

# EU safety data sheet

**Trade name:** KRONES hydrocare 3901

**Current version :** 1.0.2, issued: 08.04.2022

**Replaced version:** 1.0.1, issued: 08.06.2021

**Region:** GB

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

### 1.1 Product identifier

**Trade name**

**KRONES hydrocare 3901**

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

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

membrane cleaner

**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)**

Acute Tox. 3; H331

Eye Dam. 1; H318

Met. Corr. 1; H290

Skin Corr. 1A; H314

**Classification information**

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



GHS06

**Signal word**

Danger

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

nitric acid ...% [C > 70 %]

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Trade name: KRONES hydrocare 3901

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## Hazard statement(s)

H290 May be corrosive to metals.  
H314 Causes severe skin burns and eye damage.  
H331 Toxic if inhaled.

## Hazard statements (EU)

EUH071 Corrosive to the respiratory tract.

## Precautionary statement(s)

P260 Do not breathe mist/vapours/spray.  
P264 Wash hands thoroughly after handling.  
P280 Wear protective gloves/protective clothing/eye protection/face protection.  
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.  
P403+P233 Store in a well-ventilated place. Keep container tightly closed.

## 2.3 Other hazards

No data available.

## 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	nitric acid ...% [C > 70 %]		pls. refer to footnote (2)
	7697-37-2 231-714-2 007-004-00-1 01-2119487297-23	Ox. Liq. 2; H272 Met. Corr. 1; H290 Acute Tox. 3; H331 Skin Corr. 1A; H314 Eye Dam. 1; H318 EUH071	>= 50.00 - < 70.00 wt%

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

(2) According to the latest state of knowledge and applying the criteria set out in annex I to Regulation (EC) No 1272/2008, the aforementioned classification is required. This classification goes beyond the classification set out in table 3, Annex VI to Regulation (CE) No 1272/2008.

No	Note	Specific concentration limits	M-factor (acute)	M-factor (chronic)
1	B	Skin Irrit. 2; H315: C >= 1% Skin Corr. 1B; H314: C >= 5% Skin Corr. 1A; H314: C >= 20% Ox. Liq. 3; H272: C >= 65% Ox. Liq. 2; H272: C >= 99%	-	-

Full text for the notes: pls. see section 16 "Notes relating to the identification, classification and labelling of substances ((EC) No 1272/2008, Annex VI)".

#### Acute toxicity estimate (ATE) values

No	oral	dermal	inhalative
1			2,66 mg/l

## 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.

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## **After inhalation**

Remove affected persons from dangerous area by observing suitable respiratory protection measures. Ensure supply of fresh air. Call a doctor immediately.

## **After skin contact**

When in contact with the skin, clean with soap and water. Call a doctor immediately.

## **After eye contact**

Remove contact lenses. Rinse eye thoroughly under running water keeping eyelids wide open and protecting the unaffected eye (at least 10 to 15 minutes). Get immediate ophthalmic treatment.

## **After ingestion**

Rinse the mouth thoroughly with water. Do not induce vomiting. Never give anything by mouth to an unconscious person. Call a doctor immediately.

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

### **Symptoms**

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**

No data available.

#### **Unsuitable extinguishing media**

High power water jet

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

In the event of fire, the following can be released: Pyrolysis products; Toxic gases/vapours; Nitrogen oxides (NOx)

### **5.3 Advice for firefighters**

Use self-contained breathing apparatus. Wear protective clothing. 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.

## **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**

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**Replaced version:** 1.0.1, issued: 08.06.2021

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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.

## **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.

### **Incompatible products**

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

## **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	nitric acid ...% [C > 70 %]	7697-37-2	231-714-2
	2006/15/EC		
	Nitric acid		
	WEL short-term (15 min reference period)	2.6	mg/m <sup>3</sup> 1 ppm
	<b>List of approved workplace exposure limits (WELs) / EH40</b>		
	Nitric acid		
	WEL short-term (15 min reference period)	2.6	mg/m <sup>3</sup> 1 ppm

#### **DNEL, DMEL and PNEC values**

##### **DNEL values (worker)**

No	Substance name	CAS / EC no		
	Route of exposure	Exposure time	Effect	Value
1	nitric acid ...% [C > 70 %]			7697-37-2 231-714-2
	inhalative	Long term (chronic)	local	2.6 mg/m <sup>3</sup>

##### **DNEL value (consumer)**

No	Substance name	CAS / EC no		
	Route of exposure	Exposure time	Effect	Value
1	nitric acid ...% [C > 70 %]			7697-37-2 231-714-2
	inhalative	Long term (chronic)	local	1.3 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**

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**Replaced version:** 1.0.1, issued: 08.06.2021

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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 ABEKP2

## Eye / face protection

Safety glasses with side protection shield (EN 166)

## Hand protection

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	butyl rubber		
Material thickness	>=	0.7	mm
Breakthrough time	>	480	min
Appropriate Material	viton		
Material thickness	>=	0.7	mm
Breakthrough time	>	480	min
Appropriate Material	chloroprene		
Material thickness	>=	0.5	mm
Breakthrough time	>	480	min

## Other

Chemical-resistant work clothes.

