# SAFETY DATA SHEET

Based upon Regulation (EC) No 1907/2006, as amended by Regulation (EU) No 2020/878

# NOVAKLEEN HEAVY DUTY

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

### 1.1. Product identifier

**Product name** : NOVAKLEEN HEAVY DUTY
**Registration number REACH** : Not applicable (mixture)
**Product type REACH** : Mixture

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

**1.2.1 Relevant identified uses**

Detergent according to Regulation (EC) No 648/2004

**1.2.2 Uses advised against**

No uses advised against known

### 1.3. Details of the supplier of the safety data sheet

**Supplier of the safety data sheet**

Novatio*
Industrielaan 5B
B-2250 Olen
☎ +32 14 25 76 40
🖷 +32 14 22 02 66
info@novatio.be
*NOVATIO is a registered trademark of Novatech International N.V.

**Manufacturer of the product**

Novatech International N.V.
Industrielaan 5B
B-2250 Olen
☎ +32 14 85 97 37
🖷 +32 14 85 97 38
info@novatech.be

### 1.4. Emergency telephone number

24h/24h (Telephone advice: English, French, German, Dutch) :
+32 14 58 45 45 (BIG)

## SECTION 2: Hazards identification

### 2.1. Classification of the substance or mixture

Classified as dangerous according to the criteria of Regulation (EC) No 1272/2008

| Class | Category | Hazard statements |
|---|---|---|
| Skin Corr. | category 1 | H314: Causes severe skin burns and eye damage. |
| Eye Dam. | category 1 | H318: Causes serious eye damage. |

### 2.2. Label elements

Contains: potassium hydroxide.

**Signal word** Danger

**H-statements**

H314 Causes severe skin burns and eye damage.

**P-statements**

P280 Wear protective gloves, protective clothing and eye protection/face protection.
P260 Do not breathe vapours/mist.
P304 + P340 IF INHALED: Remove person to fresh air and keep comfortable for breathing.
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.

**Supplemental information**

EUH208 Contains: reaction products of 1H-imidazole-1-ethanol, 4,5-dihydro-, 2-(C11-17 and C17 unsatd. alkyl) derivs. and sodium hydroxide and 2-propenoic acid. May produce an allergic reaction.

### 2.3. Other hazards

No other hazards known

## SECTION 3: Composition/information on ingredients

### 3.1. Substances

Not applicable

### 3.2. Mixtures

| Name<br>REACH Registration No | CAS No<br>EC No<br>List No | Conc. (C) | Classification according to CLP | Note | Remark | M-factors and ATE |
|---|---|---|---|---|---|---|
| isotridecanol, ethoxylated | 69011-36-5 | C≤2% | Acute Tox. 4; H302<br>Eye Dam. 1; H318 | (1)(10) | Constituent | |
| tetrasodium ethylene diamine tetraacetate<br>01-2119486762-27 | 64-02-8<br>200-573-9 | C≤2% | Acute Tox. 4; H332<br>Acute Tox. 4; H302<br>STOT RE 2; H373<br>Eye Dam. 1; H318 | (1)(6)(10) | Constituent | |
| disodium metasilicate<br>01-2119449811-37 | 6834-92-0<br>229-912-9 | C≤2% | Met. Corr. 1; H290<br>Skin Corr. 1B; H314<br>Eye Dam. 1; H318<br>STOT SE 3; H335 | (1)(10) | Constituent | |
| 2-butoxyethanol<br>01-2119475108-36 | 111-76-2<br>203-905-0 | C≤2% | Acute Tox. 4; H332<br>Acute Tox. 4; H312<br>Acute Tox. 4; H302<br>Skin Irrit. 2; H315<br>Eye Irrit. 2; H319 | (1)(2)(10) | Constituent | ATE oral: 1200 mg/kg |
| potassium hydroxide<br>01-2119487136-33 | 1310-58-3<br>215-181-3 | C≤0.4% | Met. Corr. 1; H290<br>Acute Tox. 4; H302<br>Skin Corr. 1A; H314<br>Eye Dam. 1; H318<br>Skin Corr. 1A; H314: C≥5%, (CLP Annex VI (ATP 0))<br>Skin Corr. 1B; H314: 2%≤C<5% , (CLP Annex VI (ATP 0))<br>Skin Irrit. 2; H315: 0,5% ≤C<2%, (CLP Annex VI (ATP 0))<br>Eye Irrit. 2; H319: 0,5%≤C<2% , (CLP Annex VI (ATP 0)) | (1)(2)(10) | Constituent | |
| 2-(2-heptadec-8-enyl-2-imidazolin-1-yl) ethanol | 95-38-5<br>202-414-9 | C≤0.3% | Acute Tox. 4; H302<br>STOT RE 2; H373<br>Skin Corr. 1C; H314<br>Eye Dam. 1; H318<br>Aquatic Acute 1; H400<br>Aquatic Chronic 1; H410 | (1)(10) | Constituent | M: 10 (Acute, ECHA)<br>M: 1 (Chronic, ECHA) |
| reaction products of 1H-imidazole-1-ethanol, 4,5-dihydro-, 2-(C11-17 and C17 unsatd. alkyl) derivs. and sodium hydroxide and 2-propenoic acid<br>01-2120750377-50 | 946-533-0 | C≤0.3% | Skin Sens. 1B; H317<br>Eye Dam. 1; H318<br>STOT SE 3; H335<br>Aquatic Chronic 3; H412 | (1)(10) | Constituent | |

(1) For H- and EUH-statements in full: see section 16
(2) Substance with a Community workplace exposure limit
(6) Enumerated in Annex VI of Regulation (EC) No. 1272/2008 but the classification has been adapted after evaluation of available test data
(10) Subject to restrictions of Annex XVII of Regulation (EC) No. 1907/2006

Note: numbers 9xx-xxx-x are provisional list numbers assigned by Echa pending an official EC inventory number

## SECTION 4: First aid measures

### 4.1. Description of first aid measures

**General:**
Observe (own) safety. If possible, approach victim and check vital functions. In case of injury and/or intoxication, call the European emergency number 112. Treat symptoms starting with most life-threatening injuries and disorders. Keep victim under observation, possibility of delayed symptoms.

**After inhalation:**
Remove victim into fresh air. Immediately consult a doctor/medical service.

**After skin contact:**

If possible, wipe up/dry remove chemical. Then rinse/shower immediately for 30 minutes with (lukewarm) water. Cut clothing; never remove burnt clothing from the wound. Do not give any pain medication. Consult a doctor/medical service.

**After eye contact:**
Rinse immediately with plenty of water for 15 minutes. Remove contact lenses, if present and easy to do. Continue rinsing. Consult a doctor/medical service.

**After ingestion:**
Rinse mouth with water. Immediately consult a doctor/medical service. Do not wait for symptoms to occur to consult Poison Center.

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

**4.2.1 Acute symptoms**

**After inhalation:**
EXPOSURE TO HIGH CONCENTRATIONS: Corrosion of the upper respiratory tract.

**After skin contact:**
Caustic burns/corrosion of the skin.

**After eye contact:**
Corrosion of the eye tissue.

**After ingestion:**
Burns to the gastric/intestinal mucosa. Possible esophageal perforation.

**4.2.2 Delayed symptoms**
No effects known.

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

If applicable and available it will be listed below.

