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

1.1. Product identifier

Chlorocresolum

Item No. 06270000

Substance / product identification

UFI NCY4-C0Q8-J00N-E04Q

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

Use of the substance/preparation

Manufacture of pharmaceutical products, industry

1.3. Details of the supplier of the safety data sheet

Address/Manufacturer

Hänseler AG
Industriestrasse 35
9100 Herisau

Telephone no.	0041 (0)71 353 58 58
E-mail address of person responsible for this SDS	sdb@haenseler.ch

1.4. Emergency telephone number

Switzerland :145 / Abroad +41 (0)44 251 51 51

SECTION 2: Hazards identification ***

2.1. Classification of the substance or mixture

Classification (Regulation (EC) No. 1272/2008)

Classification (Regulation (EC) No. 1272/2008)

Acute Tox. 4	H302
Skin Corr. 1C	H314
Eye Dam. 1	H318
Skin Sens. 1	H317
STOT SE 3	H335
Aquatic Acute 1	H400
Aquatic Chronic 3	H412

The product is classified and labelled in accordance with Regulation (EC) No 1272/2008
For explanation of abbreviations see section 16.

2.2. Label elements

Labelling according to regulation (EC) No 1272/2008

Hazard pictograms

Signal word

Danger

Hazard statements ***

H302	Harmful if swallowed.
H314	Causes severe skin burns and eye damage.
H317	May cause an allergic skin reaction.
H335	May cause respiratory irritation.
H400	Very toxic to aquatic life.
H412	Harmful to aquatic life with long lasting effects.

Precautionary statements ***

P261	Avoid breathing dust/fume/gas/mist/vapours/spray.
P273	Avoid release to the environment.
P280	Wear protective gloves/protective clothing/eye protection/face protection.
P304+P340	IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing.
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 or doctor.

Hazardous component(s) to be indicated on label (Regulation (EC) No. 1272/2008)

contains chlorocresol

2.3. Other hazards

The Substance does not meet PBT-criteria. This substance does not meet the vPvB-criteria. This substance does not have endocrine disrupting properties with respect to humans. This substance does not have endocrine disrupting properties with respect to non-target organisms.

SECTION 3: Composition/information on ingredients

Hazardous ingredients

chlorocresol

CAS No. 59-50-7

EINECS no. 200-431-6

Concentration >= 91 %

Classification (Regulation (EC) No. 1272/2008)

Acute Tox. 4	H302
Skin Corr. 1C	H314
Eye Dam. 1	H318
Skin Sens. 1	H317
STOT SE 3	H335
Aquatic Acute 1	H400
Aquatic Chronic 3	H412

Concentration limits (Regulation (EC) No. 1272/2008)

Aquatic Acute 1 M = 1

ATE oral 1’830 mg/kg

SECTION 4: First aid measures

4.1. Description of first aid measures

General information

Poisonous symptoms can first be observed after several hours, there- fore medical observation for at least 48 hours is necessary.

After inhalation

Ensure supply of fresh air. Summon a doctor immediately. If the patient is likely to become unconscious, place and transport in stable sideways position.

After skin contact

Wash off immediately with soap and water and rinse well.

After eye contact

Separate eyelids, wash the eyes thoroughly with water (15 min.). Summon a doctor immediately.

After ingestion

Do not induce vomiting. If individual is drowsy or unconscious place in recovery position (on left side, with head down). Never give anything by mouth to an unconscious person. Call in a physician immediately and show him the Safety Data Sheet.

SECTION 5: Firefighting measures

5.1. Extinguishing media

Suitable extinguishing media

Water spray jet, Alcohol-resistant foam, Dry chemical extinguisher, Carbon dioxide

Non suitable extinguishing media

Full water jet

5.2. Special hazards arising from the substance or mixture

In the event of fire the following can be released: Hydrogen chloride (HCl); Carbon monoxide (CO); Carbon dioxide (CO2)

5.3. Advice for firefighters

Special protective equipment for fire-fighting

Use self-contained breathing apparatus.

Other information

Do not discharge into surface waters/groundwater. Fire residues and contaminated fire-fighting 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

Wear protective equipment. Keep away unprotected persons. Ensure adequate ventilation. Avoid dust formation. Avoid breathing dust.

6.2. Environmental precautions

In case the product spills into sewage waters, immediately inform the authorities. Knock down dust with water spray jet. Do not discharge into the drains/surface waters/groundwater. Retain and dispose of contaminated wash water.

6.3. Methods and material for containment and cleaning up

Pick up mechanically. When picked up, treat material as prescribed under Section 13 "Disposal".

