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

1.1. Product identifier

RHEOSEPT-ID form

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

Use of the substance/mixture

Ready-to-use disinfectant for dental items with good cleaning effect

1.3. Details of the supplier of the safety data sheet

Company name:	NW-Chemie GmbH	
Street:	Langbaurghstr. 15	
Place:	D-53842 Troisdorf	
Telephone:	+49 2241-3923-0	Telefax: +49 2241-3923-90
e-mail:	info@rheosol.de	
Contact person:	Dr. Friedrichs (MSDS qualified person)	Telephone: +49 2241-3923-0
e-mail:	sicherheit@rheosol.de	
Internet:	www.rheosol.de	
Responsible Department:	Produktsicherheit	

1.4. Emergency telephone number:

Giftnotruf Berlin (Germany): +49 30 30686 700

Further Information

This safety data sheet replaces the former safety data sheet.
The affected sections are listed in section 16.

SECTION 2: Hazards identification

2.1. Classification of the substance or mixture

Regulation (EC) No. 1272/2008

Hazard categories:
Hazardous to the aquatic environment: Aquatic Chronic 3
Hazard Statements:
Harmful to aquatic life with long lasting effects.

2.2. Label elements

Regulation (EC) No. 1272/2008

Hazard statements

H412 Harmful to aquatic life with long lasting effects.

Precautionary statements

P273 Avoid release to the environment.

2.3. Other hazards

No information available.

SECTION 3: Composition/information on ingredients

3.2. Mixtures

Chemical characterization

aqueous mixture with quartary ammonium compound

Hazardous components

CAS No	Chemical name			Quantity
	EC No	Index No	REACH No	
	GHS Classification			
2372-82-9	N-(3-aminopropyl)-N-dodecylpropane-1,3-diamine			< 1 %
	219-145-8		01-2119980592-29	
	Acute Tox. 3, Skin Corr. 1B, Eye Dam. 1, STOT RE 2, Aquatic Acute 1 (M-Factor = 10), Aquatic Chronic 1 (M-Factor = 1); H301 H314 H318 H373 H400 H410			
68439-51-0	Alcohols, C12-14, ethoxylated propoxylated			< 1 %
	Eye Irrit. 2, Aquatic Acute 1, Aquatic Chronic 1; H319 H400 H410			
7173-51-5	Didecyldimethylammonium chloride			< 1 %
	230-525-2		01-2119945987-15	
	Acute Tox. 3, Skin Corr. 1B, Eye Dam. 1, Aquatic Acute 1 (M-Factor = 10), Aquatic Chronic 2; H301 H314 H318 H400 H411			
112-34-5	2-(2-butoxyethoxy)ethanol, diethylene glycol monobutyl ether			< 0.1 %
	203-961-6		01-2119475104-44	
	Eye Irrit. 2; H319			

Full text of H and EUH statements: see section 16.

Further Information

Note: The danger characteristics refer to the properties of the neat substances.
Full text of H- and EUH-phrases: see section 16.

SECTION 4: First aid measures

4.1. Description of first aid measures

General information

In case of accident or unwellness, seek medical advice immediately (show directions for use or safety data sheet if possible).

After inhalation

Provide fresh air.
In case of inhaling spray mist, consult a physician.

After contact with skin

Take off contaminated clothing and wash it before reuse. Wash with plenty of water.

After contact with eyes

Rinse immediately carefully and thoroughly with eye-bath or water. In case of contact with eyes, rinse with plenty of water. In case of troubles or persistent symptoms, consult an ophthalmologist.

After ingestion

Observe risk of aspiration if vomiting occurs. Do NOT induce vomiting. Rinse mouth thoroughly with water. Let water be drunken in little sips (dilution effect). Seek medical attention if problems persist.

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

May cause allergy or asthma symptoms or breathing difficulties if inhaled.

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

Treat symptomatically.

SECTION 5: Firefighting measures

5.1. Extinguishing media

Suitable extinguishing media

Co-ordinate fire-fighting measures to the fire surroundings. The product itself does not burn.
Water spray.
Dry extinguishing powder.
Carbon dioxide (CO2).

