

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

KRONES colclean IC 4004
Article number 0903908853, 0903908931, 0903908970

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@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 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.

2.2 Label elements

The product is classified and required to be labelled in accordance with EC-Directives

Hazard pictograms

Signal word

DANGER

Contains:

Phosphoric acid

Sulphuric acid

Hazard statements

H314 Causes severe skin burns and eye damage.

H290 May be corrosive to metals.

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 / 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.

P390 Absorb spillage to prevent material damage.

P501 Dispose of contents / container to in accordance with local / regional / national / international regulation.

Cleaner, 648/2004/CE, contains:

< 5% oxygen-based bleaching agents

< 5% anionic surfactant

2.3 Other hazards

Physico-chemical hazards	May be 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
10 - < 20	Phosphoric acid CAS: 7664-38-2, EINECS/ELINCS: 231-633-2, EU-INDEX: 015-011-00-6, Reg-No.: 01-2119485924-24-XXXX GHS/CLP: Skin Corr. 1B: H314 - Met. Corr. 1: H290
15 - < 20	Sulphuric acid CAS: 7664-93-9, EINECS/ELINCS: 231-639-5, EU-INDEX: 016-020-00-8 GHS/CLP: Skin Corr. 1A: H314 - Met. Corr. 1: H290
1 - < 5	Hydrogen peroxide CAS: 7722-84-1, EINECS/ELINCS: 231-765-0, EU-INDEX: 008-003-00-9, Reg-No.: 01-2119485845-22-XXXX GHS/CLP: Ox. Liq. 1: H271 - Skin Corr. 1A: H314 - Acute Tox. 4: H302 H332 - STOT SE 3: H335 - Eye Dam. 1: H318 - Aquatic Chronic 3: H412

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 soap and 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	All extinguishing media are suitable but method must take into account the surrounding area to minimize dispersion.
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.
Sulphur oxides (SO_x).
Phosphorus oxides (PO_x).

5.3 Advice for firefighters

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

Cool containers at risk with water spray jet.
Contain escaping vapours with water.

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

Take up with absorbent material (e.g. acid binder).
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.

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 acid-resistant floor.
Keep only in original container.

Do not store with alkalis.
Do not store together with acids.
Do not store together with metals.

Keep container tightly closed.
Keep container in a well-ventilated place.
Store in a dry place.
Protect from contamination.

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)

Range [%]	Substance
15 - < 20	Sulphuric acid
	CAS: 7664-93-9, EINECS/ELINCS: 231-639-5, EU-INDEX: 016-020-00-8
	Long-term exposure: 0,05 mg/m ³ , mist; The mist is defined as the thoracic fraction
10 - < 20	Phosphoric acid
	CAS: 7664-38-2, EINECS/ELINCS: 231-633-2, EU-INDEX: 015-011-00-6, Reg-No.: 01-2119485924-24-XXXX
	Long-term exposure: 1 mg/m ³
	Short-term exposure (15-minute): 2 mg/m ³
1 - < 5	Hydrogen peroxide
	CAS: 7722-84-1, EINECS/ELINCS: 231-765-0, EU-INDEX: 008-003-00-9, Reg-No.: 01-2119485845-22-XXXX
	Long-term exposure: 1 ppm, 1,4 mg/m ³
	Short-term exposure (15-minute): 2 ppm, 2,8 mg/m ³

Ingredients with occupational exposure limits to be monitored (EU)

Range [%]	Substance / EC LIMIT VALUES
15 - < 20	Sulphuric acid
	CAS: 7664-93-9, EINECS/ELINCS: 231-639-5, EU-INDEX: 016-020-00-8
	Eight hours: 0,05 mg/m ³
10 - < 20	Phosphoric acid
	CAS: 7664-38-2, EINECS/ELINCS: 231-633-2, EU-INDEX: 015-011-00-6, Reg-No.: 01-2119485924-24-XXXX
	Eight hours: 1 mg/m ³
	Short-term (15-minute): 2 mg/m ³

