

# Safety Data Sheet

[In accordance with the criteria of Regulation No 1907/2006 (REACH) as amended]

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

### 1.1 Product identifier

**SARO Spülmaschinenreiniger PRO 100 (Dishwasher Detergent)**  
**Article N°: 408-2000**

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

Relevant identified uses: product to cleaning dishes in dishwashers. For professional use.

Uses advised against: not determined.

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

Manufacturer: **SARO Gastro - Products GmbH**

Address: Sandbahn 6; 46446 Emmerich; Germany

Telephone/Fax number: +49-2822-9258-0

E-mail address for a competent person responsible for sds: info@saro.de

### 1.4 Emergency telephone number

112 or +49 (0) 2822-9258-0 (direct phone number for the manufacturer).

## Section 2: Hazards identification

### 2.1 Classification of the substance or mixture

**Met. Corr. 1 H290, Skin Corr. 1A H314**

May be corrosive to metals. Causes severe skin burns and eye damage.

### 2.2 Label elements

Hazard pictograms and signal words



**DANGER**

Names of hazardous substances placed on the label

Contains: sodium hydroxide

Hazard statements

H290 May be corrosive to metals.

H314 Causes severe skin burns and eye damage.

Precautionary statements

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

P301+P330+P331 IF SWALLOWED: rinse mouth. Do NOT induce vomiting.

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

### 2.3 Other hazards

The components of this mixture do not meet the criteria for PBT or vPvB in accordance with Annex XIII of REACH.

## Section 3: Composition/information on ingredients

### 3.1 Substances

Not applicable.

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## 3.2 Mixtures

### sodium hydroxide

Concentration range: 20-30%  
 CAS number: 1310-73-2  
 EC number: 215-185-5  
 Index number: 011-002-00-6  
 Registration number: 01-2119457892-27-XXXX  
 Classification: Skin Corr. 1A H314, Met. Corr. 1 H290

### sodium metasilicate pentahydrate

Concentration range: 1-5%  
 CAS number: 10213-79-3  
 EC number: 229-912-9  
 Index number: -  
 Registration number: 01-2119449811-37-XXXX  
 Classification: Skin Corr. 1B H314, STOT SE 3 H335, Met. Corr. 1 H290

### tetrasodium ethylenediaminetetraacetate

Concentration range: ≤ 2%  
 CAS number: 64-02-8  
 EC number: 200-573-9  
 Index number: 607-428-00-2  
 Registration number: -  
 Classification: Acute Tox. 4 H302, Eye Dam. 1 H318  
 Components in accordance with Regulation No 648/2004/EC on Detergents :  
 EDTA and salts thereof < 5%  
 Full text of each relevant H phrase is given in section 16 of SDS.

## Section 4: First aid measures

### 4.1 Description of first aid measures

Skin contact: take off contaminated clothing and shoes. Wash the contaminated skin with plenty of water. Consult a doctor immediately. Apply sterile dressing.

Eye contact: consult a doctor immediately. Remove contact lenses. Wash the contaminated eyes with plenty of water for 10-15 minutes with eyelids wide open, rinse with water. Avoid powerful water stream – risk of cornea damage. Protect non-irritated eye. Apply a sterile dressing.

Ingestion: Seek medical advice immediately, show container or label. Rinse with water. Do not induce vomiting! Never give anything by mouth to an unconscious person.

Inhalation: move the victim to fresh air. Keep victim warm and calm. Consult a doctor if disturbing symptoms appear.

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

Skin contact: redness, pain, burning sensation, chronic wounds, necrosis.

Eye contact: redness, tearing, burning sensation, risk of eye damage.

Ingestion: mouth, throat and esophagus burns, risk of esophagus and stomach perforation.

Inhalation: respiratory tract irritation.

### 4.3 Indication of any immediate medical attention and special treatment needed

Physician makes a decision regarding further medical treatment after thoroughly examination of the injured.

## Section 5: Firefighting measures

### 5.1 Extinguishing media

Suitable extinguishing media: adapt the extinguishing media to surrounding materials.

