## quartasept® plus No Change Service!

Version Revision Date: Date of last issue: 03.08.2018

## SECTION 1: Identification of the substance/mixture and of the company/undertaking

### 1.1 Product identifier

Trade name : quartasept® plus

### 1.2 Relevant identified uses of the substance or mixture and uses advised against

Use of the Sub- : Disinfectants and general biocidal products
stance/Mixture
Recommended restrictions : Use by spraying, Reserved for industrial and professional use. on use
1.3 Details of the supplier of the safety data sheet

Manufacturer/ Supplier
: Schülke \& Mayr GmbH Robert-Koch-Str. 2

22851 Norderstedt
Germany
Telephone: +49 (0)40/52100-0
Order here!
Telefax: +49 (0)40/52100318
mail@schuelke.com
www.schuelke.com
E-mail address of person : Application Department responsible for the +49 (0)40/521 008800 SDS/Contact person

ApplicationDepartment.SM@schuelke.com
(Schülke \& Mayr UK Ltd.: +44-1142543500)

### 1.4 Emergency telephone number

Emergency telephone num- : UK Poisons Emergency number: 08706006266 ber

## SECTION 2: Hazards identification

### 2.1 Classification of the substance or mixture

Classification (REGULATION (EC) No 1272/2008)

Corrosive to metals, Category 1
Acute toxicity, Category 4
Skin corrosion, Sub-category 1B
Serious eye damage, Category 1
Short-term (acute) aquatic hazard, Category 1

Long-term (chronic) aquatic hazard, Category 2

H290: May be corrosive to metals.
H302: Harmful if swallowed.
H314: Causes severe skin burns and eye damage.
H318: Causes serious eye damage.
H400: Very toxic to aquatic life.

H411: Toxic to aquatic life with long lasting effects.

## quartasept® plus No Change Service!

| Version | Revision Date: | Date of last issue: 03.08.2018 |
| :--- | :--- | :--- |
| 06.01 | 25.01 .2019 | Date of first issue: 15.02.2006 |

### 2.2 Label elements

Labelling (REGULATION (EC) No 1272/2008)
Hazard pictograms


| Signal word | Danger |
| :---: | :---: |
| Hazard statements | H290 May be corrosive to metals. |
|  | H302 Harmful if swallowed. |
|  | H314 Causes severe skin burns and eye damage. |
|  | H410 Very toxic to aquatic life with long lasting effects. |
| Precautionary statements | P273 Avoid release to the environment. |
|  | P280 Wear protective gloves (e.g. butyl rubber) /protective |
|  | clothing/eye protection/face protection. |
|  | P301 + P330 + P331 IF SWALLOWED: Rinse mouth. Do |
|  | NOT induce vomiting. |
|  | P301 + P312 IF SWALLOWED: Call a POISON |
|  | CENTER/doctor if you feel unwell. |
|  | P303 + P361 + P353 IF ON SKIN (or hair): Take off immedi- |
|  | ately all contaminated clothing. Rinse skin with water or show- |
|  | er. |
|  | P305 + P351 + P338 + P310 IF IN EYES: Rinse cautiously |
|  | with water for several minutes. Remove contact lenses, if pre- |
|  | sent and easy to do. Continue rinsing. Immediately call a |
|  | POISON CENTER/doctor. |
|  | P501 Dispose of contents/ container to an approved waste |
|  | disposal plant. |

Hazardous components which must be listed on the label:
7173-51-5 Didecyldimethylammonium chloride

2372-82-9 $\quad \mathrm{N}$-(3-aminopropyl)-N-dodecylpropane-1,3-diamine (Diamine)
Special labelling of certain : Labelling according to Regulation (EC) No. 648/2004: (< 5 \% mixtures non-ionic surfactants)

Further information : The product is classified in accordance with Annex I (2.6.4.5) to Regulation (EC) 1272/2008. Use biocides safely. Always read the label and product information before use.

### 2.3 Other hazards

This substance/mixture contains no components considered to be either persistent, bioaccumulative and toxic (PBT), or very persistent and very bioaccumulative ( vPvB ) at levels of $0.1 \%$ or higher.
No special risks known.

## quartasept® plus No Change Service!

Version Revision Date: Date of last issue: 03.08.2018
06.01
25.01.2019

Date of first issue: 15.02.2006

## SECTION 3: Composition/information on ingredients

### 3.2 Mixtures

Chemical nature : Solution of the following substances with harmless additives.

## Components

| Chemical name | CAS-No. EC-No. Index-No. Registration number | Classification | Concentration (\% w/w) |
| :---: | :---: | :---: | :---: |
| Didecyldimethylammonium chloride | $\begin{aligned} & 7173-51-5 \\ & 230-525-2 \\ & 612-131-00-6 \\ & 01-2119945987-15- \\ & \text { XXXX } \end{aligned}$ | Acute Tox. 3; H301 Skin Corr. 1B; H314 Aquatic Acute 1; H400; M = 10 Aquatic Chronic 2; H411 | 10 |
| Propan-2-ol | $\begin{array}{\|l} \hline 67-63-0 \\ 200-661-7 \\ 603-117-00-0 \\ 01-2119457558-25- \\ \text { XXXX } \\ \hline \end{array}$ | Flam. Liq. 2; H225 Eye Irrit. 2; H319 STOT SE 3; H336 | $<=5$ |
| Tridecylpolyethylenglycolether | 69011-36-5 <br> Polymer <br> - - - | Acute Tox. 4; H302 Eye Dam. 1; H318 | $<5$ |
| N-(3-aminopropyl)-N-dodecylpropane-1,3-diamine (Diamine) | ```2372-82-9 219-145-8 01-2119980592-29- XXXX``` | Acute Tox. 3; H301 Skin Corr. 1B; H314 STOT RE 2; H373 Aquatic Acute 1; H400; M = 10 Aquatic Chronic 1; H410; $M=1$ | 1,8 |

For explanation of abbreviations see section 16.

