

**SECTION 1: Identification of the substance/mixture and of the company/undertaking****1.1 Product identifier****KRONES colclean C 1201****Article number: 0901635915, 0903622624, 0901635916**

Registration number	01-2119493353-35-XXXX
IUPAC	Orange sweetly, Extract
EINECS/ELINCS	232-433-8
CAS	8028-48-6

**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 <a href="http://www.kic-krones.com">www.kic-krones.com</a> E-mail <a href="mailto:kic@kic-krones.com">kic@kic-krones.com</a>
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**Address enquiries to**

Technical information	<a href="mailto:kic@kic-krones.com">kic@kic-krones.com</a>
Safety Data Sheet	<a href="mailto:sdb@chemiebuero.de">sdb@chemiebuero.de</a>

**1.4 Emergency telephone number**

Advisory body	+49 (0)89-19240 (24h) (english)
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**SECTION 2: Hazards identification****2.1 Classification of the substance or mixture**

Flam. Liq. 3: H226 Flammable liquid and vapour.  
Asp. Tox. 1: H304 May be fatal if swallowed and enters airways.  
Skin Irrit. 2: H315 Causes skin irritation.  
Skin Sens. 1: H317 May cause an allergic skin reaction.  
Aquatic Chronic 2: H411 Toxic to aquatic life with long lasting effects.

## 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:

Orange sweetly, Extract EINECS: 232-433-8

### Hazard statements

H226 Flammable liquid and vapour.  
H304 May be fatal if swallowed and enters airways.  
H315 Causes skin irritation.  
H317 May cause an allergic skin reaction.  
H411 Toxic to aquatic life with long lasting effects.

### Precautionary statements

P210 Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking.  
P273 Avoid release to the environment.  
P280 Wear protective gloves / protective clothing / eye protection / face protection.  
P301+P310 IF SWALLOWED: Immediately call a POISON CENTER / doctor.  
P303+P361+P353 IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water [or shower].  
P331 Do NOT induce vomiting.  
P333+P313 If skin irritation or rash occurs: Get medical advice / attention.  
P403+P235 Store in a well-ventilated place. Keep cool.

### Cleaner, 648/2004/CE, contains:

fragrances d-LIMONENE

## 2.3 Other hazards

### Physico-chemical hazards

Evolution of flammable gases/vapours.

### Human health dangers

If swallowed or in the event of vomiting, risk of product entering the lungs.

### Environmental hazards

The product/the substance has the Water Hazard Class 2.

### 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 substance.

Range [%]	Substance
100	Orange sweetly, Extract
	CAS: 8028-48-6, EINECS/ELINCS: 232-433-8, Reg-No.: 01-2119493353-35-XXXX
	GHS/CLP: Flam. Liq. 3: H226 - Asp. Tox. 1: H304 - Skin Irrit. 2: H315 - Skin Sens. 1: H317 - Aquatic Chronic 2: H411

### 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

<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>	In case of contact with skin wash off immediately with soap and water. Consult a doctor if skin irritation persists.
<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. Consult a doctor immediately. Rinse out mouth and give plenty of water to drink.

##### 4.2 Most important symptoms and effects, both acute and delayed

Irritant effects  
Allergic reactions

##### 4.3 Indication of any immediate medical attention and special treatment needed

Treat symptomatically.  
If swallowed or in the event of vomiting, risk of product entering the lungs.

#### 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)

##### 5.3 Advice for firefighters

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.  
Ensure adequate ventilation.  
Use personal protective equipment.  
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 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.  
Vacuuming in situ required.  
Avoid formation of aerosols.  
Avoid spilling or spraying in enclosed areas.  
Provide good room ventilation even at ground level (vapours are heavier than air).  
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.  
Ignitable mixtures can be formed in the empty container.  
Use explosion-proofed equipment/fittings and non-sparkling tools.  
Do not smoke.  
Ground/bond container and receiving equipment.  
  
Do not eat, drink or smoke when using this product.  
Wash hands before breaks and after work.  
Take off contaminated clothing and wash before reuse.  
Contaminated work clothing should not be allowed out of the workplace.  
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 together with oxidizing agents.  
Do not store with combustible materials.  
  
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)**

not applicable

**DNEL**

Substance
Orange sweetly, Extract, CAS: 8028-48-6
Industrial, inhalative, Long-term - systemic effects: 31,1 mg/m <sup>3</sup> .
Industrial, dermal, Acute - systemic effects: 0,1858 mg/cm <sup>2</sup> .
Industrial, dermal, Long-term - systemic effects: 8,89 mg/kg.
general population, dermal, Acute - systemic effects: 0,0929 mg/cm <sup>2</sup> .
general population, inhalative, Long-term - systemic effects: 7,78 mg/m <sup>3</sup> .
general population, dermal, Long-term - systemic effects: 4,44 mg/kg.
general population, oral, Long-term - systemic effects: 4,44 mg/kg.

**PNEC**

Substance
Orange sweetly, Extract, CAS: 8028-48-6
oral (food), 13,3 mg/kg.
sediment (freshwater), 1,3 mg/kg.
sediment (seawater), 0,13 mg/kg.
freshwater, 5,4 mg/l.
seawater, 0,54 mg/l.
sewage treatment plants (STP), 2,1 mg/l.
soil, 0,261 mg/kg.