## SECTION 5: Firefighting measures

### 5.1. Extinguishing media

**5.1.1 Suitable extinguishing media:**
Small fire: Quick-acting ABC powder extinguisher, Quick-acting BC powder extinguisher, Quick-acting class B foam extinguisher, Quick-acting CO2 extinguisher.
Major fire: Class B foam (not alcohol-resistant).

**5.1.2 Unsuitable extinguishing media:**
Small fire: Water (quick-acting extinguisher, reel); risk of puddle expansion.
Major fire: Water; risk of puddle expansion.

### 5.2. Special hazards arising from the substance or mixture

Upon combustion: formation of CO, CO2 and small quantities of nitrous vapours.

### 5.3. Advice for firefighters

**5.3.1 Instructions:**
Take account of toxic fire-fighting water. Use water moderately and if possible collect or contain it. Heat exposure: dilute toxic gas/vapour with water spray. Take account of toxic/corrosive precipitation water.

**5.3.2 Special protective equipment for fire-fighters:**
Gloves (EN 374). Face shield (EN 166). Corrosion-proof suit (EN 14605). Large spills/in enclosed spaces: self-contained breathing apparatus (EN 136 + EN 137). Large spills/in enclosed spaces: gas-tight suit (EN 943). Heat/fire exposure: self-contained breathing apparatus (EN 136 + EN 137).

## SECTION 6: Accidental release measures

### 6.1. Personal precautions, protective equipment and emergency procedures

No naked flames. Large spills/in confined spaces: consider evacuation.

**6.1.1 Protective equipment for non-emergency personnel**
See section 8.2

**6.1.2 Protective equipment for emergency responders**
Gloves (EN 374). Face shield (EN 166). Corrosion-proof suit (EN 14605). Large spills/in enclosed spaces: self-contained breathing apparatus (EN 136 + EN 137). Large spills/in enclosed spaces: gas-tight suit (EN 943).

Suitable protective clothing
See section 8.2

### 6.2. Environmental precautions

Contain released product, collect/pump into suitable containers. Plug the leak, cut off the supply. Dam up the liquid spill. Prevent soil and water pollution. Prevent spreading in sewers.

### 6.3. Methods and material for containment and cleaning up

Take up liquid spill into inert absorbent material. Scoop absorbed substance into closing containers. Carefully collect the spill/leftovers. Damaged/cooled tanks must be emptied. Clean contaminated surfaces with an excess of water. Take collected spill to manufacturer/competent authority. Wash clothing and equipment after handling.

### 6.4. Reference to other sections

See section 13.

## SECTION 7: Handling and storage

The information in this section is a general description. If applicable and available, exposure scenarios are attached in annex. Always use the relevant exposure scenarios that correspond to your identified use.

### 7.1. Precautions for safe handling

Keep away from naked flames/heat. In finely divided state: use spark-/explosionproof appliances. Finely divided: keep away from ignition sources/sparks. Observe very strict hygiene - avoid contact. Remove contaminated clothing immediately. Keep container tightly closed. Do not discharge the waste into the drain.

### 7.2. Conditions for safe storage, including any incompatibilities

**7.2.1 Safe storage requirements:**
Storage temperature: < 50 °C. Meet the legal requirements. Keep container in a well-ventilated place. Provide for a tub to collect spills. Protect against frost. Keep out of direct sunlight. Keep locked up. Unauthorized persons are not admitted.

**7.2.2 Keep away from:**
Heat sources, (strong) acids.

**7.2.3 Suitable packaging material:**
No data available

**7.2.4 Non suitable packaging material:**
No data available

### 7.3. Specific end use(s)

If applicable and available, exposure scenarios are attached in annex. See information supplied by the manufacturer.

## SECTION 8: Exposure controls/personal protection

### 8.1. Control parameters

**8.1.1 Occupational exposure**

**a) Occupational exposure limit values**

If limit values are applicable and available these will be listed below.

**EU**

| | | |
|---|---|---|
| 2-Butoxyethanol | Time-weighted average exposure limit 8 h (Indicative occupational exposure limit value) | 20 ppm |
| | Time-weighted average exposure limit 8 h (Indicative occupational exposure limit value) | 98 mg/m³ |
| | Short time value (Indicative occupational exposure limit value) | 50 ppm |
| | Short time value (Indicative occupational exposure limit value) | 246 mg/m³ |

**Belgium**

| | | |
|---|---|---|
| 2-Butoxyéthanol | Time-weighted average exposure limit 8 h | 20 ppm |
| | Time-weighted average exposure limit 8 h | 98 mg/m³ |
| | Short time value | 50 ppm |
| | Short time value | 246 mg/m³ |
| Potassium (hydroxyde de) | Short time value | 2 mg/m³ (M) |

La mention “M” indique que lors d’une exposition supérieure à la valeur limite, des irritations apparaissent ou un danger d’intoxication aiguë existe. Le procédé de travail doit être conçu de telle façon que l’exposition ne dépasse jamais la valeur limite. Lors des mesurages, la période d’échantillonnage doit être aussi courte que possible afin de pouvoir effectuer des mesurages fiables. Le résultat des mesurages est calculé en fonction de la période d’échantillonnage.

**The Netherlands**

| | | |
|---|---|---|
| 2-Butoxyethanol | Time-weighted average exposure limit 8 h (Public occupational exposure limit value) | 20 ppm |
| | Time-weighted average exposure limit 8 h (Public occupational exposure limit value) | 100 mg/m³ |
| | Short time value (Public occupational exposure limit value) | 50 ppm |
| | Short time value (Public occupational exposure limit value) | 246 mg/m³ |

**France**

| | | |
|---|---|---|
| 2-Butoxyéthanol | Time-weighted average exposure limit 8 h (VRC: Valeur réglementaire contraignante) | 10 ppm |
| | Time-weighted average exposure limit 8 h (VRC: Valeur réglementaire contraignante) | 49 mg/m³ |
| | Short time value (VRC: Valeur réglementaire contraignante) | 50 ppm |
| | Short time value (VRC: Valeur réglementaire contraignante) | 246 mg/m³ |
| Potassium (hydroxyde de) | Short time value (VL: Valeur non réglementaire indicative) | 2 mg/m³ |

**Germany**

| | | |
|---|---|---|
| 2-Butoxyethanol | Time-weighted average exposure limit 8 h (TRGS 900) | 10 ppm |
| | Time-weighted average exposure limit 8 h (TRGS 900) | 49 mg/m³ |

**UK**

| | | |
|---|---|---|
| 2-Butoxyethanol | Time-weighted average exposure limit 8 h (Workplace exposure limit (EH40/2005)) | 25 ppm |
| | Time-weighted average exposure limit 8 h (Workplace exposure limit (EH40/2005)) | 123 mg/m³ |
| | Short time value (Workplace exposure limit (EH40/2005)) | 50 ppm |
| | Short time value (Workplace exposure limit (EH40/2005)) | 246 mg/m³ |
| Potassium hydroxide | Short time value (Workplace exposure limit (EH40/2005)) | 2 mg/m³ |

**USA (TLV-ACGIH)**

| | | |
|---|---|---|
| 2-Butoxyethanol | Time-weighted average exposure limit 8 h (TLV - Adopted Value) | 20 ppm |
| Potassium hydroxide | Momentary value (TLV - Adopted Value) | 2 mg/m³ |

**b) National biological limit values**

If limit values are applicable and available these will be listed below.

