wear self-contained respiratory protective device.

## 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.
- **Methods and material for containment and cleaning up:**  
Absorb with liquid-binding material (sand, diatomite, acid binders, universal binders, sawdust).

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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.

· **Protective Action Criteria for Chemicals**

· **PAC-1:**

75-75-2	methanesulphonic acid	0.99 mg/m <sup>3</sup>
34590-94-8	Dipropylene glycol monomethyl ether	150 ppm
547-58-0	sodium 4-(4-dimethylaminophenylazo)benzenesulphonate	0.18 mg/m <sup>3</sup>

· **PAC-2:**

75-75-2	methanesulphonic acid	11 mg/m <sup>3</sup>
34590-94-8	Dipropylene glycol monomethyl ether	1700 ppm
547-58-0	sodium 4-(4-dimethylaminophenylazo)benzenesulphonate	2 mg/m <sup>3</sup>

· **PAC-3:**

75-75-2	methanesulphonic acid	65 mg/m <sup>3</sup>
34590-94-8	Dipropylene glycol monomethyl ether	9900 ppm
547-58-0	sodium 4-(4-dimethylaminophenylazo)benzenesulphonate	12 mg/m <sup>3</sup>

## 7 Handling and storage

· **Handling:**

· **Precautions for safe handling:** The usual precautions when handling chemicals should be taken.

· **Information about protection against explosions and fires:** No special measures required.

· **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:** Not required.

· **Further information about storage conditions:** None.

· **Storage class:** 12

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

## 8 Exposure controls/personal protection

· **Additional information about design of technical systems:** No further data; see item 7.

· **Control parameters:**

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

The product does not contain any relevant quantities of materials with critical values that have to be monitored at the workplace.

· **Additional information:** The lists that were valid during the creation were used as basis.

· **Exposure controls:**

· **Personal protective equipment:**

· **General protective and hygienic measures:**

Immediately remove all soiled and contaminated clothing.

Wash hands before breaks and at the end of work.

Avoid contact with the eyes.

· **Breathing equipment:**

In case of brief exposure or low pollution use respiratory filter device. In case of intensive or longer exposure use respiratory protective device that is independent of circulating air.

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· **Protection of hands:**



Protective gloves!

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

· **Material of gloves:**

Recommendation:

uvex u-chem 3000 (DIN EN 374)

Material: Nitrile rubber, NBR

Thickness of the material: 0,5 mm

Value for the permeation: > 480 min (Level 6)

Recommendation:

uvex u-fit strong N2000 (DIN EN 374)

Material: Nitrile rubber, NBR

Thickness of the material: 0,2 mm

Value for the permeation: > 480 min (Level 6)

· **Penetration time of glove material:**

The determined penetration times according to EN 16523-1:2015 are not performed under practical conditions. Therefore a maximum wearing time, which corresponds to 50% of the penetration time, is recommended.

· **Eye protection:**



Tightly sealed goggles!

## 9 Physical and chemical properties

· <b>Information on basic physical and chemical properties:</b>	
· <b>General Information:</b>	
· <b>Appearance:</b>	
<b>Form:</b>	Fluid
<b>Color:</b>	Red
· <b>Odor:</b>	Characteristic
· <b>Odor threshold:</b>	Not determined.
· <b>pH-value at 20 °C (68 °F):</b>	3.13
· <b>Change in condition:</b>	
<b>Melting point/Melting range:</b>	Undetermined.
<b>Boiling point/Boiling range:</b>	Undetermined.
· <b>Flash point:</b>	Not applicable.
· <b>Flammability (solid, gaseous):</b>	Not applicable.
· <b>Decomposition temperature:</b>	Not determined.
· <b>Auto igniting:</b>	Product is not selfigniting.
· <b>Danger of explosion:</b>	Product does not present an explosion hazard.
· <b>Explosion limits:</b>	
<b>Lower:</b>	Not determined.
<b>Upper:</b>	Not determined.
· <b>Vapor pressure:</b>	Not determined.
· <b>Density at 20 °C (68 °F):</b>	1.031 g/cm <sup>3</sup> (8.604 lbs/gal)

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· <b>Relative density:</b>	Not determined.
· <b>Vapour density:</b>	Not determined.
· <b>Evaporation rate:</b>	Not determined.
· <b>Solubility in / Miscibility with:</b>	
<b>Water:</b>	Fully miscible.
· <b>Partition coefficient (n-octanol/water):</b>	Not determined.
· <b>Viscosity:</b>	
<b>Dynamic:</b>	Not determined.
<b>Kinematic:</b>	Not determined.
· <b>Solvent content:</b>	
<b>Organic solvents:</b>	0.0 %
<b>Water:</b>	86.1 %
<b>VOC content:</b>	0.00 %
<b>Solids content:</b>	0.6 %
· <b>Other information:</b>	No further relevant information available.

## 10 Stability and reactivity

- **Reactivity:** No further relevant information available.
- **Chemical stability:**
- **Thermal decomposition / conditions to be avoided:**  
No decomposition if used according to specifications.
- **Possibility of hazardous reactions:** Reacts with alkali (lyes).
- **Conditions to avoid:** No further relevant information available.
- **Incompatible materials:** No further relevant information available.
- **Hazardous decomposition products:** No dangerous decomposition products known.