**8.2 Exposure controls**

<b>Additional advice on system design</b>	Use suitable exhaust ventilation. 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)
<b>Hand protection</b>	The details concerned are recommendations. Please contact the glove supplier for further information. > 0,11 mm, Nitrile rubber, >480 min (EN 374-1/-2/-3). > 0,11 mm, Viton, >480 min (EN 374-1/-2/-3).
<b>Skin protection</b>	Impermeable protective clothing.
<b>Other</b>	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. Do not breathe vapour/spray. Avoid contact with eyes and skin.
<b>Respiratory protection</b>	If ventilation is insufficient, wear respiratory protection. Short term: filter apparatus, filter A. (DIN EN 14387)
<b>Thermal hazards</b>	See SECTION 7.
<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

Form	liquid
Color	light blue
Odor	characteristic
Odour threshold	No information available.
pH-value	not applicable
pH-value [1%]	not applicable
Boiling point [°C]	175 /347 °F
Flash point [°C]	48 /118,4 °F
Flammability (solid, gas) [°C]	not applicable
Lower explosion limit	0,7 Vol. - %
Upper explosion limit	6,1 Vol. - %
Oxidising properties	no
Vapour pressure/gas pressure [kPa]	0,21 (20 °C / 68 °F)
Density [g/ml]	ca. 0,845 (20 °C / 68,0 °F)
Bulk density [kg/m <sup>3</sup> ]	not applicable
Solubility in water	virtually insoluble
Partition coefficient [n-octanol/water]	4,23 (Lit.)
Viscosity	ca. 1,17 mm <sup>2</sup> /s (20°C; 0,99 mPas; DIN 53015)
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

Ignition Temperature: ca. 255 /491 °F

## SECTION 10: Stability and reactivity

### 10.1 Reactivity

Evolution of flammable mixtures possible in air when heated above flash point and/or during spraying or misting.

### 10.2 Chemical stability

Sensitive to air.  
Sensitivity to light.

### 10.3 Possibility of hazardous reactions

Reactions with oxidizing agents.

### 10.4 Conditions to avoid

Strong heating.  
See SECTION 7.2.

### 10.5 Incompatible materials

See SECTION 10.3.

**10.6 Hazardous decomposition products**

No dangerous reactions known if used as directed.  
In the event of fire: See SECTION 5.

**SECTION 11: Toxicological information****11.1 Information on toxicological effects****Acute toxicity**

Substance
Orange sweetly, Extract, CAS: 8028-48-6
LD50, dermal, Rabbit: > 2000 mg/kg.
LD50, oral, Rat: > 5000 mg/kg.
LD50, dermal, Rat: > 5000 mg/kg.

<b>Serious eye damage/irritation</b>	Based on the available information, the classification criteria are not fulfilled.
<b>Skin corrosion/irritation</b>	Irritant On basis of test data
<b>Respiratory or skin sensitisation</b>	Sensitizing. On basis of test data
<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>	May be fatal if swallowed and enters airways. On basis of test data
<b>General remarks</b>	none

**SECTION 12: Ecological information****12.1 Toxicity**

Substance
Orange sweetly, Extract, CAS: 8028-48-6
LC50, (96h), Pimephales promelas: 0,7 mg/l (OECD 203).
EC50, (72h), Desmodesmus subspicatus: 150 mg/l (OECD 201).
EC50, (48h), Daphnia magna: 0,67 mg/l (OECD 202).

**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**

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**

The product is insoluble in water.

Do not discharge product unmonitored into the environment.

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.

**Waste no. (recommended)**

070604\*

**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	2319
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Inland navigation (ADN)	2319
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Marine transport in accordance with IMDG	2319
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Air transport in accordance with IATA	2319
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**14.2 UN proper shipping name**

<b>Transport by land according to ADR/RID</b>	Terpene hydrocarbons, n.o.s. (Orange terpene)
- Classification Code	F1
- Label	 
- ADR LQ	5 l
- ADR 1.1.3.6 (8.6)	Transport category (tunnel restriction code) 3 (D/E)
<b>Inland navigation (ADN)</b>	Terpene hydrocarbons, n.o.s. (Orange terpene)
- Classification Code	F1
- Label	 
<b>Marine transport in accordance with IMDG</b>	Terpene hydrocarbons, n.o.s. (Orange terpene)
- EMS	F-E, S-D
- Label	 
- IMDG LQ	5 l
<b>Air transport in accordance with IATA</b>	Terpene hydrocarbons, n.o.s. (Orange terpene)
- Label	

**14.3 Transport hazard class(es)**

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

**14.4 Packing group**

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

<b>EEC-REGULATIONS</b>	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
<b>TRANSPORT-REGULATIONS</b>	DOT-Classification, ADR (2017); IMDG-Code (2017, 38. Amdt.); IATA-DGR (2017).
<b>NATIONAL REGULATIONS (GB):</b>	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)	100%

**15.2 Chemical safety assessment**

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

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

H411 Toxic to aquatic life with long lasting effects.  
H317 May cause an allergic skin reaction.  
H315 Causes skin irritation.  
H304 May be fatal if swallowed and enters airways.  
H226 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)  
 Asp. Tox. 1: H304 May be fatal if swallowed and enters airways. (On basis of test data)  
 Skin Irrit. 2: H315 Causes skin irritation. (On basis of test data)  
 Skin Sens. 1: H317 May cause an allergic skin reaction. (On basis of test data)  
 Aquatic Chronic 2: H411 Toxic to aquatic life with long lasting effects. (On basis of test data)

**Modified position**

SECTION 4 been added: Take off contaminated clothing and wash before reuse.  
 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: On basis of test data  
 SECTION 11 been added: May be fatal if swallowed and enters airways.  
 SECTION 12 been added: No information available.  
 SECTION 12 deleted: not determined  
 SECTION 16 been added: Observe employment restrictions for mothers-to-be and nursing mothers.



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