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

Product identifier 1.1

Trade name

KRONES hydrocare HC 425/1700

Substance name	Carbon
REACH registration no.	01-2119488894-16-0019
Identification numbers CAS no.	7440-44-0

EC no.

231-153-3

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

Relevant identified uses of the substance or mixture Filter material

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

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

2.2 Label elements Not relevant

2.3 Other hazards

No data available.

SECTION 3: Composition/information on ingredients

3.1 **Substances**

Chemical characterization Carbon Substance name 4161 - - 41 -

7440-44-0
231-153-3

3.2 **Mixtures**

Not applicable. The product is not a mixture.

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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. By continuous complaints consult a physician.

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 No data available.

SECTION 5: Firefighting measures

5.1 Extinguishing media

Suitable extinguishing media

Water spray jet; Foam; Dry chemical extinguisher; Carbon dioxide

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; Combustible.

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. avoid dust development; Do not inhale dust.

For emergency responders

Personal protective equipment (PPE) - see Section 8.

6.2 Environmental precautions

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

6.3 Methods and material for containment and cleaning up

Take up mechanically. When collected, handle material as described under the section heading "Disposal considerations".

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

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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 dust formation. 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 dust.

Advice on protection against fire and explosion

Take precautionary measures against static charges. No sparking tools should be used.

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.

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	Carbon	7440-44-0	231-153-3	
	List of approved workplace exposure limits (WELs) /	EH40		
	Graphite inhalable dust			
	WEL long-term (8-hr TWA reference period)		10	ppm
	List of approved workplace exposure limits (WELs) /	EH40		
	Graphite respirable dust			
	WEL long-term (8-hr TWA reference period)		4	ppm

DNEL, DMEL and PNEC values

	DNEL values (worker)				
No	Substance name			CAS / EC no	
	Route of exposure	Exposure time	Effect	Value	
1	Carbon			7440-44-0	
				231-153-3	
	inhalative	Long term (chronic)	local	1.84	mg/m³

DNEL value (consumer)

No	Substance name			CAS / EC no	
	Route of exposure	Exposure time	Effect	Value	
1	Carbon			7440-44-0	
				231-153-3	
	inhalative	Long term (chronic)	local	0.9	mg/m³

PNEC values

No	Substance name		CAS / EC no)
	ecological compartment	Туре	Value	
1	Carbon		7440-44-0	
			231-153-3	
	soil	-	10	mg/kg dry
				weight

8.2 Exposure controls

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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 dust formation, take appropriate measures for breathing protection in the event that workplace threshold values are not specified. Dust mask Respirator P1

Eye / face protection

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.

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	· · ·		
solid			
black			
Odour			
No data available			
Odour threshold No data available			
pH value			
No data available			
Boiling point / boiling range			
No data available			
Melting point / melting range			
Value	>	3500	°C
Decomposition point / decomposition range			
No data available			
Flash point			
No data available			
Ignition temperature			
Value	>	850	°C
Auto-ignition temperature	•		
Value	>	400	°C
		100	
Oxidising properties No data available			
Explosive properties			
No data available			
Flammability (solid, gas)			
No data available			

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Lower flammability or explosive limits	
No data available	
Upper flammability or explosive limits	
No data available	
	_
Vapour pressure No data available	
Vapour density	
No data available	
Evaporation rate	
No data available	
Relative density	
No data available	_
Density	
Density No data available	
Solubility in water	
No data available	
Solubility(ies)	
No data available	
Partition coefficient: n-octanol/water	
No data available	
Viscosity	
No data available	
2 Other information	
Other information	
No data available	

9

No data available.

SECTION 10: Stability and reactivity

10.1 Reactivity

The product is not dust explosive in the delivered form; however, the accumulation of fine dust leads to dust explosion hazard.

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 No data available.
- 10.5 Incompatible materials No data available.
- 10.6 Hazardous decomposition products No data available.

SECTION 11: Toxicological information

11.1 Information on toxicological effects

Acu	te oral toxicity				
No	Substance name		CAS no.		EC no.
1	Carbon		7440-44-0		231-153-3
LD5	0	>		2000	mg/kg bodyweight
Spee	cies	rat			

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Method	OECD 423	1
Source	ECHA	
Acute dermal toxicity		
No data available		
Acute inhalational toxicity No data available		
Skin corrosion/irritation		
No Substance name	CAS no.	EC no.
1 Carbon	7440-44-0	231-153-3
Species	rabbit	
Method	OECD 404	
Source	ECHA non-irritant	
Evaluation	non-imant	
Serious eye damage/irritation		
No Substance name	CAS no.	EC no.
1 Carbon	7440-44-0	231-153-3
Species	rabbit	
Method Source	OECD 405 ECHA	
Evaluation	non-irritant	
	non-initiant	
Respiratory or skin sensitisation		
No Substance name	CAS no.	EC no.
1 Carbon	7440-44-0	231-153-3
Route of exposure Species	mouse	
Method	OECD 429	
Source	ECHA	
Evaluation	non-sensitizing	
Germ cell mutagenicity	·	
No Substance name	CAS no.	EC no.
1 Carbon	7440-44-0	231-153-3
Method	OECD 471	
Source	ECHA	
Evaluation/classification	Based on available data, the classi	fication criteria are not met.
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		
· · · · · · · · · · · · · · · · · · ·		
SECTION 12: Ecological informa	tion	

12.1 Toxicity

Toxicity to fish (acute)
No data available
Toxicity to fish (chronic)
No data available
Toxicity to Daphnia (acute)

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No data available

Toxicity to Daphnia (chronic) No data available

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 Other adverse effects

No data available.

12.7 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

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.

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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)

In accordance with the Reach regulation (EC) 1907/2006, the product does not contain any substances that are considered as subject to listing in annex XIV, inventory of substances requiring authorisation.

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

In accordance with article 57 and article 59 of the Reach regulation (EC) 1907/2006, this substance is not considered as subject to listing in annex XIV, inventory of substances requiring authorisation ("Authorization list").

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

The substance is not subject to the provisions of annex XVII (restriction entries) of the Reach regulation (EC) 1907/2006.

Directive 2012/18/EU on the control of major-accident hazards involving dangerous substances This substance 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.

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.

Department issuing 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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