## SECTION 4: First aid measures

### 4.1 Description of first aid measures

General advice

If inhaled : Move the victim to fresh air. If symptoms persist, call a physician.

In case of skin contact
: Take off all contaminated clothing immediately.
: Wash off immediately with plenty of water for at least 15 minutes.
If symptoms persist, call a physician.
In case of eye contact
: In case of eye contact, remove contact lens and rinse imme-

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| :--- | :--- | :--- |
| Version | Revision Date: | Date of last issue: 03.08.2018 |
| 06.01 | 25.01 .2019 | Date of first issue: 15.02 .2006 |

If swallowed $\quad:$ Do NOT induce vomiting.
Rinse mouth with water.
Give small amounts of water to drink.
Obtain medical attention.

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

4.3 Indication of any immediate medical attention and special treatment needed
Treatment : For specialist advice physicians should contact the Poisons Information Service.

## SECTION 5: Firefighting measures

### 5.1 Extinguishing media

Suitable extinguishing media : Water spray jet
Dry powder
Foam
Carbon dioxide (CO2)
Unsuitable extinguishing : Do not use a solid water stream as it may scatter and spread media fire.

### 5.2 Special hazards arising from the substance or mixture

Specific hazards during fire- : Do not allow run-off from fire fighting to enter drains or water fighting courses.

Hazardous combustion prod- : Carbon dioxide (CO2)
ucts Carbon monoxide
Nitrogen oxides (NOx)

### 5.3 Advice for firefighters

Special protective equipment : In the event of fire, wear self-contained breathing apparatus. for firefighters

## SECTION 6: Accidental release measures

6.1 Personal precautions, protective equipment and emergency procedures

Personal precautions : Increased risk of slipping in the presence of leaked / spilled product.

### 6.2 Environmental precautions

Environmental precautions : Do not flush into surface water or sanitary sewer system. Avoid subsoil penetration.

## quartasept $®$ plus No Change Service!

Version Revision Date: Date of last issue: 03.08.2018

### 6.3 Methods and material for containment and cleaning up

Methods for cleaning up : Wipe up with absorbent material (e.g. cloth, fleece). Soak up with inert absorbent material (e.g. sand, silica gel, acid binder, universal binder, sawdust).

### 6.4 Reference to other sections

see Section $8+13$

## SECTION 7: Handling and storage

### 7.1 Precautions for safe handling

Advice on safe handling : Avoid formation of aerosol. Ensure adequate ventilation.

Advice on protection against : No special protective measures against fire required.
fire and explosion
Hygiene measures : Keep away from food and drink.

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

Requirements for storage : Store at room temperature in the original container.
areas and containers
Further information on stor- : Keep away from heat. Keep away from direct sunlight. Keep age conditions container tightly closed.

Advice on common storage
: Do not store near acids.

### 7.3 Specific end use(s)

Specific use(s) : none

## SECTION 8: Exposure controls/personal protection

### 8.1 Control parameters

Derived No Effect Level (DNEL) according to Regulation (EC) No. 1907/2006:

| Substance name | End Use | Exposure routes | Potential health ef- <br> fects | Value |
| :--- | :--- | :--- | :--- | :--- |
| Propan-2-ol | Workers | Skin contact | Long-term exposure, <br> Systemic effects | $888 \mathrm{mg} / \mathrm{kg}$ |
|  | Workers | Inhalation | Long-term exposure, <br> Systemic effects | $500 \mathrm{mg} / \mathrm{m3}$ |
| N-(3-aminopropyl)-N- <br> dodecylpropane-1,3- <br> diamine (Diamine) | Workers | Inhalation | Long-term systemic <br> effects | $2,35 \mathrm{mg} / \mathrm{m} 3$ |
|  | Workers | Skin contact | Long-term systemic <br> effects | $0,91 \mathrm{mg} / \mathrm{kg}$ |