Unsuitable extinguishing media

High power water jet.

5.2. Special hazards arising from the substance or mixture

Non-flammable. Vapours can form explosive mixtures with air. In case of fire may be liberated: Carbon dioxide (CO2). Nitrogen oxides (NOx).

5.3. Advice for firefighters

In case of fire: Wear self-contained breathing apparatus. Use appropriate respiratory protection. In case of fire and/or explosion do not breathe fumes.
In case of fire: Wear self-contained breathing apparatus.

Additional information

Use water spray jet to protect personnel and to cool endangered containers. Collect contaminated fire extinguishing water separately. Do not allow entering drains or surface water. Co-ordinate fire-fighting measures to the fire surroundings.

SECTION 6: Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures

Consider conventional precautions for chemical handling. Provide sufficient ventilation.

6.2. Environmental precautions

Do not allow to enter into surface water or drains. Prevent spread over a wide area (e.g. by containment or oil barriers).

6.3. Methods and material for containment and cleaning up

Absorb with liquid-binding material (e.g. sand, diatomaceous earth, acid- or universal binding agents). Treat the recovered material as prescribed in the section on waste disposal. Take up mechanically. Suitable material for taking up:
Universal binding agent.
Treat the recovered material as prescribed in the section on waste disposal.
Wash with plenty of water.

6.4. Reference to other sections

Safe handling: see section 7
Personal protection equipment: see section 8
Disposal: see section 13

SECTION 7: Handling and storage

7.1. Precautions for safe handling

Advice on safe handling

When using do not eat, drink or smoke.
Provide sufficient ventilation.
Avoid contact with skin and eyes.
Do not breathe gas/fumes/vapour/spray.

Advice on protection against fire and explosion

No special measures are necessary.

7.2. Conditions for safe storage, including any incompatibilities

Requirements for storage rooms and vessels

Keep container tightly closed. Keep container tightly closed in a cool, well-ventilated place.
Protect against:

UV-radiation/sunlight.
frost.
Unsuitable materials for Container: metal.

Hints on joint storage

Do not store together with:
Reducing agents.
Zinc.
iron.
amines.
Aluminium.
Acid.

Further information on storage conditions

Keep only in the original container.
Recommended storage temperature: 5-30°C

7.3. Specific end use(s)

No special handling instructions are necessary.

SECTION 8: Exposure controls/personal protection

8.1. Control parameters

Exposure limits (EH40)

CAS No	Substance	ppm	mg/m³	fibres/ml	Category	Origin
112-34-5	2-(2-Butoxyethoxy)ethanol	10	67.5		TWA (8 h)	WEL
		15	101.2		STEL (15 min)	WEL
67-63-0	Propan-2-ol	400	999		TWA (8 h)	WEL
		500	1250		STEL (15 min)	WEL

DNEL/DMEL values

CAS No	Substance		
DNEL type	Exposure route	Effect	Value
7173-51-5	Didecyldimethylammonium chloride		
Worker DNEL, long-term	inhalation	systemic	18,2 mg/m³
Worker DNEL, long-term	dermal	systemic	8,6 mg/kg bw/day
67-63-0	propan-2-ol; isopropyl alcohol; isopropanol		
Worker DNEL, long-term	dermal	systemic	888 mg/kg bw/day
Worker DNEL, long-term	inhalation	systemic	500 mg/m³
Consumer DNEL, long-term	oral	systemic	26 mg/kg bw/day
Consumer DNEL, long-term	dermal	systemic	319 mg/kg bw/day
Consumer DNEL, long-term	inhalation	systemic	89 mg/m³

