

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

**KRONES colclean FC 1004**  
**Article number: 0903284631, 0903284632, 0903284637**

**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@chemiebuerro.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. 1A: H314 Causes severe skin burns and eye damage.  
 Eye Dam. 1: H318 Causes serious eye damage.  
 Met. Corr. 1: H290 May be corrosive to metals.  
 Acute Tox. 4: H302 Harmful if swallowed.

**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:**

Sodium hydroxide  
 Potassium hydroxide

**Hazard statements**

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

**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

### 2.3 Other hazards

<b>Physico-chemical hazards</b>	Corrosive to metals.
<b>Environmental hazards</b>	Does not contain any PBT or vPvB substances.
<b>Other hazards</b>	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
25 - < 30	Sodium hydroxide CAS: 1310-73-2, EINECS/ELINCS: 215-185-5, EU-INDEX: 011-002-00-6, Reg-No.: 01-2119457892-27-XXXX GHS/CLP: Met. Corr. 1: H290 - Skin Corr. 1A: H314
20 - < 25	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
3 - < 5	Diethylenetriamine penta(methylene phosphonic acid) sodium salt CAS: 22042-96-2, EINECS/ELINCS: 244-751-4, Reg-No.: 01-2119514449-36-XXXX GHS/CLP: Met. Corr. 1: H290
1 - < 3	reaction mass of: 2-ethylhexyl mono-D-glucopyranoside 2-ethylhexyl di-D-glucopyranoside EINECS/ELINCS: 414-420-0, EU-INDEX: 614-028-00-1, Reg-No.: 01-0000016147-72-XXXX GHS/CLP: Eye Dam. 1: H318

**Comment on component parts** Substances of Very High Concern - SVHC: substances are not contained or are below 0.1%.  
For full text of H-statements: see SECTION 16.

### SECTION 4: First aid measures

#### 4.1 Description of first aid measures

<b>General information</b>	Remove contaminated soaked clothing immediately and dispose of safely.
<b>Inhalation</b>	Ensure supply of fresh air. In the event of symptoms seek medical treatment.
<b>Skin contact</b>	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.
<b>Eye contact</b>	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.
<b>Ingestion</b>	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

<b>Suitable extinguishing media</b>	Product itself is non-combustible. Fire extinguishing method of surrounding areas must be considered.
<b>Extinguishing media that must not be used</b>	Full water jet

## 5.2 Special hazards arising from the substance or mixture

Risk of formation of toxic pyrolysis products.

## 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.

Do not store together with food and animal food/diet.

Keep container tightly closed.

Keep container in a well-ventilated place.

Keep away from frost.

Protect from sun.

### 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
Sodium hydroxide
CAS: 1310-73-2, EINECS/ELINCS: 215-185-5, EU-INDEX: 011-002-00-6, Reg-No.: 01-2119457892-27-XXXX
Short-term exposure (15-minute): 2 mg/m <sup>3</sup>
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 <sup>3</sup>

**DNEL**

Substance
Potassium hydroxide, CAS: 1310-58-3
Industrial, inhalative, Long-term - local effects: 1 mg/m <sup>3</sup> .
general population, inhalative, Long-term - local effects: 1 mg/m <sup>3</sup> .
Sodium hydroxide, CAS: 1310-73-2
Industrial, inhalative, Long-term - local effects: 1 mg/m <sup>3</sup> .
general population, inhalative, Long-term - local effects: 1 mg/m <sup>3</sup> .
Diethylenetriamine penta(methylene phosphonic acid) sodium salt, CAS: 22042-96-2
Industrial, oral, Acute - systemic effects: 1,9 mg/kg.
Industrial, oral, Acute - local effects: 1,9 mg/kg.
Industrial, oral, Long-term - systemic effects: 1,9 mg/kg.
Industrial, oral, Long-term - local effects: 1,9 mg/kg.

**PNEC**

Substance
Diethylenetriamine penta(methylene phosphonic acid) sodium salt, CAS: 22042-96-2
sediment (seaater), 10,8 mg/kg.
sediment (freshwater), 108 mg/kg.
soil, 174 mg/kg.
sewage treatment plants (STP), 20 mg/l.
seawater, 0,052 mg/l.
freshwater, 0,52 mg/l.

