

NOVADAN®**SAFETY DATA SHEET**
Ro Dan 300E**NOVADAN®**

SDS according to Regulation (EC) No. 1907/2006 concerning the Registration, Evaluation, Authorisation and Restriction of Chemicals (REACH), Annex II-EU

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

Date issued 20.04.2012

Revision date 28.04.2015

1.1. Product identifier

Product name Ro Dan 300E

Article no. 12698, 12817, 57761, 57767

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

Product group Enzymatic cleaner for membranes.

Relevant identified uses
SU3 Industrial uses: Uses of substances as such or in preparations at industrial sites
SU4 Manufacture of food products
PC35 Washing and cleaning products (including solvent based products)
PROC2 Use in closed, continuous process with occasional controlled exposure
ERC9A Wide dispersive indoor use of substances in closed systems

Uses advised against No specific uses advised against are identified.

1.3. Details of the supplier of the safety data sheet

Company name Novadan ApS
Postal address Platinvej 21
Postcode DK-6000
City Kolding
Country Danmark
Tel + 45 76 34 84 00
Fax + 45 75 50 43 70
E-mail sds@novadan.dk
Website <http://www.novadan.dk>

1.4. Emergency telephone number

Emergency telephone Link to national poison centers:
http://echa.europa.eu/help/nationalhelp_contact_en.asp

SECTION 2: Hazards identification**2.1. Classification of substance or mixture**

Classification according to Regulation (EC) No 1272/2008 [CLP/GHS] Eye Dam. 1;H318;
EUH 208;

2.2. Label elements**Hazard Pictograms (CLP)**



Composition on the label	Cocamidopropylbetain
Signal word	Warning
Hazard statements	H318 Causes Serious eye damage. EUH 208 Contains Subtilisin May produce an allergic reaction.
Precautionary statements	P280 Wear eye protection/protective gloves. 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 or doctor/physician.

2.3. Other hazards

Health effect	May cause an allergic skin reaction. May cause minor irritation on skin contact. See section 11 for additional information on health hazards.
Environmental effects	This product does not contain any PBT or vPvB substances.

SECTION 3: Composition/information on ingredients

3.2. Mixtures

Substance	Identification	Classification	Contents
Cocamidopropylbetain	CAS no.: N.A. EC no.: 931-296-8 Registration number: 01-2119488533-30-xxxx	Xi; R41 Eye Dam. 1;H318; Aquatic Chronic 3;H412;	5 - 15 %
Substance comments	15-30%: nonionic surfactant , <1% : Enzymes . The Full Text for all R-Phrases and Hazard Statements are Displayed in Section 16.		

SECTION 4: First aid measures

4.1. Description of first aid measures

General	Remove affected person from source of contamination.
Inhalation	Fresh air. Get medical attention if any discomfort continues.
Skin contact	Rinse with water. Contact physician if discomfort continues.
Eye contact	Immediately rinse with water for several minutes. Make sure to remove any contact lenses from the eyes before rinsing. May cause permanent damage if eye is not immediately irrigated. Get immediate medical advice/attention. Continue flushing during transport to hospital.
Ingestion	Rinse mouth thoroughly with water and give large amounts of milk or water to people not unconscious. Get medical attention if any discomfort continues.
Recommended personal protective equipment for first aid responders	Wear necessary protective equipment. For personal protection, see section 8.

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

Acute symptoms and effects	As described in section 2.2 and 2.3.
Delayed symptoms and effects	No known long term effects.

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

Other Information	In case of unconsciousness or eye contact: Immediately call a doctor / ambulance. Show this safety data sheet.
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SECTION 5: Firefighting measures

5.1. Extinguishing media

Suitable extinguishing media	Use fire-extinguishing media appropriate for surrounding materials.
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5.2. Special hazards arising from the substance or mixture

Fire and explosion hazards	This product is not flammable. During fire, gases hazardous to health may be formed.
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5.3. Advice for firefighters

Personal protective equipment	Wear necessary protective equipment. For personal protection, see section 8.
Fire fighting procedures	Reference is made to the company fire procedure. If risk of water pollution occurs, notify appropriate authorities. Avoid breathing fire vapours.

SECTION 6: Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures

Personal protection measures	Avoid contact with eyes.
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6.2. Environmental precautions

Environmental precautionary measures	Avoid discharge into water courses or onto the ground. Contact local authorities in case of spillage to drain/aquatic environment.
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6.3. Methods and material for containment and cleaning up

Cleaning method	Dam and absorb spillage with sand, sawdust or other absorbent. Wash contaminated area with water.
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6.4. Reference to other sections

Other instructions	See section 8 and section 13.
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SECTION 7: Handling and storage

7.1. Precautions for safe handling

Handling	No specific usage precautions noted.
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7.2. Conditions for safe storage, including any incompatibilities

Storage	Store in tightly closed original container.
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Conditions for safe storage

Storage Temperature	Value: -15-25 °C
Storage Stability	Durability: 12 months.