**Germany**

| | | | |
|---|---|---|---|
| 2-Butoxyethanol (Butoxyessigsäure (nach Hydrolyse)) | Urin: expositionsende, bzw. schichtende bei langzeitexposition: nach mehreren vorangegangenen schichten | 150 mg/g Kreatinin | |

**UK**

| | | | |
|---|---|---|---|
| 2-Butoxyethanol (butoxyacetic acid) | Urine: post shift | 240 mmol/mol creatinine | |

**USA (BEI-ACGIH)**

| | | | |
|---|---|---|---|
| 2-buthoxyethanol (Butoxyacetic acid (BAA)) | urine: end of shift | 200 mg/g creatinine | With hydrolysis |

**8.1.2 Sampling methods**

| Product name | Test | Number |
|---|---|---|
| 2-Butoxyethanol (Alcohols IV) | NIOSH | 1403 |
| 2-Butoxyethanol (Butyl Cellosolve solvent) | OSHA | 83 |
| Butoxyacetic acid | NIOSH | 8316 |
| Butyl cellosolve (Volatile Organic compounds) | NIOSH | 2549 |
| Butyl Cellosolve | OSHA | 83 |
| Potassium Hydroxide (Alkaline Dust) | NIOSH | 7401 |

**8.1.3 Applicable limit values when using the substance or mixture as intended**

If limit values are applicable and available these will be listed below.

**8.1.4 Threshold values**

**DNEL/DMEL - Workers**

tetrasodium ethylene diamine tetraacetate

| Effect level (DNEL/DMEL) | Type | Value | Remark |
|---|---|---|---|
| DNEL | Long-term local effects inhalation | 1.5 mg/m³ | |
| | Acute local effects inhalation | 3 mg/m³ | |

disodium metasilicate

| Effect level (DNEL/DMEL) | Type | Value | Remark |
|---|---|---|---|
| DNEL | Long-term systemic effects inhalation | 6.22 mg/m³ | |
| | Long-term systemic effects dermal | 1.49 mg/kg bw/day | |

2-butoxyethanol

| Effect level (DNEL/DMEL) | Type | Value | Remark |
|---|---|---|---|
| DNEL | Long-term systemic effects inhalation | 98 mg/m³ | |
| | Acute systemic effects inhalation | 1091 mg/m³ | |
| | Acute local effects inhalation | 246 mg/m³ | |
| | Long-term systemic effects dermal | 125 mg/kg bw/day | |
| | Acute systemic effects dermal | 89 mg/kg bw/day | |

potassium hydroxide

| Effect level (DNEL/DMEL) | Type | Value | Remark |
|---|---|---|---|
| DNEL | Long-term local effects inhalation | 1 mg/m³ | |

2-(2-heptadec-8-enyl-2-imidazolin-1-yl)ethanol

| Effect level (DNEL/DMEL) | Type | Value | Remark |
|---|---|---|---|
| DNEL | Long-term systemic effects inhalation | 0.46 mg/m³ | |
| | Acute systemic effects inhalation | 14 mg/m³ | |
| | Long-term systemic effects dermal | 0.06 mg/kg bw/day | |
| | Acute systemic effects dermal | 2 mg/kg bw/day | |

reaction products of 1H-imidazole-1-ethanol, 4,5-dihydro-, 2-(C11-17 and C17 unsatd. alkyl) derivs. and sodium hydroxide and 2-propenoic acid

| Effect level (DNEL/DMEL) | Type | Value | Remark |
|---|---|---|---|
| DNEL | Long-term systemic effects inhalation | 16.4 mg/m³ | |
| | Long-term systemic effects dermal | 4.67 mg/kg bw/day | |
| | Long-term local effects dermal | 153 µg/cm² | |

**DNEL/DMEL - General population**

tetrasodium ethylene diamine tetraacetate

| Effect level (DNEL/DMEL) | Type | Value | Remark |
|---|---|---|---|
| DNEL | Long-term local effects inhalation | 0.6 mg/m³ | |
| | Acute local effects inhalation | 1.2 mg/m³ | |
| | Long-term systemic effects oral | 25 mg/kg bw/day | |

disodium metasilicate

| Effect level (DNEL/DMEL) | Type | Value | Remark |
|---|---|---|---|
| DNEL | Long-term systemic effects inhalation | 1.55 mg/m³ | |
| | Long-term systemic effects dermal | 0.74 mg/kg bw/day | |
| | Long-term systemic effects oral | 0.74 mg/kg bw/day | |

2-butoxyethanol

| Effect level (DNEL/DMEL) | Type | Value | Remark |
|---|---|---|---|
| DNEL | Long-term systemic effects inhalation | 59 mg/m³ | |
| | Acute systemic effects inhalation | 426 mg/m³ | |
| | Acute local effects inhalation | 147 mg/m³ | |
| | Long-term systemic effects dermal | 75 mg/kg bw/day | |
| | Acute systemic effects dermal | 89 mg/kg bw/day | |
| | Long-term systemic effects oral | 6.3 mg/kg bw/day | |
| | Acute systemic effects oral | 26.7 mg/kg bw/day | |

potassium hydroxide

| Effect level (DNEL/DMEL) | Type | Value | Remark |
|---|---|---|---|
| DNEL | Long-term local effects inhalation | 1 mg/m³ | |

reaction products of 1H-imidazole-1-ethanol, 4,5-dihydro-, 2-(C11-17 and C17 unsatd. alkyl) derivs. and sodium hydroxide and 2-propenoic acid

| Effect level (DNEL/DMEL) | Type | Value | Remark |
|---|---|---|---|
| DNEL | Long-term systemic effects inhalation | 2.47 mg/m³ | |
| | Long-term systemic effects dermal | 1.67 mg/kg bw/day | |
| | Long-term systemic effects oral | 1.67 mg/kg bw/day | |

**PNEC**

tetrasodium ethylene diamine tetraacetate

| Compartments | Value | Remark |
|---|---|---|
| Fresh water | 2.2 mg/l | |
| Fresh water (intermittent releases) | 1.2 mg/l | |
| Marine water | 0.22 mg/l | |
| STP | 43 mg/l | |
| Soil | 0.72 mg/kg soil dw | |

disodium metasilicate

| Compartments | Value | Remark |
|---|---|---|
| Fresh water | 7.5 mg/l | |
| Marine water | 1 mg/l | |
| Fresh water (intermittent releases) | 7.5 mg/l | |
| STP | 1000 mg/l | |

2-butoxyethanol

| Compartments | Value | Remark |
|---|---|---|
| Fresh water | 8.8 mg/l | |
| Marine water | 0.88 mg/l | |
| Fresh water (intermittent releases) | 26.4 mg/l | |
| STP | 463 mg/l | |
| Fresh water sediment | 34.6 mg/kg sediment dw | |
| Marine water sediment | 3.46 mg/kg sediment dw | |
| Soil | 2.33 mg/kg soil dw | |
| Oral | 20 mg/kg food | |

2-(2-heptadec-8-enyl-2-imidazolin-1-yl)ethanol

| Compartments | Value | Remark |
|---|---|---|
| Fresh water | < 0.01 mg/l | |
| Marine water | < 0.01 mg/l | |
| Fresh water (intermittent releases) | < 0.01 mg/l | |
| STP | 0.27 mg/l | |
| Fresh water sediment | 0.376 mg/kg sediment dw | |
| Marine water sediment | 0.038 mg/kg sediment dw | |
| Soil | 0.075 mg/kg soil dw | |

reaction products of 1H-imidazole-1-ethanol, 4,5-dihydro-, 2-(C11-17 and C17 unsatd. alkyl) derivs. and sodium hydroxide and 2-propenoic acid

| Compartments | Value | Remark |
|---|---|---|
| Fresh water | 2.4 µg/l | |
| Marine water | 0.24 µg/l | |
| Fresh water (intermittent releases) | 24 µg/l | |
| Marine water (intermittent releases) | 2.4 µg/l | |
| STP | 8.37 mg/l | |
| Fresh water sediment | 190 µg/kg sediment dw | |
| Marine water sediment | 19 µg/kg sediment dw | |
| Soil | 36.6 µg/kg soil dw | |

**8.1.5 Control banding**

If applicable and available it will be listed below.