Unsuitable extinguishing media: water jet – risk of the propagation of the flame.

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## 5.2 Special hazards arising from the substance or mixture

During the fire, the product may produce toxic fumes and gases containing carbon oxides. Do not inhale combustion products, they can be dangerous for human health.

## 5.3 Advice for firefighters

Cool down the containers exposed to fire with water. Personal protection typical in case of fire. Do not stay in the fire zone without self-contained breathing apparatus and protective clothing resistant to chemicals. Do not let the extinguishing water contaminate sewers and watercourses.

## Section 6: Accidental release measures

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

Limit the access for the outsiders into the breakdown area, until the suitable cleaning operations are completed. Use personal protective measures. Ensure that only the trained personnel removes the effects of the accident. In case of large spills, isolate the exposed area. Avoid skin and eyes contamination. Ensure adequate ventilation.

### 6.2 Environmental precautions

In case of release of large amounts of the product, it is necessary to take appropriate steps to prevent it from spreading into the environment. Notify relevant emergency services.

### 6.3 Methods and material for containment and cleaning up

Collect the product with absorbing materials (sand, diatomaceous earth, universal binding material) and place it in labeled, tightly closed containers. Treat the collected material as waste. Clean the contaminated area.

### 6.4 Reference to other sections

Appropriate conduct with waste product – section 13. Personal protective equipment – see section 8.

## Section 7: Handling and storage

### 7.1 Precautions for safe handling

Handle in accordance with good occupational hygiene and safety practices. Avoid contact with skin and eyes. Before break and after work wash hands. Keep the unused container tightly closed.

### 7.2 Conditions for safe storage, including any incompatibilities

Keep only in an original container in a dry, cool and well-ventilated area. Keep away from food, drink and animal feedingstuffs. Recommended storage temperature: 15-30° C. Keep away from direct sunlight. Keep away from strong alkalis and oxidizing agents. Recommended material for packaging: HDPE. Do not store near acids, alcohols, strong oxidizing agents, metals such as zinc, aluminum and their alloys.

### 7.3 Specific end use(s)

No information about other uses than those mentioned in subsection 1.2.

## Section 8: Exposure controls/personal protection

### 8.1 Control parameters

Product does not contain components with occupational exposure limit values established on the Community level. Legal basis: Commission Directive 2006/15/EC, 2000/39/EC, 2009/161/EC. Please check any national occupational exposure limit values in your country.

### 8.2 Exposure controls

Use the product in accordance with good occupational hygiene and safety practices. Do not eat, drink or smoke when using the product. Before break and after work wash hands carefully. Avoid eye and skin contact. Ensure adequate ventilation. Safety showers and eyewashes should be installed in the vicinity of the workplace.

#### Hand and body protection

Use impermeable, chemical- and alkali-resistant protective clothing. Recommended glove material: butyl rubber, neoprene, natural rubber. In case of a short contact, use protective gloves with effectiveness level  $\geq 2$  (breakthrough time > 30 min.). In case of a prolonged contact, use protective gloves with effectiveness level 6 (breakthrough time > 480 min.).



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When using protective gloves during work with chemical products, it should be noted that the efficacy levels and corresponding breakthrough times do not indicate actual times of protection at a particular workplace, because the protection can be affected by many factors, e.g. temperature, other substances etc. If there are any signs of degradation, damage or change in appearance (colour, flexibility, shape), it is recommended to replace the gloves with a new pair. Please follow the manufacturer's instructions, not only in terms of gloves' usage, but also in terms of their cleaning, maintenance and storage. It is also important to know how to take off the gloves in order to avoid hands contamination.



## Eyes protection

Use protective glasses or face protection.

## Respiratory protection

In case of the formation of vapours and aerosols, use absorbing equipment or absorbing and filtering equipment with a suitable protection class (class 1/protection against gases or vapours with a concentration in the air volume not exceeding 0.1%, class 2 / protection against gases or vapours with a concentration in the air not exceeding 0.5%, class 3 / protect against gases or vapours at concentrations in the air volume to 1%). In cases where the oxygen concentration is  $\leq 17\%$  and / or maximum concentration of toxic substances in the air is  $\geq 1.0\%$  by volume, isolating equipment should be used.