PNEC values

CAS No	Substance	
Environmental compartment		Value
7173-51-5	Didecyldimethylammonium chloride	
Freshwater		0,002 mg/l
Freshwater (intermittent releases)		0,00029 mg/l
Marine water		0,0002 mg/l
Freshwater sediment		2,82 mg/kg
Marine sediment		0,282 mg/kg
Micro-organisms in sewage treatment plants (STP)		0,595 mg/l
67-63-0	propan-2-ol; isopropyl alcohol; isopropanol	
Freshwater		140,9 mg/l
Freshwater (intermittent releases)		140,9 mg/l
Marine water		140,9 mg/l
Freshwater sediment		552 mg/kg
Marine sediment		552 mg/kg
Secondary poisoning		160 mg/kg
Micro-organisms in sewage treatment plants (STP)		2251 mg/l
Soil		28 mg/kg

8.2. Exposure controls

Appropriate engineering controls

No special measures are necessary.

Protective and hygiene measures

Take off contaminated clothing. Wash hands before breaks and after work. When using do not eat, drink, smoke, sniff. No special measures are necessary.

Eye/face protection

Wear eye/face protection. safety glasses

Hand protection

When handling with chemical substances, protective gloves must be worn with the CE-label including the four control digits. The quality of the protective gloves resistant to chemicals must be chosen as a function of the specific working place concentration and quantity of hazardous substances. For special purposes, it is recommended to check the resistance to chemicals of the protective gloves mentioned above together with the supplier of these gloves. (If necessary) protective gloves

Skin protection

No special measures are necessary.

Respiratory protection

In case of inadequate ventilation wear respiratory protection. Use in well-ventilated rooms.

Environmental exposure controls

No special measures are necessary.

SECTION 9: Physical and chemical properties

9.1. Information on basic physical and chemical properties

Physical state:	liquid
Colour:	clear, colourless
Odour:	light rosy
pH-Value (at 20 °C):	10

Changes in the physical state

Melting point:	not applicable
Initial boiling point and boiling range:	99,97 °C
Sublimation point:	not known
Softening point:	not applicable
Pour point:	not applicable
Flash point:	not applicable
Sustaining combustion:	Not sustaining combustion

Flammability

Solid:	not applicable
Gas:	not applicable

Explosive properties

The product is not: Explosive.

Lower explosion limits:	not applicable
Upper explosion limits:	not applicable
Ignition temperature:	not applicable

Auto-ignition temperature

Solid:	not applicable
Gas:	not applicable
Decomposition temperature:	not determined

Oxidizing properties

Not oxidizing.

Vapour pressure: (at 20 °C)	23,37 hPa
Vapour pressure: (at 50 °C)	123,3 hPa
Density:	0,99 g/cm³
Water solubility:	completely miscible

Solubility in other solvents

not determined

Partition coefficient:	not determined
Viscosity / dynamic:	not known
Viscosity / kinematic:	not known
Vapour density:	not determined
Evaporation rate:	not determined

9.2. Other information

Solid content:	not applicable

SECTION 10: Stability and reactivity

10.1. Reactivity

The product is stable under storage at normal ambient temperatures.

10.2. Chemical stability

The mixture is chemically stable under recommended conditions of storage, use and temperature.

10.3. Possibility of hazardous reactions

Do not mix with acids.

10.4. Conditions to avoid

The product is stable, if used in compliance with instructions
Frost Protect from sunlight.
Materials to avoid Acid, concentrated

10.5. Incompatible materials

No known hazardous reactions.

10.6. Hazardous decomposition products

No dangerous decomposition products are known

Further information

Keep cool. Protect from sunlight. Exothermic reactions with: Acid.

SECTION 11: Toxicological information

11.1. Information on toxicological effects

Toxicocinetics, metabolism and distribution

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

Acute toxicity

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

CAS No	Chemical name				
	Exposure route	Dose	Species	Source	Method
2372-82-9	N-(3-aminopropyl)-N-dodecylpropane-1,3-diamine				
	oral	LD50 261 mg/kg	Rat		OECD 401
	dermal	LD50 > 600 mg/kg	Rat		OECD 402
68439-51-0	Alcohols, C12-14, ethoxylated propoxylated				
	oral	LD50 2000-5000 mg/kg	Rat		
7173-51-5	Didecyldimethylammonium chloride				
	oral	LD50 238 mg/kg	Rat	OECD 401	
	dermal	LD50 3342 mg/kg	Rabbit		

Irritation and corrosivity

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

Sensitising effects

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

Carcinogenic/mutagenic/toxic effects for reproduction

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

STOT-single exposure

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

STOT-repeated exposure

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

Aspiration hazard

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

Specific effects in experiment on an animal

There are no data available on the preparation/mixture itself.

