

EC safety data sheet

Trade name: KRONES hydrocare 100

Current version : 1.0.1, issued: 23.03.2020

Replaced version: 1.0.0, issued: 21.01.2020

Region: GB

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

1.1 Product identifier

Trade name

KRONES hydrocare 100

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

Relevant identified uses of the substance or mixture

Antiscalant

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

Fax no. +49 9401 70-3696

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 information

Classification and labelling with respect to corrosivity and irritation to skin are based on toxicological studies performed on the product (mixture).

Classification and labelling with respect to Serious eye damage/eye irritation 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.

This product does not meet the classification criteria given in the Regulation (EC) No 1272/2008 (CLP).

2.2 Label elements

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

Hazard pictograms

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Signal word

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Hazard statement(s)

-

Hazard statements (EU)

EUH210

Safety data sheet available on request.

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Precautionary statement(s)

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Labelling information

The labelling (EU hazard statements) meets the criteria of annex II of Directive (EC) Nr. 1272/2008 (CLP).

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	Sodium salts of [[(phosphonomethyl) imino] to [ethane-2,1-diyl]nitrolobis (methylene)] tetrakisphosphonic acid (1-3 Na: 1)		
	- 701-215-9 - 01-2120784245-49	Met. Corr. 1; H290	>= 10.00 - < 25.00 %-b.w.
2	potassium hydroxide		
	1310-58-3 215-181-3 019-002-00-8 01-2119487136-33	Acute Tox. 4; H302 Skin Corr. 1A; H314 Met. Corr. 1; H290 Eye Dam. 1; H318	< 5.00 %-b.w.

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

No	Note	Specific concentration limits	M-factor (acute)	M-factor (chronic)
2	-	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

In case of persisting adverse effects, consult a physician.

After inhalation

Ensure supply of fresh air. In case of persisting adverse effects consult a physician.

After skin contact

When in contact with the skin, clean with soap and water. Consult a doctor if skin irritation persists.

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 medical attention if pain still persists.

After ingestion

Rinse 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

No data available.

4.3 Indication of any immediate medical attention and special treatment needed

Treat symptomatically.

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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: Carbon monoxide and carbon dioxide; Nitrogen oxides (NO_x); Phosphorus oxides

5.3 Advice for firefighters

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

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 chapter 7. Information regarding personal protective measures, see chapter 8. Information regarding waste disposal, see chapter 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. 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. Wash hands before breaks and after work. Do not inhale vapours.

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.

Requirements for storage rooms and vessels

Containers which are opened must be carefully resealed and kept upright to prevent leakage. Always keep in containers of same material as the original.

Incompatible products

Substances to be avoided, pls. See chapter 10. Do not store together with metals.

7.3 Specific end use(s)

No data available.

SECTION 8: Exposure controls/personal protection

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8.1 Control parameters

Occupational exposure limit values

No	Substance name	CAS no.	EC no.
1	potassium hydroxide	1310-58-3	215-181-3
List of approved workplace exposure limits (WELs) / EH40			
Potassium hydroxide (as Cyanide)			
	WEL short-term (15 min reference period)	5	mg/m ³
	WEL long-term (8-hr TWA reference period)	1	mg/m ³

DNEL, DMEL and PNEC values

DNEL values (worker)

No	Substance name			CAS / EC no	
	Route of exposure	Exposure time	Effect	Value	
1	Sodium salts of [[[(phosphonomethyl) imino] to [ethane-2,1-diyl]nitrilobis (methylene)]] tetrakisphosphonic acid (1-3 Na: 1)			- 701-215-9	
	dermal	Long term (chronic)	systemic	8.25	mg/kg/day
	inhalative	Long term (chronic)	systemic	7.27	mg/m ³
	inhalative	Long term (chronic)	local	10	mg/m ³
2	potassium hydroxide			1310-58-3 215-181-3	
	inhalative	Long term (chronic)	local	1	mg/m ³

DNEL value (consumer)

No	Substance name			CAS / EC no	
	Route of exposure	Exposure time	Effect	Value	
1	Sodium salts of [[[(phosphonomethyl) imino] to [ethane-2,1-diyl]nitrilobis (methylene)]] tetrakisphosphonic acid (1-3 Na: 1)			- 701-215-9	
	oral	Long term (chronic)	systemic	2.1	mg/kg/day
	dermal	Long term (chronic)	systemic	4.1	mg/kg/day
	inhalative	Long term (chronic)	systemic	1.8	mg/m ³
	inhalative	Long term (chronic)	local	10	mg/m ³
2	potassium hydroxide			1310-58-3 215-181-3	
	inhalative	Long term (chronic)	local	1	mg/m ³

PNEC values

No	Substance name		CAS / EC no	
	ecological compartment	Type	Value	
1	Sodium salts of [[[(phosphonomethyl) imino] to [ethane-2,1-diyl]nitrilobis (methylene)]] tetrakisphosphonic acid (1-3 Na: 1)		- 701-215-9	
	water	fresh water	0.52	mg/L
	water	marine water	0.052	mg/L
	water	fresh water sediment	496	mg/kg dry weight
	water	marine water sediment	49.6	mg/kg dry weight
	sewage treatment plant	-	20	mg/L

8.2 Exposure controls

Appropriate engineering controls

Ensure adequate ventilation, local exhaust at the work station if necessary.

