

CHEMOTEC GmbH
63486 Bruchköbel

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Version 04. Supersedes version: 03

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

1.1 Product identifier

rea-des 2000

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

1.2.1 Relevant uses

Cleaning agent and disinfectant

1.2.2 Uses advised against

None known.

1.3 Details of the supplier of the safety data sheet

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Blochbachstrasse 40
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Homepage www.chemotec.de
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Technical information info@chemotec.de
Safety Data Sheet sdb@chemiebuero.de

1.4 Emergency telephone number

Advisory body +49 (0)89-19240 (24h) (english)

SECTION 2: Hazards identification

2.1 Classification of the substance or mixture

Skin Corr. 1A: H314 Causes severe skin burns and eye damage.
Aquatic Acute 1: H400 Very toxic to aquatic life.
Aquatic Chronic 1: H410 Very 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:

N-(3-Aminopropyl)-N-dodecylpropane-1,3-diamine

Hazard statements

H314 Causes severe skin burns and eye damage.
H410 Very toxic to aquatic life with long lasting effects.

Precautionary statements

P260 Do not breathe mist / vapours / spray.
P273 Avoid release to the environment.
P280 Wear protective gloves / protective clothing / eye protection / face protection.
P301+P330+P331 IF SWALLOWED: rinse mouth. Do NOT induce vomiting.
P303+P361+P353 IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water [or shower].
P305+P351+P338 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
P310 Immediately call a POISON CENTER / doctor / ...
P391 Collect spillage.
P501 Dispose of contents/container in accordance with local/regional/national/international regulation.

Cleaner, 648/2004/CE, contains:

< 5% non-ionic surfactants
< 5% nitrilotriacetic acid
< 5% anionic surfactant

Biocide (528/2012/CE) contains:

7,644 g/100g N-(3-Aminopropyl)-N-dodecylpropane-1,3-diamine
Registration: -

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2.3 Other hazards

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:

The product is a mixture.

Range [%]	Substance
5- <10	N-(3-Aminopropyl)-N-dodecylpropane-1,3-diamine CAS: 2372-82-9, EINECS/ELINCS: 219-145-8 GHS/CLP: Acute Tox. 3: H301 - Skin Corr. 1A: H314 - STOT RE 2: H373 - Aquatic Acute 1: H400 - Aquatic Chronic 1: H410
1 - <3	Trisodium nitrilotriacetate CAS: 5064-31-3, EINECS/ELINCS: 225-768-6, EU-INDEX: 607-620-00-6, Reg-No.: 01-2119519239-36-XXXX GHS/CLP: Acute Tox. 4: H302 - Eye Irrit. 2: H319 - Carc. 2: H351
1 - <3	Alcohols, C9-C16, ethoxylated CAS: 97043-91-9 GHS/CLP: Acute Tox. 4: H302 - Eye Dam. 1: H318
1 - <3	sodium etasulfate CAS: 126-92-1, EINECS/ELINCS: 204-812-8, Reg-No.: 01-2119971586-23-XXXX GHS/CLP: Skin Irrit. 2: H315 - Eye Dam. 1: H318

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 Remove contaminated soaked clothing immediately and dispose of safely.

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.
Immediate medical treatment necessary, as untreated burns can result in slow-healing wounds.

Eye contact Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
Consult a doctor immediately.

Ingestion Do not induce vomiting.
Rinse out mouth and give plenty of water to drink.
Consult a doctor immediately.

4.2 Most important symptoms and effects, both acute and delayed

Product is caustic.

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.

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5.2 Special hazards arising from the substance or mixture

Risk of formation of toxic pyrolysis products.
Nitrogen oxides (NOx), carbon monoxide (CO).

5.3 Advice for firefighters

Use self-contained breathing apparatus.
Wear full protective suit.
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 (protective gloves, safety glasses, protective clothing).

6.2 Environmental precautions

Prevent spread over a wide area (e.g. by containment or oil barriers).
Do not discharge into the drains/surface waters/groundwater.

6.3 Methods and material for containment and cleaning up

Pick up with absorbent material (e.g. sand, sawdust, universal absorbent, diatomaceous earth).
Dispose of absorbed material in accordance with the regulations.