SECTION 7: Handling and storage

7.1. Precautions for safe handling

Advice on safe handling

Keep container tightly closed. Avoid dust formation. Do not inhale dust. Avoid contact with skin, eyes and clothing. For personal protection see Section 8. Smoking, eating and drinking should be prohibited in application area. Provide good ventilation of working area (local exhaust ventilation if necessary). Persons with a history of asthma, allergies, chronic or recurrent respiratory disease should not be exposed to any process in which this mixture is used.

Advice on protection against fire and explosion

Avoid dust formation. Dust can form an explosive mixture with air.

7.2. Conditions for safe storage, including any incompatibilities

Requirements for storage rooms and vessels

No special requirements.

Hints on storage assembly

Not required.

Storage classes

Storage category (Switzerland)	8	Caustic and corrosive substances
Storage class according to TRGS 510	8B	Non-combustible corrosive hazardous substances

Further information on storage conditions

Keep container tightly closed and in a well-ventilated place. Protect from light. Keep under lock and key or accessible only to specialists or people who are authorized.

SECTION 8: Exposure controls/personal protection

8.1. Control parameters

Derived No/Minimal Effect Levels (DNEL/DMEL)

chlorocresol

Type of value	Derived No Effect Level (DNEL)	
Reference group	Worker	
Duration of exposure	Long term	
Route of exposure	inhalative	
Mode of action	Systemic effects	
Concentration	5.86	mg/m³

Type of value	Derived No Effect Level (DNEL)	
Reference group	Worker	
Duration of exposure	Long term	
Route of exposure	dermal	
Mode of action	Systemic effects	
Concentration	5	mg/kg/d

Type of value	Derived No Effect Level (DNEL)	
Reference group	Consumer	
Duration of exposure	Long term	
Route of exposure	inhalative	
Mode of action	Systemic effects	
Concentration	1.04	mg/m³

Type of value	Derived No Effect Level (DNEL)	
Reference group	Consumer	
Duration of exposure	Long term	
Route of exposure	dermal	
Mode of action	Systemic effects	
Concentration	2.5	mg/kg/d

Type of value	Derived No Effect Level (DNEL)	
Reference group	Consumer	
Duration of exposure	Long term	
Route of exposure	oral	
Mode of action	Systemic effects	
Concentration	0.6	mg/kg/d

Predicted No Effect Concentration (PNEC)

chlorocresol

Type of value	PNEC	
Type	Freshwater	
Concentration	0.015	mg/l
Type of value	PNEC	
Type	Saltwater	
Concentration	0.002	mg/l
Type of value	PNEC	
Type	Water (intermittent release)	
Concentration	0.009	mg/l
Type of value	PNEC	
Type	Freshwater sediment	
Concentration	0.347	mg/kg
Type of value	PNEC	
Type	Marine sediment	
Concentration	0.035	mg/kg
Type of value	PNEC	
Type	Sewage treatment plant (STP)	
Concentration	0.57	mg/l
Type of value	PNEC	
Type	Soil	
Concentration	1	mg/kg

8.2. Exposure controls

Exposure controls

See Section 7. No measures exeeding the ones mentioned necessary.

General protective and hygiene measures

Use barrier skin cream. Keep away from food-stuffs, beverages and feed-stocks. Remove contaminated, soaked clothing immediately and dispose of safely. Wash hands before breaks and after work. Avoid contact with eyes.

Respiratory protection

Use breathing apparatus in dust/fumes/mist-laden atmosphere. Particle filter P2

Hand protection

The glove material must be sufficient impermeable and resistant to the substance. Check the tightness before wear. Gloves should be well cleaned before being removed, then stored in a well ventilated location.

Appropriate Material	Polychloroprene		
Breakthrough time	<	60	min
Appropriate Material	PVC		
Breakthrough time	<	60	min

Hand protection must comply with EN 374.

Eye protection

Tightly fitting safety glasses

Body protection

Protective clothing

SECTION 9: Physical and chemical properties

9.1. Information on basic physical and chemical properties

Physical state	solid			
Colour	white			
Odour	characteristic			
Physical state	Pellets			

Melting point

Value		64.2	°C
Method	OECD 102		

Boiling point or initial boiling point and boiling range

Value		242	°C
Pressure		1013	hPa
Method	OECD 103		

Flammability

not determined

Flash point

Value		°C	
Remarks	Not applicable		

Ignition temperature

Value	>	420	°C

Decomposition temperature

Value	>=	95	°C

pH value

Value	appr.	6	
Concentration/H2O		1	%
Temperature		30	°C

Partition coefficient n-octanol/water (log value)

log Pow		2.73	
Temperature		25	°C
Method	OECD 107		

Vapour pressure

Value		0.0775	Pa
Temperature		20	°C
Method	OECD 104		
Value		0.144	Pa
Temperature		25	°C
Method	OECD 104		
Value		3.8	Pa
Temperature		50	°C
Method	OECD 104		

