NOVADAN®

SAFETY DATA SHEET
Con Lube 600

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	14.06.2012
Revision date	10.03.2015

1.1. Product identifier

Product name	Con Lube 600
Article no.	12795, 12796, 12797, 57768

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

Product group	Chain lubricant for conveyors.
Use of the substance/preparation	Chain lubricant for conveyors.
Relevant identified uses	SU3 Industrial uses: Uses of substances as such or in preparations at industrial sites SU4 Manufacture of food products PC24 Lubricants, greases, release products PROC11 Non-industrial spraying ERC8A Wide dispersive indoor use of processing aids in open 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 67/548/EEC or 1999/45/EC	C; R34 Xn; R48/22
Classification according to Regulation (EC) No 1272/2008 [CLP/GHS]	Skin Corr 1B;H314; STOT RE2;H373; Aquatic Acute 1;H400; Aquatic Chronic 2;H411;
Substance / mixture hazardous	For further information, please refer to section 11.

properties

2.2. Label elements

Hazard Pictograms (CLP)

Composition on the label	N-Oleyl-1,3-diaminopropane
Signal word	Danger
Hazard statements	H314 Causes severe skin burns and eye damage. H373 May cause damage to organs through prolonged or repeated exposure H400 Very toxic to aquatic life. H411 Toxic to aquatic life with long lasting effects.
Precautionary statements	P260 Do not breathe spray/mist. P280 Wear protective gloves/protective clothing/eye protection/face protection. P303 + P361 + P353 IF ON SKIN (or hair): Remove/Take off immediately all contaminated clothing. Rinse skin with water/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. P273 Avoid release to the environment.

2.3. Other hazards

Description of hazard	Harmful: possible risk of irreversible effects if swallowed.
Health effect	Corrosive to skin and eyes. May cause permanent damage to the eyes, especially if the product is not washed away IMMEDIATELY. 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
N-Oleyl-1,3-diaminopropane	CAS no.: 7173-62-8 EC no.: 230-528-9 Registration number: 01-2119487002-46-0000	T,N; R22,R34,R48/25, R50 Acute tox. 4;H302; Skin Corr 1B;H314; STOT RE1;H372; Aquatic Acute 1;H400; M-factor:10	5 - 15 %
Acetic acid ...%	CAS no.: 64-19-7 EC no.: 200-580-7 Index no.: 607-002-00-6 Registration number: 01-2119475328-30-XXXX	R10 C; R35 Flam. Liq. 3; H226 Skin Corr. 1A; H314 Note : B	1 - 5 %
Alkyl ether carboxylic acid	CAS no.: 57635-48-0	Xi; R38,R41 Skin Irrit. 2;H315; Eye Dam. 1;H318;	1 - 5 %
Tallowdipropylene triamine	CAS no.: 85632-63-9 EC no.: 288-048-0 Registration number: 01-2119487012-45-0000	C,Xn,N; R22,R35,R48/22, R50 Acute tox. 4; H302; Skin Corr 1B; H314; STOT RE2; H373; Aquatic Acute 1; H400;	1 - 5 %

		M-factor:1	
N-(3-aminopropyl)-N-dodecylpropane-1,3-diamine	CAS no.: 2372-82-9 EC no.: 219-145-8	C,N; R22,R35,R48/22, R50 Acute tox. 3;H301; Skin Corr 1A;H314; STOT RE2;H373; Aquatic Acute 1;H400; Aquatic Chronic 1;H410; M-factor:10 Acute	1 - 5 %
Substance comments	- 5-15%: cationic surfactant , <5%: anionic surfactant . 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	Move injured person into fresh air and keep person calm under observation. If uncomfortable: Seek hospital and bring these instructions.
Skin contact	Wash off promptly and flush contaminated skin with water. Promptly remove clothing if soaked through and flush skin with water. Get medical attention if any discomfort continues.
Eye contact	Important! Immediately rinse with water for at least 15 minutes. May cause permanent damage if eye is not immediately irrigated. Make sure to remove any contact lenses from the eyes before rinsing. Immediately transport to hospital or eye specialist. Continue flushing during transport to hospital.
Ingestion	Immediately rinse mouth and drink plenty of water. Call an ambulance. Bring along these instructions. Do not induce vomiting. If vomiting occurs, the head should be kept low so that stomach vomit doesn't enter the lungs. Do not give victim anything to drink if he is unconscious.
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	The etching penetrates deeply into the tissue and is first noticed after a while.