## quartasept ${ }^{B}$ plus $\quad$ No Change Service!

Version Revision Date: Date of last issue: 03.08.2018
06.01
25.01.2019

Date of first issue: 15.02.2006
Predicted No Effect Concentration (PNEC) according to Regulation (EC) No. 1907/2006:

| Substance name | Environmental Compartment | Value |
| :--- | :--- | :--- |
| Propan-2-ol | Fresh water | $140,9 \mathrm{mg} / \mathrm{l}$ |
|  | Marine water | $140,9 \mathrm{mg} / \mathrm{l}$ |
|  | Fresh water sediment | $552 \mathrm{mg} / \mathrm{kg}$ |
|  | Marine sediment | $552 \mathrm{mg} / \mathrm{kg}$ |
|  | Soil | $28 \mathrm{mg} / \mathrm{kg}$ |
|  | Intermittent use/release | $140,9 \mathrm{mg} / \mathrm{l}$ |
|  | Effects on waste water treatment plants | $2251 \mathrm{mg} / \mathrm{l}$ |
|  | Oral | $160 \mathrm{mg} / \mathrm{kg}$ food |
| N-(3-aminopropyl)-N- <br> dodecylpropane-1,3-diamine <br> (Diamine) | Fresh water | $0,001 \mathrm{mg} / \mathrm{l}$ |
|  |  | $0,0001 \mathrm{mg} / \mathrm{l}$ |
|  | Marine water | $8,5 \mathrm{mg} / \mathrm{kg}$ |
|  | Fresh water sediment | $0,85 \mathrm{mg} / \mathrm{kg}$ |
|  | Marine sediment | $45,34 \mathrm{mg} / \mathrm{kg}$ |
|  | Soil | $1,33 \mathrm{mg} / \mathrm{l}$ |

### 8.2 Exposure controls

## Engineering measures

Ensure that eyewash stations and safety showers are close to the workstation location.

## Personal protective equipment

Eye protection : Safety glasses with side-shields conforming to EN166
Hand protection
Directive : The selected protective gloves have to satisfy the specifications of Regulation (EU) 2016/425 and the standard EN 374 derived from it.

Remarks : Splash protection: disposable nitrile rubber gloves e.g. Dermatril (layer thickness: 0.11 mm ) made by KCL or gloves from other manufacturers offering the same protection.Prolonged contact: Nitrile rubber gloves e.g. Camatril ( $>480$ Min., layer thickness: $0,40 \mathrm{~mm}$ ) or butyl rubber gloves e.g. Butoject ( $>480$ Min., layer thickness: $0,70 \mathrm{~mm}$ ) made by KCL or gloves from other manufacturers offering the same protection.

Protective measures : Avoid contact with skin and eyes.

## SECTION 9: Physical and chemical properties

9.1 Information on basic physical and chemical properties

Appearance
: liquid
Colour : nearly colourless
Odour : characteristic
Odour Threshold : not determined

HEALTHCARE

## quartasept® plus No Change Service! <br> Version Revision Date: Date of last issue: 03.08.2018 <br> 06.01

| pH | ca. $9\left(20{ }^{\circ} \mathrm{C}\right)$ |
| :---: | :---: |
| Melting point/freezing point | $<-5{ }^{\circ} \mathrm{C}$ |
| Decomposition temperature | Not applicable |
| Boiling point/boiling range | ca. $90{ }^{\circ} \mathrm{C}$ |
| Flash point | $49^{\circ} \mathrm{C}$ <br> Method: DIN 51755 Part 1 |
| Evaporation rate | No data available |
| Flammability (solid, gas) Upper explosion limit / Upper flammability limit | : Not applicable <br> : No data available |
| Lower explosion limit / Lower flammability limit | : No data available |
| Vapour density | : No data available |
| Relative density | : ca. $0,98 \mathrm{~g} / \mathrm{cm} 3\left(20^{\circ} \mathrm{C}\right)$ |
| Solubility(ies) <br> Water solubility | in all proportions ( $20^{\circ} \mathrm{C}$ ) |
| Partition coefficient: noctanol/water | : Not applicable |
| Auto-ignition temperature | No data available |
| Viscosity |  |
| Viscosity, dynamic | ca. 23 mPa * $\left(20^{\circ} \mathrm{C}\right)$ <br> Method: ISO 3219 |
| Explosive properties | No data available |
| Oxidizing properties | : No data available |

### 9.2 Other information

Flammability (liquids) : Does not sustain combustion.
Metal corrosion rate $: \quad>6,25 \mathrm{~mm} / \mathrm{a}$
Corrosive to metals Aluminium and Mild steel

## SECTION 10: Stability and reactivity

### 10.1 Reactivity

No dangerous reaction known under conditions of normal use.

## quartasept ${ }^{B}$ plus $\quad$ No Change Service!

Version Revision Date: Date of last issue: 03.08.2018

### 10.2 Chemical stability

The product is chemically stable.

### 10.3 Possibility of hazardous reactions

Hazardous reactions : None reasonably foreseeable.

### 10.4 Conditions to avoid

Conditions to avoid
: Extremes of temperature and direct sunlight.

### 10.5 Incompatible materials

Materials to avoid : Strong acids

### 10.6 Hazardous decomposition products

None reasonably foreseeable.

## SECTION 11: Toxicological information

### 11.1 Information on toxicological effects

## Acute toxicity

## Product:

\(\left.$$
\begin{array}{lll}\text { Acute oral toxicity } & : \begin{array}{l}\text { Acute toxicity estimate: ca. } 1.800 \mathrm{mg} / \mathrm{kg} \\
\text { Assessment: Harmful if swallowed. }\end{array}
$$ <br>

Acute inhalation toxicity \& : Acute toxicity estimate:>50 \mathrm{mg} / \mathrm{l}\end{array}\right\}\)| Acute dermal toxicity |
| :--- |$:$| Acute toxicity estimate: $>15.000 \mathrm{mg} / \mathrm{kg}$ |
| :--- |

## Components:

Didecyldimethylammonium chloride:
Acute oral toxicity
: LD50 (Rat): $238 \mathrm{mg} / \mathrm{kg}$ Method: OECD Test Guideline 401 Assessment: Toxic if swallowed.

