

Chirol ultra

Article number REF 02110

Key Surgical GmbH

23738 Lensahn

Date printed 27.02.2020, Revision 18.09.2019

Version 01

Page 1 / 13

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

Chirol ultra
Article number: REF 02110

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

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1.4 Emergency telephone number

Company +49 (0)4363 905900 Mo-Fr 8:00 - 16:00

SECTION 2: Hazards identification
2.1 Classification of the substance or mixture [REGULATION (EC) No 1272/2008]

Skin Sens. 1: H317 May cause an allergic skin reaction.
 Aquatic Chronic 3: H412 Harmful to aquatic life with long lasting effects.

2.2 Label elements
Hazard pictograms

Signal word

WARNING

Contains:

Orange sweetly, Extract
 1,2-benzisothiazol-3(2H)-one
 2-Methyl-2H-isothiazolin-3-one
 Mixture: 5-Chloro-2-methyl-2H-isothiazolin-3-one/2-Methyl-4-isothiazolin-3-one (3:1)

Hazard statements

H317 May cause an allergic skin reaction.
 H412 Harmful to aquatic life with long lasting effects.

Precautionary statements

P280 Wear protective gloves.
 P333+P313 If skin irritation or rash occurs: Get medical advice / attention.
 P362+P364 Take off contaminated clothing and wash it before reuse.
 P273 Avoid release to the environment.
 P501 Dispose of contents/container in accordance with local/national regulation.

Cleaner, 648/2004/CE, contains:

5 - <15% aliphatic hydrocarbons
 < 5% non-ionic surfactants
 preservatives BENZISOTHIAZOLINONE
 preservatives 2-BROMO-2-NITROPROPANE-1,3-DIOL
 preservatives METHYLCHLOROISOTHIAZOLINONE/METHYLISOTHIAZOLINONE (3:1)
 preservatives METHYLISOTHIAZOLINONE
 fragrances LINALOOL
 fragrances LIMONENE

Chirol ultra

Article number REF 02110

Key Surgical GmbH

23738 Lensahn

Date printed 27.02.2020, Revision 18.09.2019

Version 01

Page 2 / 13

2.3 Other hazards

Human health dangers	If swallowed or in the event of vomiting, risk of product entering the lungs.
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:

3.2 The product is a mixture.

Range [%]	Substance
5 - 15	White mineral oil (petroleum) CAS: 8042-47-5, EINECS/ELINCS: 232-455-8, Reg-No.: 01-2119487078-27-XXXX GHS/CLP: Asp. Tox. 1: H304
1 - 5	Fatty alcohol-polyglycoether CAS: 68439-49-6, EINECS/ELINCS: Polymer GHS/CLP: Aquatic Acute 1: H400 - Aquatic Chronic 3: H412, M_acute = 1
1 - < 2,5	Orange sweetly, Extract CAS: 8028-48-6, EINECS/ELINCS: 232-433-8, Reg-No.: 01-2119493353-35-XXXX GHS/CLP: Flam. Liq. 3: H226 - Skin Irrit. 2: H315 - Skin Sens. 1: H317 - Asp. Tox. 1: H304 - Aquatic Chronic 2: H411
0,01 - < 0,02	2-Methyl-2H-isothiazolin-3-one CAS: 2682-20-4, EINECS/ELINCS: 220-239-6, EU-INDEX: 613-326-00-9, Reg-No.: 01-2120764690-50-XXXX GHS/CLP: Acute Tox. 3: H301 H311 - Acute Tox. 2: H330 - Skin Corr. 1B: H314 - Eye Dam. 1: H318 - Skin Sens. 1A: H317 - Aquatic Acute 1: H400 - Aquatic Chronic 1: H410, M_acute = 10, M_chronic = 1
< 0,05	1,2-benzisothiazol-3(2H)-one CAS: 2634-33-5, EINECS/ELINCS: 220-120-9, EU-INDEX: 613-088-00-6, Reg-No.: 01-2120761540-60-XXXX GHS/CLP: Acute Tox. 4: H302 - Skin Irrit. 2: H315 - Skin Sens. 1: H317 - Eye Dam. 1: H318 - Aquatic Acute 1: H400 - Aquatic Chronic 2: H411, M_acute = 1
< 0,0015	Mixture: 5-Chloro-2-methyl-2H-isothiazolin-3-one/2-Methyl-4-isothiazolin-3-one (3:1) CAS: 55965-84-9, EU-INDEX: 613-167-00-5 GHS/CLP: Acute Tox. 3: H301 H311 H331 - Skin Corr. 1B: H314 - Eye Dam. 1: H318 - Skin Sens. 1: H317 - Aquatic Acute 1: H400 - Aquatic Chronic 1: H410, M_acute = 1, M_chronic = 1