### 8.2. Exposure controls

The information in this section is a general description. If applicable and available, exposure scenarios are attached in annex. Always use the relevant exposure scenarios that correspond to your identified use.

**8.2.1 Appropriate engineering controls**

Keep away from naked flames/heat. In finely divided state: use spark-/explosionproof appliances. Finely divided: keep away from ignition sources/sparks. Measure the concentration in the air regularly. Carry operations in the open/under local exhaust/ventilation or with respiratory protection.

**8.2.2 Individual protection measures, such as personal protective equipment**

Observe very strict hygiene - avoid contact. Do not eat, drink or smoke during work.

a) Respiratory protection:

Full face mask with filter type A at conc. in air > exposure limit.

b) Hand protection:

Protective gloves against chemicals (EN 374).

| Materials | Measured breakthrough time | Thickness | Protection index | Remark |
|---|---|---|---|---|
| nitrile rubber | > 480 minutes | 0.35 mm | Class 6 | |

c) Eye protection:

Face shield (EN 166).

d) Skin protection:

Corrosion-proof clothing (EN 14605).

**8.2.3 Environmental exposure controls:**

See sections 6.2, 6.3 and 13

## SECTION 9: Physical and chemical properties

### 9.1. Information on basic physical and chemical properties

| | |
|---|---|
| Physical form | Liquid |
| Odour | Odourless |
| Odour threshold | No data available in the literature |
| Colour | No data available on colour |
| Translucency | Clear |
| Particle size | Not applicable (liquid) |
| Explosion limits | 1.13 - 10.6 vol % |
| Flammability | Not classified as flammable |
| Log Kow | Not applicable (mixture) |
| Dynamic viscosity | 1 mPa.s ; 20 °C |
| Kinematic viscosity | 1 $mm^2/s$ ; 40 °C |
| Melting point | 0 °C |
| Boiling point | 100 °C - 173 °C |
| Relative vapour density | No data available in the literature |
| Vapour pressure | 23 hPa ; 20 °C |
| Solubility | Water ; soluble |
| Relative density | 1.05 ; 20 °C |
| Absolute density | 1050 $kg/m^3$ ; 20 °C |
| Decomposition temperature | No data available in the literature |
| Auto-ignition temperature | 230 °C |
| Flash point | No data available in the literature |
| pH | 13.4 |

### 9.2. Other information

| | |
|---|---|
| Evaporation rate | 0.3 ; Butyl acetate |

## SECTION 10: Stability and reactivity

### 10.1. Reactivity

Heating increases the fire hazard. Basic reaction.

### 10.2. Chemical stability

Stable under normal conditions.

### 10.3. Possibility of hazardous reactions

No data available.

### 10.4. Conditions to avoid

**Precautionary measures**

Keep away from naked flames/heat. In finely divided state: use spark-/explosionproof appliances. Finely divided: keep away from ignition sources/sparks.

### 10.5. Incompatible materials

(strong) acids.

### 10.6. Hazardous decomposition products

Upon combustion: formation of CO, CO2 and small quantities of nitrous vapours.

## SECTION 11: Toxicological information

### 11.1. Information on hazard classes as defined in Regulation (EC) No 1272/2008

**11.1.1 Test results**

**Acute toxicity**

NOVAKLEEN HEAVY DUTY

No (test)data on the mixture available

Judgement is based on the relevant ingredients

isotridecanol, ethoxylated

| Route of exposure | Parameter | Method | Value | Exposure time | Species | Value determination | Remark |
|---|---|---|---|---|---|---|---|
| Oral | LD50 | OECD 423 | > 2000 mg/kg bw | | Rat (male / female) | Experimental value | |
| Oral | | | category 4 | | | Literature study | |
| Dermal | LD50 | | 5960 mg/kg bw | 24 h | Rabbit (male) | Experimental value | |
| Inhalation (aerosol) | LC50 | Equivalent to OECD 403 | > 1.6 mg/l | 4 h | Rat (male / female) | Experimental value | (maximum achievable concentration) |

tetrasodium ethylene diamine tetraacetate

| Route of exposure | Parameter | Method | Value | Exposure time | Species | Value determination | Remark |
|---|---|---|---|---|---|---|---|
| Oral | LD50 | OECD 401 | 1780 mg/kg bw - 2000 mg/kg bw | | Rat (male / female) | Experimental value | |
| Dermal | | | | | | Data waiving | |
| Inhalation (aerosol) | LOAEC | OECD 412 | 30 mg/m³ air | 6 h | Rat (male) | Read-across | |
| Inhalation | | | category 4 | | | Annex VI | |

disodium metasilicate

| Route of exposure | Parameter | Method | Value | Exposure time | Species | Value determination | Remark |
|---|---|---|---|---|---|---|---|
| Oral | LD50 | | 1152 mg/kg bw - 1349 mg/kg bw | | Rat (male / female) | Experimental value | |
| Dermal | LD50 | EPA OPPTS 870.1200 | > 5000 mg/kg bw | 24 h | Rat (male / female) | Experimental value | |
| Inhalation (vapours) | LC50 | EPA OPPTS 870.1300 | > 2.06 mg/l | 4 h | Rat (male / female) | Experimental value | |

2-butoxyethanol

| Route of exposure | Parameter | Method | Value | Exposure time | Species | Value determination | Remark |
|---|---|---|---|---|---|---|---|
| Oral | LD50 | Equivalent to OECD 401 | 1746 mg/kg bw | | Rat (male) | Experimental value | |
| Dermal | | | category 4 | | | Annex VI | |
| Dermal | LD50 | OECD 402 | > 2000 mg/kg bw | | Rat (male / female) | Experimental value | |
| Inhalation (vapours) | LC50 | | > 4.26 mg/l | 4 h | Rat (male / female) | Experimental value | |

potassium hydroxide

| Route of exposure | Parameter | Method | Value | Exposure time | Species | Value determination | Remark |
|---|---|---|---|---|---|---|---|
| Oral | LD50 | Equivalent to OECD 425 | 333 mg/kg bw - 388 mg/kg bw | | Rat (male) | Experimental value | |
| Dermal | | | | | | Data waiving | |
| Inhalation | | | | | | Data waiving | |

2-(2-heptadec-8-enyl-2-imidazolin-1-yl)ethanol

| Route of exposure | Parameter | Method | Value | Exposure time | Species | Value determination | Remark |
|---|---|---|---|---|---|---|---|
| Oral | LD50 | OECD 401 | 1265 mg/kg | | Rat (male / female) | Experimental value | |
| Dermal | | | | | | Data waiving | |
| Inhalation | | | | | | Data waiving | |