Applied personal protective equipment must comply with the requirements of the Directive 89/686/EC. The employer is obliged to provide protective equipment relevant to performed activities and in accordance with all quality requirements, including its maintenance and cleaning.

## Environmental exposure controls

Avoid releases to the environment, prevent from entering drains. Possible emissions from the ventilation systems and processing equipment should be controlled in order to determinate their compatibility with environmental protection regulations.

## Section 9: Physical and chemical properties

### 9.1 Information on basic physical and chemical properties

physical state:	liquid
colour:	colourless
odour:	characteristic
odour threshold:	not determined
pH (20°C):	13,05
melting point/freezing point:	0°C
initial boiling point and boiling range:	100°C
flash point:	not applicable, product is not flammable
evaporation rate:	not determined
flammability (solid, gas):	not applicable
upper/lower flammability or explosive limits:	not determined
vapour pressure:	not determined
vapour density:	not determined
density (20°C):	1,26 g/cm <sup>3</sup>
solubility(ies):	soluble in water
partition coefficient: n-octanol/water:	not determined
auto-ignition temperature:	not determined
decomposition temperature:	not determined
explosive properties:	not display
oxidising properties:	not display
viscosity:	not determined

### 9.2 Other information

None.

## Section 10: Stability and reactivity

### 10.1 Reactivity

Product is reactive. It does not undergo dangerous polymerisation. See also: subsection 10.3-10.5.

### 10.2 Chemical stability

The product is stable under normal conditions of use and storage.

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## 10.3 Possibility of hazardous reactions

The product reacts exothermically with acids. During a reaction with amphoteric metals such as aluminum, zinc, hydrogen is released. In the reaction with ammonium salts, ammonia may be liberated. May be corrosive to metals.

## 10.4 Conditions to avoid

Avoid direct exposure to sunlight and high temperatures.

## 10.5 Incompatible materials

Strong oxidizing agents, acids, oxides, amphoteric metals such as aluminum, zinc and tin.

## 10.6 Hazardous decomposition products

Not known.

## Section 11: Toxicological information

### 11.1 Information on toxicological effects

#### Toxicity of components

sodium hydroxide [CAS 1310-73-2]

LD<sub>50</sub> (rabbit, oral) 500 mg/kg

sodium metasilicate pentahydrate [CAS 10213-79-3]

LD<sub>50</sub> (rabbit, dermal) > 5 000 mg/kg

#### Toxicity of mixture

##### Acute toxicity

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

##### Skin corrosion/irritation

Causes severe skin burns.

##### 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

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.

## Section 12: Ecological information

### 12.1 Toxicity

#### Toxicity of components

sodium hydroxide [CAS 1310-73-2]

Toxicity for fish (*Onchorhynchus mykiss*) LC<sub>50</sub> 45,5 mg/l/96h

Toxicity for fish (*Limnea macrochirus*) LC<sub>50</sub> 99 mg/l/48h

Toxicity for daphnia (*Daphnia magna*) EU<sub>50</sub> 6 mg/l/24h

#### Toxicity for mixture

Product is not classified as dangerous for the aquatic environment.

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## 12.2 Persistence and degradability

Not specified.

## 12.3 Bioaccumulative potential

Bioaccumulation is not expected.

## 12.4 Mobility in soil

The product is mobile in water and soil.

## 12.5 Results of PBT and vPvB assessment

Components of the mixture do not meet the criteria of PBT or vPvB.

## 12.6 Other adverse effects

The mixture is not classified as hazardous to the ozone layer. Consider other harmful effects of individual components of the mixture on the environment (e.g., endocrine disrupting potential, global warming potential).

## Section 13: Disposal considerations

### 13.1 Waste treatment methods

Disposal methods for the product: disposal in accordance with the local legislation. Do not mix with other waste. Waste code should be given in the place of its formation.

Disposal methods for used packing: reuse/recycle/eliminate empty containers in accordance with the legislation in force. Only containers completely empty can be recycled.