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

General information	Take off contaminated clothing and wash before reuse.
Inhalation	Ensure supply of fresh air. In the event of symptoms seek medical treatment.
Skin contact	In case of contact with skin wash off immediately with soap and water. Consult a doctor if skin irritation persists.
Eye contact	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.
Ingestion	Consult a doctor immediately. Do not induce vomiting. Rinse out mouth and give plenty of water to drink.

Chiol ultra

Article number REF 02110

Key Surgical GmbH

23738 Lensahn

Date printed 27.02.2020, Revision 18.09.2019

Version 01

Page 3 / 13

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.

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.

5.3 Advice for firefighters

Use self-contained breathing apparatus.
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**

High risk of slipping due to leakage/spillage of product.
Use personal protective equipment.

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**

The normal safety precautions for handling chemicals must be observed.

Do not eat, drink, smoke or take drugs at work.
Wash hands before breaks and after work.
Use barrier skin cream.
Take off contaminated clothing and wash before reuse.

7.2 Conditions for safe storage, including any incompatibilities

Keep only in original container.
Prevent penetration into the ground.
Do not store together with food and animal food/diet.
Keep container tightly closed.
Keep away from frost.
Protect from heat/overheating and from sun.

Chirol ultra

Article number REF 02110

Key Surgical GmbH

23738 Lensahn

Date printed 27.02.2020, Revision 18.09.2019

Version 01

Page 4 / 13

7.3 Specific end use(s)

See product use, SECTION 1.2

Chiol ultra

Article number REF 02110

Key Surgical GmbH

23738 Lensahn

Date printed 27.02.2020, Revision 18.09.2019

Version 01

Page 5 / 13

SECTION 8: Exposure controls / personal protection
8.1 Control parameters
Ingredients with occupational exposure limits to be monitored (GB)

Substance
White mineral oil (petroleum)
CAS: 8042-47-5, EINECS/ELINCS: 232-455-8, Reg-No.: 01-2119487078-27-XXXX
Long-term exposure: 5 mg/m ³ , oil mist TWA, ACGIH

DNEL

Substance
Orange sweetly, Extract, CAS: 8028-48-6
Industrial, dermal, Acute - local effects: 0,1858 mg/cm ² .
Industrial, dermal, Long-term - systemic effects: 8,89 mg/kg bw/d.
Industrial, inhalative, Long-term - systemic effects: 31,1 mg/m ³ .
general population, oral, Long-term - systemic effects: 4,44 mg/kg bw/d.
general population, dermal, Long-term - systemic effects: 4,44 mg/kg bw/d.
general population, inhalative, Long-term - systemic effects: 7,78 mg/m ³ .
general population, dermal, Acute - local effects: 0,0929 mg/cm ² .
White mineral oil (petroleum), CAS: 8042-47-5
Industrial, inhalative, Long-term - systemic effects: 160 mg/m ³ .
Industrial, dermal, Long-term - systemic effects: 220 mg/kg kg/d.
general population, inhalative, Long-term - systemic effects: 35 mg/m ³ .
general population, dermal, Long-term - systemic effects: 93 mg/kg bw/day.
general population, oral, Long-term - systemic effects: 40 mg/kg bw/day.
2-Methyl-2H-isothiazolin-3-one, CAS: 2682-20-4
Industrial, inhalative, Long-term - local effects: 21 µg/m ³ .
Industrial, inhalative, Acute - local effects: 43 µg/m ³ .
general population, inhalative, Long-term - local effects: 21 µg/m ³ .
general population, inhalative, Acute - local effects: 43 µg/m ³ .
general population, oral, Long-term - systemic effects: 27 µg/kg bw/day.
general population, oral, Acute - systemic effects: 53 µg/kg bw/day.
1,2-benzisothiazol-3(2H)-one, CAS: 2634-33-5
Industrial, dermal, Long-term - systemic effects: 0,966 mg/kg bw/day.
Industrial, inhalative, Long-term - systemic effects: 6,81 mg/m ³ .
general population, dermal, Long-term - systemic effects: 0,345 mg/kg bw/day.
general population, inhalative, Long-term - systemic effects: 1,2 mg/m ³ .

