

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

KRONES colclean MC 1005
Article number: 0903290335, 0903290336, 0903290337

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

Cleaning agent

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@chemiebueero.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 Corr. 1: H314 Causes severe skin burns and eye damage.
 Eye Dam. 1: H318 Causes serious eye damage.

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:

Potassium hydroxide
 Alcohols, C9-11-iso-, C10-rich, ethoxylated

Hazard statements

H314 Causes severe skin burns and eye damage.

Precautionary statements

P260 Do not breathe vapours / spray.
 P280 Wear protective gloves / protective clothing / eye protection / face protection.
 P301+P330+P331 IF SWALLOWED: rinse mouth. Do NOT induce vomiting.
 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.
 P501 Dispose of contents/container in accordance with local/national regulation.

Cleaner, 648/2004/CE, contains:

< 5% phosphonates
 < 5% non-ionic surfactants
 < 5% nitrilotriacetic acid
 < 5% amphoteric surfactants

2.3 Other hazards

Physico-chemical hazards	Corrosive to metals.
Environmental hazards	Does not contain any PBT or vPvB substances.
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
1 - < 5	Trisodium nitrilotriacetate CAS: 5064-31-3, EINECS/ELINCS: 225-768-6, EU-INDEX: 607-620-00-6, Reg-No.: 01-2119519239-36-XXXX GHS/CLP: Acute Tox. 4: H302 - Eye Irrit. 2: H319 - Carc. 2: H351
3 - < 5	Alcohols, C9-11-iso-, C10-rich, ethoxylated CAS: 78330-20-8, EINECS/ELINCS: polymer GHS/CLP: Acute Tox. 4: H302 - Eye Dam. 1: H318
1 - < 5	2-(2-Butoxyethoxy)ethanol CAS: 112-34-5, EINECS/ELINCS: 203-961-6, EU-INDEX: 603-096-00-8 GHS/CLP: Eye Irrit. 2: H319
1 - < 2	Potassium hydroxide CAS: 1310-58-3, EINECS/ELINCS: 215-181-3, EU-INDEX: 019-002-00-8, Reg-No.: 01-2119487136-33-XXXX GHS/CLP: Acute Tox. 4: H302 - Skin Corr. 1A: H314 - Met. Corr. 1: H290
1 - < 3	N-dodecyl-β-alanine, compound with 2,2',2"-nitrilotriethanol (1:1) CAS: 14171-00-7, EINECS/ELINCS: 238-015-1 GHS/CLP: Eye Dam. 1: H318 - Skin Irrit. 2: H315

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.
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SECTION 4: First aid measures

4.1 Description of first aid measures

General information	Remove contaminated soaked clothing immediately and dispose of safely.
Inhalation	Ensure supply of fresh air. In the event of symptoms seek medical treatment.
Skin contact	Immediate medical treatment necessary, as untreated burns can result in slow-healing wounds. In case of contact with skin wash off immediately with plenty of water.
Eye contact	Consult a doctor immediately. Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. Shield unaffected eye.
Ingestion	Consult a doctor immediately. Rinse out mouth and give plenty of water to drink. Do not induce vomiting. Do not attempt to neutralize.

4.2 Most important symptoms and effects, both acute and delayed

Product is caustic.

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.
Carbon monoxide (CO)
Nitrogen oxides (NO_x).

5.3 Advice for firefighters

Do not inhale explosion and/or combustion gases.
Use self-contained breathing apparatus.
Wear full protective suit.

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

Ensure adequate ventilation.
Use personal protective equipment.
Remove persons to safety.

6.2 Environmental precautions

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, universal absorbent, diatomaceous earth).
Dispose of absorbed material in accordance with 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.
When diluting, always stir product into water.
Avoid contact with eyes and skin. Use personal protective equipment.

Do not eat, drink, smoke or take drugs at work.
Remove soiled or soaked clothing immediately.
Clean skin thoroughly after work, apply skin cream.
Use barrier skin cream.

7.2 Conditions for safe storage, including any incompatibilities

Provide alkali-resistant floor.
Keep only in original container.
Do not store together with acids.
Do not store together with metals.
Keep container tightly closed.
Keep container in a well-ventilated place.

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)

Substance
2-(2-Butoxyethoxy)ethanol
CAS: 112-34-5, EINECS/ELINCS: 203-961-6, EU-INDEX: 603-096-00-8
Long-term exposure: 10 ppm, 67,5 mg/m ³
Short-term exposure (15-minute): 15 ppm, 101,2 mg/m ³
Potassium hydroxide
CAS: 1310-58-3, EINECS/ELINCS: 215-181-3, EU-INDEX: 019-002-00-8, Reg-No.: 01-2119487136-33-XXXX
Short-term exposure (15-minute): 2 mg/m ³

Ingredients with occupational exposure limits to be monitored (EU)

Substance / EC LIMIT VALUES
2-(2-Butoxyethoxy)ethanol
CAS: 112-34-5, EINECS/ELINCS: 203-961-6, EU-INDEX: 603-096-00-8
Eight hours: 10 ppm, 67,5 mg/m ³
Short-term (15-minute): 15 ppm, 101,2 mg/m ³