DNEL

Range [%]	Substance
10 - < 20	Phosphoric acid, CAS: 7664-38-2
	Industrial, inhalative, Long-term - local effects: 2,92 mg/m ³ .
	general population, inhalative, Long-term - local effects: 0,73 mg/m ³ .
1 - < 5	Hydrogen peroxide, CAS: 7722-84-1
	Industrial, inhalative, Long-term - systemic effects: 1,4 mg/m ³ .
	Industrial, inhalative, Long-term - local effects: 1,4 mg/m ³ .
	Industrial, inhalative, Acute - local effects: 3 mg/m ³ .
	general population, inhalative, Long-term - local effects: 0,21 mg/m ³ .
	general population, inhalative, Acute - local effects: 1,93 mg/m ³ .

PNEC

Range [%]	Substance
10 - < 20	Phosphoric acid, CAS: 7664-38-2
	There are no PNEC values established for the substance.,
1 - < 5	Hydrogen peroxide, CAS: 7722-84-1
	sediment (freshwater), 0,47 mg/kg.
	sediment (seawater), 0,47 mg/kg.
	freshwater, 0,0126 mg/l.
	seawater, 0,0126 mg/l.
	sewage treatment plants (STP), 4,66 mg/l.
	soil, 0,0019 mg/kg.

soil, 0,0023 mg/kg.

8.2 Exposure controls

Additional advice on system design	Ensure adequate ventilation on workstation.
Eye protection	Tightly fitting goggles. Face shield.
Hand protection	The details concerned are recommendations. Please contact the glove supplier for further information. Viton, >480 min (EN 374).
Skin protection	Acid-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	Breathing apparatus in the event of high concentrations. Short term: filter apparatus, filter P2.
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 clear
Odor	faintly pungent
Odour threshold	No information available.
pH-value	strongly acidic < 1
pH-value [1%]	1,3
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.
Oxidizing properties	no
Vapour pressure/gas pressure [kPa]	No information available.
Density [g/ml]	1,2
Bulk density [kg/m³]	not applicable
Solubility in water	completely miscible
Partition coefficient [n-octanol/water]	No information available.
Viscosity	not applicable
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

Corrosive to metals.

10.2 Chemical stability

Stable under normal ambient conditions (ambient temperature).

10.3 Possibility of hazardous reactions

Reactions with alkalis (lyes).

Reactions with alkali metals.

Reactions with earth alkali metals.

Reactions with metals, with evolution of hydrogen.

Reactions with acids.

Reactions with reducing agents.

The product is hygroscopic.

10.4 Conditions to avoid

Strong heating.

10.5 Incompatible materials

See SECTION 10.3.

Organic compounds.

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

Range [%]	Substance
15 - < 20	Sulphuric acid, CAS: 7664-93-9
	LD50, oral, Rat: 2140 mg/kg.
	LC50, inhalative, Rat: 510 mg/m ³ /2h.
10 - < 20	Phosphoric acid, CAS: 7664-38-2
	LD50, dermal, Rabbit: 2740 mg/kg (Lit.).
	LD50, oral, Rat: 1530 mg/kg (Lit.).
	LC50, inhalative, Rat: > 0,85 mg/l (1h) (Lit.).
1 - < 5	Hydrogen peroxide, CAS: 7722-84-1
	LD50, dermal, Rabbit: > 2000 mg/kg (35 %; US-EPA-Methode).
	LD50, dermal, Rabbit: 9200 mg/kg (70 %; Lit.).
	LD50, oral, Rat: > 225 mg/kg (OECD 401).
	LC50, inhalative, Rat: > 0,17 mg/l (US-EPA-Methode).