## 11 Toxicological information

- **Information on toxicological effects:**
- **Acute toxicity:**
- **Primary irritant effect:**
- **on the skin:** Irritating to skin
- **on the eye:** Strong irritant with the danger of severe eye injury.
- **Additional toxicological information:**  
The product shows the following dangers according to internally approved calculation methods for preparations:  
Irritant
- **Carcinogenic categories:**

· <b>IARC (International Agency for Research on Cancer):</b>
None of the ingredients is listed.
· <b>NTP (National Toxicology Program):</b>
None of the ingredients is listed.
· <b>OSHA-Ca (Occupational Safety &amp; Health Administration)</b>
None of the ingredients is listed.

## 12 Ecological information

- **Toxicity:**
- **Aquatic toxicity:** No further relevant information available.
- **Persistence and degradability:** No further relevant information available.

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- **Behavior in environmental systems:**
- **Bioaccumulative potential:** No further relevant information available.
- **Mobility in soil:** No further relevant information available.
- **Additional ecological information:**
- **General notes:**  
Water hazard class 1 (Self-assessment): slightly hazardous for water  
Do not allow undiluted product or large quantities of it to reach ground water, water course or sewage system.
- **Results of PBT and vPvB assessment:**
- **PBT:** Not applicable.
- **vPvB:** Not applicable.
- **Other adverse effects:** No further relevant information available.

### 13 Disposal considerations

- **Waste treatment methods:**
- **Recommendation:**  
Must not be disposed of together with household garbage. Do not allow product to reach sewage system.
- **Uncleaned packagings:**
- **Recommendation:** Disposal must be made according to official regulations.
- **Recommended cleansing agent:** Water, if necessary with cleansing agents.

### 14 Transport information

· <b>UN-Number</b> · DOT, ADR, IMDG, IATA	Void
· <b>UN proper shipping name</b> · DOT, ADR, IMDG, IATA	Void
· <b>Transport hazard class(es)</b> · DOT, ADR, ADN, IMDG, IATA · <b>Class</b>	Void
· <b>Packing group</b> · DOT, ADR, IMDG, IATA	Void
· <b>Environmental hazards:</b>	Not applicable.
· <b>Special precautions for user</b>	Not applicable.
· <b>Transport in bulk according to Annex II of MARPOL73/78 and the IBC Code</b>	Not applicable.
· <b>UN "Model Regulation":</b>	Void

### 15 Regulatory information

- **Safety, health and environmental regulations/legislation specific for the substance or mixture:**  
No further relevant information available.
- **Sara:**

· <b>Section 355 (extremely hazardous substances):</b>	None of the ingredients is listed.	
· <b>Section 313 (Specific toxic chemical listings):</b>	None of the ingredients is listed.	
· <b>TSCA (Toxic Substances Control Act):</b>		
7732-18-5	water	ACTIVE

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50-21-5	Lactic acid	ACTIVE
75-75-2	methanesulphonic acid	ACTIVE
34590-94-8	Dipropylene glycol monomethyl ether	ACTIVE
109-46-6	1,3-dibutyl-2-thiourea	ACTIVE
547-58-0	sodium 4-(4-dimethylaminophenylazo)benzenesulphonate	ACTIVE

· **Hazardous Air Pollutants**

None of the ingredients is listed.

· **Proposition 65:**

· **Chemicals known to cause cancer:**

None of the ingredients is listed.

· **Chemicals known to cause reproductive toxicity for females:**

None of the ingredients is listed.

· **Chemicals known to cause reproductive toxicity for males:**

None of the ingredients is listed.

· **Chemicals known to cause developmental toxicity:**

None of the ingredients is listed.

· **Carcinogenic categories:**

· **EPA (Environmental Protection Agency):**

None of the ingredients is listed.

· **TLV (Threshold Limit Value established by ACGIH):**

None of the ingredients is listed.

· **NIOSH-Ca (National Institute for Occupational Safety and Health):**

None of the ingredients is listed.

· **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.

· **Relevant phrases:**

- H302 Harmful if swallowed.
- H311 Toxic in contact with skin.
- H314 Causes severe skin burns and eye damage.
- H315 Causes skin irritation.
- H318 Causes serious eye damage.

· **Department issuing SDS:** Product safety department

· **Contact:** Security Department

· **Date of preparation / last revision** 03/23/2022 / -

· **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  
DOT: US Department of Transportation  
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)  
NFPA: National Fire Protection Association (USA)  
HMIS: Hazardous Materials Identification System (USA)  
VOC: Volatile Organic Compounds (USA, EU)  
PBT: Persistent, Bioaccumulative and Toxic  
vPvB: very Persistent and very Bioaccumulative  
NIOSH: National Institute for Occupational Safety  
OSHA: Occupational Safety & Health

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TLV: Threshold Limit Value

PEL: Permissible Exposure Limit

REL: Recommended Exposure Limit

Acute Toxicity - Oral 4: Acute toxicity – Category 4

Acute Toxicity - Dermal 3: Acute toxicity – Category 3

Skin Corrosion 1B: Skin corrosion/irritation – Category 1B

Skin Irritation 2: Skin corrosion/irritation – Category 2

Eye Damage 1: Serious eye damage/eye irritation – Category 1

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