PNEC

Substance
Orange sweetly, Extract, CAS: 8028-48-6
seawater, 0,54 µg/L.
sediment (freshwater), 1,3 mg/kg dwt..
sediment (seawater), 0,13 mg/kg dwt..
soil, 0,261 mg/kg dwt..
freshwater, 5,4 µg/L.
sewage treatment plants (STP), 2,1 mg/l.
2-Methyl-2H-isothiazolin-3-one, CAS: 2682-20-4
sewage treatment plants (STP), 230 µg/L.

Chiol ultra

Article number REF 02110

Key Surgical GmbH

23738 Lensahn

Date printed 27.02.2020, Revision 18.09.2019

Version 01

Page 6 / 13

seawater, 3,39 µg/L.
freshwater, 3,39 µg/L.
soil, 47 µg/kg soil dw.
1,2-benzisothiazol-3(2H)-one, CAS: 2634-33-5
sewage treatment plants (STP), 1,03 mg/L.
seawater, 0,403 µg/L.
sediment (freshwater), 49,9 µg/kg sediment dw.
sediment (seawater), 4,99 µg/kg sediment dw.
soil, 3 mg/kg soil dw.
freshwater, 4,03 µg/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	Safety glasses. (EN 166:2001)
Hand protection	0,4mm Butyl rubber, >120 min (EN 374-1/-2/-3). The details concerned are recommendations. Please contact the glove supplier for further information.
Skin protection	Protective clothing (EN 340)
Other	Avoid contact with eyes and skin. 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	In the event of occupational exposure limits being exceeded or of inadequate ventilation: wear appropriate respiratory protection. Short term: filter apparatus, combination filter A-P2. (DIN EN 14387)
Thermal hazards	none
Delimitation and monitoring of the environmental exposition	Protect the environment by applying appropriate control measures to prevent or limit emissions.

Chirol ultra

Article number REF 02110

Key Surgical GmbH

23738 Lensahn

Date printed 27.02.2020, Revision 18.09.2019

Version 01

Page 7 / 13

SECTION 9: Physical and chemical properties

9.1 Information on basic physical and chemical properties

Form	liquid
Color	white
Odor	characteristic
Odour threshold	not applicable
pH-value	7
pH-value [1%]	not determined
Boiling point [°C]	not determined
Flash point [°C]	not applicable
Flammability (solid, gas) [°C]	not applicable
Lower explosion limit	not applicable
Upper explosion limit	not applicable
Oxidising properties	no
Vapour pressure/gas pressure [kPa]	not determined
Density [g/ml]	1,12 (20 °C / 68,0 °F)
Bulk density [kg/m ³]	not applicable
Solubility in water	miscible
Partition coefficient [n-octanol/water]	not determined
Viscosity	> 20,5 mm/s 40°C
Relative vapour density determined in air	not determined
Evaporation speed	not determined
Melting point [°C]	not determined
Autoignition temperature [°C]	not applicable
Decomposition temperature [°C]	not applicable

9.2 Other information

none

SECTION 10: Stability and reactivity

10.1 Reactivity

No dangerous reactions known if used as directed.

10.2 Chemical stability

The product is stable under standard conditions.

10.3 Possibility of hazardous reactions

Reactions with oxidizing agents.

10.4 Conditions to avoid

See SECTION 7.2.

10.5 Incompatible materials

Oxidizing agent

10.6 Hazardous decomposition products

No hazardous decomposition products known.