## Environmental exposure controls

No data available.

## SECTION 9: Physical and chemical properties

### 9.1 Information on basic physical and chemical properties

<b>State of aggregation</b>	
liquid	
<b>Form/Colour</b>	
liquid	
colourless	
<b>Odour</b>	
pungent	
<b>pH value</b>	
Value	1
<b>Boiling point / boiling range</b>	
Value	> 100 °C
<b>Melting point/freezing point</b>	
Value	< 0 °C
<b>Decomposition temperature</b>	
No data available	
<b>Flash point</b>	
No data available	
<b>Ignition temperature</b>	
No data available	
<b>Auto-ignition temperature</b>	
Comments	Product is not selfigniting.
<b>Flammability</b>	
No data available	

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<b>Lower explosion limit</b>	
No data available	
<b>Upper explosion limit</b>	
No data available	
<b>Vapour pressure</b>	
No data available	
<b>Relative vapour density</b>	
No data available	
<b>Relative density</b>	
No data available	
<b>Density</b>	
Value	1.3 g/ml
Reference temperature	20 °C
<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>Viscosity</b>	
No data available	
<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.

### 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

Reducing agents; Alkalies; Metals

### 10.6 Hazardous decomposition products

Nitrous oxides (NO<sub>x</sub>); Corrosive gases/vapours

## 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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Current version : 1.0.2, issued: 08.04.2022

Replaced version: 1.0.1, issued: 08.06.2021

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Acute inhalational toxicity (result of the ATE calculation for the mixture)	
No	Product Name
1	KRONES hydrocare 3901
ATE (Mixture)	5.0189
Route of exposure / physical from Method	Vapour Calculation method according Regulation (EC) No 1272/2008, (CLP), annex I, part 3, section 3.1.3.6.

Acute inhalational toxicity			
No	Substance name	CAS no.	EC no.
1	nitric acid ...% [C > 70 %]	7697-37-2	231-714-2
LC50	>	2.65	mg/l
Duration of exposure		4	h
State of aggregation	Vapour		
Species	rat		
Method	OECD 403		
Source	ECHA		

Skin corrosion/irritation
No data available

Serious eye damage/irritation
No data available

Respiratory or skin sensitisation
No data available

Germ cell mutagenicity
No data available

Reproduction toxicity
No data available

Carcinogenicity
No data available

STOT - single exposure
No data available

STOT - repeated exposure
No data available

Aspiration hazard
No data available

## 11.2 Information on other hazards

### Endocrine disrupting properties

No data available.

### Other information

No data available.

## SECTION 12: Ecological information

### 12.1 Toxicity

Toxicity to fish (acute)
No data available

Toxicity to fish (chronic)
No data available

Toxicity to Daphnia (acute)
No data available

Toxicity to Daphnia (chronic)
No data available

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## Toxicity to algae (acute)

No data available

## Toxicity to algae (chronic)

No data available

## 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

No data available.

### 12.6 Endocrine disrupting properties

No data available.

### 12.7 Other adverse effects

No data available.

### 12.8 Other information

#### Other information

Do not discharge product unmonitored into the environment.

## 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	C1
Packing group	II
Hazard identification no.	80
UN number	UN2031
Proper shipping name	NITRIC ACID
Tunnel restriction code	E
Label	8

### 14.2 Transport IMDG

Class	8
Packing group	II
UN number	UN2031
Proper shipping name	NITRIC ACID
EmS	F-A, S-B
Label	8

### 14.3 Transport ICAO-TI / IATA



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Class	8
Packing group	II
UN number	UN2031
Proper shipping name	Nitric acid
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	nitric acid ...% [C > 70 %]	7697-37-2	231-714-2	75

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

This product is subject to Part I of Annex I, risk category: H2

##### **Other regulations**

Adhere to the national sanitary and occupational safety regulations when using this product.

### 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)**

H272	May intensify fire; oxidiser.
H318	Causes serious eye damage.

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**Notes relating to the identification, classification and labelling of substances and mixtures ((EC) No 1272/2008, Annex VI)**

**B** Some substances (acids, bases, etc.) are placed on the market in aqueous solutions at various concentrations and, therefore, these solutions require different classification and labelling since the hazards vary at different concentrations. In Part 3 entries with Note B have a general designation of the following type: 'nitric acid ... %'. In this case the supplier must state the percentage concentration of the solution on the label. Unless otherwise stated, it is assumed that the percentage concentration is calculated on a weight/weight basis.

**Creation of the safety data sheet**

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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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Prod-ID 760662