

**SECTION 1: Identification of the substance/mixture and of the company/undertaking**
**1.1 Product identifier**
**KRONES colclean DI 4001**
**Article number: 0903286257, 0903286282, 0903286283, 0903450086**
**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@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**

Flam. Liq. 3: H226 Flammable liquid and vapour.  
 Eye Dam. 1: H318 Causes serious eye damage.  
 STOT SE 3: H335 May cause respiratory irritation.

**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:**

Propan-1-ol

**Hazard statements**

H226 Flammable liquid and vapour.  
 H318 Causes serious eye damage.  
 H335 May cause respiratory irritation.

**Precautionary statements**

P210 Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking.  
 P233 Keep container tightly closed.  
 P261 Avoid breathing 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:**

25,5 g/100g Ethanol  
 35,5 g/100g Propan-1-ol  
 Registration: -

### 2.3 Other hazards

<b>Physico-chemical hazards</b>	Vapours may form explosive mixture with air.
<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 - <40	Propan-1-ol CAS: 71-23-8, EINECS/ELINCS: 200-746-9, EU-INDEX: 603-003-00-0, Reg-No.: 01-2119486761-29-XXXX GHS/CLP: Flam. Liq. 2: H225 - Eye Dam. 1: H318 - STOT SE 3: H336
25 - <30	Ethanol CAS: 64-17-5, EINECS/ELINCS: 200-578-6, EU-INDEX: 603-002-00-5, Reg-No.: 01-2119457610-43-XXXX GHS/CLP: Flam. Liq. 2: H225 - Eye Irrit. 2: H319

<b>Comment on component parts</b>	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

<b>General information</b>	Take off contaminated clothing and wash before reuse.
<b>Inhalation</b>	Ensure supply of fresh air. In the event of symptoms seek medical treatment.
<b>Skin contact</b>	When in contact with the skin, clean with soap and water. In the event of symptoms seek medical treatment.
<b>Eye contact</b>	Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. If eye irritation persists: Get medical advice/attention.
<b>Ingestion</b>	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

<b>Suitable extinguishing media</b>	foam, dry powder, water spray jet, carbon dioxide Alcohol-resistant foam.
<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.  
Carbon monoxide (CO)  
Carbon dioxide (CO<sub>2</sub>)

### 5.3 Advice for firefighters

Do not inhale explosion and/or combustion gases.

Use self-contained breathing apparatus.

Cool containers at risk with water spray jet.

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

Keep away from all sources of ignition.

Use personal protective equipment.

Ensure adequate ventilation.

### 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.

### 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 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.

Provide good room ventilation even at ground level (vapours are heavier than air).

Avoid spilling or spraying in enclosed areas.

Avoid contact with eyes and skin. Use personal protective equipment.

Keep away from open flames, hot surfaces and sources of ignition.

Take precautionary measures against static discharges.

Vapours can form an explosive mixture with air.

Do not smoke.

Connect equipment to earth.

Ignitable mixtures can be formed in the empty container.

Use explosion-proofed equipment/fittings and non-sparking tools.

Do not eat, drink, smoke or take drugs at work.

Take off contaminated clothing and wash before reuse.

Wash hands before breaks and after work.

Use barrier skin cream.

### 7.2 Conditions for safe storage, including any incompatibilities

Keep only in original container.

Provide solvent-resistant and impermeable floor.

Do not store together with oxidizing agents.

Do not store together with acids.

Keep container tightly closed.

Keep container in a well-ventilated place.

Keep in a cool place. Store in a dry place.

Protect from heat/overheating and 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
Propan-1-ol
CAS: 71-23-8, EINECS/ELINCS: 200-746-9, EU-INDEX: 603-003-00-0, Reg.No.: 01-2119486761-29-XXXX
Long-term exposure: 200 ppm, 500 mg/m <sup>3</sup> , Sk
Short-term exposure (15-minute): 250 ppm, 625 mg/m <sup>3</sup>
Ethanol
CAS: 64-17-5, EINECS/ELINCS: 200-578-6, EU-INDEX: 603-002-00-5, Reg.No.: 01-2119457610-43-XXXX
Long-term exposure: 1000 ppm, 1920 mg/m <sup>3</sup>