6.4 Reference to other sections

See SECTION 8+13

SECTION 7: Handling and storage

7.1 Precautions for safe handling

Use only in well-ventilated areas.
The normal safety precautions for handling chemicals must be observed.

Do not eat, drink or smoke when using this product.
After worktime and before work breaks the affected skin areas must be thoroughly cleaned.
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 acids.
Do not store together with food and animal food/diet.
Recommended storage temperature: 25 °C.
Keep container tightly closed.

7.3 Specific end use(s)

See product use, SECTION 1.2

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SECTION 8: Exposure controls / personal protection

8.1 Control parameters

Ingredients with occupational exposure limits to be monitored (GB)

not applicable

DNEL

Substance
sodium etasulfate, CAS: 126-92-1
Industrial, inhalative, Long-term - systemic effects: 285 mg/m ³ .
Industrial, dermal, Long-term - systemic effects: 4060 mg/kg bw/d.
general population, dermal, Long-term - systemic effects: 2440 mg/kg bw/d.
general population, oral, Long-term - systemic effects: 24 mg/kg bw/d.
general population, inhalative, Long-term - systemic effects: 85 mg/m ³ .
Trisodium nitrilotriacetate, CAS: 5064-31-3
Industrial, inhalative, Acute - systemic effects: 5,25 mg/m ³ .
Industrial, inhalative, Long-term - systemic effects: 3,5 mg/m ³ .
Industrial, inhalative, Long-term - local effects: 3,5 mg/m ³ .
Industrial, inhalative, Acute - local effects: 5,25 mg/m ³ .
general population, oral, Long-term - systemic effects: 0,5 mg/kg.
general population, inhalative, Acute - systemic effects: 1,75 mg/m ³ .
general population, inhalative, Acute - local effects: 1,75 mg/m ³ .
N-(3-Aminopropyl)-N-dodecylpropane-1,3-diamine, CAS: 2372-82-9
Industrial, dermal, Long-term - systemic effects: 0,91 mg/kg bw/day.
Industrial, inhalative, Long-term - systemic effects: 2,35 mg/m ³ .
general population, inhalative, Long-term - systemic effects: 0,7 mg/m ³ .
general population, oral, Long-term - systemic effects: 0,2 mg/kg bw/day.
general population, dermal, Long-term - systemic effects: 0,54 mg/kg bw/day.

PNEC

Substance
sodium etasulfate, CAS: 126-92-1
sediment (freshwater), 1,5 mg/kg dw.
freshwater, 0,1357 mg/l.
sewage treatment plants (STP), 1,5 mg/l.
sediment (seaater), 0,15 mg/kg dw.
soil, 0,22 mg/kg dw.
seawater, 0,01357 mg/l.
Trisodium nitrilotriacetate, CAS: 5064-31-3
freshwater, 0,93 mg/l.
oral (food), 0,2 mg/kg.
soil, 0,182 mg/kg.
sediment (seaater), 0,364 mg/kg.
sediment (freshwater), 3,64 mg/kg.
sewage treatment plants (STP), 540 mg/l.
seawater, 0,093 mg/l.
N-(3-Aminopropyl)-N-dodecylpropane-1,3-diamine, CAS: 2372-82-9
freshwater, 0,001 mg/l.
seawater, 0,0001 mg/l.

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sewage treatment plants (STP), 1,33 mg/l.
soil, 45,34 mg/kg.
sediment (freshwater), 8,5 mg/kg.
sediment (seaater), 0,85 mg/kg.

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	0,4 mm; Butyl rubber, >480 min (EN 374-1/-2/-3). The details concerned are recommendations. Please contact the glove supplier for further information.
Skin protection	Light protective clothing.
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	Not required under normal conditions.
Thermal hazards	none
Delimitation and monitoring of the environmental exposition	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	clear
Odor	characteristic
Odour threshold	not determined
pH-value	9,5 - 10
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]	1,03
Bulk density [kg/m³]	not applicable
Solubility in water	miscible
Partition coefficient [n-octanol/water]	not determined
Viscosity	not applicable
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 determined

9.2 Other information

none

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SECTION 10: Stability and reactivity

10.1 Reactivity

No dangerous reactions known if used as directed.