**Conclusion**

Not classified for acute toxicity

**Corrosion/irritation**

NOVAKLEEN HEAVY DUTY

No (test)data on the mixture available

Classification is based on the pH

isotridecanol, ethoxylated

| Route of exposure | Result | Method | Exposure time | Time point | Species | Value determination | Remark |
|---|---|---|---|---|---|---|---|
| Eye | Serious eye damage | OECD 405 | | 24; 48; 72 hours | Rabbit | Experimental value | |

tetrasodium ethylene diamine tetraacetate

| Route of exposure | Result | Method | Exposure time | Time point | Species | Value determination | Remark |
|---|---|---|---|---|---|---|---|
| Eye | Serious eye damage | Equivalent to OECD 405 | | 24; 48; 72 hours | Rabbit | Experimental value | Single treatment without rinsing |
| Skin | Not irritating | OECD 404 | 4 h | 24; 48; 72 hours | Rabbit | Experimental value | |

disodium metasilicate

| Route of exposure | Result | Method | Exposure time | Time point | Species | Value determination | Remark |
|---|---|---|---|---|---|---|---|
| Eye | Serious eye damage | | 0.17 minutes | 30 minutes; 1; 2; 4 hours; daily (14 days) | Rabbit | Experimental value | |
| Skin | Corrosive | OECD 404 | 4 h | 1; 24; 48; 72 hours | Rabbit | Experimental value | |
| Inhalation | Irritating; STOT SE cat.3 | | | | | Annex VI | |

2-butoxyethanol

| Route of exposure | Result | Method | Exposure time | Time point | Species | Value determination | Remark |
|---|---|---|---|---|---|---|---|
| Eye | Irritating | OECD 405 | 24 h | 24; 48; 72 hours | Rabbit | Experimental value | Single treatment with rinsing |
| Skin | Irritating | EU Method B.4 | 4 h | 24; 48; 72 hours | Rabbit | Experimental value | |

potassium hydroxide

| Route of exposure | Result | Method | Exposure time | Time point | Species | Value determination | Remark |
|---|---|---|---|---|---|---|---|
| Eye | Serious eye damage | Equivalent to OECD 405 | 5 minutes | | Rabbit | Experimental value | 5% aqueous solution |
| Skin | Corrosive | Equivalent to OECD 404 | 4 h | 24; 48 hours | Rabbit | Experimental value | 10 % aqueous solution |
| Inhalation | Irritating | Human observation | | | Human | Read-across (NaOH) | |

2-(2-heptadec-8-enyl-2-imidazolin-1-yl)ethanol

| Route of exposure | Result | Method | Exposure time | Time point | Species | Value determination | Remark |
|---|---|---|---|---|---|---|---|
| Eye | Serious eye damage | Equivalent to OECD 405 | | 24; 72 hours | Rabbit | Experimental value | Single treatment |
| Skin | Corrosive | OECD 404 | 4 h | 1; 24 hours | Rabbit | Experimental value | |

reaction products of 1H-imidazole-1-ethanol, 4,5-dihydro-, 2-(C11-17 and C17 unsatd. alkyl) derivs. and sodium hydroxide and 2-propenoic acid

| Route of exposure | Result | Method | Exposure time | Time point | Species | Value determination | Remark |
|---|---|---|---|---|---|---|---|
| Not applicable (in vitro test) | Serious eye damage | OECD 438 | | | Isolated chicken eye | Experimental value | |
| Inhalation | Irritating; STOT SE cat.3 | | | | | Literature study | |

**Conclusion**

Causes severe skin burns and eye damage.
Not classified as irritating to the respiratory system

**Respiratory or skin sensitisation**

NOVAKLEEN HEAVY DUTY

No (test)data on the mixture available

Judgement is based on the relevant ingredients

tetrasodium ethylene diamine tetraacetate

| Route of exposure | Result | Method | Exposure time | Observation time point | Species | Value determination | Remark |
|---|---|---|---|---|---|---|---|
| Skin | Not sensitizing | OECD 406 | | 24; 48 hours | Guinea pig (female) | Read-across | |

disodium metasilicate

| Route of exposure | Result | Method | Exposure time | Observation time point | Species | Value determination | Remark |
|---|---|---|---|---|---|---|---|
| Skin | Not sensitizing | OECD 429 | | | Mouse (female) | Experimental value | |

2-butoxyethanol

| Route of exposure | Result | Method | Exposure time | Observation time point | Species | Value determination | Remark |
|---|---|---|---|---|---|---|---|
| Skin | Not sensitizing | OECD 406 | | | Guinea pig (male / female) | Experimental value | |

potassium hydroxide

| Route of exposure | Result | Method | Exposure time | Observation time point | Species | Value determination | Remark |
|---|---|---|---|---|---|---|---|
| Skin | Not sensitizing | Other | | 24 hours | Guinea pig (male) | Experimental value | |

2-(2-heptadec-8-enyl-2-imidazolin-1-yl)ethanol

| Route of exposure | Result | Method | Exposure time | Observation time point | Species | Value determination | Remark |
|---|---|---|---|---|---|---|---|
| Skin | Not sensitizing | Equivalent to OECD 406 | | 24 hours | Guinea pig (male / female) | Experimental value | |

reaction products of 1H-imidazole-1-ethanol, 4,5-dihydro-, 2-(C11-17 and C17 unsatd. alkyl) derivs. and sodium hydroxide and 2-propenoic acid

| Route of exposure | Result | Method | Exposure time | Observation time point | Species | Value determination | Remark |
|---|---|---|---|---|---|---|---|
| Dermal (on the ears) | Sensitizing | OECD 429 | | | Mouse (female) | Experimental value | |

**Conclusion**

Not classified as sensitizing for inhalation
Not classified as sensitizing for skin

**Specific target organ toxicity**

NOVAKLEEN HEAVY DUTY

No (test)data on the mixture available

Judgement is based on the relevant ingredients

tetrasodium ethylene diamine tetraacetate

| Route of exposure | Parameter | Method | Value | Organ | Effect | Exposure time | Species | Value determination |
|---|---|---|---|---|---|---|---|---|
| Oral | NOAEL | Subchronic toxicity test | ≥ 500 mg/kg bw/day | | No effect | 13 weeks (daily) | Rat (male) | Read-across |
| Inhalation (dust) | NOAEL local effects | OECD 413 | 3 mg/m³ air | Larynx | No effect | 13 weeks (6h / day, 5 days / week) | Rat (female) | Read-across |
| Inhalation (dust) | NOAEL systemic effects | OECD 413 | 15 mg/l | | No effect | 13 weeks (6h / day, 5 days / week) | Rat (male / female) | Read-across |
| Inhalation | | | STOT RE cat.2 | Respiratory tract | Impairment/degeneration | | | Expert judgement |

disodium metasilicate

| Route of exposure | Parameter | Method | Value | Organ | Effect | Exposure time | Species | Value determination |
|---|---|---|---|---|---|---|---|---|
| Oral (drinking water) | NOAEL | Equivalent to OECD 408 | 227 mg/kg bw/day - 237 mg/kg bw/day | | No effect | 3 month(s) | Rat (male / female) | Experimental value |
| Dermal | | | | | | | | Data waiving |
| Inhalation | | | | | | | | Data waiving |

