

NOVADAN®

SAFETY DATA SHEET

Novaclean

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 02.01.2012

Revision date 05.02.2014

1.1. Product identifier

Product name Novaclean

Article no. 12224, 12431, 41124, 41125, 41126, 41165, 59202, 59203

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

Product group Alkaline heavy-duty cleaner.

Use of the substance/preparation Alkaline heavy-duty cleaner.

Relevant identified uses

- SU1 Agriculture, forestry, fishery
- SU3 Industrial uses: Uses of substances as such or in preparations at industrial sites
- SU4 Manufacture of food products
- SU20 Health services
- SU22 Professional uses: publicly accessible (administration, education, entertainment, services, craftsmen)
- PC35 Washing and cleaning products (including solvent based products)
- PROC10 Roller application or brushing
- ERC8A Wide dispersive indoor use of processing aids in open systems
- ERC8D Wide dispersive outdoor 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

Classification according to
Regulation (EC) No 1272/2008
[CLP/GHS]

Skin Corr 1B;H314;

Substance / mixture hazardous
properties

For further information, please refer to section 11.

2.2. Label elements

Hazard Pictograms (CLP)



Composition on the label

Disodium metasilicate, pentahydrate

Signal word

Danger

Hazard statements

H314 Causes severe skin burns and eye damage.

Precautionary statements

P261 Avoid breathing spray/mist.

P280 Wear eye protection/protective gloves.

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.

P310 Immediately call a POISON CENTER or doctor/physician.

2.3. Other hazards

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

Substantial amounts of the product may lead to a local change in acidity in small water systems which may have adverse effects on aquatic organisms. This product does not contain any PBT or vPvB substances.

SECTION 3: Composition/information on ingredients

3.2. Mixtures

| Substance | Identification | Classification | Contents |
|-------------------------------------|---|---|----------|
| Alkyl imidazolinium carboxylat | CAS no.: 68604-71-7 EC no.: 271-704-5 Registration number: 02-2119666538-24-xxxx | Xi; R36 Eye Irrit. 2; H319; | 1 - 5 % |
| Disodium metasilicate, pentahydrate | CAS no.: 10213-79-3 EC no.: 229-912-9 Registration number: 01-2119449811-37-xxxx | C, Xi; R34, R37 Skin Corr 1B; H314 Eye Dam. 1; H318 Met. Corr. 1; H290 STOT SE3; H335 | 1 - 5 % |
| Fatty alcohol ethoxylate | CAS no.: 78330-20-8 | Xn; R22,R41 Eye Dam. 1;H318; Acute tox. 4;H302; | 1 - 5 % |
| Substance comments | 5-15%: nonionic surfactant <5%: phosphates . 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 corrosive. Use protective gloves, goggles and suitable protective clothing. In case of inadequate ventilation, use respiratory protection. For personal protection, see section 8. |
|------------------------------|---|

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 | Dam and absorb spillage with sand, sawdust or other absorbent. Smaller quantities of residue may be collected by an 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. Do not mix with acidic products. 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 protected from acids. |
|---------|---|

Conditions for safe storage

| | |
|---------------------|------------------------|
| Storage Temperature | Value: -10-35 °C |
| Storage Stability | 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 |
|-------------------------------------|--|-------|----------|
| Disodium metasilicate, pentahydrate | CAS no.: 10213-79-3 EC no.: 229-912-9 Registration number: 01-2119449811-37-xxxx | | |

DNEL / PNEC from substances

| | |
|-----------|---|
| Substance | Disodium metasilicate, pentahydrate |
| DNEL | Group: Worker Exposure route: Inhalation Exposure frequency: Long term (repeated) Type of effect: Systemic effect Value: 6,22 mg/m ³ Remarks: Supplier MSDS |
| DNEL | Group: Worker Exposure route: Dermal Exposure frequency: Long term (repeated) Type of effect: Systemic effect Value: 1,49 mg/kg bw/d Remarks: Supplier MSDS |
| DNEL | Group: Consumer Exposure route: Oral Exposure frequency: Long term (repeated) Type of effect: Systemic effect Value: 0,74 mg/kg bw/d Remarks: Supplier MSDS |
| DNEL | Group: Consumer Exposure route: Inhalation Exposure frequency: Long term (repeated) Type of effect: Systemic effect Value: 1,55 mg/m ³ Remarks: Supplier MSDS |
| DNEL | Group: Consumer Exposure route: Dermal Exposure frequency: Long term (repeated) Type of effect: Systemic effect |

| | |
|------|--|
| | Value: 0,74 mg/kg bw/d Remarks: Supplier MSDS |
| PNEC | Exposure route: Water Value: 7,5 mg/l Remarks: Fresh water. Supplier MSDS |
| PNEC | Exposure route: Water Value: 1 mg/l Remarks: Marine water, Supplier MSDS |
| PNEC | Exposure route: Sewage treatment plant STP Value: 1000 mg/l Remarks: Supplier MSDS |

8.2. Exposure controls

| | |
|-------------------------------------|---|
| 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 | In case of inadequate ventilation use suitable respirator. Use respiratory equipment with particle filter, type 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 | Use eye protection. |
|----------------|---------------------|

