

# EU safety data sheet

**Trade name:** KRONES hydrocare RO 1000

**Current version :** 1.0.2, issued: 18.12.2023

**Replaced version:** 1.0.1, issued: 08.04.2022

**Region:** GB

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

### 1.1 Product identifier

**Trade name**

**KRONES hydrocare RO 1000**

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

**Relevant identified uses of the substance or mixture**

pH value correction

**Uses advised against**

No data available.

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

**Address**

KIC KRONES Internationale Cooperationsgesellschaft mbH  
Böhmerwaldstraße 5  
93073 Neutraubling

Telephone no. +49 9401 70-3020

e-mail kic@kic-krones.com

**Advice on Safety Data Sheet**

sdb\_info@umco.de

### 1.4 Emergency telephone number

For medical advice (in German and English):

+49 (0)551 192 40 (Giftinformationszentrum Nord)

In case of transport incidents and other emergencies:

+44 (0) 1235 239 670 (NCEC, National Chemical Emergency Centre)

## SECTION 2: Hazards identification

### 2.1 Classification of the substance or mixture

**Classification in accordance with Regulation (EC) No 1272/2008 (CLP)**

Eye Dam. 1; H318

Met. Corr. 1; H290

Skin Corr. 1A; H314

**Classification information**

Classification and labelling with respect to skin sensitization and/or respiratory sensitization are based on toxicological studies performed on the product (mixture).

This product is assessed and classified using the methods and criteria below referred to in Article 9 of Regulation (EC) n° 1272/2008:

Physical hazards: determined through assessment data based on the methods or standards referred to in part 2 of Annex I to CLP

Health hazards and environmental hazards: determined through toxicological and ecotoxicological assessment data based on the methods or standards referred to in Part 3, 4 and 5 of Annex I to CLP.

### 2.2 Label elements

**Labelling according to Regulation (EC) No 1272/2008 (CLP Regulation)**

**Hazard pictograms**



GHS05

**Signal word**

Danger

**Hazardous component(s) to be indicated on label:**

sodium hydroxide

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## Hazard statement(s)

H290 May be corrosive to metals.  
H314 Causes severe skin burns and eye damage.

## Precautionary statement(s)

P260 Do not breathe mist/vapours/spray.  
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 [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.

## 2.3 Other hazards

PBT assessment

According to the information provided in the supply chain, the mixture does not contain > 0.1% of a substance that is considered to be PBT.

vPvB assessment

According to the information provided in the supply chain, the mixture does not contain > 0.1% of a substance that is considered to be vPvB.

## SECTION 3: Composition/information on ingredients

### 3.1 Substances

Not applicable. The product is not a substance.

### 3.2 Mixtures

#### Hazardous ingredients

No	Substance name	Additional information	
	CAS / EC / Index / REACH no	Classification (EC) 1272/2008 (CLP)	Concentration %
1	<b>sodium hydroxide</b>		
	1310-73-2 215-185-5 011-002-00-6 01-2119457892-27	Skin Corr. 1A; H314 Met. Corr. 1; H290 Eye Dam. 1; H318	>= 50.00 - < 70.00 wt%

Full Text for all H-phrases and EUH-phrases: pls. see section 16

No	Note	Specific concentration limits	M-factor (acute)	M-factor (chronic)
1	-	Skin Irrit. 2; H315: C >= 0.5% Eye Irrit. 2; H319: C >= 0.5% Skin Corr. 1B; H314: C >= 2% Skin Corr. 1A; H314: C >= 5%	-	-

## SECTION 4: First aid measures

### 4.1 Description of first aid measures

#### General information

Remove contaminated clothing and shoes immediately, and launder thoroughly before reusing. Adhere to personal protective measures when giving first aid. In case of accident or unwellness, seek medical advice immediately (show directions for use or safety data sheet if possible). Remove affected person from danger area, lay him down.

#### After inhalation

Remove affected persons from dangerous area by observing suitable respiratory protection measures. Ensure supply of fresh air. If breathing is irregular or stopped, administer artificial respiration. Call a POISON CENTER or doctor/physician.

#### After skin contact

Change contaminated, saturated clothing. In case of contact with skin wash off with plenty of water. Call a doctor immediately.

#### After eye contact

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Rinse cautiously with water for several minutes. Remove contact lenses if present and easy to do. Continue rinsing. Call a doctor immediately.

#### **After ingestion**

Rinse the mouth thoroughly with water. Do not induce vomiting. Never give anything by mouth to an unconscious person. Seek medical advice if you feel unwell.