Additional information on tests

There are no data available on the preparation/mixture itself.

Practical experience

Observations relevant to classification

There are no data available on the preparation/mixture itself.

SECTION 12: Ecological information

12.1. Toxicity

Harmful to aquatic life with long lasting effects.

CAS No	Chemical name						
	Aquatic toxicity	Dose		[h] | [d]	Species	Source	Method
2372-82-9	N-(3-aminopropyl)-N-dodecylpropane-1,3-diamine						
	Acute fish toxicity	LC50	0,68 mg/l	96 h	Oncorhynchus mykiss		OECD 203
	Acute algae toxicity	ErC50	0,054 mg/l	96 h	Desmodesmus subspicatus		OECD 201
	Acute crustacea toxicity	EC50	0,077 mg/l	48 h	Daphnia magna		OECD 202
	Algea toxicity	NOEC	> 0,001 - 0,01 mg/l	3 d	Selenastrum capricornutum		OECD 201
	Crustacea toxicity	NOEC	0,024 mg/l	21 d	Daphnia magna		OECD 211
	Acute bacteria toxicity	(42,2 mg/l)		0,5 h			OECD 209
68439-51-0	Alcohols, C12-14, ethoxylated propoxylated						
	Acute fish toxicity	LC50	1,41 mg/l	96 h	Danio rerio	OECD 203	
	Acute algae toxicity	ErC50	0,312 mg/l	72 h	Raphidocelis subcapitata	OECD 201	
	Acute crustacea toxicity	EC50	0,88 mg/l	48 h	Daphnia magna	OECD 202	
7173-51-5	Didecyldimethylammonium chloride						
	Acute fish toxicity	LC50	0,19 mg/l	96 h	Pimephales promelas		US-EPA
	Acute algae toxicity	ErC50	0,026 mg/l	96 h	Pseudokirchneriella subcapitata		OECD 201
	Acute crustacea toxicity	EC50	0,062 mg/l	48 h	Daphnia magna		EPA-FIFRA
	Fish toxicity	NOEC	0,032 mg/l	34 d	Danio rerio		OECD 210
	Algea toxicity	NOEC	>0,01-0,1 mg/l	3 d	Pseudokirchneriella subcapitata	OECD 201	
	Crustacea toxicity	NOEC	>0,01-0,1 mg/l	21 d	Daphnia		OECD 211

12.2. Persistence and degradability

The surfactants contained in the product are biodegradable according to the requirements of the Detergent Directive 648/2004/EC.
Readily biodegradable (according to OECD criteria). OECD 211

CAS No	Chemical name			
	Method	Value	d	Source
	Evaluation			
2372-82-9	N-(3-aminopropyl)-N-dodecylpropane-1,3-diamine			
	Biological degradability	79 %	28	OECD 301 D
	Easily biodegradable.			
	OECD Confirmatory-Test	96	15	OECD 303 A
	Zahn-Wellens Test	91	28	OECD 301D
68439-51-0	Alcohols, C12-14, ethoxylated propoxylated			
	OECD 301B	92,4%	28	
	Not readily biodegradable.			
7173-51-5	Didecyldimethylammonium chloride			
	Die-Away Test	93,3	28	
	OECD Confirmatory-Test	91	24	OECD 303 A

12.3. Bioaccumulative potential

On the basis of existing data about the elimination/degradation and bioaccumulation potential longer term damage to the environment is unlikely.

