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

1.1 Product identifier

KRONES colclean DI 7001
Article number: 0903286591, 0903286594, 0903286596

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

1.2.1 Relevant uses

Disinfectant

1.2.2 Uses advised against

None known.

1.3 Details of the supplier of the safety data sheet

Company

KIC KRONES Internationale Cooperationsgesellschaft mbH
Böhmerwaldstraße 5
93073 Neutraubling / GERMANY
Phone +49 9401 70-3020
Fax +49 9401 70-3696
Homepage www.kic-krones.com
E-mail kic@kic-krones.com

Address enquiries to

Technical information kic@kic-krones.com

Safety Data Sheet sdb@chemiebuero.de

1.4 Emergency telephone number

Advisory body +49 (0)89-19240 (24h) (english)

SECTION 2: Hazards identification

2.1 Classification of the substance or mixture

Skin Sens. 1B: H317 May cause an allergic skin reaction.
Eye Dam. 1: H318 Causes serious eye damage.
Acute Tox. 4: H332 Harmful if inhaled.
Carc. 2: H351 Suspected of causing cancer.
STOT RE 1: H372 Causes damage to organs through prolonged or repeated exposure.
Aquatic Chronic 1: H410 Very toxic to aquatic life with long lasting effects.
Aquatic Acute 1: H400 Very toxic to aquatic life.

2.2 Label elements

The product is required to be labelled in accordance with regulation (EC) No 1272/2008 (CLP).

Hazard pictograms


Signal word DANGER

Contains: Poly(hexamethylenebiguanide) hydrochloride

Hazard statements

H317 May cause an allergic skin reaction.
H318 Causes serious eye damage.
H332 Harmful if inhaled.
H351 Suspected of causing cancer.
H372 Causes damage to organs through prolonged or repeated exposure.
H410 Very toxic to aquatic life with long lasting effects.

Precautionary statements

P201 Obtain special instructions before use.
P308+P313 IF exposed or concerned: Get medical advice / attention.
P260 Do not breathe vapours / spray.
P280 Wear protective gloves / protective clothing / eye protection / face protection.
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.
P501 Dispose of contents/container in accordance with local/national regulation.

Biocide (528/2012/CE) contains:

19,97 g/100g Poly(hexamethylenebiguanide) hydrochloride
0,1 g/100g Glycolic acid
Registration: -

2.3 Other hazards

Other hazards Further hazards were not determined with the current level of knowledge.

SECTION 3: Composition / Information on ingredients

Product-type:

The product is a mixture.

Range [%]	Substance
15 - < 20	Poly(hexamethylenebiguanide) hydrochloride
	CAS: 27083-27-8, EINECS/ELINCS: polymer, EU-INDEX: 616-207-00-X
	GHS/CLP: Carc. 2: H351 - Acute Tox. 4: H302 - Acute Tox. 2: H330 - Skin Sens. 1B: H317 - Eye Dam. 1: H318 - STOT RE 1: H372 - Aquatic Acute 1: H400 - Aquatic Chronic 1: H410, M = 10

Comment on component parts

Substances of Very High Concern - SVHC: substances are not contained or are below 0.1%.
All chemical substances in this material are included on or exempted from listing on the TSCA Inventory.
For full text of H-statements: see SECTION 16.

SECTION 4: First aid measures

4.1 Description of first aid measures

General information
Take off contaminated clothing and wash before reuse.
Symptoms of poisoning may not occur for many hours, therefore keep under medical supervision for at least 48 hours.

Inhalation
Ensure supply of fresh air.
Remove the victim into fresh air and keep him calm.
Get medical advice.

Skin contact
In case of contact with skin wash off immediately with soap and water.
Consult a doctor if skin irritation persists.

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

Ingestion
Do not induce vomiting.
Rinse out mouth and give plenty of water to drink.
Seek medical advice.

4.2 Most important symptoms and effects, both acute and delayed

No information available.

4.3 Indication of any immediate medical attention and special treatment needed

Treat symptomatically.