Acute inhalation toxicity $\quad:$ Remarks: No data available
Acute dermal toxicity $\quad: \quad$ LD50 (Rabbit): $3.342 \mathrm{mg} / \mathrm{kg}$

## Propan-2-ol:

Acute oral toxicity $\quad: \quad$ LD50 (Rat): $>5.000 \mathrm{mg} / \mathrm{kg}$
Acute inhalation toxicity : LC50 (Rat): $39 \mathrm{mg} / \mathrm{l}$
Exposure time: 4 h
Acute dermal toxicity $\quad:$ LD50 (Rabbit): $>5.000 \mathrm{mg} / \mathrm{kg}$
Tridecylpolyethylenglycolether:
Acute oral toxicity : LD50 (Rat): 300-2.000 mg/kg

## quartasept® plus No Change Service! <br> Version Revision Date: Date of last issue: 03.08.2018

|  | Assessment: Harmful if swallowed. |
| :---: | :---: |
| Acute inhalation toxicity | Remarks: No data available |
| Acute dermal toxicity | LD50 (Rat): > $2.000 \mathrm{mg} / \mathrm{kg}$ |
| N -(3-aminopropyl)-N-dodecylpropane-1,3-diamine (Diamine): |  |
| Acute oral toxicity | LD50 Oral (Rat): $261 \mathrm{mg} / \mathrm{kg}$ Method: OECD Test Guideline 401 Assessment: Toxic if swallowed. |
| Acute inhalation toxicity | Remarks: No data available |
| Acute dermal toxicity | Remarks: No data available |

## Skin corrosion/irritation

## Product:

Assessment : Causes severe skin burns and eye damage.
Method : Calculation method

## Components:

Didecyldimethylammonium chloride:

| Species | $:$ Rabbit |
| :--- | :--- |
| Exposure time | $: 4 \mathrm{~h}$ |
| Method | $:$ OECD Test Guideline 404 |
| Result | $:$ Corrosive |

Propan-2-ol:
Result : No skin irritation

## Tridecylpolyethylenglycolether:

Species : Rabbit
Method : OECD Test Guideline 404
Result : No skin irritation

N -(3-aminopropyl)-N-dodecylpropane-1,3-diamine (Diamine):
Species : Rabbit
Assessment : Causes severe burns.
Method : OECD Test Guideline 404

## Serious eye damage/eye irritation

## Product:

Assessment : Causes serious eye damage.
Method : Calculation method

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quartasept® plus No Change Service!
Version Revision Date: Date of last issue: 03.08.2018
06.01

\section*{Components:}

Didecyldimethylammonium chloride:
Result : Corrosive

Propan-2-ol:
Result : Causes serious eye irritation.

\section*{Tridecylpolyethylenglycolether:}
\begin{tabular}{ll} 
Species & \(:\) Rabbit \\
Method & \(:\) OECD Test Guideline 405 \\
Result & \(:\) Risk of serious damage to eyes.
\end{tabular}

\section*{N -(3-aminopropyl)-N-dodecylpropane-1,3-diamine (Diamine):}

Assessment : Causes serious eye damage.

\section*{Respiratory or skin sensitisation}

\section*{Components:}

Didecyldimethylammonium chloride:
Test Type : Buehler Test
Species : Guinea pig
Result : Did not cause sensitisation on laboratory animals.

\section*{Propan-2-ol:}

Test Type : Buehler Test
Species : Guinea pig
Result : Did not cause sensitisation on laboratory animals.

\section*{Tridecylpolyethylenglycolether:}
\begin{tabular}{ll} 
Test Type & \(:\) Maximisation Test \\
Species & \(:\) Guinea pig \\
Result & \(:\) Did not cause sensitisation on laboratory animals.
\end{tabular}

N -(3-aminopropyl)-N-dodecylpropane-1,3-diamine (Diamine):
Test Type : Buehler Test
Species : Guinea pig
Method : OECD Test Guideline 406
Result : Did not cause sensitisation on laboratory animals.

\section*{Germ cell mutagenicity}

Components:
Didecyldimethylammonium chloride:
Genotoxicity in vitro : Method: OECD Test Guideline 471 Result: Not mutagenic in Ames Test

\section*{quartasept \({ }^{B}\) plus \(\quad\) No Change Service!}
\begin{tabular}{lll} 
Version & Revision Date: & Date of last issue: 03.08.2018 \\
06.01 & 25.01 .2019 & Date of first issue: 15.02.2006
\end{tabular}
\begin{tabular}{|c|c|}
\hline Genotoxicity in vivo & \begin{tabular}{l}
Test Type: Mutagenicity (in vivo mammalian bone-marrow cytogenetic test, chromosomal analysis) \\
Species: Rat \\
Application Route: Oral \\
Method: OECD Test Guideline 475 \\
Remarks: negative
\end{tabular} \\
\hline Germ cell mutagenicity- Assessment & Animal testing did not show any mutagenic effects. \\
\hline Propan-2-ol: & \\
\hline Genotoxicity in vitro & \begin{tabular}{l}
Test Type: Ames test Method: Mutagenicity (Escherichia coli - reverse mutation assay) \\
Result: Non mutagenic
\end{tabular} \\
\hline Genotoxicity in vivo & \begin{tabular}{l}
Species: Mouse \\
Method: Mutagenicity (micronucleus test) \\
Remarks: Non mutagenic
\end{tabular} \\
\hline Germ cell mutagenicity- Assessment & Not mutagenic in Ames Test \\
\hline
\end{tabular}