Chirol ultra

Article number REF 02110

Key Surgical GmbH

23738 Lensahn

Date printed 27.02.2020, Revision 18.09.2019

Version 01

Page 8 / 13

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

Product
ATE-mix, inhalation (vapour), > 20 mg/l 4h.
ATE-mix, dermal, > 2000 mg/kg.
ATE-mix, oral, > 2000 mg/kg.
Substance
Orange sweetly, Extract, CAS: 8028-48-6
LD50, oral, Rat: > 5000 mg/kg.
LD50, dermal, Rabbit: > 5000 mg/kg.
Fatty alcohol-polyglycoether, CAS: 68439-49-6
LD50, oral, > 2000 mg/kg.
White mineral oil (petroleum), CAS: 8042-47-5
LD50, dermal, Rabbit: >2000 mg/kg (OECD 402).
LD50, oral, Rat: >5000 mg/kg (OECD 401).
LC50, inhalative, Rat: >5000 mg/m ³ (4h) (OECD 403).
2-Methyl-2H-isothiazolin-3-one, CAS: 2682-20-4
LD50, dermal, Rat: 242 mg/kg bw.
LD50, oral, Rat: 120 mg/kg bw.
LC50, inhalative, Rat: 340 µg/m ³ .
Mixture: 5-Chloro-2-methyl-2H-isothiazolin-3-one/2-Methyl-4-isothiazolin-3-one (3:1), CAS: 55965-84-9
LD50, dermal, Rabbit: 87,12 mg/kg (ECHA, CLH Report).
LD50, oral, 64 mg/kg (ECHA, CLH Report).
LD50, oral, Rat: 53 mg/kg.
LC50, inhalative, Rat: 0,171 mg/l/4h (ECHA, CLH Report).
1,2-benzisothiazol-3(2H)-one, CAS: 2634-33-5
LD50, dermal, Rat: >2000 mg/kg bw (OECD 402).
LD50, oral, Rat: 670 mg/kg bw (OECD 401).

Serious eye damage/irritation	Does not contain a relevant substance that meets the classification criteria. Based on the available information, the classification criteria are not fulfilled. Toxicological data of complete product are not available.
Skin corrosion/irritation	Based on available data, the classification criteria are not met. Toxicological data of complete product are not available.
Respiratory or skin sensitisation	May cause an allergic skin reaction. Based on the available information, the classification criteria are fulfilled. Toxicological data of complete product are not available. Calculation method
Specific target organ toxicity — single exposure	Does not contain a relevant substance that meets the classification criteria. Based on the available information, the classification criteria are not fulfilled. Toxicological data of complete product are not available.
Specific target organ toxicity — repeated exposure	Does not contain a relevant substance that meets the classification criteria. Based on the available information, the classification criteria are not fulfilled. Toxicological data of complete product are not available.
Mutagenicity	Does not contain a relevant substance that meets the classification criteria. Based on the available information, the classification criteria are not fulfilled. Toxicological data of complete product are not available.
Reproduction toxicity	Does not contain a relevant substance that meets the classification criteria. Based on the available information, the classification criteria are not fulfilled. Toxicological data of complete product are not available.
Carcinogenicity	Does not contain a relevant substance that meets the classification criteria. Based on the available information, the classification criteria are not fulfilled.

Chirol ultra

Article number REF 02110

Key Surgical GmbH

23738 Lensahn

Date printed 27.02.2020, Revision 18.09.2019

Version 01

Page 9 / 13

Aspiration hazard	Toxicological data of complete product are not available.
General remarks	Based on the available information, the classification criteria are not fulfilled.
	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, (48h), Daphnia magna: 0,67 mg/l (OECD 202).
ErC50, (72h), Desmodemus subspicatus: 150 mg/l (OECD 201).
Fatty alcohol-polyglycoether, CAS: 68439-49-6
LC50, fish: 2,8 mg/l.
EC50, Algae: 0,79 mg/l.
NOEC, Algae: 0,15 mg/l.
White mineral oil (petroleum), CAS: 8042-47-5
LC50, (96h), Leuciscus idus: >1000 mg/l (OECD 203).
NOEC, (21d), Daphnia sp.: >= 1000 mg/l.
NOEC, (28d), fish: >= 1000 mg/l.
LL50, (48h), Daphnia magna: >100 mg/l (OECD 202).
NOEL, (72h), Algae: >=100 mg/l (OECD 201).
2-Methyl-2H-isothiazolin-3-one, CAS: 2682-20-4
LC50, (96h), fish: 4,77 mg/L.
EC50, (48h), Invertebrates: 934 µg/L.
EC50, (96h), Algae: 72 µg/L.
Mixture: 5-Chloro-2-methyl-2H-isothiazolin-3-one/2-Methyl-4-isothiazolin-3-one (3:1), CAS: 55965-84-9
LC50, (96h), Oncorhynchus mykiss: 0,19 mg/l.
EC50, (48h), Daphnia magna: 0,18 mg/l.
ErC50, Skeletonema costatum: 0,003 mg/l.
1,2-benzisothiazol-3(2H)-one, CAS: 2634-33-5
LC50, (96h), fish: 16,7 mg/L (EPA 540/9-85-006).
EC50, (48h), Daphnia magna: 2,94 mg/L (OECD 202).
NOEC, (72h), Pseudokirchneriella subcapitata: 55 µg/L (OECD 201).