SECTION 5: Fire-fighting measures

5.1 Extinguishing media

Suitable extinguishing media
Product itself is non-combustible. Fire extinguishing method of surrounding areas must be considered.

Extinguishing media that must not be used
Full water jet

5.2 Special hazards arising from the substance or mixture

Risk of formation of toxic pyrolysis products.
Nitrogen oxides (NOx).
Carbon monoxide (CO)
Hydrogen chloride (HCl).

5.3 Advice for firefighters

Use self-contained breathing apparatus.

Fire residues and contaminated firefighting water must be disposed of in accordance within the local regulations.

SECTION 6: Accidental release measures

6.1 Personal precautions, protective equipment and emergency procedures

Ensure adequate ventilation.
Wear suitable protective equipment. For personal protection see SECTION 8.
Remove persons to safety.
High risk of slipping due to leakage/spillage of product.

6.2 Environmental precautions

Prevent spread over a wide area (e.g. by containment or oil barriers).
Do not discharge into the drains/surface waters/groundwater.
In case the product spills into drains/surface waters/groundwater, immediately inform the authorities.

6.3 Methods and material for containment and cleaning up

Pick up with absorbent material (e.g. sand, sawdust, universal absorbent, diatomaceous earth).
Dispose of absorbed material in accordance within the regulations.

6.4 Reference to other sections

See SECTION 8+13

SECTION 7: Handling and storage

7.1 Precautions for safe handling

Use only in well-ventilated areas.
Avoid spilling or spraying in enclosed areas.
Place the container in an upright position and protect it against falling over.
Open and handle container with care.
Avoid contact with eyes and skin. Use personal protective equipment.

Do not eat, drink or smoke when using this product.
Take off contaminated clothing and wash before reuse.
Contaminated work clothing should not be allowed out of the workplace.
After worktime and before work breaks the affected skin areas must be thoroughly cleaned.
Use barrier skin cream.

7.2 Conditions for safe storage, including any incompatibilities

Keep only in original container.
Prevent penetration into the ground.

Do not store with alkalies.
Do not store together with oxidizing agents.

Keep container tightly closed.
Keep container in a well-ventilated place.
Keep in a cool place. Store in a dry place.
Keep away from frost.

7.3 Specific end use(s)

See product use, SECTION 1.2

SECTION 8: Exposure controls / personal protection

8.1 Control parameters

Ingredients with occupational exposure limits to be monitored (GB)

not applicable

8.2 Exposure controls

Additional advice on system design	Ensure adequate ventilation on workstation. Measurement methods for taking workplace measurements must meet the performance requirements of DIN EN 482. For example, recommendations are given in the IFA's list of hazardous substances.
Eye protection	Tightly fitting goggles. (EN 166:2001)
Hand protection	The details concerned are recommendations. Please contact the glove supplier for further information. > 0,11 mm, Butyl rubber, >480 min (EN 374-1/-2/-3). > 0,11 mm, Nitrile rubber, >480 min (EN 374-1/-2/-3).
Skin protection	Protective clothing.
Other	Avoid contact with eyes and skin. Do not breathe vapour/spray. Personal protective equipment should be selected specifically for the working place, depending on concentration and quantity handled. The resistance of this equipment to chemicals should be ascertained with the respective supplier.
Respiratory protection	Breathing apparatus in the event of aerosol or mist formation. Short term: filter apparatus, filter AB. (DIN EN 14387)
Thermal hazards	not applicable
Delimitation and monitoring of the environmental exposition	Protect the environment by applying appropriate control measures to prevent or limit emissions.