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.

Eye / face protection

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Safety glasses (EN 166)

Hand protection

In case of intensive contact, wear protective gloves (EN 374). 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	>	0.11	mm
Breakthrough time	>	240	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

Form/Colour	
liquid	
brown	
Odour	
characteristic	
Odour threshold	
No data available	
pH value	
Value	4.8 - 5.2
Boiling point / boiling range	
Value	appr. 100 °C
Melting point / melting range	
Value	< 0 °C
Decomposition point / decomposition range	
No data available	
Flash point	
No data available	
Auto-ignition temperature	
No data available	
Oxidising properties	
not oxidizing	
Explosive properties	
No data available	
Flammability (solid, gas)	
No data available	
Lower flammability or explosive limits	
No data available	
Upper flammability or explosive limits	
No data available	
Vapour pressure	
No data available	
Vapour density	

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No data available			
Evaporation rate			
No data available			
Relative density			
Value	1.17		
Density			
No data available			
Solubility in water			
Comments	soluble		
Solubility(ies)			
No data available			
Partition coefficient: n-octanol/water			
No	Substance name	CAS no.	EC no.
1	Sodium salts of [[(phosphonomethyl) imino] to [ethane-2,1-diyl]nitrilobis (methylene)] tetrakisphosphonic acid (1-3 Na: 1)	-	701-215-9
log Pow		-3.4	
Source		ECHA	
Viscosity			
No data available			

9.2 Other information

Other information
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

High temperatures.

10.5 Incompatible materials

Metals

10.6 Hazardous decomposition products

No data available.

SECTION 11: Toxicological information

11.1 Information on toxicological effects

Acute oral toxicity (result of the ATE calculation for the mixture)	
No	Product Name
1	KRONES hydrocare 100
Comments	The result of the applied calculation method according to the European Regulation (EC) 1272/2008 (CLP), Paragraph 3.1.3.6, Part 3 of Annex I is outside the values that imply a classification / labelling of this mixture according to table 3.1.1 defining the respective categories (ATE oral > 2000 mg/kg).
Acute oral toxicity	

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No	Substance name	CAS no.	EC no.
1	Sodium salts of [[(phosphonomethyl) imino] to [ethane-2,1-diyl]nitrilobis (methylene)] tetrakisphosphonic acid (1-3 Na: 1)	-	701-215-9
LD50	>	5838	mg/kg bodyweight
Species	rat		
Method	OECD 401		
Source	ECHA		
2	potassium hydroxide	1310-58-3	215-181-3
LD50		333	mg/kg bodyweight
Species	rat		
Method	OECD 425		
Source	ECHA		
Acute dermal toxicity			
No	Substance name	CAS no.	EC no.
1	Sodium salts of [[(phosphonomethyl) imino] to [ethane-2,1-diyl]nitrilobis (methylene)] tetrakisphosphonic acid (1-3 Na: 1)	-	701-215-9
LD50	>	5838	mg/kg bodyweight
Species	rat		
Method	OECD 402		
Source	ECHA		
Acute inhalational toxicity			
No data available			
Skin corrosion/irritation			
No	Product Name		
1	KRONES hydrocare 100		
Evaluation	non-irritant		
Serious eye damage/irritation			
No	Product Name		
1	KRONES hydrocare 100		
Evaluation	non-irritant		
Respiratory or skin sensitisation			
No	Substance name	CAS no.	EC no.
1	Sodium salts of [[(phosphonomethyl) imino] to [ethane-2,1-diyl]nitrilobis (methylene)] tetrakisphosphonic acid (1-3 Na: 1)	-	701-215-9
Route of exposure	Skin		
Method	Magnussen/Kligmann-Test		
Source	ECHA		
Evaluation	non-sensitizing		
2	potassium hydroxide	1310-58-3	215-181-3
Route of exposure	Skin		
Species	guinea pig		
Source	ECHA		
Evaluation	non-sensitizing		
Germ cell mutagenicity			
No	Substance name	CAS no.	EC no.
1	Sodium salts of [[(phosphonomethyl) imino] to [ethane-2,1-diyl]nitrilobis (methylene)] tetrakisphosphonic acid (1-3 Na: 1)	-	701-215-9
Method	OECD 475		
Source	ECHA		
Evaluation/classification	Based on available data, the classification criteria are not met.		
2	potassium hydroxide	1310-58-3	215-181-3
Type of examination	Ames-Test		
Species	Bacteria - Salmonella typhimurium		

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Source	ECHA
Evaluation/classification	Based on available data, the classification criteria are not met.