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

##### **Symptoms**

abdominal pain; blindness; burns

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

Treat symptomatically

### **SECTION 5: Firefighting measures**

#### **5.1 Extinguishing media**

##### **Suitable extinguishing media**

Water spray jet; Alcohol-resistant foam; Extinguishing powder; Carbon dioxide

##### **Unsuitable extinguishing media**

High power water jet

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

Release of flammable materials through contact with light metals due to hydrogen evolution in acid/alkaline environment. Has a corrosive effect on metals.

#### **5.3 Advice for firefighters**

Do not inhale explosion and/or combustion byproducts. Cool closed containers exposed to fire with water. Fire residues and contaminated firefighting water must be disposed of in accordance with the local regulations. In case of combustion use a suitable breathing apparatus. Adapt extinguishing measures to the surroundings.

### **SECTION 6: Accidental release measures**

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

##### **For non-emergency personnel**

Refer to protective measures listed in sections 7 and 8. Ensure adequate ventilation. Remove persons to safety.

##### **For emergency responders**

Personal protective equipment (PPE) - see section 8.

#### **6.2 Environmental precautions**

Do not discharge into the drains/surface waters/groundwater. Do not discharge into the subsoil/soil.

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

Contain and collect spillage with non-combustible absorbent materials, e.g. sand, earth, vermiculite, diatomaceous earth and place in container for disposal according to local regulations (see section 13).

#### **6.4 Reference to other sections**

Information regarding safe handling, see section 7. Information regarding personal protective measures, see section 8. Information regarding waste disposal, see section 13.

### **SECTION 7: Handling and storage**

#### **7.1 Precautions for safe handling**

##### **Advice on safe handling**

Risks inherent to handling the product must be minimised by applying the appropriate protective and preventive measures. Working processes should - so far as possible, according to the state of the art - be designed to rule out bodily contact or the release of hazardous substances. Avoid eye, skin and clothing contact. Provide good ventilation at the work area (local exhaust ventilation, if necessary).

##### **General protective and hygiene measures**

Do not eat, drink or smoke during work time. Keep away from foodstuffs and beverages. Do not inhale vapours. Avoid contact with eyes and skin. Wash hands before breaks and after work. Remove contaminated clothing and shoes and launder thoroughly before reusing. Provide eye wash fountain in work area. Have emergency shower available.

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## 7.2 Conditions for safe storage, including any incompatibilities

### Technical measures and storage conditions

Keep container tightly closed and dry in a cool, well-ventilated place. Protect from heat and direct sunlight.

### Requirements for storage rooms and vessels

Containers which are opened must be carefully closed and kept upright to prevent leakage. Always keep in containers of same material as the original. Provide acid-resistant floor. Store in a corrosion-resistant container with a resistant inner liner.

### Incompatible products

Substances to be avoided, see section 10. Do not store together with: oxidizing agents; combustible materials; Metals; Acids

## 7.3 Specific end use(s)

No data available.

## SECTION 8: Exposure controls/personal protection

### 8.1 Control parameters

#### Occupational exposure limit values

No	Substance name	CAS no.	EC no.
1	sodium hydroxide	1310-73-2	215-185-5
<b>List of approved workplace exposure limits (WELs) / EH40</b>			
Sodium hydroxide			
	WEL short-term (15 min reference period)	2	mg/m <sup>3</sup>

#### DNEL, DMEL and PNEC values

##### DNEL values (worker)

No	Substance name	CAS / EC no		
	Route of exposure	Exposure time	Effect	Value
1	sodium hydroxide			1310-73-2 215-185-5
	inhalative	Long term (chronic)	local	1 mg/m <sup>3</sup>

##### DNEL value (consumer)

No	Substance name	CAS / EC no		
	Route of exposure	Exposure time	Effect	Value
1	sodium hydroxide			1310-73-2 215-185-5
	inhalative	Long term (chronic)	local	1 mg/m <sup>3</sup>

### 8.2 Exposure controls

#### Appropriate engineering controls

Provide adequate ventilation. Where reasonably practicable this should be achieved by the use of local exhaust ventilation and good general extraction. If these are not sufficient to maintain concentrations of particulates and solvent vapour below the OEL (=Occupational Exposure Limit), suitable respiratory protection must be worn.

#### Personal protective equipment

##### Respiratory protection

If workplace exposure limits are exceeded, a respiration protection approved for this particular job must be worn. In case of aerosol and mist formation, take appropriate measures for breathing protection in the event workplace threshold values are not specified.

Respirator P2

##### Eye / face protection

Safety glasses with side protection shield (EN 166)

##### Hand protection

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Sufficient protection is given wearing suitable protective gloves checked according to i.e. EN 374, in the event of risk of skin contact with the product. Before use, the protective gloves should be tested in any case for its specific work-station suitability (i.e. mechanical resistance, product compatibility and antistatic properties). Adhere to the manufacturer's instructions and information relating to the use, storage, care and replacement of protective gloves. Protective gloves shall be replaced immediately when physically damaged or worn. Design operations thus to avoid permanent use of protective gloves.