SECTION 9: Physical and chemical properties

9.1 Information on basic physical and chemical properties

Form	liquid
Color	colourless yellowish
Odor	odourless
Odour threshold	not applicable
pH-value	3,1
pH-value [1%]	No information available.
Boiling point [°C]	ca. 89,8
Flash point [°C]	not applicable
Flammability (solid, gas) [°C]	not applicable
Lower explosion limit	not applicable
Upper explosion limit	not applicable
Oxidising properties	no
Vapour pressure/gas pressure [kPa]	No information available.
Density [g/ml]	1,051 (20 °C / 68,0 °F)
Bulk density [kg/m³]	not applicable
Solubility in water	completely miscible
Partition coefficient [n-octanol/water]	No information available.
Viscosity	10s (Ford cup)
Relative vapour density determined in air	No information available.
Evaporation speed	No information available.
Melting point [°C]	No information available.
Autoignition temperature [°C]	No information available.
Decomposition temperature [°C]	No information available.

9.2 Other information

Refractive index: 1,379

SECTION 10: Stability and reactivity

10.1 Reactivity

No dangerous reactions known if used as directed.

10.2 Chemical stability

Stable under normal ambient conditions (ambient temperature).

10.3 Possibility of hazardous reactions

Reactions with strong oxidizing agents.
Reactions with strong alkalies.

10.4 Conditions to avoid

Sensitive to frost

10.5 Incompatible materials

No information available.

10.6 Hazardous decomposition products

In the event of fire: See SECTION 5.

SECTION 11: Toxicological information

11.1 Information on toxicological effects

Acute toxicity

Product
ATE-mix, inhalative, 1,45 mg/l/4h.
ATE-mix, oral, > 2000 mg/kg.

Substance
Poly(hexamethylenebiguanide) hydrochloride, CAS: 27083-27-8
LC50, inhalative, 0,29 mg/kg (ECHA, CHL Report).
ATE, oral, 500 mg/kg.

Serious eye damage/irritation	Risk of serious damage to eyes. Calculation method
Skin corrosion/irritation	Based on the available information, the classification criteria are not fulfilled.
Respiratory or skin sensitisation	Sensitizing. Calculation method
Specific target organ toxicity — single exposure	Based on the available information, the classification criteria are not fulfilled.
Specific target organ toxicity — repeated exposure	CAS 27083-27-8 (Respiratory tract; Inhalation): Causes damage to organs through prolonged or repeated exposure. Product: Causes damage to organs through prolonged or repeated exposure. Calculation method
Mutagenicity	Based on the available information, the classification criteria are not fulfilled.
Reproduction toxicity	Based on the available information, the classification criteria are not fulfilled.
Carcinogenicity	Suspected of causing cancer. Calculation method
Aspiration hazard	Based on the available information, the classification criteria are not fulfilled.
General remarks	
	Toxicological data of complete product are not available.

SECTION 12: Ecological information

12.1 Toxicity

Substance
Poly(hexamethylenebiguanide) hydrochloride, CAS: 27083-27-8
LC50, (96h), Oncorhynchus mykiss: 0,026 mg/l.
EC50, Bacteria: 38 mg/l (4h).
EC50, (48h), Daphnia magna: 0,09 mg/l (OECD 202).
ErC50, (72h), Pseudokirchneriella subcapitata: 0,0191 mg/l (OECD 201).

12.2 Persistence and degradability

Behaviour in environment compartments No information available.

Behaviour in sewage plant No information available.

Biological degradability CAS 27083-27-8: The product is not readily biodegradable.

12.3 Bioaccumulative potential

CAS 27083-27-8: Product has having no bioaccumulation potential.

12.4 Mobility in soil

CAS 27083-27-8: Adsorbed into soil.

12.5 Results of PBT and vPvB assessment

Based on all available information not to be classified as PBT or vPvB respectively.

12.6 Other adverse effects

Ecological data of complete product are not available.
Do not discharge product unmonitored into the environment or into the drainage.

SECTION 13: Disposal considerations

13.1 Waste treatment methods

Waste material must be disposed of in accordance with the Directive on waste 2008/98/EC as well as other national and local regulations. It is not possible to determine a waste code for this product in accordance with the European Waste Catalogue (EWC) since it is only possible to classify it according to how it is used by the customer. The waste code is to be determined within the EU in liaison with the waste-disposal operator.