## 8.2 Exposure controls

<b>Additional advice on system design</b>	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.
<b>Eye protection</b>	Tightly fitting goggles. (EN 166:2001) Face shield.
<b>Hand protection</b>	The details concerned are recommendations. Please contact the glove supplier for further information. In full contact: ≥ 0,4 mm, Viton, >480 min (EN 374-1/-2/-3). ≥ 0,5 mm, Butyl rubber, >480 min (EN 374-1/-2/-3). ≥ 0,35 mm, Nitrile rubber, >480 min (EN 374-1/-2/-3).
<b>Skin protection</b>	Alkali-resistant protective clothing.
<b>Other</b>	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.
<b>Respiratory protection</b>	Respiratory protection mask in the event of high concentrations. Short term: filter apparatus, combination filter A-P2. (DIN EN 14387)
<b>Thermal hazards</b>	not applicable
<b>Delimitation and monitoring of the environmental exposition</b>	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

<b>Form</b>	liquid
<b>Color</b>	brown clear
<b>Odor</b>	characteristic
<b>Odour threshold</b>	No information available.
<b>pH-value</b>	strongly alkaline
<b>pH-value [1%]</b>	ca. 13
<b>Boiling point [°C]</b>	No information available.
<b>Flash point [°C]</b>	not applicable
<b>Flammability (solid, gas) [°C]</b>	not applicable
<b>Lower explosion limit</b>	No information available.
<b>Upper explosion limit</b>	No information available.
<b>Oxidising properties</b>	no
<b>Vapour pressure/gas pressure [kPa]</b>	No information available.
<b>Density [g/ml]</b>	ca. 1,45
<b>Bulk density [kg/m<sup>3</sup>]</b>	not applicable
<b>Solubility in water</b>	completely miscible
<b>Partition coefficient [n-octanol/water]</b>	No information available.
<b>Viscosity</b>	No information available.
<b>Relative vapour density determined in air</b>	No information available.
<b>Evaporation speed</b>	No information available.
<b>Melting point [°C]</b>	< 0
<b>Autoignition temperature [°C]</b>	not self-igniting
<b>Decomposition temperature [°C]</b>	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**

Corrosive to metals.  
Reactions with metals, with evolution of hydrogen.  
Reactions with halogenated compounds.  
Exothermic reaction with:  
Acids

### **10.4 Conditions to avoid**

See SECTION 7.2.

### **10.5 Incompatible materials**

See SECTION 10.3.  
Oxidizing agent

### **10.6 Hazardous decomposition products**

Corrosive gases/vapours.

## SECTION 11: Toxicological information

### 11.1 Information on toxicological effects

#### Acute toxicity

Product
ATE-mix, oral, > 1000 - 2000 mg/kg.
Substance
reaction mass of: 2-ethylhexyl mono-D-glucopyranoside 2-ethylhexyl di-D-glucopyranoside
LD50, dermal, Rat: > 5000 mg/kg (67/548/EWG V, B.3).
LD50, oral, Rat: > 2000 - 5000 mg/kg (67/548/EWG V, B.1).
NOEL, oral, Rat: 150 mg/kg.
Potassium hydroxide, CAS: 1310-58-3
LD50, oral, Rat: > 214 -< 333 mg/kg.
Sodium hydroxide, CAS: 1310-73-2
LD50, oral, 500 mg/kg (Lit.).