DNEL

Substance
Trisodium nitrilotriacetate, CAS: 5064-31-3
Industrial, inhalative, Long-term - systemic effects: 3,5 mg/m ³ .
Industrial, inhalative, Long-term - local effects: 3,5 mg/m ³ .
Industrial, inhalative, Acute - local effects: 5,25 mg/m ³ .
Industrial, inhalative, Acute - systemic effects: 5,25 mg/m ³ .
general population, oral, Long-term - systemic effects: 0,5 mg/kg.
general population, inhalative, Acute - systemic effects: 1,75 mg/m ³ .
general population, inhalative, Acute - local effects: 1,75 mg/m ³ .
Potassium hydroxide, CAS: 1310-58-3
Industrial, inhalative, Long-term - local effects: 1 mg/m ³ .
general population, inhalative, Long-term - local effects: 1 mg/m ³ .

PNEC

Substance
Trisodium nitrilotriacetate, CAS: 5064-31-3
oral (food), 0,2 mg/kg.
soil, 0,182 mg/kg.
sediment (seaater), 0,364 mg/kg.
sediment (freshwater), 3,64 mg/kg.
sewage treatment plants (STP), 540 mg/l.
seawater, 0,093 mg/l.
freshwater, 0,93 mg/l.

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) Face shield.
Hand protection	The details concerned are recommendations. Please contact the glove supplier for further information. In full contact: 0,5 mm, >480 min, PVC (EN 374-1/-2/-3). 0,5 mm, Butyl rubber, >480 min (EN 374-1/-2/-3). 0,5 mm, Nitrile rubber, >480 min (EN 374-1/-2/-3). In splash contact: 0,5 mm butyl rubber, > 120 min (EN 374)
Skin protection	Alkali-resistant 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	Respiratory protection mask in the event of high concentrations. Short term: filter apparatus, combination filter A-P2. (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	yellowish clear
Odor	characteristic
Odour threshold	not applicable
pH-value	13
pH-value [1%]	ca. 11
Boiling point [°C]	>100
Flash point [°C]	not applicable
Flammability (solid, gas) [°C]	not applicable
Lower explosion limit	No information available.
Upper explosion limit	No information available.
Oxidising properties	no
Vapour pressure/gas pressure [kPa]	No information available.
Density [g/ml]	ca. 1,08
Bulk density [kg/m³]	not applicable
Solubility in water	completely miscible
Partition coefficient [n-octanol/water]	No information available.
Viscosity	No information available.
Relative vapour density determined in air	No information available.
Evaporation speed	No information available.
Melting point [°C]	0
Autoignition temperature [°C]	not self-igniting
Decomposition temperature [°C]	No information available.

9.2 Other information

No information available.

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 metals.

Reactions with acids.

10.4 Conditions to avoid

No information available.

10.5 Incompatible materials

See SECTION 10.3.

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

Substance
N-dodecyl- β -alanine, compound with 2,2',2''-nitrilotriethanol (1:1), CAS: 14171-00-7
LD50, oral, Rat: >2000 mg/kg bw.
2-(2-Butoxyethoxy)ethanol, CAS: 112-34-5
LD50, dermal, Rabbit: 4120 mg/kg (IUCLID).
LD50, oral, Rat: 5660 mg/kg (RTECS).
Alcohols, C9-11-iso-, C10-rich, ethoxylated, CAS: 78330-20-8
LD50, oral, Rat: 500-<2000 mg/kg.
Trisodium nitrilotriacetate, CAS: 5064-31-3
LD50, dermal, Rabbit: > 10000 mg/kg.
LC50, inhalative, Rat: > 5 mg/l (4 h).
Potassium hydroxide, CAS: 1310-58-3
LD50, oral, Rat: > 214 -< 333 mg/kg.

Serious eye damage/irritation	Risk of serious damage to eyes. Calculation method
Skin corrosion/irritation	Product is caustic. The classification is due to the extreme pH.
Respiratory or skin sensitisation	Based on the available information, the classification criteria are not fulfilled.
Specific target organ toxicity — single exposure	Based on the available information, the classification criteria are not fulfilled.
Specific target organ toxicity — repeated exposure	Based on the available information, the classification criteria are not fulfilled.
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	Based on the available information, the classification criteria are not fulfilled.
Aspiration hazard	Based on the available information, the classification criteria are not fulfilled.
General remarks	

Toxicological data of complete product are not available.
The toxicity data listed pertaining to the ingredients are intended for those working in the medicinal professions, experts for occupational health and safety and toxicologists. The toxicity data pertaining to the ingredients were supplied by the manufacturers of raw materials.