\section*{Tridecylpolyethylenglycolether:}
\begin{tabular}{lll} 
Genotoxicity in vitro & \(:\) Result: Not mutagenic in Ames Test \\
\begin{tabular}{l} 
Germ cell mutagenicity- As- \\
sessment
\end{tabular} & \(:\) Not mutagenic in Ames Test
\end{tabular}

N -(3-aminopropyl)-N-dodecylpropane-1,3-diamine (Diamine):
Genotoxicity in vitro : Method: OECD Test Guideline 47 Result: Not mutagenic in Ames Test

Germ cell mutagenicity- As- : Not mutagenic in Ames Test sessment

\section*{Carcinogenicity}

\section*{Components:}

Didecyldimethylammonium chloride:
Carcinogenicity - Assess- : Animal testing did not show any carcinogenic effects.
ment

Propan-2-ol:
Carcinogenicity - Assess- : Based on available data, the classification criteria are not met. ment

\section*{Tridecylpolyethylenglycolether:}

Carcinogenicity - Assess- : Based on available data, the classification criteria are not met.
\begin{tabular}{lll} 
quartasept® plus & No Change Service! & \\
Version & Revision Date: & Date of last issue: 03.08 .2018 \\
06.01 & 25.01 .2019 & Date of first issue: 15.02 .2006 \\
\hline
\end{tabular}
ment

\section*{N -(3-aminopropyl)-N-dodecylpropane-1,3-diamine (Diamine):}

Carcinogenicity - Assess- : Animal testing did not show any carcinogenic effects. ment

\section*{Reproductive toxicity}

\section*{Components:}

Didecyldimethylammonium chloride:
Reproductive toxicity - As- : No data available sessment

\section*{Propan-2-ol:}

Effects on foetal develop- : Species: Rat ment Application Route: Oral General Toxicity Maternal: NOAEL: \(400 \mathrm{mg} / \mathrm{kg}\) body weight Reproductive toxicity - As- : Based on available data, the classification criteria are not met. sessment

\section*{Tridecylpolyethylenglycolether:}

Effects on foetal develop- : Test Type: Two-generation study ment Species: Rat Application Route: Dermal General Toxicity Maternal: NOAEL: > \(250 \mathrm{mg} / \mathrm{kg}\) body weight Developmental Toxicity: NOAEL F1: > \(250 \mathrm{mg} / \mathrm{kg}\) body weight Embryo-foetal toxicity: NOAEL F2: > \(250 \mathrm{mg} / \mathrm{kg}\) body weight

Reproductive toxicity - As- : Based on available data, the classification criteria are not met. sessment

N -(3-aminopropyl)-N-dodecylpropane-1,3-diamine (Diamine):
Reproductive toxicity - As- : No toxicity to reproduction sessment

\section*{STOT - single exposure}

\section*{Components:}

Didecyldimethylammonium chloride:
Remarks : No data available

Propan-2-ol:
Assessment : May cause drowsiness or dizziness.

\section*{Tridecylpolyethylenglycolether:}

Assessment
The substance or mixture is not classified as specific target

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Version Revision Date: Date of last issue: 03.08.2018
organ toxicant, single exposure.

\section*{N -(3-aminopropyl)-N-dodecylpropane-1,3-diamine (Diamine): \\ Remarks : No data available}

\section*{STOT - repeated exposure}

\section*{Components:}

Didecyldimethylammonium chloride:
Remarks : No data available

\section*{Propan-2-ol:}

Remarks : Based on available data, the classification criteria are not met.

Tridecylpolyethylenglycolether:
Assessment : The substance or mixture is not classified as specific target organ toxicant, repeated exposure.

N -(3-aminopropyl)-N-dodecylpropane-1,3-diamine (Diamine):
Target Organs
: Kidney
Assessment : May cause damage to organs through prolonged or repeated exposure.

\section*{Repeated dose toxicity}

\section*{Components:}

N -(3-aminopropyl)-N-dodecylpropane-1,3-diamine (Diamine):
Species : Rat
NOAEL \(\quad: 9 \mathrm{mg} / \mathrm{kg}\)
Application Route : Oral
Exposure time : 90-day
Method : OECD Test Guideline 408

\section*{Aspiration toxicity}

No data available
Further information
Product:
Remarks : No data is available on the product itself.
\begin{tabular}{lll} 
quartasept® plus & No Change Service! & \\
Version & Revision Date: & Date of last issue: 03.08.2018 \\
06.01 & 25.01 .2019 & Date of first issue: 15.02 .2006 \\
\hline
\end{tabular}

\section*{SECTION 12: Ecological information}

\subsection*{12.1 Toxicity}

\section*{Product:}

\section*{Ecotoxicology Assessment}

Acute aquatic toxicity \(\quad:\) Very toxic to aquatic life with long lasting effects.