Serious eye damage/irritation	Product is caustic.
Skin corrosion/irritation	Product is caustic.
Respiratory or skin sensitisation	Based on available data, the classification criteria are not met.
Specific target organ toxicity — single exposure	Based on available data, the classification criteria are not met.
Specific target organ toxicity — repeated exposure	Based on available data, the classification criteria are not met.
Mutagenicity	Based on available data, the classification criteria are not met.
Reproduction toxicity	Based on available data, the classification criteria are not met.
Carcinogenicity	Based on available data, the classification criteria are not met.
Aspiration hazard	Based on available data, the classification criteria are not met.
General remarks	<p>If swallowed - risk of perforation! Influence of the product with the eyes can lead to blindness. Symptoms: abdominal pain, nausea, vomiting, diarrhoea. Irritates the mucous membrane.</p> <p>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.</p>

SECTION 12: Ecological information

12.1 Toxicity

Range [%]	Substance
15 - < 20	Sulphuric acid, CAS: 7664-93-9
	LC50, (48h), Brachidanio rerio: > 500 mg/l (Lit.).
	LC50, (96h), Lepomis macrochirus: 16-29 mg/l.
	EC50, (24h), Daphnia magna: 29 mg/l.
10 - < 20	LC0, (96h), Carassius auratus: 134 mg/l (Lit.).
	Phosphoric acid, CAS: 7664-38-2
	LC50, (96h), fish: 3-3,5 mg/l (Lit.).
1 - < 5	LC0, fish: 100-1000 mg/l (Lit.).
	Hydrogen peroxide, CAS: 7722-84-1
	LC50, (96h), Pimephales promelas: 16,4 mg/l (100 %).
	EC50, (72h), Skeletonema costatum: 1,38-2,6 mg/l.
	EC50, (72h), Chlorella vulgaris: 4,3 mg/l.
	EC50, (48h), Daphnia magna: 2,4 mg/l (100 %).
	EC50, Bacteria: > 1000 mg/l/3 h (100 %; OECD TG 209).
	EC50, Bacteria: 466 mg/l/30min (100 %; OECD TG 209).
	NOEC, (72h), Skeletonema costatum: 0,63 mg/l (100 %).
	NOEC, (21d), Daphnia magna: 0,63 mg/l (100 %).
NOEC, (96h), Pimephales promelas: 5 mg/l.	

12.2 Persistence and degradability

Behaviour in environment compartments	No information available.
Behaviour in sewage plant	The product is an acid. Neutralization is normally necessary before a waste water is discharged into sewage treatment plants.
Biological degradability	The methods for determining the biological degradability are not applicable to inorganic substances. 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.
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

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

Waste no. (recommended) 060101*
060104*
200114*
200129*

Contaminated packaging

Untaminated 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

See SECTION 14.2 in accordance with UN shipping name

14.2 UN proper shipping name

Transport by land according to ADR/RID UN 2796 Sulphuric acid 8 II

- Classification Code C1

- Label



- ADR LQ 1 I

- ADR 1.1.3.6 (8.6) Transport category (tunnel restriction code) 2 (E)

Inland navigation (ADN) UN 2796 Sulphuric acid 8 II

- Classification Code C1

- Label



Marine transport in accordance with IMDG UN 2796 Sulphuric acid 8 II

- EMS F-A, S-B

- Label



- IMDG LQ 1 I

Air transport in accordance with IATA UN 2796 Sulphuric acid 8 II

- Label



14.3 Transport hazard class(es)

See SECTION 14.2 in accordance with UN shipping name

14.4 Packing group

See SECTION 14.2 in accordance with UN shipping name

14.5 Environmental hazards

See SECTION 14.2 in accordance with UN shipping name

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); 1999/13; 2004/42; 648/2004; 1907/2006 (REACH); 1272/2008; 75/324/EEC (2008/47/EC); 453/2010/EC; (EU) 2015/830
TRANSPORT-REGULATIONS	DOT-Classification, ADR (2015); IMDG-Code (2015, 37. Amdt.); IATA-DGR (2015).
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 (1999/13/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 3)**

H412 Harmful to aquatic life with long lasting effects.
H318 Causes serious eye damage.
H335 May cause respiratory irritation.
H302+H332 Harmful if swallowed or if inhaled.
H271 May cause fire or explosion; strong oxidiser.
H290 May be corrosive to metals.
H314 Causes severe skin burns and eye damage.

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
 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
 MARPOL = International Convention for the Prevention of Marine Pollution from Ships
 PBT = Persistent, Bioaccumulative and Toxic substance
 PNEC = Predicted No-Effect Concentration
 REACH = Registration, Evaluation, Authorisation and Restriction of Chemicals
 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)

Modified position

none



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