Product

Coordinate disposal with the authorities if necessary.

Waste no. (recommended) 070101*
070601*

Contaminated packaging

Uncontaminated packaging may be taken for recycling.
Packaging that cannot be cleaned should be disposed of as for product.

Waste no. (recommended) 150110*

SECTION 14: Transport information

14.1 UN number

Transport by land according to ADR/RID	3082
Inland navigation (ADN)	3082
Marine transport in accordance with IMDG	3082
Air transport in accordance with IATA	3082

14.2 UN proper shipping name

Transport by land according to ADR/RID	Environmentally hazardous substance, liquid, n.o.s. (Poly(hexamethylenebiguanide)hydrochloride)
- Classification Code	M6
- Label	
- ADR LQ	5 l
- ADR 1.1.3.6 (8.6)	Transport category (tunnel restriction code) 3 (E)
Inland navigation (ADN)	Environmentally hazardous substance, liquid, n.o.s. (Poly(hexamethylenebiguanide)hydrochloride)
- Classification Code	M6
- Label	
Marine transport in accordance with IMDG	Environmentally hazardous substance, liquid, n.o.s. (Poly(hexamethylenebiguanide)hydrochloride)
- EMS	F-A, S-F
- Label	
- IMDG LQ	5 l
Air transport in accordance with IATA	Environmentally hazardous substance, liquid, n.o.s. (Poly(hexamethylenebiguanide)hydrochloride)
- Label	

14.3 Transport hazard class(es)

Transport by land according to ADR/RID	9
Inland navigation (ADN)	9
Marine transport in accordance with IMDG	9
Air transport in accordance with IATA	9

14.4 Packing group

Transport by land according to ADR/RID	III
Inland navigation (ADN)	III
Marine transport in accordance with IMDG	III
Air transport in accordance with IATA	III

14.5 Environmental hazards

Transport by land according to ADR/RID	yes
Inland navigation (ADN)	yes
Marine transport in accordance with IMDG	MARINE POLLUTANT
Air transport in accordance with IATA	yes

14.6 Special precautions for user

Relevant information under SECTION 6 to 8.

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

No information available.

SECTION 15: Regulatory information

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

EEC-REGULATIONS	1991/689 (2001/118); 2010/75; 2004/42; 648/2004; 1907/2006 (REACH); 1272/2008; 75/324/EEC (2008/47/EC); (EU) 2015/830; (EU) 2016/131; (EU) 517/2014
TRANSPORT-REGULATIONS	DOT-Classification, ADR (2017); IMDG-Code (2017, 38. Amdt.); IATA-DGR (2017).
NATIONAL REGULATIONS (GB):	EH40/2005 Workplace exposure limits (Second edition, published December 2011). CHIP 3/ CHIP 4
- Observe employment restrictions for people	Observe employment restrictions for young people. Observe employment restrictions for mothers-to-be and nursing mothers.
- VOC (2010/75/CE)	not applicable

15.2 Chemical safety assessment

No information available.

SECTION 16: Other information

16.1 Hazard statements (SECTION 03)

H410 Very toxic to aquatic life with long lasting effects.
H400 Very toxic to aquatic life.
H372 Causes damage to organs through prolonged or repeated exposure if inhaled.
H318 Causes serious eye damage.
H317 May cause an allergic skin reaction.
H330 Fatal if inhaled.
H302 Harmful if swallowed.
H351 Suspected of causing cancer.