Reproduction toxicity

No	Substance name	CAS no.	EC no.
1	Sodium salts of [[(phosphonomethyl) imino] to [ethane-2,1-diyl]nitrilobis (methylene)] tetrakisphosphonic acid (1-3 Na: 1)	-	701-215-9
Source		ECHA	
Evaluation/classification		Based on available data, the classification criteria are not met.	

Carcinogenicity

No data available

STOT - single exposure

No data available

STOT - repeated exposure

No	Substance name	CAS no.	EC no.
1	Sodium salts of [[(phosphonomethyl) imino] to [ethane-2,1-diyl]nitrilobis (methylene)] tetrakisphosphonic acid (1-3 Na: 1)	-	701-215-9
Route of exposure		oral	
NOAEL		1000	ppm
Duration of exposure		90	day(s)
Species		rat	
Method		OECD 408	
Source		ECHA	
Evaluation/classification		Based on available data, the classification criteria are not met.	

Aspiration hazard

No data available

SECTION 12: Ecological information

12.1 Toxicity

Toxicity to fish (acute)			
No	Substance name	CAS no.	EC no.
1	Sodium salts of [[(phosphonomethyl) imino] to [ethane-2,1-diyl]nitrilobis (methylene)] tetrakisphosphonic acid (1-3 Na: 1)	-	701-215-9
LC50		180	252 mg/l
Duration of exposure		96	h
Species		Oncorhynchus mykiss	
Method		OECD 203	
Source		ECHA	
2	potassium hydroxide	1310-58-3	215-181-3
LC50		80	mg/l
Duration of exposure		96	h
Species		Gambusia affinis	
Source		ECHA	
Evaluation/classification		Based on available data, the classification criteria are not met.	

Toxicity to fish (chronic)			
No	Substance name	CAS no.	EC no.
1	Sodium salts of [[(phosphonomethyl) imino] to [ethane-2,1-diyl]nitrilobis (methylene)] tetrakisphosphonic acid (1-3 Na: 1)	-	701-215-9
NOEC		25.6	mg/l
Duration of exposure		66	day(s)
Species		Oncorhynchus mykiss	
Method		ASTM (1979)	
Source		ECHA	

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Toxicity to Daphnia (acute)			
No	Substance name	CAS no.	EC no.
1	Sodium salts of [[[(phosphonomethyl) imino] to [ethane-2,1-diyl]nitrilobis (methylene)]] tetrakisphosphonic acid (1-3 Na: 1)	-	701-215-9
EC50	>	250	mg/l
Duration of exposure		48	h
Species	Artemia salina		
Source	ECHA		

Toxicity to Daphnia (chronic)			
No	Substance name	CAS no.	EC no.
1	Sodium salts of [[[(phosphonomethyl) imino] to [ethane-2,1-diyl]nitrilobis (methylene)]] tetrakisphosphonic acid (1-3 Na: 1)	-	701-215-9
NOEC	>=	25	mg/l
Duration of exposure		28	day(s)
Species	Daphnia magna		
Method	EPA 66013-75-009		
Source	ECHA		

Toxicity to algae (acute)			
No data available			

Toxicity to algae (chronic)			
No data available			

Bacteria toxicity			
No data available			

12.2 Persistence and degradability

Biodegradability			
No	Substance name	CAS no.	EC no.
1	Sodium salts of [[[(phosphonomethyl) imino] to [ethane-2,1-diyl]nitrilobis (methylene)]] tetrakisphosphonic acid (1-3 Na: 1)	-	701-215-9
Type	aerobic biodegradation		
Value		0	%
Duration		28	day(s)
Method	OECD 301 E		
Source	ECHA		
Evaluation	not readily biodegradable		

12.3 Bioaccumulative potential

Partition coefficient: n-octanol/water			
No	Substance name	CAS no.	EC no.
1	Sodium salts of [[[(phosphonomethyl) imino] to [ethane-2,1-diyl]nitrilobis (methylene)]] tetrakisphosphonic acid (1-3 Na: 1)	-	701-215-9
log Pow		-3.4	
Source	ECHA		

12.4 Mobility in soil

No data available.

12.5 Results of PBT and vPvB assessment

No data available.

12.6 Other adverse effects

No data available.

12.7 Other information

Other information			

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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

Residuals 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

The product is not subject to ADR/RID/ADN regulations.

14.2 Transport IMDG

The product is not subject to IMDG regulations.

14.3 Transport ICAO-TI / IATA

The product is not subject to ICAO-TI / IATA regulations.

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

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, PREPARATIONS AND ARTICLES

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

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.

Other regulations

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

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15.2 Chemical safety assessment

No data available.

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.

EC Directives 2000/39/EC, 2006/15/EC, 2009/161/EU

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 chapter.

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

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

Department issuing 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.

Alterations/supplements:

Alterations to the previous edition are marked in the left-hand margin.

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