2-butoxyethanol

| Route of exposure | Parameter | Method | Value | Organ | Effect | Exposure time | Species | Value determination |
|---|---|---|---|---|---|---|---|---|
| Oral (drinking water) | NOAEL | Equivalent to OECD 408 | < 69 mg/kg bw/day | | No effect | 90 days (continuous) | Rat (male) | Experimental value |
| Oral (drinking water) | NOAEL | Equivalent to OECD 408 | < 82 mg/kg bw/day | | No effect | 90 day(s) | Rat (female) | Experimental value |
| Dermal | NOAEL | Equivalent to OECD 411 | > 150 mg/kg bw/day | | No effect | 13 weeks (5 days / week) | Rabbit (male / female) | Experimental value |
| Inhalation (vapours) | NOAEC | Equivalent to OECD 413 | < 31 ppm | | No effect | 14 weeks (6h / day, 5 days / week) | Rat (female) | Experimental value |
| Inhalation (vapours) | NOAEC | Equivalent to OECD 413 | 62.5 ppm | | No effect | 14 weeks (6h / day, 5 days / week) | Rat (male) | Experimental value |

potassium hydroxide

| Route of exposure | Parameter | Method | Value | Organ | Effect | Exposure time | Species | Value determination |
|---|---|---|---|---|---|---|---|---|
| Oral | | | | | | | | Data waiving |
| Dermal | | | | | | | | Data waiving |
| Inhalation | | | | | | | | Data waiving |

2-(2-heptadec-8-enyl-2-imidazolin-1-yl)ethanol

| Route of exposure | Parameter | Method | Value | Organ | Effect | Exposure time | Species | Value determination |
|---|---|---|---|---|---|---|---|---|
| Oral (stomach tube) | NOAEL | OECD 422 | 20 mg/kg bw/day | | No effect | 31 day(s) - 51 day(s) | Rat (male / female) | Experimental value |
| Oral (stomach tube) | Dose level | OECD 422 | 100 mg/kg bw/day | Gastrointestinal tract; thymus | Mortality; body weight; food consumption | 31 day(s) - 51 day(s) | Rat (male / female) | Experimental value |

**Conclusion**

Not classified for subchronic toxicity

**Mutagenicity (in vitro)**

NOVAKLEEN HEAVY DUTY

No (test)data on the mixture available

Judgement is based on the relevant ingredients

tetrasodium ethylene diamine tetraacetate

| Result | Method | Test substrate | Effect | Value determination | Remark |
|---|---|---|---|---|---|
| Negative with metabolic activation, negative without metabolic activation | Equivalent to OECD 471 | Bacteria (S. typhimurium and E. coli) | No effect | Read-across | Similar product |

disodium metasilicate

| Result | Method | Test substrate | Effect | Value determination | Remark |
|---|---|---|---|---|---|
| Negative with metabolic activation, negative without metabolic activation | OECD 471 | Bacteria (S.typhimurium) | | Experimental value | |
| Negative with metabolic activation, negative without metabolic activation | OECD 476 | Chinese hamster lung fibroblasts (V79) | | Experimental value | |

2-butoxyethanol

| Result | Method | Test substrate | Effect | Value determination | Remark |
|---|---|---|---|---|---|
| Negative with metabolic activation, negative without metabolic activation | Equivalent to OECD 471 | Bacteria (S.typhimurium) | | Experimental value | |
| Negative with metabolic activation, negative without metabolic activation | Equivalent to OECD 476 | Chinese hamster ovary (CHO) | | Experimental value | |

potassium hydroxide

| Result | Method | Test substrate | Effect | Value determination | Remark |
|---|---|---|---|---|---|
| Negative with metabolic activation, negative without metabolic activation | Ames test | Bacteria (S.typhimurium) | | Experimental value | |

2-(2-heptadec-8-enyl-2-imidazolin-1-yl)ethanol

| Result | Method | Test substrate | Effect | Value determination | Remark |
|---|---|---|---|---|---|
| Negative with metabolic activation, negative without metabolic activation | OECD 471 | Bacteria (S.typhimurium) | | Experimental value | |
| Negative with metabolic activation, negative without metabolic activation | OECD 476 | Chinese hamster ovary (CHO) | | Experimental value | |

**Mutagenicity (in vivo)**

NOVAKLEEN HEAVY DUTY

No (test)data on the mixture available

Judgement is based on the relevant ingredients

tetrasodium ethylene diamine tetraacetate

| Result | Method | Exposure time | Test substrate | Organ | Value determination |
|---|---|---|---|---|---|
| Negative (Oral (stomach tube)) | OECD 474 | 48 h | Mouse (male) | Bone marrow | Read-across |

disodium metasilicate

| Result | Method | Exposure time | Test substrate | Organ | Value determination |
|---|---|---|---|---|---|
| Negative (Oral (diet)) | Equivalent to OECD 475 | 24 h | Mouse (male) | | Experimental value |

2-butoxyethanol

| Result | Method | Exposure time | Test substrate | Organ | Value determination |
|---|---|---|---|---|---|
| Negative (Intraperitoneal) | Equivalent to OECD 474 | 3 dose(s)/24-hour interval | Mouse (male) | | Experimental value |

potassium hydroxide

| Result | Method | Exposure time | Test substrate | Organ | Value determination |
|---|---|---|---|---|---|
| | | | | | Data waiving |

**Conclusion**

Not classified for mutagenic or genotoxic toxicity

**Carcinogenicity**

NOVAKLEEN HEAVY DUTY

No (test)data on the mixture available

Judgement is based on the relevant ingredients

tetrasodium ethylene diamine tetraacetate

| Route of exposure | Parameter | Method | Value | Exposure time | Species | Effect | Organ | Value determination |
|---|---|---|---|---|---|---|---|---|
| Oral | NOAEL | | ≥ 500 mg/kg bw/day | 103 weeks (daily) | Rat (male / female) | No effect | | Read-across |

2-butoxyethanol

| Route of exposure | Parameter | Method | Value | Exposure time | Species | Effect | Organ | Value determination |
|---|---|---|---|---|---|---|---|---|
| Inhalation (vapours) | NOAEC | Equivalent to OECD 451 | > 125 ppm | 104 weeks (6h / day, 5 days / week) | Rat (male / female) | No carcinogenic effect | | Experimental value |

potassium hydroxide

| Route of exposure | Parameter | Method | Value | Exposure time | Species | Effect | Organ | Value determination |
|---|---|---|---|---|---|---|---|---|
| Unknown | | | | | | | | Data waiving |

**Conclusion**

Not classified for carcinogenicity

**Reproductive toxicity**

NOVAKLEEN HEAVY DUTY

No (test)data on the mixture available

Judgement is based on the relevant ingredients

tetrasodium ethylene diamine tetraacetate

| | Parameter | Method | Value | Exposure time | Species | Effect | Organ | Value determination |
|---|---|---|---|---|---|---|---|---|
| Developmental toxicity (Oral (stomach tube)) | NOAEL | | ≥ 1374 mg/kg bw/day | 7 day(s) | Rat | No effect | | Experimental value |
| Maternal toxicity (Oral (stomach tube)) | LOAEL | | 1374 mg/kg bw/day | 7 day(s) | Rat | Maternal toxicity | | Experimental value |
| Effects on fertility (Oral) | NOAEL | | ≥ 250 mg/kg bw/day | 2 year(s) | Rat (male / female) | No effect | | Read-across |

disodium metasilicate

| | Parameter | Method | Value | Exposure time | Species | Effect | Organ | Value determination |
|---|---|---|---|---|---|---|---|---|
| Developmental toxicity (Oral (stomach tube)) | NOAEL | Developmental toxicity study | > 200 mg/kg bw/day | 18 day(s) | Mouse (male / female) | No effect | | Experimental value |
| Maternal toxicity (Oral (stomach tube)) | NOAEL | Developmental toxicity study | 12.5 mg/kg bw/day | 18 day(s) | Mouse | No effect | | Experimental value |
| Effects on fertility (Oral (drinking water)) | NOAEL | | > 159 mg/kg bw/day | | Rat (female) | No effect | | Experimental value |