Appropriate Material	IIR: butyl rubber, isobutene-isoprene rubber
Material thickness	>= 0.5 mm
Breakthrough time	> 480 min
Appropriate Material	chloroprene
Material thickness	>= 0.5 mm
Breakthrough time	> 480 min
Appropriate Material	NBR
Material thickness	>= 0.35 mm
Breakthrough time	> 480 min

#### Other

Chemical-resistant work clothes.

#### Environmental exposure controls

Use appropriate container to avoid environmental contamination. Prevent penetration into the sewage system or into surface and ground water.

## SECTION 9: Physical and chemical properties

### 9.1 Information on basic physical and chemical properties

<b>State of aggregation</b>	
liquid	
<b>Form</b>	
liquid	
<b>Colour</b>	
colourless	
<b>Odour</b>	
odourless	
<b>pH value</b>	
Value	14.0
Reference temperature	20 °C
Source	supplier
<b>Boiling point / boiling range</b>	
No data available	
<b>Melting point/freezing point</b>	
No data available	
<b>Decomposition temperature</b>	
No data available	
<b>Flash point</b>	
No data available	
<b>Ignition temperature</b>	
No data available	
<b>Flammability</b>	
not flammable	
Source	supplier
<b>Lower explosion limit</b>	
No data available	
<b>Upper explosion limit</b>	
No data available	

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<b>Vapour pressure</b>	
Value	2.87 Pa
Source	supplier

<b>Relative vapour density</b>	
No data available	

<b>Relative density</b>	
No data available	

<b>Density</b>	
Value	1.06 - 1.53 g/cm <sup>3</sup>
Reference temperature	20 °C
Source	supplier

<b>Solubility in water</b>	
Comments	Completely miscible

<b>Solubility</b>	
No data available	

<b>Partition coefficient n-octanol/water (log value)</b>	
No data available	

<b>Kinematic viscosity</b>	
Value	25.9 mm <sup>2</sup> /s
Reference temperature	25 °C
Type	kinematic
Source	supplier

<b>Particle characteristics</b>	
No data available	

## 9.2 Other information

<b>Other information</b>	
No data available.	

## SECTION 10: Stability and reactivity

### 10.1 Reactivity

Stable at ambient temperature. Can have a corrosive effect on metals.

### 10.2 Chemical stability

Stable under recommended storage and handling conditions (See section 7).

### 10.3 Possibility of hazardous reactions

Dangerous reactions are not to be expected when handling product according to its intended use.

### 10.4 Conditions to avoid

Heat, naked flames and other ignition sources. Protect from light.

### 10.5 Incompatible materials

Ammonium compounds; Acids; Metals; light metals

### 10.6 Hazardous decomposition products

None, if handled according to intended use. Contact with metals in an acidic/alkaline environment results in hydrogen formation.

## SECTION 11: Toxicological information

### 11.1 Information on hazard classes as defined in Regulation (EC) No 1272/2008

<b>Acute oral toxicity</b>	
No data available	

<b>Acute dermal toxicity</b>	
No data available	

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<b>Acute inhalational toxicity</b>	
No data available	
<b>Skin corrosion/irritation</b>	
No data available	
<b>Serious eye damage/irritation</b>	
No data available	
<b>Respiratory or skin sensitisation</b>	
<b>No</b>	<b>Product Name</b>
1	KRONES hydrocare RO 1000
Route of exposure	Skin
Source	supplier
Evaluation/classification	On the basis of the available information, the classification criteria are not met.
<b>Germ cell mutagenicity</b>	
No data available	
<b>Reproduction toxicity</b>	
No data available	
<b>Carcinogenicity</b>	
No data available	
<b>STOT - single exposure</b>	
No data available	
<b>STOT - repeated exposure</b>	
No data available	
<b>Aspiration hazard</b>	
On the basis of the information available, the classification criteria are not met.	

## 11.2 Information on other hazards

### Endocrine disrupting properties

No data available.

### Other information

No data available.

## SECTION 12: Ecological information

### 12.1 Toxicity

<b>Toxicity to fish (acute)</b>			
No data available			
<b>Toxicity to fish (chronic)</b>			
No data available			
<b>Toxicity to Daphnia (acute)</b>			
<b>No</b>	<b>Substance name</b>	<b>CAS no.</b>	<b>EC no.</b>
1	sodium hydroxide	1310-73-2	215-185-5
EC50		40.4	mg/l
Duration of exposure		48	h
Species	Ceriodaphnia spec		
Source	ECHA		
<b>Toxicity to Daphnia (chronic)</b>			
No data available			
<b>Toxicity to algae (acute)</b>			
No data available			
<b>Toxicity to algae (chronic)</b>			
No data available			

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## Bacteria toxicity

No data available

### 12.2 Persistence and degradability

No data available.