10.2 Chemical stability

Stable under normal ambient conditions (ambient temperature).

10.3 Possibility of hazardous reactions

No hazardous reactions known.

10.4 Conditions to avoid

See SECTION 7.2.

10.5 Incompatible materials

Acids

10.6 Hazardous decomposition products

No hazardous decomposition products known.

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SECTION 11: Toxicological information

11.1 Information on toxicological effects

Acute toxicity

Product
ATE-mix, inhalative, Based on the available information, the classification criteria are not fulfilled.:
ATE-mix, dermal, Based on the available information, the classification criteria are not fulfilled.:
ATE-mix, oral, Based on the available information, the classification criteria are not fulfilled.:
Substance
sodium etasulfate, CAS: 126-92-1
LD50, dermal, Rat: >2000 mg/kg.
LD50, oral, Rat: >2000 mg/kg.
Alcohols,C9-C16, ethoxylated, CAS: 97043-91-9
LD50, oral, > 300 mg/kg.
Trisodium nitrilotriacetate, CAS: 5064-31-3
Carc. 2: >= 5%.
LD50, dermal, Rabbit: > 10000 mg/kg.
LC50, inhalative, Rat: > 5 mg/l (4 h).
N-(3-Aminopropyl)-N-dodecylpropane-1,3-diamine, CAS: 2372-82-9
LD50, dermal, Rat: > 2000 mg/kg.
LD50, oral, Rat: > 200 mg/kg.
LC50, inhalative, Rat: > 5 mg/l 4h.

Serious eye damage/irritation

Risk of serious damage to eyes.
Based on the available information, the classification criteria are fulfilled.
Calculation method

Skin corrosion/irritation

Product is caustic.
Based on the available information, the classification criteria are fulfilled.
Calculation method

Respiratory or skin sensitisation

Based on the available information, the classification criteria are not fulfilled.

Specific target organ toxicity — single exposure

Based on the available information, the classification criteria are not fulfilled.

Specific target organ toxicity — repeated exposure

Based on the available information, the classification criteria are not fulfilled.

Mutagenicity

Based on the available information, the classification criteria are not fulfilled.

Reproduction toxicity

Based on the available information, the classification criteria are not fulfilled.

Carcinogenicity

Based on the available information, the classification criteria are not fulfilled.

Aspiration hazard

Based on the available information, the classification criteria are not fulfilled.

General remarks

Toxicological data of complete product are not available.
The toxicity data listed pertaining to the ingredients are intended for those working in the medicinal professions, experts for occupational health and safety and toxicologists. The toxicity data pertaining to the ingredients were supplied by the manufacturers of raw materials.

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SECTION 12: Ecological information

12.1 Toxicity

Substance
sodium etasulfate, CAS: 126-92-1
LC50, (96h), Danio rerio: >100 mg/l.
EC50, (3h), Activated sludge: >100 mg/l.
EC50, (72h), Desmodesmus subspicatus: >100 mg/l.
EC5, (48h), Daphnia magna: >100 mg/l.
Alcohols,C9-C16, ethoxylated, CAS: 97043-91-9
LC50, (48h), Leuciscus idus: 4,3 mg/l.
EC50, (24h), Daphnia magna: 3,7 mg/l.
Trisodium nitrilotriacetate, CAS: 5064-31-3
LC50, (96h), Pimephales promelas: > 100 mg/l (APHA 1971).
EC50, Pseudomonas fluorescens: 3200 - 5600 mg/l.
EC50, (72h), Scenedesmus subspicatus: > 91,5 mg/l.
N-(3-Aminopropyl)-N-dodecylpropane-1,3-diamine, CAS: 2372-82-9
LC50, (96h), fish: 0,431 mg/l.
EC50, (48h), Daphnia magna: 0,0775 mg/l.
NOEC, (72h), Algae: <0,01 mg/l.
NOEC, (96h), fish: 0,18 mg/l.
NOEC, (48h), Daphnia magna: 0,04 mg/l.
LOEC, (72h), Algae: 0,01 mg/l.
ECr50, (72h), Algae: 0,015 mg/l.