Skin protection

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

Thermal hazards

| | |
|-----------------|----------------|
| Thermal hazards | None specific. |
|-----------------|----------------|

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 | Yellowish. |
| Odour | No characteristic odour. |
| pH (as supplied) | Value: ~ 13,0 |
| pH (aqueous solution) | Value: ~ 11,0 |

| | |
|--|---|
| Comments, pH (aqueous solution) | 2% |
| Comments, Melting point / melting range | Not relevant. |
| Comments, Boiling point / boiling range | Not relevant. |
| Comments, Evaporation rate | Not relevant. |
| Comments, Explosion limit | Not relevant. |
| Comments, Vapour pressure | Not relevant. |
| Bulk density | Value: ~ 1,05 kg/l |
| Solubility description | Completely soluble in water. |
| Comments, Partition coefficient: n-octanol / water | Not relevant. |
| Comments, Decomposition temperature | Not relevant. |
| Viscosity | Value: < 50 mPas |
| 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 | Reacts violently with strong acids. Risk of bumping (splashes). |
|------------------------------------|---|

10.4. Conditions to avoid

| | |
|---------------------|--|
| Conditions to avoid | Heating. Extremes of temperatures. Avoid contact with acids. |
|---------------------|--|

10.5. Incompatible materials

| | |
|--------------------|---|
| Materials to avoid | Strong acids. Acids, oxidising. Alkali-sensitive metals such as aluminium, tin, lead and zinc and alloys with these metals. |
|--------------------|---|

10.6. Hazardous decomposition products

| | |
|----------------------------------|--|
| Hazardous decomposition products | In case of fire, toxic gases (CO, CO ₂ , NO _x) 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 | Alkyl imidazolinium carboxylat |
| Skin corrosion / irritation | Species: Not known. Result: Non irritation to skin. Method of testing: Not known. |
| Serious eye damage / irritation | Species: Not known. Result: Irritation to eye. Method of testing: Not known. |
| Respiratory or skin sensitisation | Data lacking. |

| | |
|-----------------------------------|---|
| Substance | Disodium metasilicate, pentahydrate |
| LD50 oral | Value: > 1152-1349 mg/kg Animal test species: Rat Comments: Supplier MSDS |
| LD50 dermal | Value: > 5000 mg/kg Animal test species: rat Comments: Supplier MSDS |
| LC50 inhalation | Value: > 2,06 g/m ³ Animal test species: rat Comments: Supplier MSDS |
| Skin corrosion / irritation | Species: Not known. Result: Corrosive to skin. Method of testing: Not known. |
| Serious eye damage / irritation | Species: Not known. Result: Corrosive to eyes. Method of testing: Not known. |
| Respiratory or skin sensitisation | Species: Not known. Result: Not Sensitising. Method of testing: Not known. |
| Substance | Fatty alcohol ethoxylate |
| LD50 oral | Value: 500-2000 mg/kg Animal test species: Rat |
| LD50 dermal | Value: > 4000 mg/kg Animal test species: Rat |

Other information regarding health hazards

General 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 | Corrosive. Even small amounts may cause serious damage. May cause burns in mucous membranes, throat, oesophagus and stomach. |

SECTION 12: Ecological information

12.1. Toxicity

| | |
|-------------------|--|
| Ecotoxicity | Large amounts of the product may affect the acidity (pH-factor) in water with possible risk of harmful effects to aquatic organisms. |
| Aquatic, comments | No data recorded. |

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 For this product no classification is required for environmental hazards.

SECTION 13: Disposal considerations

13.1. Waste treatment methods

Specify the appropriate methods of Do not empty into drains; dispose of this material and its container at

| | |
|---|---|
| disposal | 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 | 1719 |
| RID | 1719 |
| IMDG | 1719 |
| ICAO/IATA | 1719 |

14.2. UN proper shipping name

| | |
|-----------|---|
| ADR | CAUSTIC ALKALI LIQUID, N.O.S. (Disodium Trioxosilicate) |
| RID | CAUSTIC ALKALI LIQUID, N.O.S. (Disodium Trioxosilicate) |
| IMDG | CAUSTIC ALKALI LIQUID, N.O.S. (Disodium Trioxosilicate) |
| ICAO/IATA | CAUSTIC ALKALI LIQUID, N.O.S. (Disodium Trioxosilicate) |

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

| | |
|-----------------------|----|
| 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. |

15.2. Chemical safety assessment

| | |
|--------------------------------------|----|
| Chemical safety assessment performed | No |
|--------------------------------------|----|

SECTION 16: Other information

Hazard symbol



| | |
|--|--|
| R-phrases | R34 Causes burns. |
| 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; |
| List of relevant R-phrases (under headings 2 and 3). | R37 Irritating to respiratory system. R36 Irritating to eyes. R34 Causes burns. R22 Harmful if swallowed. R41 Risk of serious damage to eyes. |
| List of relevant H-phrases (Section 2 and 3). | H318 Causes Serious eye damage. H302 Harmful if swallowed. H290 May be corrosive to metals. H335 May cause respiratory irritation. H314 Causes severe skin burns and eye damage. H319 Causes serious eye irritation. |
| 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, 9, 16 |
| Version | 4 |
| Responsible for safety data sheet | Novadan ApS |
| Prepared by | ALM |