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

Other Information	In case of unconsciousness, ingestion or eye contact: Immediately call a doctor / ambulance. Show this safety data sheet.

SECTION 5: Firefighting measures

5.1. Extinguishing media

Suitable extinguishing media	Use fire-extinguishing media appropriate for surrounding materials.

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. Water used for fire extinguishing, which has been in contact with the product, may be corrosive.

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	Look out! The product is hazardous to your health. Look out! The product is corrosive. Use protective gloves, goggles and suitable protective clothing. In case of inadequate ventilation, use respiratory protection. For personal protection, see section 8. In case of spills, beware of slippery floors and surfaces.

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.

6.3. Methods and material for containment and cleaning up

Cleaning method	Smaller quantities of residue may be collected by an absorbent. Dam and absorb spillage with sand, sawdust or other absorbent. Wash contaminated area with water.

6.4. Reference to other sections

Other instructions	See section 8 and section 13.

SECTION 7: Handling and storage

7.1. Precautions for safe handling

Handling	Avoid spilling, skin and eye contact. Use work methods which minimize spreading of vapours, dust, smoke, aerosols, splashes etc. to the extent technically possible.

7.2. Conditions for safe storage, including any incompatibilities

Storage	Store in tightly closed original container. Keep away from food, drink and animal feeding stuffs. Store above freezing.

Conditions for safe storage

Storage Temperature	Value: -5-35 °C.
Storage Stabilit	Durability: 36 months.

7.3. Specific end use(s)

Specific use(s)	The identified uses for this product are detailed in Section 1.2.

SECTION 8: Exposure controls/personal protection

8.1. Control parameters

Occupational Exposure limit values

Substance	Identification	Value	TWA Year
N-Oleyl-1,3-diaminopropane	CAS no.: 7173-62-8 EC no.: 230-528-9 Registration number: 01-2119487002-46-0000		
Acetic acid ...%	CAS no.: 64-19-7 EC no.: 200-580-7 Index no.: 607-002-00-6 Registration number: 01-2119475328-30-XXXX	8-hour TWA: 10 ppm 8-hour TWA: 25 mg/m3	2011
Alkyl ether carboxylic acid	CAS no.: 57635-48-0		
Tallowdipropylene triamine	CAS no.: 85632-63-9 EC no.: 288-048-0		

	Registration number: 01-2119487012-45-0000		
N-(3-aminopropyl)-N-dodecylpropane-1,3-diamine	CAS no.: 2372-82-9 EC no.: 219-145-8		

DNEL / PNEC from substances

Substance	Acetic acid ...%
DNEL	Group: Consumer Exposure route: Inhalation Exposure frequency: Long term (repeated) Type of effect: Local effect Value: 25 mg/m³ Remarks: ECHA
DNEL	Group: Consumer Exposure route: Inhalation Exposure frequency: Short term (acute) Type of effect: Local effect Value: 25 mg/m³ Remarks: ECHA
DNEL	Group: Worker Exposure route: Inhalation Exposure frequency: Long term (repeated) Type of effect: Local effect Value: 25 mg/m³ Remarks: ECHA
DNEL	Group: Worker Exposure route: Inhalation Exposure frequency: Short term (acute) Type of effect: Local effect Value: 25 mg/m³ Remarks: ECHA

DNEL / PNEC

Summary of risk management measures, environment	Data lacking.