7.3. Specific end use(s)

Specific use(s)	The identified uses for this product are detailed in Section 1.2.
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SECTION 8: Exposure controls/personal protection

8.1. Control parameters

Occupational Exposure limit values

Substance	Identification	Value	TWA Year
Cocamidopropylbetain	CAS no.: N.A. EC no.: 931-296-8 Registration number: 01-2119488533-30-xxxx		

DNEL / PNEC from substances

Substance	Cocamidopropylbetain
DNEL	Group: Worker Exposure route: Inhalation Exposure frequency: Long term (repeated) Type of effect: Systemic effect Value: 44 mg/m ³ Remarks: Supplier MSDS
DNEL	Group: Worker

	Exposure route: Dermal Exposure frequency: Long term (repeated) Type of effect: Systemic effect Value: 12,5 mg/kg Remarks: Supplier MSDS
DNEL	Group: Consumer Exposure route: Oral Exposure frequency: Long term (repeated) Type of effect: Systemic effect Value: 7,5 mg/kg
DNEL	Group: Consumer Exposure route: Dermal Exposure frequency: Long term (repeated) Type of effect: Systemic effect Value: 7,5 mg/kg Remarks: Supplier MSDS
PNEC	Exposure route: Water Value: 0,0135 mg/l Remarks: Fresh water, Supplier MSDS
PNEC	Exposure route: Water Value: 0,00135 mg/l Remarks: Sea water, Supplier MSDS
PNEC	Exposure route: Sewage treatment plant STP Value: 3000 mg/l Remarks: Supplier MSDS
Other Information about threshold limit values	No data recorded.

8.2. Exposure controls

Recommended monitoring procedures	Not known.
Limitation of exposure on workplace	Personal protection equipment should be chosen according to the CEN standards and in discussion with the supplier of the personal protective equipment.

Respiratory protection

Respiratory protection	Under normal conditions of use respiration protection should not be required.
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Hand protection

Hand protection	Protective gloves are recommended. (EN 374)
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Eye / face protection

Eye protection	Wear approved safety goggles. (EN 166).
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Thermal hazards

Thermal hazards	See section 5.
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Appropriate environmental exposure control

Environmental exposure controls	See section 6.
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SECTION 9: Physical and chemical properties

9.1. Information on basic physical and chemical properties

Physical state	Fluid.
Colour	Brownish.
pH (as supplied)	Value: ~ 4,5
pH (aqueous solution)	Value: ~ 4,5
Comments, pH (aqueous solution)	1%.
Comments, Melting point / melting	Not relevant.

range	
Comments, Flash point	Not relevant.
Comments, Evaporation rate	Not relevant.
Comments, Explosion limit	Not relevant.
Comments, Vapour pressure	Not relevant.
Comments, Vapour density	Not relevant.
Comments, Specific gravity	Not relevant.
Bulk density	Value: ~ 1,05 kg/l.
Solubility description	Completely soluble in water.
Comments, Partition coefficient: n-octanol / water	Not relevant.
Comments, Spontaneous combustability	Not relevant.
Comments, Decomposition temperature	Not relevant.
Viscosity	Value: < 50 mPa s
Explosive properties	Not explosive.
Oxidising properties	Does not meet the criteria for oxidising.

9.2. Other information

Other physical and chemical properties

Comments	No data recorded.
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SECTION 10: Stability and reactivity

10.1. Reactivity

Reactivity	There are no known reactivity hazards associated with this product.
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10.2. Chemical stability

Stability	Stable under normal temperature conditions and recommended use.
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10.3. Possibility of hazardous reactions

Possibility of hazardous reactions	No information required.
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10.4. Conditions to avoid

Conditions to avoid	No information required.
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10.5. Incompatible materials

Materials to avoid	No information required.
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10.6. Hazardous decomposition products

Hazardous decomposition products	In case of fire, toxic gases (CO, CO ₂ , NO _x) may be formed.
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SECTION 11: Toxicological information

11.1. Information on toxicological effects

Toxicological Information:

Other toxicological data	Toxicological tests on the product has not been performed.
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Toxicological data for substances

Substance	Cocamidopropylbetain
LD50 oral	Value: > 2000 mg/kg Animal test species: Rat Test reference: OECD 401 Comments: Supplier MSDS
Skin corrosion / irritation	Species: Not known. Result: Non irritation to skin. Method of testing: Not known.
Serious eye damage / irritation	Species: Rabbit. Result: Irreversible eye damage. Method of testing: OECD 405

Respiratory or skin sensitisation	Species: Guinea Pig. Result: Not Sensitising. Method of testing: OECD 406
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Other information regarding health hazards

General	Irritating to eyes.
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Potential acute effects

Inhalation	No known chronic or acute health risks.
Skin contact	May cause an allergic skin reaction.
Eye contact	Causes serious eye damage.
Ingestion	Ingestion may cause irritation of the gastrointestinal tract, vomiting and diarrhoea.

Symptoms of Exposure

Symptoms of overexposure	No specific symptoms noted.
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SECTION 12: Ecological information

12.1. Toxicity

Ecotoxicity	The product is not expected to be hazardous to the environment.
Aquatic, comments	No data available for the product.