12.2 Persistence and degradability

Behaviour in environment compartments	not determined
Behaviour in sewage plant	not determined
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

Accumulation in organisms is not expected.

12.4 Mobility in soil

Spillages may penetrate the soil causing ground water contamination.

Chirol ultra

Article number REF 02110

Key Surgical GmbH

23738 Lensahn

Date printed 27.02.2020, Revision 18.09.2019

Version 01

Page 10 / 13

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

None known.

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.
For recycling, consult manufacturer.

Waste no. (recommended)

200129*

Contaminated packaging

Packaging that cannot be cleaned should be disposed of as for product.
Uncontaminated packaging may be taken for recycling.

Waste no. (recommended)

150110*

SECTION 14: Transport information

14.1 UN number

Transport by land according to ADR/RID not applicable

Inland navigation (ADN) not applicable

Marine transport in accordance with IMDG not applicable

Air transport in accordance with IATA not applicable

14.2 UN proper shipping name

Transport by land according to ADR/RID NO DANGEROUS GOODS

Inland navigation (ADN) NO DANGEROUS GOODS

Marine transport in accordance with IMDG NOT CLASSIFIED AS "DANGEROUS GOODS"

Air transport in accordance with IATA NOT CLASSIFIED AS "DANGEROUS GOODS"

Chirol ultra

Article number REF 02110

Key Surgical GmbH

23738 Lensahn

Date printed 27.02.2020, Revision 18.09.2019

Version 01

Page 11 / 13

14.3 Transport hazard class(es)

Transport by land according to ADR/RID not applicable

Inland navigation (ADN) not applicable

Marine transport in accordance with IMDG not applicable

Air transport in accordance with IATA not applicable

14.4 Packing group

Transport by land according to ADR/RID not applicable

Inland navigation (ADN) not applicable

Marine transport in accordance with IMDG not applicable

Air transport in accordance with IATA not applicable

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

not applicable

SECTION 15: Regulatory information**15.1 Safety, health and environmental regulations/legislation specific for the substance or mixture**

EEC-REGULATIONS 2008/98/EC 2000/532/EC; 2010/75/EU; 2004/42/EC; (EC) 648/2004; (EC) 1907/2006 (REACH); (EU) 1272/2008; 75/324/EEC ((EC) 2016/2037); (EU) 2015/830; (EU) 2016/131; (EU) 517/2014

TRANSPORT-REGULATIONS ADR (2019); IMDG-Code (2019, 39. Amdt.); IATA-DGR (2020)

NATIONAL REGULATIONS (GB): EH40/2005 Workplace exposure limits (Second edition, published December 2011).

- **Observe employment restrictions for people** Observe employment restrictions for mothers-to-be and nursing mothers. Observe employment restrictions for young people.

- **VOC (2010/75/CE)** 2 %

15.2 Chemical safety assessment

not applicable

Chiol ultra

Article number REF 02110

Key Surgical GmbH

23738 Lensahn

Date printed 27.02.2020, Revision 18.09.2019

Version 01

Page 12 / 13

SECTION 16: Other information

16.1 Hazard statements (SECTION 03)

H330 Fatal if inhaled.
 H301+H311 Toxic if swallowed or in contact with skin.
 H410 Very toxic to aquatic life with long lasting effects.
 H314 Causes severe skin burns and eye damage.
 H301+H311+H331 Toxic if swallowed, in contact with skin or if inhaled.
 H318 Causes serious eye damage.
 H302 Harmful if swallowed.
 H411 Toxic to aquatic life with long lasting effects.
 H317 May cause an allergic skin reaction.
 H315 Causes skin irritation.
 H226 Flammable liquid and vapour.
 H400 Very toxic to aquatic life.
 H412 Harmful to aquatic life with long lasting effects.
 H304 May be fatal if swallowed and enters airways.

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
 EL50 = Median effective loading
 ELINCS = European List of Notified Chemical Substances
 EmS = Emergency Schedules
 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
 LL50 = Median lethal loading
 LQ = Limited Quantities
 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 Sens. 1: H317 May cause an allergic skin reaction. (Calculation method)
 Aquatic Chronic 3: H412 Harmful to aquatic life with long lasting effects. (Calculation method)

Modified position

none

Chirol ultra

Article number REF 02110

Key Surgical GmbH

23738 Lensahn

Date printed 27.02.2020, Revision 18.09.2019

Version 01

Page 13 / 13



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