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. An eye wash bottle must be available at the work site.

Safety signs

Respiratory protection

Respiratory protection	Under normal conditions of use respiration protection should not be required. In case of inadequate ventilation use suitable respirator. Use respiratory equipment with combination filter, type A2/P2.

Hand protection

Hand protection	Use protective gloves made of: Butyl rubber. Neoprene. Nitrile.
Breakthrough time	Breakthrough time for nitrile rubber, neoprene and butyl rubber is approx. 3 hours.

	The recommendation is a qualified estimate based on knowledge of the components. Elastic gloves stretch when used as glove thickness and thus the breakthrough time reduced. The EN 374-3 standard test is performed at 23°C, but the practical temperature of the glove is approx. 35°C. The breakthrough time of the different glove guides, is therefor reduced by a factor 3.

Eye / face protection

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

Skin protection

Skin protection (except hands)	Wear apron or protective clothing in case of contact. Wear rubber footwear.

Thermal hazards

Thermal hazards	See section 5.

Appropriate environmental exposure control

Environmental exposure controls	See section 6.

SECTION 9: Physical and chemical properties

9.1. Information on basic physical and chemical properties

Physical state	Fluid.
Colour	Yellow.
Odour	Characteristic.
Comments, Odour limit	Not relevant.
pH (as supplied)	Value: ~ 6,0
Comments, pH (aqueous solution)	Not relevant.
Comments, Melting point / melting range	Not relevant.
Comments, Boiling point / boiling range	Not relevant.
Comments, Flash point	Not relevant.
Comments, Evaporation rate	Not relevant.
Flammability (solid, gas)	Not relevant.
Comments, Explosion limit	Not relevant.
Comments, Vapour pressure	Not relevant.
Comments, Vapour density	Not relevant.
Bulk density	Value: ~ 1,00 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.

SECTION 10: Stability and reactivity

10.1. Reactivity

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

10.2. Chemical stability

Stability	Stable under normal temperature conditions and recommended use.

10.3. Possibility of hazardous reactions

Possibility of hazardous reactions	No information required.

10.4. Conditions to avoid

Conditions to avoid	Avoid frost.

10.5. Incompatible materials

Materials to avoid	No information required.

10.6. Hazardous decomposition products

Hazardous decomposition products	In case of fire, toxic gases (CO, CO2, NOx) may be formed.

SECTION 11: Toxicological information

11.1. Information on toxicological effects

Toxicological Information:

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

Toxicological data for substances

Substance	No data available for ingredient(s).
LD50 oral	Value: - - Animal test species: - Duration: - Comments: -
Substance	Alkyl ether carboxylic acid
LD50 oral	Value: > 2000 mg/kg Animal test species: Rat Comments: OECD 401
Substance	N-(3-aminopropyl)-N-dodecylpropane-1,3-diamine
LD50 oral	Value: 261 mg/kg Animal test species: Rat Comments: OECD TG 401
LD50 dermal	Value: > 600 mg/kg Animal test species: Rat Test reference: OECD TG 402 Comments: Maximum tested concentration, no deaths.
Other toxicological information for the substance	Skin corrosion/irritation - animal Data: Rabbit - OECD TG 404 Not Sensitising. Buehler test: Guinea Pig - OECD TG 406

Other information regarding health hazards

General	Contact with this chemical can be hazardous. This substance is corrosive.

Potential acute effects

Inhalation	Aerosols may be corrosive. Inhalation may cause: Serious damage to the lining of nose, throat and lungs.
Skin contact	Corrosive. Prolonged contact causes serious tissue damage.
Eye contact	Strongly corrosive. Causes severe burns and serious eye damage. Immediate first aid is imperative. Contact with concentrated chemical may very rapidly cause severe eye damage, possibly loss of sight.
Ingestion	Harmful: possible risk of irreversible effects if swallowed. Corrosive. Even small amounts may cause serious damage. May cause burns in mucous membranes, throat, oesophagus and stomach.