12.2 Persistence and degradability

Behaviour in environment compartments

No information available.

Behaviour in sewage plant

No information available.

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

No information available.

12.4 Mobility in soil

Spillages may penetrate the soil causing ground water contamination.

12.5 Results of PBT and vPvB assessment

Based on all available information not to be classified as PBT or vPvB respectively.

12.6 Other adverse effects

Ecological data of complete product are not available.

The toxicity data pertaining to the ingredients were supplied by the manufacturers of raw materials.

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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.
Coordinate disposal with the disposal contractor/authorities if necessary.

Waste no. (recommended) 070601*

Contaminated packaging

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

Waste no. (recommended) 150110*
150102

SECTION 14: Transport information

14.1 UN number

Transport by land according to ADR/RID 1903

Inland navigation (ADN) 1903

Marine transport in accordance with IMDG 1903

Air transport in accordance with IATA 1903

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14.2 UN proper shipping name

Transport by land according to ADR/RID Disinfectant, liquid, corrosive, n.o.s. (N-(3-Aminopropyl)-N-dodecylpropan-1,3-diamine)

- Classification Code C9

- Label



- ADR LQ 1 I

- ADR 1.1.3.6 (8.6) Transport category (tunnel restriction code) 2 (E)

Inland navigation (ADN) Disinfectant, liquid, corrosive, n.o.s. (N-(3-Aminopropyl)-N-dodecylpropan-1,3-diamine)

- Classification Code C9

- Label



Marine transport in accordance with IMDG Disinfectant, liquid, corrosive, n.o.s. (N-(3-Aminopropyl)-N-dodecylpropan-1,3-diamine)

- EMS F-A, S-A

- Label



- IMDG LQ 1 I

Air transport in accordance with IATA Disinfectant, liquid, corrosive, n.o.s. (N-(3-Aminopropyl)-N-dodecylpropan-1,3-diamine)

- Label



14.3 Transport hazard class(es)

Transport by land according to ADR/RID 8

Inland navigation (ADN) 8

Marine transport in accordance with IMDG 8

Air transport in accordance with IATA 8

14.4 Packing group

Transport by land according to ADR/RID II

Inland navigation (ADN) II

Marine transport in accordance with IMDG II

Air transport in accordance with IATA II

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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

not determined

SECTION 15: Regulatory information

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

EEC-REGULATIONS 1991/689 (2001/118); 2010/75; 2004/42; 648/2004; 1907/2006 (REACH); 1272/2008; 75/324/EEC (2008/47/EC); 453/2010/EC; (EU) 2015/830

TRANSPORT-REGULATIONS DOT-Classification, ADR (2017); IMDG-Code (2017, 38. Amdt.); IATA-DGR (2017).

NATIONAL REGULATIONS (GB): EH40/2005 Workplace exposure limits (Second edition, published December 2011). CHIP 3/ CHIP 4

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

- VOC (2010/75/CE) 0 %

15.2 Chemical safety assessment

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

SECTION 16: Other information

16.1 Hazard statements (SECTION 03)

H314 Causes severe skin burns and eye damage.
H410 Very toxic to aquatic life with long lasting effects.
H400 Very toxic to aquatic life.
H373 May cause damage to organs through prolonged or repeated exposure.
H301 Toxic if swallowed.
H315 Causes skin irritation.
H318 Causes serious eye damage.
H351 Suspected of causing cancer.
H319 Causes serious eye irritation.
H302 Harmful if swallowed.

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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
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
MARPOL = International Convention for the Prevention of Marine Pollution from Ships
PBT = Persistent, Bioaccumulative and Toxic substance
PNEC = Predicted No-Effect Concentration
REACH = Registration, Evaluation, Authorisation and Restriction of Chemicals
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 Corr. 1A: H314 Causes severe skin burns and eye damage. (Calculation method)
Aquatic Acute 1: H400 Very toxic to aquatic life. (Calculation method)
Aquatic Chronic 1: H410 Very toxic to aquatic life with long lasting effects. (Calculation method)

Modified position

SECTION 16 been added: GENERAL REVIEW [CLP; REACH-(EU) 2015/830]



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