**DNEL**

Substance
Ethanol, CAS: 64-17-5
Industrial, inhalative, Long-term - systemic effects: 950 mg/m <sup>3</sup> .
Industrial, inhalative, Acute - local effects: 1900 mg/m <sup>3</sup> .
Industrial, dermal, Long-term - systemic effects: 343 mg/kg.
general population, inhalative, Long-term - systemic effects: 114 mg/m <sup>3</sup> .
general population, inhalative, Acute - local effects: 950 mg/m <sup>3</sup> .
general population, dermal, Long-term - systemic effects: 206 mg/kg.
general population, oral, Long-term - systemic effects: 87 mg/kg.
Propan-1-ol, CAS: 71-23-8
Industrial, inhalative, Long-term - systemic effects: 268 mg/m <sup>3</sup> .
Industrial, inhalative, Acute - systemic effects: 1723 mg/m <sup>3</sup> .
Industrial, dermal, Long-term - systemic effects: 136 mg/kg.
general population, inhalative, Long-term - systemic effects: 80 mg/m <sup>3</sup> .
general population, inhalative, Acute - systemic effects: 1036 mg/m <sup>3</sup> .
general population, dermal, Long-term - systemic effects: 81 mg/kg.
general population, oral, Long-term - systemic effects: 61 mg/kg.

**PNEC**

Substance
Ethanol, CAS: 64-17-5
sediment (freshwater), 3,6 mg/kg.
sediment (seaater), 2,9 mg/kg.
freshwater, 0,96 mg/l.
seawater, 0,79 mg/l.
sewage treatment plants (STP), 580 mg/l.
soil, 0,63 mg/kg.
Propan-1-ol, CAS: 71-23-8
sediment (freshwater), 22,8 mg/kg.
sediment (seaater), 2,28 mg/kg.
freshwater, 10 mg/l.
seawater, 1 mg/l.
sewage treatment plants (STP), 96 mg/l.
soil, 2,2 mg/kg.

## 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>	safety glasses (EN 166:2001)
<b>Hand protection</b>	The details concerned are recommendations. Please contact the glove supplier for further information. > 0,5 mm, Butyl rubber, >480 min (EN 374-1/-2/-3). > 0,5 mm, Nitrile rubber, >480 min (EN 374-1/-2/-3).
<b>Skin protection</b>	Solvent-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>	If ventilation is insufficient, wear respiratory protection. Short term: filter apparatus, filter A. (DIN EN 14387)
<b>Thermal hazards</b>	not applicable
<b>Delimitation and monitoring of the environmental exposition</b>	Comply with applicable environmental regulations limiting discharge to air, water and soil.

## SECTION 9: Physical and chemical properties

### 9.1 Information on basic physical and chemical properties

<b>Form</b>	liquid
<b>Color</b>	colourless
<b>Odor</b>	alcoholic
<b>Odour threshold</b>	No information available.
<b>pH-value</b>	No information available.
<b>pH-value [1%]</b>	No information available.
<b>Boiling point [°C]</b>	< 100
<b>Flash point [°C]</b>	27,5
<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. 0,9
<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>	1
<b>Evaporation speed</b>	No information available.
<b>Melting point [°C]</b>	< 0
<b>Autoignition temperature [°C]</b>	No information available.
<b>Decomposition temperature [°C]</b>	No information available.

### 9.2 Other information

No information available.

## SECTION 10: Stability and reactivity

### 10.1 Reactivity

Formation of explosive gas/air mixtures.

### 10.2 Chemical stability

Stable under normal ambient conditions (ambient temperature).

### 10.3 Possibility of hazardous reactions

Reactions with alkali metals.

Reactions with strong oxidizing agents.

Reactions with strong acids.

Reactions with halogenated compounds.

### 10.4 Conditions to avoid

Warming

Keep away from open flames, hot surfaces and sources of ignition.

Electrostatic charging.

### 10.5 Incompatible materials

Rubber, various plastics

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
Ethanol, CAS: 64-17-5
LD50, dermal, Rabbit: > 20000 mg/kg (OECD TG 402).
LD50, oral, Rat: 6200-17800 mg/kg.
LC50, inhalative, mouse: > 20 mg/l/4h (Lit.).
LC50, inhalative, Rat: > 8000 mg/l/4h.
Propan-1-ol, CAS: 71-23-8
LD50, dermal, Rabbit: 4032-6730 mg/kg (IUCLID).
LD50, oral, Rat: 8000 mg/kg (BASF-Test).
LC50, inhalative, Rat: 9,8-33,8 mg/l/4h (OECD 403).