\section*{Components:}

\section*{Didecyldimethylammonium chloride:}
\begin{tabular}{|c|c|}
\hline Toxicity to fish & LC50 (Pimephales promelas (fathead minnow)): \(0,19 \mathrm{mg} / \mathrm{l}\) Exposure time: 96 h \\
\hline Toxicity to daphnia and other aquatic invertebrates & EC50 (Daphnia magna (Water flea)): 0,062 mg/l Exposure time: 48 h \\
\hline Toxicity to algae & \begin{tabular}{l}
ErC50 (Pseudokirchneriella subcapitata (green algae)): 0,026 mg/l \\
Exposure time: 96 h
\end{tabular} \\
\hline
\end{tabular}

M-Factor (Acute aquatic tox- : 10 icity)
Toxicity to fish (Chronic tox-
icity)

NOEC: 0,032 mg/l
Exposure time: 34 d Species: Pimephales promelas (fathead minnow) Method: OECD Test Guideline 210

Toxicity to daphnia and other : NOEC: \(0,014 \mathrm{mg} / \mathrm{l}\) aquatic invertebrates (Chron- Exposure time: 21 d ic toxicity) Species: Daphnia magna (Water flea) Method: Expert judgement and weight of evidence determination.

M-Factor (Chronic aquatic : 1
toxicity)

\section*{Propan-2-ol:}
\begin{tabular}{|c|c|}
\hline Toxicity to fish & LC50 (Leuciscus idus): > 100 mg/l Exposure time: 48 h Test Type: static test \\
\hline Toxicity to daphnia and other aquatic invertebrates & \begin{tabular}{l}
EC50 (Daphnia magna): > \(100 \mathrm{mg} / \mathrm{l}\) \\
Exposure time: 48 h \\
Test Type: static test
\end{tabular} \\
\hline Toxicity to algae & \begin{tabular}{l}
EC50 (Desmodesmus subspicatus (green algae)): > \(100 \mathrm{mg} / \mathrm{l}\) \\
Exposure time: 72 h \\
Test Type: static test
\end{tabular} \\
\hline
\end{tabular}

\section*{quartasept® plus No Change Service!}
\begin{tabular}{lll} 
Version & Revision Date: & Date of last issue: 03.08.2018 \\
06.01 & 25.01 .2019 & Date of first issue: 15.02.2006
\end{tabular}

\section*{Tridecylpolyethylenglycolether:}
\begin{tabular}{ll} 
Toxicity to fish \(:\) & LC50 (Cyprinus carpio (Carp)): \(10-100 \mathrm{mg} / \mathrm{l}\) \\
& Exposure time: 96 h \\
& Method: OECD Test Guideline 203
\end{tabular}
\begin{tabular}{|c|c|}
\hline Toxicity to daphnia and other aquatic invertebrates & EC50 (Daphnia magna): 10-100 mg/l Exposure time: 48 h Method: OECD Test Guideline 202 \\
\hline Toxicity to algae & \begin{tabular}{l}
EC50 (Desmodesmus subspicatus (green algae)): 1-10 mg/l Exposure time: 72 h \\
Method: OECD Test Guideline 201
\end{tabular} \\
\hline
\end{tabular}
\begin{tabular}{ll} 
Toxicity to daphnia and other \(:\) & EC10: \(2,6 \mathrm{mg} / \mathrm{l}\) \\
aquatic invertebrates (Chron- \\
Exposure time: 21 d \\
ic toxicity) & \begin{tabular}{l} 
Species: Daphnia magna (Water flea) \\
\\
\\
\end{tabular} Method: OECD Test Guideline 211
\end{tabular}

N -(3-aminopropyl)-N-dodecylpropane-1,3-diamine (Diamine):
Toxicity to fish : LC50 (Lepomis macrochirus (Bluegill sunfish)): 0,45 mg/l Exposure time: 96 h


\subsection*{12.2 Persistence and degradability}

\section*{Product:}

Biodegradability : Remarks: According to OECD criteria, the product is inherently biodegradable. The statement has been derived from the properties of the individual components.
\begin{tabular}{lll} 
quartasept \(\AA\) plus & No Change Service! & \\
Version & Revision Date: & Date of last issue: 03.08.2018 \\
06.01 & 25.01 .2019 & Date of first issue: 15.02.2006 \\
\hline
\end{tabular}

\section*{Components:}

Didecyldimethylammonium chloride:
\begin{tabular}{|c|c|}
\hline Biodegradability & Result: Readily biodegradable. \\
\hline & Method: OECD 301B/ ISO 9439/ EEC 84/449 C5 \\
\hline
\end{tabular}

Propan-2-ol:
Biodegradability : Result: Readily biodegradable.

Tridecylpolyethylenglycolether:
Biodegradability : Result: Readily biodegradable. Method: OECD 301B/ ISO 9439/ EEC 84/449 C5

\author{
N -(3-aminopropyl)-N-dodecylpropane-1,3-diamine (Diamine): \\ Biodegradability : Result: rapidly biodegradable Biodegradation: 79 \% Exposure time: 28 d Method: OECD Test Guideline 301D
}

\subsection*{12.3 Bioaccumulative potential}

\section*{Components:}

Didecyldimethylammonium chloride:
Bioaccumulation
: Species: Lepomis macrochirus (Bluegill sunfish)
Exposure time: 46 d
Bioconcentration factor (BCF): 81

\section*{Propan-2-ol:}

Bioaccumulation : Remarks: No bioaccumulation is to be expected (log Pow \(<=\) 4).