Density and/or relative density

Value		1.335	kg/l
Temperature		20	°C
Method	Regulation (EC) No. 440/2008, Annex, A.3		

9.2. Other information

Solubility in water

Value		3.6	g/l
Method	Regulation (EC) No. 440/2008, Annex, A.6		

Auto-ignition temperature

Remarks	Not applicable

Bulk density

Value	570	to	670	kg/m³
Temperature	20	°C		

Other information

The product is not dangerous for explosions.

SECTION 10: Stability and reactivity

10.1. Reactivity

No decomposition if stored and applied as directed.

10.2. Chemical stability

No decomposition if stored and applied as directed.

10.3. Possibility of hazardous reactions

The product is not a dust explosion risk as supplied; however the build-up of fine dust can lead to a risk of dust explosions.

10.4. Conditions to avoid

Avoid dust formation. The product is not a dust explosion risk as supplied; however the build-up of fine dust can lead to a risk of dust explosions.

10.5. Incompatible materials

Strong oxidising agents, Incompatible with acid chlorides and acid anhydrides. Incompatible with alkaline substances . Corrodes copper and brass.

10.6. Hazardous decomposition products

In the event of fire the following can be released: Hydrogen chloride (HCl)

SECTION 11: Toxicological information

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

Acute oral toxicity

ATE	1’830	mg/kg
Method	calculated value (Regulation (EC) No. 1272/2008)	

Acute oral toxicity (Components)

chlorocresol

Species	rat	
LD50	1830	mg/kg
Method	OECD 401	
Remarks	Ingestion causes burns of the upper digestive and respiratory tracts.	

Acute dermal toxicity (Components)

chlorocresol

Species	rat	
LD50	> 2000	mg/kg
Method	OECD 402	

Acute inhalative toxicity (Components)

chlorocresol

Species	rat	
LC50	> 2.871	mg/l
Method	OECD 403	

Serious eye damage/irritation (Components)

chlorocresol

Species	rabbit
Method	OECD 405
Remarks	Risk of serious damage to eyes.

Sensitization (Components)

chlorocresol

Species	guinea pig
Method	OECD 406
Remarks	May cause allergic skin reactions.

Subacute, subchronic, chronic toxicity (Components)

chlorocresol

Route of exposure	oral		
Species	rat (male)		
NOEL	103		mg/kg

chlorocresol

Route of exposure	oral		
Species	rat (female)		
NOEL	134		mg/kg

chlorocresol

Route of exposure	oral		
Species	rat (male)		
NOAEL	120		mg/kg
Repeated exposure			
Duration of exposure	90	d	
Method	OECD 408		
Remarks	subchronic toxizity		

chlorocresol

Route of exposure	dermal		
Species	Rats (male/female)		
NOAEL	500		mg/kg
Repeated exposure			
Duration of exposure	90	d	
Method	OECD 411		
Remarks	subchronic toxizity		

Mutagenicity (Components)

chlorocresol

evaluation	No experimental information on genotoxicity in vitro available.
Method	OECD 471

chlorocresol

Species	mammal, species unspecified
evaluation	No experimental information on genotoxicity in vitro available.
Method	OECD 476

chlorocresol

Route of exposure	intraperitoneal
Species	mouse
evaluation	No experimental indications on genotoxicity in vivo found.
Method	OECD 474

Reproduction toxicity (Components)

chlorocresol

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

Carcinogenicity (Components)

chlorocresol

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

Specific Target Organ Toxicity (STOT) (Components)

chlorocresol

Single exposure

evaluation	May cause respiratory irritation.

chlorocresol

Repeated exposure

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

11.2 Information on other hazards

Endocrine disrupting properties with respect to humans

This substance does not have endocrine disrupting properties with respect to humans.