SECTION 12: Ecological information

12.1 Toxicity

Substance
N-dodecyl- β -alanine, compound with 2,2',2''-nitrilotriethanol (1:1), CAS: 14171-00-7
EC50, (48h), <i>Daphnia magna</i> : 4,4 mg/L.
2-(2-Butoxyethoxy)ethanol, CAS: 112-34-5
LC50, (96h), <i>Leuciscus idus</i> : 2750 mg/l (Lit.).
EC50, (48h), <i>Daphnia magna</i> : > 100 mg/l (Lit.).
Alcohols, C9-11-iso-, C10-rich, ethoxylated, CAS: 78330-20-8
LC50, (96h), <i>Leuciscus idus</i> : > 10 -< 100 mg/l (DIN 38412).
EC50, (96h), <i>Scenedesmus subspicatus</i> : > 10 -< 100 mg/l (DIN 38412).
EC50, (48h), <i>Daphnia magna</i> : > 10 -< 100 mg/l (DIN 38412).
NOEC, (21d), <i>Daphnia magna</i> : > 1 mg/l (OECD 202).
EC10, (17h), Activated sludge: 48 mg/l (DIN 38412).
EC10, (96h), <i>Scenedesmus subspicatus</i> : > 1 mg/l (DIN 38412).
Trisodium nitrilotriacetate, CAS: 5064-31-3
LC50, (96h), <i>Pimephales promelas</i> : > 100 mg/l (APHA 1971).
EC50, <i>Pseudomonas fluorescens</i> : 3200 - 5600 mg/l.
EC50, (72h), <i>Scenedesmus subspicatus</i> : > 91,5 mg/l.
Potassium hydroxide, CAS: 1310-58-3
LC50, (24h), <i>Poecilia reticulata</i> : 165 mg/l.
LC50, (24h), <i>Gambusia affinis</i> : 80 mg/l.
EC50, (48h), <i>Ceriodaphnia spec.</i> : 40,4 mg/l.

12.2 Persistence and degradability

Behaviour in environment compartments	No information available.
Behaviour in sewage plant	The product is an alkaline solution. Neutralization is normally necessary before a waste water is discharged into sewage treatment plants.
Biological degradability	The surfactants contained in this preparation comply with the biodegradability criteria as laid down in Regulation (EC) No.648/2004 on detergents. Data to support this assertion are held at the disposal of the competent authorities of the Member States and will be made available to them, at their direct request or at the request of a detergent manufacturer.

12.3 Bioaccumulative potential

No information available.

12.4 Mobility in soil

No information available.

12.5 Results of PBT and vPvB assessment

not applicable

12.6 Other adverse effects

Harmful effect due to pH shift.

Ecological data of complete product are not available.

The toxicity data pertaining to the ingredients were supplied by the manufacturers of raw materials.

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

Dispose of as hazardous waste.
Coordinate disposal with the authorities if necessary.

Waste no. (recommended) 060204*

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 1814

Inland navigation (ADN) 1814


Marine transport in accordance with IMDG 1814


Air transport in accordance with IATA 1814

14.2 UN proper shipping name

Transport by land according to ADR/RID	Potassium hydroxide solution
- Classification Code	C5
- Label	
- ADR LQ	1 I
- ADR 1.1.3.6 (8.6)	Transport category (tunnel restriction code) 2 (E)

Inland navigation (ADN)	Potassium hydroxide solution
- Classification Code	C5
- Label	

Marine transport in accordance with IMDG	Potassium hydroxide, solution
- EMS	F-A, S-B
- Label	
- IMDG LQ	1 I

Air transport in accordance with IATA	Potassium hydroxide solution
- Label	

14.3 Transport hazard class(es)

Transport by land according to ADR/RID	8
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Inland navigation (ADN)	8
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Marine transport in accordance with IMDG	8
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Air transport in accordance with IATA	8
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14.4 Packing group

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

Transport by land according to ADR/RID no

Inland navigation (ADN) no

Marine transport in accordance with IMDG no

Air transport in accordance with IATA no

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

For this product a chemical safety assessment has not been carried out.

SECTION 16: Other information**16.1 Hazard statements (SECTION 03)**

H290 May be corrosive to metals.
H314 Causes severe skin burns and eye damage.
H315 Causes skin irritation.
H318 Causes serious eye damage.
H351 Suspected of causing cancer.
H319 Causes serious eye irritation.
H302 Harmful if swallowed.

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 Corr. 1: H314 Causes severe skin burns and eye damage. (Expert judgement)
 Eye Dam. 1: H318 Causes serious eye damage. (Expert judgement)

Modified position

SECTION 2 been added: Skin Corr. 1
 SECTION 2 deleted: Skin Corr. 1A
 SECTION 4 been added: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
 SECTION 4 deleted: In case of contact with eyes rinse thoroughly with water.
 SECTION 7 been added: Avoid contact with eyes and skin. Use personal protective equipment.
 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 been added: No information available.
 SECTION 9 deleted: not determined
 SECTION 11 been added: Based on the available information, the classification criteria are not fulfilled.
 SECTION 11 deleted: not determined
 SECTION 11 been added: The classification is due to the extreme pH.
 SECTION 11 been added: Calculation method
 SECTION 11 been added: Risk of serious damage to eyes.
 SECTION 12 been added: No information available.
 SECTION 12 deleted: not determined



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