16.2 Abbreviations and acronyms:

ADR = Accord européen relatif au transport international des marchandises Dangereuses par Route
RID = Règlement concernant le transport international ferroviaire de marchandises dangereuses
ADN = Accord européen relatif au transport international des marchandises dangereuses par voie de navigation intérieure
ATE = acute toxicity estimate
CAS = Chemical Abstracts Service
CLP = Classification, Labelling and Packaging
DMEL = Derived Minimum Effect Level
DNEL = Derived No Effect Level
EC50 = Median effective concentration
ECB = European Chemicals Bureau
EEC = European Economic Community
EINECS = European Inventory of Existing Commercial Chemical Substances
ELINCS = European List of Notified Chemical Substances
GHS = Globally Harmonized System of Classification and Labelling of Chemicals
IATA = International Air Transport Association
IBC-Code = International Code for the Construction and Equipment of Ships carrying Dangerous Chemicals in Bulk
IC50 = Inhibition concentration, 50%
IMDG = International Maritime Code for Dangerous Goods
IUCLID = International Uniform ChemicaL Information Database
LC50 = Lethal concentration, 50%
LD50 = Median lethal dose
LC0 = lethal concentration, 0%
LOAEL = lowest-observed-adverse-effect level
MARPOL = International Convention for the Prevention of Marine Pollution from Ships
NOAEL = No Observed Adverse Effect Level
NOEC = No Observed Effect Concentration
PBT = Persistent, Bioaccumulative and Toxic substance
PNEC = Predicted No-Effect Concentration
REACH = Registration, Evaluation, Authorisation and Restriction of Chemicals
STP = Sewage Treatment Plant
TLV®/TWA = Threshold limit value – time-weighted average
TLV®STEL = Threshold limit value – short-time exposure limit
VOC = Volatile Organic Compounds
vPvB = very Persistent and very Bioaccumulative

16.3 Other information

Classification procedure

Skin Sens. 1B: H317 May cause an allergic skin reaction. (Calculation method)
Eye Dam. 1: H318 Causes serious eye damage. (Calculation method)
Acute Tox. 4: H332 Harmful if inhaled. (Calculation method)
Carc. 2: H351 Suspected of causing cancer. (Calculation method)
STOT RE 1: H372 Causes damage to organs through prolonged or repeated exposure. (Calculation method)
Aquatic Chronic 1: H410 Very toxic to aquatic life with long lasting effects. (Calculation method)
Aquatic Acute 1: H400 Very toxic to aquatic life. (Calculation method)

Modified position

SECTION 2 been added: H332 Harmful if inhaled.

SECTION 2 been added: Acute Tox. 4

SECTION 4 been added: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.

SECTION 4 been added: Consult a doctor immediately.

SECTION 4 been added: Symptoms of poisoning may not occur for many hours, therefore keep under medical supervision for at least 48 hours.

SECTION 6 been added: High risk of slipping due to leakage/spillage of product.

SECTION 6 been added: Remove persons to safety.

SECTION 7 been added: Avoid contact with eyes and skin. Use personal protective equipment.

SECTION 7 been added: Do not store with alkalies.

SECTION 7 been added: Do not store together with oxidizing agents.

SECTION 7 been added: Contaminated work clothing should not be allowed out of the workplace.

SECTION 7 been added: Place the container in an upright position and protect it against falling over.

SECTION 7 been added: Open and handle container with care.

SECTION 8 been added: Measurement methods for taking workplace measurements must meet the performance requirements of DIN EN 482. For example, recommendations are given in the IFA's list of hazardous substances.

SECTION 9 deleted: not determined

SECTION 9 been added: No information available.

SECTION 10 been added: Reactions with strong alkalies.

SECTION 10 been added: Sensitive to frost

SECTION 11 been added: Suspected of causing cancer.

SECTION 11 been added: Calculation method

SECTION 11 been added: Based on the available information, the classification criteria are not fulfilled.

SECTION 11 been added: Causes damage to organs through prolonged or repeated exposure.

SECTION 11 been added: Calculation method

SECTION 11 been added: Causes damage to organs through prolonged or repeated exposure.

SECTION 11 been added: Product:

SECTION 12 been added: Product has having no bioaccumulation potential.

SECTION 12 been added: No information available.

SECTION 12 been added: Adsorbed into soil.

SECTION 12 deleted: not determined

SECTION 15 been added: Observe employment restrictions for mothers-to-be and nursing mothers.

SECTION 16 been added: Calculation method