Partition coefficient: \(\mathrm{n}-\quad: \quad \log\) Pow: \(0,05\left(20^{\circ} \mathrm{C}\right)\) octanol/water Method: OECD Test Guideline 107

Tridecylpolyethylenglycolether:
Bioaccumulation : Remarks: Bioaccumulation is unlikely.

N -(3-aminopropyl)-N-dodecylpropane-1,3-diamine (Diamine):
Bioaccumulation : Remarks: Bioaccumulation is unlikely.
Partition coefficient: \(\mathrm{n}-\quad\) : log Pow: \(-0,7\)
octanol/water

\subsection*{12.4 Mobility in soil}

\section*{Components:}

Didecyldimethylammonium chloride:

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Version & Revision Date: & Date of last issue: 03.08.2018 \\
06.01 & 25.01 .2019 & Date of first issue: 15.02.2006
\end{tabular}

Mobility \(\quad:\) Remarks: Mobile in soils

\section*{Propan-2-ol:}

Mobility : Remarks: Mobile in soils

Tridecylpolyethylenglycolether:
Mobility : Remarks: Adsorbs on soil., immobile

N -(3-aminopropyl)-N-dodecylpropane-1,3-diamine (Diamine):
Mobility \(\quad:\) Remarks: After release, adsorbs onto soil.

\subsection*{12.5 Results of PBT and vPvB assessment}

\section*{Product:}

Assessment : This substance/mixture contains no components considered to be either persistent, bioaccumulative and toxic (PBT), or very persistent and very bioaccumulative ( vPvB ) at levels of \(0.1 \%\) or higher..

\subsection*{12.6 Other adverse effects}

\section*{Product:}

Additional ecological infor- : None known. mation

\section*{SECTION 13: Disposal considerations}

\subsection*{13.1 Waste treatment methods}

Product
: Dispose of the product according to the defined EWC (European Waste Code) No.

Contaminated packaging : Take empty packaging to the recycling plant.
Waste key for the unused : European waste catalog (EWC) 070601 product
Waste key for the unused : Waste material of HZVA from fats, lubricants, soaps, deterproduct(Group) gents, disinfectants and personal protection products.

\section*{SECTION 14: Transport information}
14.1 UN number
\begin{tabular}{ll} 
IMDG & \(:\) \\
IATA & \(:\) \\
\hline
\end{tabular}

\subsection*{14.2 UN proper shipping name}
Z11143 ZSDB_P_ALL EN Page 17/21 ( Air Liquide
\begin{tabular}{lll} 
quartasept® & plus & No Change Service! \\
Version & Revision Date: & Date of last issue: 03.08.2018 \\
06.01 & 25.01 .2019 & Date of first issue: 15.02.2006 \\
\hline
\end{tabular}
IMDG \(:\)\begin{tabular}{l} 
DISINFECTANT, LIQUID, CORROSIVE, N.O.S. \\
\\
(Didecyldimethylammonium chloride)
\end{tabular}
IATA \(:\)\begin{tabular}{l} 
DISINFECTANT, LIQUID, CORROSIVE, N.O.S. \\
\\
(Didecyldimethylammonium chloride)
\end{tabular}

\subsection*{14.3 Transport hazard class(es)}
\begin{tabular}{lc} 
IMDG & \(: 8\) \\
IATA & \(: 8\)
\end{tabular}

\subsection*{14.4 Packing group}

IMDG
Packing group : III
Labels : 8
EmS Code : F-A, S-B
IATA (Cargo)
Packing instruction (cargo : 856
aircraft)
Packing group : III
Labels : Corrosive
IATA (Passenger)
Packing group : III
Labels : Corrosive
14.5 Environmental hazards

IMDG
Marine pollutant : yes

\subsection*{14.6 Special precautions for user}

Remarks : Not classified as supporting combustion according to the transport regulations.

The transport classification(s) provided herein are for informational purposes only, and solely based upon the properties of the unpackaged material as it is described within this Safety Data Sheet. Transportation classifications may vary by mode of transportation, package sizes, and variations in regional or country regulations. For personal protection see section 8.
14.7 Transport in bulk according to Annex II of Marpol and the IBC Code Not applicable for product as supplied.

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

REACH - Candidate List of Substances of Very High : Not applicable Concern for Authorisation (Article 59).

Regulation (EC) No 850/2004 on persistent organic pol- : Not applicable lutants

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Version Revision Date: Date of last issue: 03.08.2018

Seveso III: Directive 2012/18/EU of the European Parliament and of the Council on the control of major-accident hazards involving dangerous substances.
\begin{tabular}{ll} 
E1 & ENVIRONMENTAL \\
& HAZARDS \\
Volatile organic compounds \(:\) & \begin{tabular}{l} 
Volatile organic compounds (VOC) content: \(5 \%\) \\
Directive 2010/75/EC on the limitation of emissions of volatile \\
organic compounds
\end{tabular}
\end{tabular}

\section*{Other regulations:}

The surfactant(s) contained in this mixture complies(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.