Symptoms of Exposure

Symptoms of overexposure	No specific symptoms noted.

SECTION 12: Ecological information

12.1. Toxicity

Ecotoxicity	Contains a substance (Aquatic Acute 1; H400 or Aquatic Chronic 1; H410) that falls within the scope of the multiplication factor rule.
Aquatic, comments	No data available for the product.

Toxicological data for substances

Substance	N-Oleyl-1,3-diaminopropane
Acute aquatic, fish	Value: 0,1-1 mg/l. Method of testing: LC50 - OECD TG 203 Species: Brachydanio rerio Duration: 96h
Acute aquatic, algae	Value: > 0,1-1 mg/l. Method of testing: EC50 - OECD TG 201 Species: Desmodesmus subspicatus Duration: 72h
Acute aquatic, Daphnia	Value: > 0,1-1 mg/l. Method of testing: EC50 - OECD TG 202 Species: Daphnia magna Duration: 48 h
Mobility, description	Mobility, description: Not considered mobile.
Biodegradability	Value: > 60 Method of testing: OECD 301D Comments: Readily biodegradable.
Biological oxygen demand (BOD)	Comments: No data recorded.
Bioaccumulation	Bioaccumulation: Is not expected to be bioaccumulable.
Result of PBT assessment for the substance	Not Classified as PBT/vPvB by current EU criteria.
Substance	Acetic acid ...%
Acute aquatic, fish	Value: 301 mg/l Method of testing: LC50
Acute aquatic, algae	Value: 301 mg/l Method of testing: LC50
Mobility, description	Mobility, description: The product is miscible with water. May spread in water systems.
Persistence and degradability	The product is easily biodegradable.
Bioaccumulation	Bioaccumulation: Is not expected to be bioaccumulable.
Substance	Tallowdipropylene triamine
Acute aquatic, fish	Value: > 0,1-1 mg/l Method of testing: LC50 - OECD TG 203 Species: Brachydanio rerio Duration: 96h
Acute aquatic, algae	Value: > 0,1-1 mg/l Method of testing: EC50 - OECD TG 201 Species: Desmodesmus subspicatus Duration: 72h
Acute aquatic, Daphnia	Value: > 0,1-1 mg/l Method of testing: EC50 - OECD TG 202 Species: Daphnia magna Duration: 48h
Ecotoxicity, other effects	Very toxic to aquatic organisms.
Mobility, description	Mobility, description: Not considered mobile.
Surface tension	Value: 36 mN/m

Biodegradability	Value: > 60 Test period: 28d Method of testing: OECD 301D Comments: Readily biodegradable.
Bioaccumulation	Bioaccumulation: Is not expected to be bioaccumulable.
Result of PBT assessment for the substance	Not Classified as PBT/vPvB by current EU criteria.
Substance	N-(3-aminopropyl)-N-dodecylpropane-1,3-diamine
Acute aquatic, fish	Value: 0,68 mg/l Method of testing: LC50 - OECD TG 203 Species: Oncorhynchus mykiss Duration: 96h
Aquatic, comments	LC50, Lepomis Macrochirus, 0,45 mg/l, 96h, US-EPA EC50, Daphina Magna, 0,073 mg/l, 48h, US-EPA NOEC, Daphnia Magna, 0,024 mg/l, 21d, OECD 211 ErC50, Pseudokirchneriella subcapitata, 0,054 mg/l, 96h, US-EPA ErC10, Desmodesmus subspicatus, 0,012 mg/l, 72h, OECD TG 201 EC50, active sludge (bacteria), 18 mg/l, 3h, OECD 209
Persistence and degradability	OECD 303A: 96%, 12-15d
Biodegradability	Value: 79% Test period: 28d Method of testing: OECD 301D Comments: Readily biodegradable.

12.2. Persistence and degradability

Persistence and degradability	The product is expected to be biodegradable.