Toxicological data for substances

Substance	Cocamidopropylbetain
Acute aquatic, fish	Value: 1,11 mg/l Method of testing: LC50, OECD 203 Species: Archosargus probatocephalus Duration: 96 h Test reference: Supplier MSDS
Acute aquatic, algae	Value: 1,5 mg/l Method of testing: EC50, DIN 38412 T9 Species: Desmodesmus subspicatus Duration: 72h Test reference: Supplier MSDS
Acute aquatic, Daphnia	Value: 6,5 mg/l Method of testing: EC50, OECD 202 Species: Daphnia Magna Duration: 48h Test reference: Supplier MSDS
Mobility, description	Mobility, description: The product is miscible with water. May spread in water systems.
Persistence and degradability	The product is easily biodegradable.
Biodegradability	Value: 92 Test period: 28d Method of testing: OECD 302 B
Chemical oxygen demand (COD)	Value: 1000000 Method of testing: DIN 38109 T41
Bioaccumulation	Bioaccumulation: Is not expected to be bioaccumulable.
Result of PBT assessment for the substance	Not Classified as PBT/vPvB by current EU criteria.

12.2. Persistence and degradability

Chemical oxygen demand (COD)	Value: < 850
Comments COD	mg O2/ g.
Persistence and degradability	The product is biodegradable.

12.3. Bioaccumulative potential

Bioaccumulative potential	The product does not contain any substances expected to be bioaccumulating.
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12.4. Mobility in soil

Mobility	The product is water soluble and may spread in water systems.
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12.5. Results of PBT and vPvB assessment

PBT assessment results	Not Classified as PBT/vPvB by current EU criteria.
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12.6. Other adverse effects

Environmental details, summation	For this product no classification is required for environmental hazards.
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SECTION 13: Disposal considerations

13.1. Waste treatment methods

Specify the appropriate methods of disposal	Do not empty into drains; dispose of this material and its container at hazardous or special waste collection point. Dispose of waste and residues in accordance with local authority requirements. -
Product classified as hazardous waste	Yes
Packaging classified as hazardous waste	Yes
EWC waste code	EWC: 0706 wastes from the MFSU of fats, grease, soaps, detergents, disinfectants and cosmetics
Other Information	When handling waste, consideration should be made to the safety precautions applying to handling of the product. Waste code applies to product remnants in pure form.

SECTION 14: Transport information

14.1. UN number

Comments	The product is not covered by international regulation on the transport of dangerous goods (IMDG, IATA, ADR/RID). The labelling "Eye Dam 1 - H318" does not require classification as dangerous goods.
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14.2. UN proper shipping name

Comments	Not relevant.
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14.3. Transport hazard class(es)

Comments	Not relevant.
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14.4. Packing group

Comments	Not relevant.
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14.5. Environmental hazards

Comments	Not relevant.
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14.6. Special precautions for user

Special safety precautions for user	Not relevant.
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14.7. Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code Additional information.

Additional information.	Not relevant.
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SECTION 15: Regulatory information

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

Other Label Information	For professional users only. As a general rule, persons under 18 years of age are not allowed to work with this product. Users must be carefully instructed in the proper work procedure, the dangerous properties of the product and the necessary safety
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	instructions.
Legislation and regulations	The Management of Health and Safety at Work Regulations 1999 (SI 1999 No. 3242). Regulation (EC) No 1907/2006 of the European Parliament and of the Council of 18 December 2006 concerning the Registration, Evaluation, Authorisation and Restriction of Chemicals (REACH), establishing a European Chemicals Agency, amending Directive 1999/45/EC and repealing Council Regulation (EEC) No 793/93 and Commission Regulation (EC) No 1488/94 as well as Council Directive 76/769/EEC and Commission Directives 91/155/EEC, 93/67/EEC, 93/105/EC and 2000/21/EC, including amendments. The List of Wastes (England) (Amendment) Regulations 2005. (SI 2005 No. 895). REGULATION (EC) No 1272/2008 OF THE EUROPEAN PARLIAMENT AND OF THE COUNCIL of 16 December 2008 on classification, labelling and packaging of substances and mixtures, amending and repealing Directives 67/548/EEC and 1999/45/EC, and amending Regulation (EC) No 1907/2006. REGULATION (EC) No 648/2004 OF THE EUROPEAN PARLIAMENT AND OF THE COUNCIL of 31 March 2004 on detergents.

15.2. Chemical safety assessment

Chemical safety assessment performed	No
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SECTION 16: Other information

Classification according to Regulation (EC) No 1272/2008 [CLP/GHS]	Eye Dam. 1; H318; ; EUH 208;
List of relevant R-phrases (under headings 2 and 3).	R41 Risk of serious damage to eyes.
List of relevant H-phrases (Section 2 and 3).	H318 Causes Serious eye damage. H412 Harmful to aquatic life with long lasting effects. EUH 208 Contains May produce an allergic reaction.
Training advice	No particular training or education is required but the user must be familiar with this SDS. Users must be carefully instructed in the proper work procedure, the dangerous properties of the product and the necessary safety instructions.
Information which has been added, deleted or revised	Change to Sections: 1, 2, 3, 4, 7, 8, 9, 11, 12, 15, 16
Version	5
Responsible for safety data sheet	Novadan ApS
Prepared by	ALM