Take note of Directive 98/24/EC on the protection of the health and safety of workers from the risks related to chemical agents at work.
Take note of Directive 2000/39/EC establishing a first list of indicative occupational exposure limit values.
Regulation (EU) No 528/2012 of the European Parliament and of the Council of 22 May 2012 concerning the making available on the market and use of biocidal products

\subsection*{15.2 Chemical safety assessment}

Exempt

\section*{SECTION 16: Other information}

\section*{Full text of H-Statements}

H225 : Highly flammable liquid and vapour.
H301 : Toxic if swallowed.
H302 : Harmful if swallowed.
H314 : Causes severe skin burns and eye damage.
H318 : Causes serious eye damage.
H319 : Causes serious eye irritation.
H336 : May cause drowsiness or dizziness.
H373 : May cause damage to organs through prolonged or repeated exposure if swallowed.
H400 : Very toxic to aquatic life.
H410 : Very toxic to aquatic life with long lasting effects.
H411 : Toxic to aquatic life with long lasting effects.

\section*{Full text of other abbreviations}

Acute Tox. : Acute toxicity
Aquatic Acute : Short-term (acute) aquatic hazard
Aquatic Chronic : Long-term (chronic) aquatic hazard
Eye Dam. : Serious eye damage
Eye Irrit.
Eye irritation
Flam. Liq.
Flammable liquids
Skin Corr.
Skin corrosion
STOT RE
Specific target organ toxicity - repeated exposure
STOT SE : Specific target organ toxicity - single exposure

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\begin{tabular}{lll} 
Version & Revision Date: & Date of last issue: 03.08.2018 \\
06.01 & 25.01 .2019 & Date of first issue: 15.02.2006
\end{tabular}

ADN - European Agreement concerning the International Carriage of Dangerous Goods by Inland Waterways; ADR - European Agreement concerning the International Carriage of Dangerous Goods by Road; AICS - Australian Inventory of Chemical Substances; ASTM - American Society for the Testing of Materials; bw - Body weight; CLP - Classification Labelling Packaging Regulation; Regulation (EC) No 1272/2008; CMR - Carcinogen, Mutagen or Reproductive Toxicant; DIN - Standard of the German Institute for Standardisation; DSL - Domestic Substances List (Canada); ECHA - European Chemicals Agency; EC-Number - European Community number; ECx Concentration associated with \(x \%\) response; ELx - Loading rate associated with \(x \%\) response; EmS - Emergency Schedule; ENCS - Existing and New Chemical Substances (Japan); ErCx Concentration associated with x\% growth rate response; GHS - Globally Harmonized System; GLP - Good Laboratory Practice; IARC - International Agency for Research on Cancer; IATA - International Air Transport Association; IBC - International Code for the Construction and Equipment of Ships carrying Dangerous Chemicals in Bulk; IC50 - Half maximal inhibitory concentration; ICAO - International Civil Aviation Organization; IECSC - Inventory of Existing Chemical Substances in China; IMDG - International Maritime Dangerous Goods; IMO - International Maritime Organization; ISHL - Industrial Safety and Health Law (Japan); ISO - International Organisation for Standardization; KECI - Korea Existing Chemicals Inventory; LC50 - Lethal Concentration to \(50 \%\) of a test population; LD50 - Lethal Dose to \(50 \%\) of a test population (Median Lethal Dose); MARPOL - International Convention for the Prevention of Pollution from Ships; n.o.s. - Not Otherwise Specified; NO(A)EC - No Observed (Adverse) Effect Concentration; NO(A)EL - No Observed (Adverse) Effect Level; NOELR - No Observable Effect Loading Rate; NZloC - New Zealand Inventory of Chemicals; OECD - Organization for Economic Co-operation and Development; OPPTS - Office of Chemical Safety and Pollution Prevention; PBT - Persistent, Bioaccumulative and Toxic substance; PICCS - Philippines Inventory of Chemicals and Chemical Substances; (Q)SAR - (Quantitative) Structure Activity Relationship; REACH - Regulation (EC) No 1907/2006 of the European Parliament and of the Council concerning the Registration, Evaluation, Authorisation and Restriction of Chemicals; RID - Regulations concerning the International Carriage of Dangerous Goods by Rail; SADT - Self-Accelerating Decomposition Temperature; SDS - Safety Data Sheet; SVHC - Substance of Very High Concern; TCSI - Taiwan Chemical Substance Inventory; TRGS - Technical Rule for Hazardous Substances; TSCA - Toxic Substances Control Act (United States); UN - United Nations; vPvB - Very Persistent and Very Bioaccumulative

\section*{Further information}

Classification and procedure used to derive the classification for mixtures according to Regulation (EC) No. 1272/2008
Met. Corr. 1, H290 : On basis of test data.
Acute Tox. 4, H302 : Calculation method
Skin Corr. 1B, H314 : Calculation method
Eye Dam. 1, H318
Aquatic Acute 1, H400 Calculation method

Aquatic Chronic 2, H411 Calculation method
: Calculation method
Changes since the last version are highlighted in the margin. This version replaces all previous versions.

The information provided in this Safety Data Sheet is correct to the best of our knowledge, information and belief at the date of its publication. The information given is designed only as a guidance for safe handling, use, processing, storage, transportation, disposal and release and is not to be considered a warranty or quality specification. The information relates only to the specific material designated and may not be valid for such material used in combination with any other materials or in any process, unless specified in the text.```