12.3. Bioaccumulative potential

Bioaccumulative potential	The product does not contain any substances expected to be bioaccumulating.

12.4. Mobility in soil

Mobility	The product is water soluble and may spread in water systems.

12.5. Results of PBT and vPvB assessment

PBT assessment results	Not Classified as PBT/vPvB by current EU criteria.

12.6. Other adverse effects

Environmental details, summation	Product is very toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment.

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

ADR	2735
RID	2735
IMDG	2735
ICAO/IATA	2735

14.2. UN proper shipping name

ADR	AMINES, LIQUID, CORROSIVE, N.O.S. (Alkyldiamine)
RID	AMINES, LIQUID, CORROSIVE, N.O.S. (Alkyldiamine)
IMDG	AMINES, LIQUID, CORROSIVE, N.O.S. (Alkyldiamine)
ICAO/IATA	AMINES, LIQUID, CORROSIVE, N.O.S. (Alkyldiamine)

14.3. Transport hazard class(es)

ADR	8
Hazard no.	80
RID	8
IMDG	8
ICAO/IATA	8

14.4. Packing group

ADR	III
RID	III
IMDG	III
ICAO/IATA	III

14.5. Environmental hazards

ADR	Danger label for "Environmental hazard" should be used if packagings with more than 5 liters or 5 kilos are transported.
RID	Danger label for "Environmental hazard" should be used if packagings with more than 5 liters or 5 kilos are transported.
IMDG	Danger label for "Environmental hazard" should be used if packagings with more than 5 liters or 5 kilos are transported.
IMDG Marine pollutant	No

14.6. Special precautions for user

EmS	F-A, S-B
Special safety precautions for user	Not relevant.

14.7. Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code Additional information.

Additional information.	Not relevant.

SECTION 15: Regulatory information

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

EEC-directive	Regulation (EC) No 648/2004 of the European Parliament and of the Council of 31 March 2004 on detergents. Dangerous Preparations Directive 1999/45/EC. Dangerous Substance Directive 67/548/EEC.
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 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). EH40/2005, Workplace exposure limits 2005, with amendments.

15.2. Chemical safety assessment

Chemical safety assessment performed	No

SECTION 16: Other information

Hazard symbol

R-phrases	R34 Causes burns. R48/22 Harmful: danger of serious damage to health by prolongedexposure if swallowed.
S-phrases	S26 In case of contact with eyes, rinse immediately with plenty of water and seek medical advice. S36/37/39 Wear suitable protective clothing, gloves and eye/face protection. S45 In case of accident or if you feel unwell, seek medical advice immediately (show the label where possible).
Classification according to Regulation (EC) No 1272/2008 [CLP/GHS]	Skin Corr 1B; H314; STOT RE2; H373; Aquatic Acute 1; H400; Aquatic Chronic 2; H411;
List of relevant R-phrases (under headings 2 and 3).	R50 Very toxic to aquatic organisms. R48/22 Harmful: danger of serious damage to health by prolongedexposure if swallowed. R48/25 Toxic: danger of serious damage to health by prolongedexposure if swallowed. R41 Risk of serious damage to eyes. R38 Irritating to skin. R34 Causes burns. R35 Causes severe burns. R22 Harmful if swallowed. R10 Flammable.
List of relevant H-phrases (Section 2 and 3).	H318 Causes Serious eye damage. H302 Harmful if swallowed. H226 Flammable liquid and vapour. H373 May cause damage to organs through prolonged or repeated exposure H400 Very toxic to aquatic life. H315 Causes skin irritation. H314 Causes severe skin burns and eye damage. H301 Toxic if swallowed. H410 Very toxic to aquatic life with long lasting effects. H372 Causes damage to organs through prolonged or repeated exposure H411 Toxic to aquatic life with long lasting effects.
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	All sections of the safety data sheet is updated. Labeling changed to CLP
Version	4
Responsible for safety data sheet	Novadan ApS
Prepared by	ALM