SECTION 12: Ecological information

12.1. Toxicity

Fish toxicity (Components)

chlorocresol

Species	rainbow trout (Oncorhynchus mykiss)		
LC50	0.92		mg/l
Duration of exposure	96	h	

chlorocresol

Species	rainbow trout (Oncorhynchus mykiss)		
NOEC	0.15		mg/l
Duration of exposure	28	d	
Method	OECD 215		

Daphnia toxicity (Components)

chlorocresol

Species	Daphnia magna		
LC50	3.9		mg/l
Duration of exposure	48	h	

chlorocresol

Species	Daphnia magna		
NOEC	0.32		mg/l
Duration of exposure	21	d	
Method	OECD 211		

chlorocresol

Species	Daphnia magna		
EC50	2.29		mg/l
Duration of exposure	48	h	

Algae toxicity (Components)

chlorocresol

Species	Scenedesmus subspicatus		
EC50	30.62		mg/l
Duration of exposure	72	h	
Source	LS-662-00 exK001392 SDS 20141024		

chlorocresol

Species	Desmodesmus subspicatus

NOEC	9.8		mg/l
Duration of exposure	72	h	
Method	OECD 201		

Bacteria toxicity (Components)

chlorocresol

Species	activated sludge		
EC50	60		mg/l
Method	OECD 209		

chlorocresol

Species	activated sludge		
EC50	41.4		mg/l
Duration of exposure	3	h	
Method	OECD 209		

12.2. Persistence and degradability

Biodegradability

Value	> 90		%
Duration of test	28	d	
evaluation	Readily biodegradable		

Biodegradability (Components)

chlorocresol

Value	90		%
Duration of test	28	d	
evaluation	good degradability		
Method	OECD 301C		

chlorocresol

Value	85		%
Duration of test	28	d	
evaluation	Readily biodegradable		
Method	OECD 301D		

12.3. Bioaccumulative potential

Partition coefficient n-octanol/water (log value)

log Pow	2.73	
Temperature	25	°C
Method	OECD 107	

Octanol/water partition coefficient (log Pow) (Components)

chlorocresol

log Pow	2.73	
Temperature	25	°C
Method	OECD 107	

Bioconcentration factor (BCF) (Components)

chlorocresol

BCF	13

12.4. Mobility in soil

General information

No data available

12.5. Results of PBT and vPvB assessment

Results of PBT and vPvB assessment

The Substance does not meet PBT-criteria.

This substance does not meet the vPvB-criteria.

12.6 Endocrine disrupting properties

Endocrine disrupting properties with respect to the envrionment

This substance does not have endocrine disrupting properties with respect to non-target organisms.

12.7. Other adverse effects

General information / ecology

Product is hazardous to water. Do not allow it to reach ground water, water bodies or sewage system.
Very toxic for aquatic organismes.

SECTION 13: Disposal considerations

13.1. Waste treatment methods

Disposal recommendations for the product

EWC waste code No not dispose with rubbish.
In accordance with regulations for special waste, must be taken to an authorised special waste disposal site or incineration plant.

Disposal recommendations for packaging

Disposal in compliance with local and national regulations.

SECTION 14: Transport information ***

	Land transport ADR/RID ***	Marine transport IMDG/GGVSee ***	Air transport ICAO/IATA ***
Tunnel restriction code	E		
14.1. UN number	3261	3261	3261
14.2. UN proper shipping name	CORROSIVE SOLID, ACIDIC, ORGANIC, N.O.S.	CORROSIVE SOLID, ACIDIC, ORGANIC, N.O.S.	CORROSIVE SOLID, ACIDIC, ORGANIC, N.O.S.
14.3. Transport hazard class(es)	8	8	8
Label			
14.4. Packing group	III	III	III
Limited Quantity	5 kg		
Transport category	3		
14.5. Environmental hazards	 ENVIRONMENTALLY HAZARDOUS	Marine Pollutant 	 ENVIRONMENTALLY HAZARDOUS

SECTION 15: Regulatory information

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

Water Hazard Class (Germany)

Water Hazard Class (Germany)	WGK 2
Remarks	Derivation of WGK according to Annex 1 No. 5.2 AwSV

SECTION 16: Other information

Hazard statements listed in Chapter 3

H302	Harmful if swallowed.
H314	Causes severe skin burns and eye damage.
H317	May cause an allergic skin reaction.
H318	Causes serious eye damage.
H335	May cause respiratory irritation.
H400	Very toxic to aquatic life.
H412	Harmful to aquatic life with long lasting effects.

CLP categories listed in Chapter 3

Acute Tox. 4	Acute toxicity, Category 4
Aquatic Acute 1	Hazardous to the aquatic environment, acute, Category 1
Aquatic Chronic 3	Hazardous to the aquatic environment, chronic, Category 3
Eye Dam. 1	Serious eye damage, Category 1
Skin Corr. 1C	Skin corrosion, Category 1C
Skin Sens. 1	Skin sensitization, Category 1
STOT SE 3	Specific target organ toxicity - single exposure, Category 3

Supplemental information

Relevant changes compared with the previous version of the safety data sheet are marked with: ***
This information is based on our present state of knowledge. However, it should not constitute a guarantee for any specific product properties and shall not establish a legally valid relationship.