Legal basis: Directive 2008/98/EC, 94/62/EC.

## Section 14: Transport information

### 14.1 UN number

UN 1824

### 14.2 UN proper shipping name

SODIUM HYDROXIDE SOLUTION

### 14.3 Transport hazard class(es)

8

### 14.4 Packing group

II

### 14.5 Environmental hazards

Mixture is not hazardous to the environment in accordance with transport regulations.

### 14.6 Special precautions for user

Use personal protective equipment in accordance with section 8 when handling the cargo.

### 14.7 Transport in bulk according to Annex II of Marpol and the IBC Code

Not applicable.



## Section 15: Regulatory information

### 15.1 Safety, health and environmental regulations/legislation specific for the substance or mixture

**Regulation (EC) No 1907/2006** of the European Parliament and of the Council of 18 December 2006 concerning the Registration, Evaluation, Authorization and Restriction of Chemicals (REACH), establishing a European Chemicals Agency, amending Directive 1999/45/EC and repealing Council Regulation (EEC) No 793/93 and Commission Regulation (EC) No 1488/94 as well as Council Directive 76/769/EEC and Commission Directives 91/155/EEC, 93/67/EEC, 93/105/EC and 2000/21/EC as amended.

**Regulation (EC) No 1272/2008** of the European Parliament and of the Council of 16 December 2008 on classification, labelling and packaging of substances and mixtures, amending and repealing Directives 67/548/EEC and 1999/45/EC, and amending Regulation (EC) No 1907/2006 as amended.

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**Commission Regulation (EC) No 790/2009** of 10 August 2009 amending, for the purposes of its adaptation to technical and scientific progress, Regulation (EC) No 1272/2008 of the European Parliament and of the Council on classification, labelling and packaging of substances and mixtures.

**Commission Regulation (EU) No 2015/830** of 28 May 2015 amending Regulation (EC) No 1907/2006 of the European Parliament and of the Council on the Registration, Evaluation, Authorisation and Restriction of Chemicals (REACH).

**Directive 2008/98/EC** of the European Parliament and of the Council of 19 November 2008 on waste and repealing certain Directives.

**European Parliament and Council Directive 94/62/EC** of 20 December 1994 on packaging and packaging waste.

## 15.2 Chemical safety assessment

A Chemical Safety Assessment is not required for mixtures.

## Section 16: Other information

### Full text of indicated H phrases mentioned in section 3

H290	May be corrosive to metals.
H302	Harmful if swallowed.
H314	Causes severe skin burns and eye damage.
H318	Causes serious eye damage.
H319	Causes serious eye irritation.
H335	May cause respiratory irritation.

### Clarification of aberrations and acronyms

Eye Irrit 2	Eye irritation category 2
STOT SE. 3	Specific target organ toxicity — single exposure category 3
Acute Tox. 4	Acute toxicity category 4
Skin Corr. 1B	Skin corrosion category 1B
Eye Dam.1	Serious eye damage category 1
Met. Corr. 1	Substance or mixture corrosive to metals category 1
PBT	Persistent, Bioaccumulative and Toxic substance
vPvB	very Persistent, very Bioaccumulative substance

### Trainings

Before commencing working with the product, the user should learn the Health & Safety regulations, regarding handling chemicals, and in particular, undergo a proper workplace training. Personnel related with the transport of hazardous substances in accordance with the ADR agreement should be trained and should obtain proper certification in a range of their obligations (general training, workplace training, safety training).

### Further information

Classification was based on data on hazardous substances content established by calculation method under the guidance of Regulation 1272/2008/EC (CLP) as amended.

### Other data

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 Composed by: mgr Monika Gotowalska (on the basis of producer's data).  
 Safety Data Sheet made by: „**THETA**” Doradztwo Techniczne

The information above is based on a current available data concerning the product, but also on the experience and knowledge in this field of the producer. They are neither a quality description of the product nor a guarantee of particular features. They are to be treated as aid to safety in transport, storage and usage of the product. That does not free the user from the responsibility of improper usage of the information above and also of improper compliance with the law norms in the field.