Partition coefficient n-octanol/water

CAS No	Chemical name	Log Pow
2372-82-9	N-(3-aminopropyl)-N-dodecylpropane-1,3-diamine	-0,7
7173-51-5	Didecyldimethylammonium chloride	<3

BCF

CAS No	Chemical name	BCF	Species	Source
7173-51-5	Didecyldimethylammonium chloride	2,1		

12.4. Mobility in soil

There are no data available on the preparation/mixture itself.

For single compounds:
Mobility in soil: Didecyldimethylammoniumchlorid
Moderate adsorption in soil and sediment.: Bis(3-aminopropyl)dodecylamin

12.5. Results of PBT and vPvB assessment

The substances in the mixture do not meet the PBT/vPvB criteria according to REACH, annex XIII.

12.6. Other adverse effects

Environmental properties

Further information

Do not allow to enter into surface water or drains. Do not allow to enter into soil/subsoil. Do not empty indiluted or in larger quantaties into drains or waters.

SECTION 13: Disposal considerations

13.1. Waste treatment methods

Disposal recommendations

Do not allow to enter into surface water or drains. Do not allow to enter into soil/subsoil. Dispose of waste according to applicable legislation. Recycle / dispose of observing national, regional, state, provincial and local health, safety & pollution laws. If questions exist, contact the appropriate agencies.

List of Wastes Code - residues/unused products

070699 WASTES FROM ORGANIC CHEMICAL PROCESSES; wastes from the MFSU of fats, grease, soaps, detergents, disinfectants and cosmetics; wastes not otherwise specified

Contaminated packaging

Non-contaminated packages may be recycled. Handle contaminated packages in the same way as the substance itself. Completely emptied packings can be re-cycled.

SECTION 14: Transport information

Land transport (ADR/RID)

14.1. UN number:	No dangerous good in sense of this transport regulation.
14.2. UN proper shipping name:	No dangerous good in sense of this transport regulation.
14.3. Transport hazard class(es):	No dangerous good in sense of this transport regulation.
14.4. Packing group:	No dangerous good in sense of this transport regulation.

Inland waterways transport (ADN)

14.1. UN number:	No dangerous good in sense of this transport regulation.
14.2. UN proper shipping name:	No dangerous good in sense of this transport regulation.
14.3. Transport hazard class(es):	No dangerous good in sense of this transport regulation.
14.4. Packing group:	No dangerous good in sense of this transport regulation.

Marine transport (IMDG)

14.1. UN number:	No dangerous good in sense of this transport regulation.
14.2. UN proper shipping name:	No dangerous good in sense of this transport regulation.
14.3. Transport hazard class(es):	No dangerous good in sense of this transport regulation.
14.4. Packing group:	No dangerous good in sense of this transport regulation.

Air transport (ICAO-TI/IATA-DGR)

14.1. UN number:	No dangerous good in sense of this transport regulation.
14.2. UN proper shipping name:	No dangerous good in sense of this transport regulation.
14.3. Transport hazard class(es):	No dangerous good in sense of this transport regulation.
14.4. Packing group:	No dangerous good in sense of this transport regulation.

14.5. Environmental hazards

ENVIRONMENTALLY HAZARDOUS: no

14.6. Special precautions for user

No special handling instructions are necessary.

14.7. Transport in bulk according to Annex II of Marpol and the IBC Code

Not classified for this transport way.

Other applicable information

No information available.

SECTION 15: Regulatory information

15.1. Safety, health and environmental regulations/legislation specific for the substance or mixture

EU regulatory information

Restrictions on use (REACH, annex XVII):

Entry 55: 2-(2-butoxyethoxy)ethanol, diethylene glycol monobutyl ether

2010/75/EU (VOC):	0,03 % (0,297 g/l)
2004/42/EC (VOC):	0,03 % (0,297 g/l)

Information according to 2012/18/EU (SEVESO III):	Not subject to 2012/18/EU (SEVESO III)

National regulatory information

Employment restrictions:	Observe restrictions to employment for juvenils according to the 'juvenile work protection guideline' (94/33/EC).
Water hazard class (D):	2 - obviously hazardous to water

15.2. Chemical safety assessment

For the following substances of this mixture a chemical safety assessment has been carried out:
Didecyldimethylammonium chloride
propan-2-ol; isopropyl alcohol; isopropanol

SECTION 16: Other information

Changes

This data sheet contains changes from the previous version in section(s): 1,16.