<b>Serious eye damage/irritation</b>	Risk of serious damage to eyes. Calculation method
<b>Skin corrosion/irritation</b>	Based on the available information, the classification criteria are not fulfilled.
<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>	Vapours may cause drowsiness and dizziness. Calculation method
<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>	

Toxicological data of complete product are not available.

## SECTION 12: Ecological information

### 12.1 Toxicity

Substance
Ethanol, CAS: 64-17-5
LC50, (48h), Daphnia magna: 9000 mg/l.
LC50, (96h), fish: > 14000 mg/l.
LC50, (48h), Leuciscus idus: 8140 mg/l.
EC50, (72h), Chlorella vulgaris: > 100 mg/l (OECD TG 201).
EC50, (24h), Daphnia magna: > 100 mg/l (OECD 202).
Propan-1-ol, CAS: 71-23-8
LC50, (96h), Pimephales promelas: 4100-5000 mg/l (Lit.).
LC50, (96h), Leuciscus idus: > 100 mg/l (Lit.).
LC50, (48h), Oncorhynchus mykiss: 3200 mg/l.
LC50, (48h), Leuciscus idus: 4830 mg/l (DIN 38412 T.15).
EC50, (48h), Daphnia magna: 3642-8150 mg/l (DIN 38412 t.11).
EC0, Algae: 3100 mg/l.

## 12.2 Persistence and degradability

<b>Behaviour in environment compartments</b>	No information available.
<b>Behaviour in sewage plant</b>	No information available.
<b>Biological degradability</b>	The product is readily biodegradable.

## 12.3 Bioaccumulative potential

logPow: -0,31 (CAS 64-17-5)  
logPow: 0,25 (CAS 71-23-8)

## 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

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)** 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** 1987


**Inland navigation (ADN)** 1987

**Marine transport in accordance with IMDG** 1987


**Air transport in accordance with IATA** 1987



**14.2 UN proper shipping name**

Transport by land according to ADR/RID	Alkohole, n.a.g. (Propan-1-ol, Ethanol)
- Classification Code	F1
- Label	
- ADR LQ	5 l
- ADR 1.1.3.6 (8.6)	Transport category (tunnel restriction code) 3 (D/E)

Inland navigation (ADN)	Alkohole, n.a.g. (Propan-1-ol, Ethanol)
- Classification Code	F1
- Label	

Marine transport in accordance with IMDG	Alcohols, n.o.s. (Propan-1-ol, Ethanol)
- EMS	F-E, S-D
- Label	
- IMDG LQ	5 l

Air transport in accordance with IATA	Alcohols, n.o.s. (Propan-1-ol, Ethanol)
- Label	

**14.3 Transport hazard class(es)**

Transport by land according to ADR/RID	3
Inland navigation (ADN)	3
Marine transport in accordance with IMDG	3
Air transport in accordance with IATA	3

**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 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.

- VOC (2010/75/CE) ca. 61%

**15.2 Chemical safety assessment**

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

Ethanol

n-Propanol

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

H319 Causes serious eye irritation.  
H336 May cause drowsiness or dizziness.  
H318 Causes serious eye damage.  
H225 Highly flammable liquid and vapour.

**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**

Flam. Liq. 3: H226 Flammable liquid and vapour. (On basis of test data)  
 Eye Dam. 1: H318 Causes serious eye damage. (Calculation method)  
 STOT SE 3: H335 May cause respiratory irritation. (Calculation method)

**Modified position**

SECTION 7 been added: Use explosion-proofed equipment/fittings and non-sparkling tools.  
 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: Calculation method  
 SECTION 11 been added: Vapours may cause drowsiness and dizziness.  
 SECTION 11 been added: Based on the available information, the classification criteria are not fulfilled.  
 SECTION 11 deleted: not determined  
 SECTION 11 been added: Risk of serious damage to eyes.  
 SECTION 11 deleted: not determined  
 SECTION 12 been added: No information available.  
 SECTION 12 deleted: not determined



Copyright: ChemieBüro®