### 12.3 Bioaccumulative potential

No data available.

### 12.4 Mobility in soil

No data available.

### 12.5 Results of PBT and vPvB assessment

#### Results of PBT and vPvB assessment

PBT assessment

According to the information provided in the supply chain, the mixture does not contain > 0.1% of a substance that is considered to be PBT.

vPvB assessment

According to the information provided in the supply chain, the mixture does not contain > 0.1% of a substance that is considered to be vPvB.

### 12.6 Endocrine disrupting properties

No data available.

### 12.7 Other adverse effects

No data available.

## SECTION 13: Disposal considerations

### 13.1 Waste treatment methods

#### Product

Disposal of the product should be carried out in accordance with all applicable regulations following consultation with the responsible local authority and the disposal company in an authorised and suitable disposal facility.

Allocation of a waste code number, according to the European Waste Catalogue, should be carried out in agreement with the regional waste disposal company.

#### Packaging

Residues must be removed from packaging and when emptied completely disposed of in accordance with the regulations for waste removal. Incompletely emptied packaging must be disposed of in the form of disposal specified by the regional disposer.

## SECTION 14: Transport information

### 14.1 Transport ADR/RID/ADN

Class	8
Classification code	C5
Packing group	II
Hazard identification no.	80
UN number	UN1824
Proper shipping name	SODIUM HYDROXIDE SOLUTION
Tunnel restriction code	E
Label	8

### 14.2 Transport IMDG

Class	8
Packing group	II
UN number	UN1824
Proper shipping name	SODIUM HYDROXIDE SOLUTION
EmS	F-A, S-B
Label	8

### 14.3 Transport ICAO-TI / IATA

Class	8
Packing group	II
UN number	UN1824
Proper shipping name	Sodium hydroxide solution



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Label 8

## 14.4 Other information

No data available.

## 14.5 Environmental hazards

Information on environmental hazards, if relevant, please see 14.1 - 14.3.

## 14.6 Special precautions for user

No data available.

## 14.7 Maritime transport in bulk according to IMO instruments

Not relevant

## SECTION 15: Regulatory information

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

#### EU regulations

##### **Regulation (EC) No 1907/2006 (REACH) Annex XIV (List of substances subject to authorisation)**

According to the data available and/or specifications supplied by upstream suppliers, this product does not contain any substances considered as substances requiring authorisation as listed on Annex XIV of the REACH regulation (EC) 1907/2006.

##### **REACH candidate list of substances of very high concern (SVHC) for authorisation**

According to available data and the information provided by preliminary suppliers, the product does not contain substances that are considered substances meeting the criteria for inclusion in annex XIV (List of Substances Subject to Authorisation) as laid down in Article 57 and article 59 of REACH (EC) 1907/2006.

##### **Regulation (EC) No 1907/2006 (REACH) Annex XVII: RESTRICTIONS ON THE MANUFACTURE, PLACING ON THE MARKET AND USE OF CERTAIN DANGEROUS SUBSTANCES, MIXTURES AND ARTICLES**

The product is considered being subject to REACH regulation (EC) 1907/2006 annex XVII. No 3

The product contains following substance(s) that are considered being subject to REACH regulation (EC) 1907/2006 annex XVII.

No	Substance name	CAS no.	EC no.	No
1	sodium hydroxide	1310-73-2	215-185-5	75

##### **Directive 2012/18/EU on the control of major-accident hazards involving dangerous substances**

This product is not subject to Part 1 or 2 of Annex I.

### 15.2 Chemical safety assessment

A chemical safety assessment has not been carried out for this mixture.

## SECTION 16: Other information

#### **Sources of key data used to compile the data sheet:**

Regulation (EC) No 1907/2006 (REACH), 1272/2008 (CLP) as amended in each case.

Directives 2000/39/EC, 2006/15/EC, 2009/161/EU, (EU) 2017/164.

National Threshold Limit Values of the corresponding countries as amended in each case.

Transport regulations according to ADR, RID, IMDG, IATA as amended in each case.

The data sources used to determine physical, toxic and ecotoxic data, are indicated directly in the corresponding section.

#### **Full text of the H- and EUH- phrases drawn up in sections 2 and 3 (provided not already drawn up in these sections)**

H318 Causes serious eye damage.

#### **Creation of the safety data sheet**

UMCO GmbH - D-21107 Hamburg, Georg-Wilhelm-Strasse 187, Tel.: +49(40)555 546 300, Fax: +49(40)555 546 357, e-mail: umco@umco.de

This information is based on our present knowledge and experience.

The safety data sheet describes products with a view to safety requirements.

It does not however, constitute a guarantee for any specific product properties and shall not establish a legally valid contractual relationship.

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