2-butoxyethanol

| | Parameter | Method | Value | Exposure time | Species | Effect | Organ | Value determination |
|---|---|---|---|---|---|---|---|---|
| Developmental toxicity (Oral (stomach tube)) | NOAEC | Equivalent to OECD 414 | 200 mg/kg bw/day | 3 days (gestation, daily) | Rat | No effect | | Experimental value |
| Maternal toxicity (Oral (stomach tube)) | NOAEL | Equivalent to OECD 414 | 30 mg/kg bw/day | 3 days (gestation, daily) | Rat | No effect | | Experimental value |
| Effects on fertility (Oral (drinking water)) | NOAEL | Fertility Assessment | 720 mg/kg bw/day | 14 weeks (daily) | Mouse (male / female) | No effect | | Experimental value |

potassium hydroxide

| | Parameter | Method | Value | Exposure time | Species | Effect | Organ | Value determination |
|---|---|---|---|---|---|---|---|---|
| Developmental toxicity | | | | | | | | Data waiving |
| Effects on fertility | | | | | | | | Data waiving |

2-(2-heptadec-8-enyl-2-imidazolin-1-yl)ethanol

| | Parameter | Method | Value | Exposure time | Species | Effect | Organ | Value determination |
|---|---|---|---|---|---|---|---|---|
| Developmental toxicity (Oral (stomach tube)) | NOEC | OECD 422 | > 60 mg/kg bw/day | | Rat (male / female) | No effect | | Experimental value |
| Maternal toxicity (Oral (stomach tube)) | NOAEL | OECD 422 | > 20 mg/kg bw/day | 51 day(s) | Rat (male / female) | No effect | | Experimental value |
| Effects on fertility (Oral (stomach tube)) | NOAEL (P) | OECD 422 | > 20 mg/kg bw/day | 31 day(s) - 51 day (s) | Rat (male / female) | No effect | | Experimental value |
| | NOAEL (F1) | OECD 422 | > 60 mg/kg bw/day | 31 week(s) - 51 week(s) | Rat (male / female) | No effect | | Experimental value |

**Conclusion**

Not classified for reprotoxic or developmental toxicity

**Toxicity other effects**

NOVAKLEEN HEAVY DUTY

No (test)data on the mixture available

**Chronic effects from short and long-term exposure**

NOVAKLEEN HEAVY DUTY

Skin rash/inflammation.

### 11.2. Information on other hazards

No evidence of endocrine disrupting properties

## SECTION 12: Ecological information

### 12.1. Toxicity

NOVAKLEEN HEAVY DUTY

No (test)data on the mixture available

Judgement of the mixture is based on the relevant ingredients

tetrasodium ethylene diamine tetraacetate

| | Parameter | Method | Value | Duration | Species | Test design | Fresh/salt water | Value determination |
|---|---|---|---|---|---|---|---|---|
| Acute toxicity fishes | LC50 | US EPA | 792 mg/l - 1592 mg/l | 96 h | Lepomis macrochirus | Static system | Fresh water | Experimental value; Lethal |
| Acute toxicity crustacea | EC50 | Equivalent to DIN 38412/15 | 625 mg/l | 24 h | Daphnia magna | Static system | Fresh water | Experimental value; Nominal concentration |
| Toxicity algae and other aquatic plants | EC50 | EU Method C.3 | > 100 mg/l | 72 h | Desmodesmus subspicatus | Static system | Fresh water | Experimental value; Nominal concentration |
| | NOEC | EU Method C.3 | 100 mg/l | 72 h | Desmodesmus subspicatus | Static system | Fresh water | Experimental value; Nominal concentration |
| Long-term toxicity fish | NOEC | OECD 210 | ≥ 25.7 mg/l | 35 day(s) | Danio rerio | Flow-through system | Fresh water | Read-across; GLP |
| Long-term toxicity aquatic crustacea | NOEC | | 25 mg/l | 21 day(s) | Daphnia magna | Semi-static system | Fresh water | Read-across; Nominal concentration |
| Toxicity aquatic micro-organisms | EC10 | OECD 209 | > 500 mg/l | 30 minutes | Activated sludge | Static system | Fresh water | Read-across; Nominal concentration |

disodium metasilicate

| | Parameter | Method | Value | Duration | Species | Test design | Fresh/salt water | Value determination |
|---|---|---|---|---|---|---|---|---|
| Acute toxicity fishes | LC50 | ISO 7346-1 | 210 mg/l | 96 h | Danio rerio | Semi-static system | Fresh water | Experimental value |
| Acute toxicity crustacea | EC50 | EU Method C.2 | 1700 mg/l | 48 h | Daphnia magna | Static system | Fresh water | Experimental value; GLP |
| Toxicity algae and other aquatic plants | EbC50 | DIN 38412-9 | 207 mg/l | 72 h | Desmodesmus subspicatus | | Fresh water | Experimental value; GLP |
| Long-term toxicity fish | | | | | | | | Data waiving |
| Long-term toxicity aquatic crustacea | | | | | | | | Data waiving |
| Toxicity aquatic micro-organisms | EC0 | DIN 38412-27 | > 1000 mg/l | 0.5 h | Pseudomonas putida | | Fresh water | Experimental value |
| | EC50 | OECD 209 | > 100 mg/l | 3 h | Activated sludge | | Fresh water | Experimental value; GLP |

2-butoxyethanol

| | Parameter | Method | Value | Duration | Species | Test design | Fresh/salt water | Value determination |
|---|---|---|---|---|---|---|---|---|
| Acute toxicity fishes | LC50 | OECD 203 | 1474 mg/l | 96 h | Oncorhynchus mykiss | Static system | Fresh water | Experimental value; Lethal |
| Acute toxicity crustacea | EC50 | OECD 202 | 1550 mg/l | 48 h | Daphnia magna | Static system | Fresh water | Experimental value; Locomotor effect |
| Toxicity algae and other aquatic plants | ErC50 | OECD 201 | 1840 mg/l | 72 h | Pseudokirchneriella subcapitata | Static system | Fresh water | Experimental value; Nominal concentration |
| | NOEC | OECD 201 | 286 mg/l | 72 h | Pseudokirchneriella subcapitata | Static system | Fresh water | Experimental value; Growth rate |
| Long-term toxicity fish | NOEC | Equivalent to OECD 204 | > 100 mg/l | 21 day(s) | Danio rerio | Semi-static system | Fresh water | Experimental value; Nominal concentration |
| Long-term toxicity aquatic crustacea | NOEC | OECD 211 | 100 mg/l | 21 day(s) | Daphnia magna | Semi-static system | Fresh water | Experimental value; Reproduction |
| Toxicity aquatic micro-organisms | Toxicity threshold | Equivalent to DIN 38412/8 | 700 mg/l | 16 h | Pseudomonas putida | Static system | Fresh water | Experimental value; Nominal concentration |