Abbreviations and acronyms

ADR: Accord européen sur le transport des marchandises dangereuses par Route (European Agreement concerning the International Carriage
of Dangerous Goods by Road)
RID: Règlement international concernant le transport des marchandises dangereuses par chemin de fer (Regulations Concerning the
International Transport of Dangerous Goods by Rail)
IMDG: International Maritime Code for Dangerous Goods
IATA: International Air Transport Association
ICAO: International Civil Aviation Organization
P: Marine Pollutant
GHS: Globally Harmonized System of Classification and Labelling of Chemicals
CLP: Classification, Labelling and Packaging (Regulation (EC) No. 1272/2008)
EINECS: European Inventory of Existing Commercial Chemical Substances
CAS: Chemical Abstracts Service (division of the American Chemical Society)
DNEL: Derived No-Effect Level (REACH)
PNEC: Predicted No-Effect Concentration (REACH)
LC50: Lethal concentration, 50 percent
LD50: Lethal dose, 50 percent
CLP: Classification, labelling and Packaging
REACH: Registration, Evaluation and Authorization of Chemicals
GHS: Globally Harmonised System of Classification, Labelling and Packaging of Chemicals
UN: United Nations
DNEL: Derived No Effect Level
DMEL: Derived Minimal Effect Level
PNEC: Predicted No Effect Concentration
ATE: Acute toxicity estimate
LL50: Lethal loading, 50%
EL50: Effect loading, 50%
EC50: Effective Concentration 50%
ErC50: Effective Concentration 50%, growth rate
NOEC: No Observed Effect Concentration
BCF: Bio-concentration factor
PBT: persistent, bioaccumulative, toxic
vPvB: very persistent, very bioaccumulative
ADR: Accord européen sur le transport des marchandises dangereuses par Route
(European Agreement concerning the International Carriage of Dangerous Goods by Road)
RID: Regulations concerning the international carriage of dangerous goods by rail
ADN: European Agreement concerning the International Carriage of Dangerous Goods by Inland Waterways

(Accord européen relatif au transport international des marchandises dangereuses par voies de navigation intérieures)
EmS: Emergency Schedules
MFAG: Medical First Aid Guide
MARPOL: International Convention for the Prevention of Marine Pollution from Ships
IBC: Intermediate Bulk Container
VOC: Volatile Organic Compounds
SVHC: Substance of Very High Concern
@1602.B016012

Classification for mixtures and used evaluation method according to Regulation (EC) No. 1272/2008 [CLP]

Classification	Classification procedure
Aquatic Chronic 3; H412	Calculation method

Relevant H and EUH statements (number and full text)

H301	Toxic if swallowed.
H314	Causes severe skin burns and eye damage.
H318	Causes serious eye damage.
H319	Causes serious eye irritation.
H373	May cause damage to organs through prolonged or repeated exposure.
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.
H412	Harmful to aquatic life with long lasting effects.

Further Information

The information is based on the present level of our knowledge. It does not, however, give assurance of product properties and establishes no contract legal rights. The receiver of our product is singularly responsible for adhering to existing laws and regulations. Notice the directions for use on the label. The information is based on the present level of our knowledge. It does not, however, give assurance of product properties and establishes no contract legal rights.

The above information describes exclusively the safety requirements of the product and is based on our present-day knowledge. The information is intended to give you advice about the safe handling of the product named in this safety data sheet, for storage, processing, transport and disposal. The information cannot be transferred to other products. In the case of mixing the product with other products or in the case of processing, the information on this safety data sheet is not necessarily valid for the new made-up material.

(The data for the hazardous ingredients were taken respectively from the last version of the sub-contractor's safety data sheet.)