<b>Serious eye damage/irritation</b>	Risk of serious damage to eyes. Calculation method
<b>Skin corrosion/irritation</b>	Product is caustic. Calculation method
<b>Respiratory or skin sensitisation</b>	Based on the available information, the classification criteria are not fulfilled.
<b>Specific target organ toxicity — single exposure</b>	Based on the available information, the classification criteria are not fulfilled.
<b>Specific target organ toxicity — repeated exposure</b>	Based on the available information, the classification criteria are not fulfilled.
<b>Mutagenicity</b>	Based on the available information, the classification criteria are not fulfilled.
<b>Reproduction toxicity</b>	Based on the available information, the classification criteria are not fulfilled.
<b>Carcinogenicity</b>	Based on the available information, the classification criteria are not fulfilled.
<b>Aspiration hazard</b>	Based on the available information, the classification criteria are not fulfilled.
<b>General remarks</b>	If swallowed - risk of perforation! Influence of the product with the eyes can lead to blindness. May cause respiratory tract irritation. Inhalation causes persistent cough, difficulty in breathing  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
reaction mass of: 2-ethylhexyl mono-D-glucopyranoside 2-ethylhexyl di-D-glucopyranoside
LC50, (96h), <i>Oncorhynchus mykiss</i> : > 310 mg/l.
EC50, (72h), <i>Selenastrum capricornutum</i> : > 100 mg/l.
EC50, (48h), <i>Daphnia magna</i> : > 100 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.
Sodium hydroxide, CAS: 1310-73-2
LC50, (96h), fish: 35-189 mg/l (Lit).
EC50, (48h), <i>Ceriodaphnia dubia</i> : 40,4 mg/l (Lit).

## 12.2 Persistence and degradability

<b>Behaviour in environment compartments</b>	No information available.
<b>Behaviour in sewage plant</b>	The product is an alkaline solution. Neutralization is normally necessary before a waste water is discharged into sewage treatment plants.
<b>Biological degradability</b>	The surface active agents are readily biodegradable according to OECD criteria.

## 12.3 Bioaccumulative potential

No information available.

## 12.4 Mobility in soil

No information available.

## 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

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** 3266

**Inland navigation (ADN)** 3266

**Marine transport in accordance with IMDG** 3266

**Air transport in accordance with IATA** 3266



**14.2 UN proper shipping name**

**Transport by land according to ADR/RID** Corrosive liquid, basic, inorganic, n.o.s. (Sodium hydroxide, Potassium hydroxide)

- 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)** Corrosive liquid, basic, inorganic, n.o.s. (Sodium hydroxide, Potassium hydroxide)

- Classification Code C5

- Label



**Marine transport in accordance with IMDG** Corrosive liquid, basic, inorganic, n.o.s. (Sodium hydroxide, Potassium hydroxide)

- EMS F-A, S-B

- Label



- IMDG LQ 1 I

**Air transport in accordance with IATA** Corrosive liquid, basic, inorganic, n.o.s. (Sodium hydroxide, Potassium hydroxide)

- Label

**14.3 Transport hazard class(es)**

**Transport by land according to ADR/RID** 8

**Inland navigation (ADN)** 8

**Marine transport in accordance with IMDG** 8

**Air transport in accordance with IATA** 8

**14.4 Packing group**

**Transport by land according to ADR/RID** II

**Inland navigation (ADN)** II

**Marine transport in accordance with IMDG** II

**Air transport in accordance with IATA** II

**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 the following substances of this preparation a chemical safety assessment has been carried out:

Sodium hydroxide  
potassium hydroxide

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

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

## 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. 1A: H314 Causes severe skin burns and eye damage. (Calculation method)  
 Eye Dam. 1: H318 Causes serious eye damage. (Calculation method)  
 Met. Corr. 1: H290 May be corrosive to metals. (Calculation method)  
 Acute Tox. 4: H302 Harmful if swallowed. (Calculation method)

**Modified position**

SECTION 2 been added: Acute Tox. 4  
SECTION 2 been added: exclamation mark  
SECTION 2 been added: H302 Harmful if swallowed.  
SECTION 2 deleted: P405 Store locked up.  
SECTION 2 deleted: P102 Keep out of reach of children.  
SECTION 2 deleted: P101 If medical advice is needed, have product container or label at hand.  
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 deleted: not determined  
SECTION 9 been added: No information available.  
SECTION 11 deleted: not determined  
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: Risk of serious damage to eyes.  
SECTION 12 been added: No information available.  
SECTION 12 deleted: 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.  
SECTION 12 deleted: The surfactants contained in this preparation comply with the biodegradability criteria as laid down in Regulation (EC) No.648/2004 on detergents.  
SECTION 12 been added: The surface active agents are readily biodegradable according to OECD criteria.  
SECTION 12 deleted: not determined  
SECTION 16 been added: Calculation method

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