2-(2-heptadec-8-enyl-2-imidazolin-1-yl)ethanol

| | Parameter | Method | Value | Duration | Species | Test design | Fresh/salt water | Value determination |
|---|---|---|---|---|---|---|---|---|
| Acute toxicity fishes | LC50 | OECD 203 | 0.3 mg/l | 96 h | Danio rerio | Static system | Fresh water | Experimental value; Nominal concentration |
| Acute toxicity crustacea | EC50 | OECD 202 | 0.163 mg/l | 48 h | Daphnia magna | Semi-static system | Fresh water | Experimental value; GLP |
| Toxicity algae and other aquatic plants | ErC50 | OECD 201 | 0.03 mg/l | 72 h | Desmodesmus subspicatus | Static system | Fresh water | Experimental value; GLP |
| | NOEC | OECD 201 | 0.011 mg/l | 72 h | Desmodesmus subspicatus | Static system | Fresh water | Experimental value; GLP |
| Long-term toxicity fish | | | | | | | | Data waiving |
| Long-term toxicity aquatic crustacea | | | | | | | | Data waiving |
| Toxicity aquatic micro-organisms | EC50 | | 26 mg/l | | Bacteria | | | Literature study; Acute |
| | IC50 | OECD 209 | 26 mg/l | 180 minutes | Activated sludge | Static system | Fresh water | Experimental value; Nominal concentration |

reaction products of 1H-imidazole-1-ethanol, 4,5-dihydro-, 2-(C11-17 and C17 unsatd. alkyl) derivs. and sodium hydroxide and 2-propenoic acid

| | Parameter | Method | Value | Duration | Species | Test design | Fresh/salt water | Value determination |
|---|---|---|---|---|---|---|---|---|
| Acute toxicity fishes | LC50 | OECD 203 | 21.8 mg/l | 96 h | Danio rerio | Semi-static system | Fresh water | Experimental value; Nominal concentration |
| Acute toxicity crustacea | EC50 | OECD 202 | 46 mg/l | 48 h | Daphnia magna | Static system | Fresh water | Experimental value; Nominal concentration |
| Toxicity algae and other aquatic plants | ErC50 | OECD 201 | 2.4 mg/l | 72 h | Pseudokirchneriella subcapitata | Static system | Fresh water | Experimental value; GLP |
| | EC10 | OECD 201 | 0.494 mg/l | 72 h | Pseudokirchneriella subcapitata | Static system | Fresh water | Experimental value; Growth rate |
| Long-term toxicity fish | | | | | | | | Data waiving |
| Long-term toxicity aquatic crustacea | | | | | | | | Data waiving |

**Conclusion**

Not classified as dangerous for the environment according to the criteria of Regulation (EC) No 1272/2008

## 12.2. Persistence and degradability

isotridecanol, ethoxylated

**Biodegradation water**

| Method | Value | Duration | Value determination |
|---|---|---|---|
| OECD 301B | 82 % | 28 day(s) | Experimental value |

tetrasodium ethylene diamine tetraacetate

**Biodegradation water**

| Method | Value | Duration | Value determination |
|---|---|---|---|
| OECD 302B | 0 % - 10 % | 28 day(s) | Experimental value |

2-butoxyethanol

**Biodegradation water**

| Method | Value | Duration | Value determination |
|---|---|---|---|
| OECD 301B | 90.4 %; Carbon dioxide | 28 day(s) | Experimental value |

**Phototransformation air (DT50 air)**

| Method | Value | Conc. OH-radicals | Value determination |
|---|---|---|---|
| AOPWIN v1.90 | 5.459 h | 1.5E6 /cm³ | QSAR |

2-(2-heptadec-8-enyl-2-imidazolin-1-yl)ethanol

**Biodegradation water**

| Method | Value | Duration | Value determination |
|---|---|---|---|
| OECD 301B | 1 % | 28 day(s) | Experimental value |

reaction products of 1H-imidazole-1-ethanol, 4,5-dihydro-, 2-(C11-17 and C17 unsatd. alkyl) derivs. and sodium hydroxide and 2-propenoic acid

**Biodegradation water**

| Method | Value | Duration | Value determination |
|---|---|---|---|
| OECD 301F | 71 %; GLP | 28 day(s) | Experimental value |

**Conclusion**

**Water**

Contains non readily biodegradable component(s)

The surfactant(s) is/are biodegradable according to Regulation (EC) No 648/2004

## 12.3. Bioaccumulative potential

NOVAKLEEN HEAVY DUTY

**Log Kow**

| Method | Remark | Value | Temperature | Value determination |
|---|---|---|---|---|
| | Not applicable (mixture) | | | |

isotridecanol, ethoxylated

**BCF fishes**

| Parameter | Method | Value | Duration | Species | Value determination |
|---|---|---|---|---|---|
| BCF | | 232.5 l/kg | 54 h - 72 h | Pimephales promelas | Experimental value |

**Log Kow**

| Method | Remark | Value | Temperature | Value determination |
|---|---|---|---|---|
| OECD 117 | | 6.4 | 22 °C | Weight of evidence approach |

tetrasodium ethylene diamine tetraacetate

**BCF fishes**

| Parameter | Method | Value | Duration | Species | Value determination |
|---|---|---|---|---|---|
| BCF | | 1.1 - 1.8 | 4 week(s) | Lepomis macrochirus | Experimental value |

**Log Kow**

| Method | Remark | Value | Temperature | Value determination |
|---|---|---|---|---|
| | No data available in the literature | | | |

disodium metasilicate

**Log Kow**

| Method | Remark | Value | Temperature | Value determination |
|---|---|---|---|---|
| | Not quantifiable | | | |

2-butoxyethanol

**BCF fishes**

| Parameter | Method | Value | Duration | Species | Value determination |
|---|---|---|---|---|---|
| | | | | | Data waiving |

**Log Kow**

| Method | Remark | Value | Temperature | Value determination |
|---|---|---|---|---|
| BASF test | | 0.81 | 25 °C | Experimental value |

potassium hydroxide

**Log Kow**

| Method | Remark | Value | Temperature | Value determination |
|---|---|---|---|---|
| | Not applicable (inorganic) | | | |

2-(2-heptadec-8-enyl-2-imidazolin-1-yl)ethanol

**BCF fishes**

| Parameter | Method | Value | Duration | Species | Value determination |
|---|---|---|---|---|---|
| BCF | BCFBAF v3.00 | 371.8 l/kg; Fresh weight | | | Calculated value |

**Log Kow**

| Method | Remark | Value | Temperature | Value determination |
|---|---|---|---|---|
| | | 8.4 | | Calculated |

reaction products of 1H-imidazole-1-ethanol, 4,5-dihydro-, 2-(C11-17 and C17 unsatd. alkyl) derivs. and sodium hydroxide and 2-propenoic acid

**BCF other aquatic organisms**

| Parameter | Method | Value | Duration | Species | Value determination |
|---|---|---|---|---|---|
| BCF | BCFBAF v3.01 | 70.79 l/kg | | | QSAR |

**Log Kow**

| Method | Remark | Value | Temperature | Value determination |
|---|---|---|---|---|
| EU Method A.8 | | 3.43 | 23.7 °C | Experimental value |

**Conclusion**

Does not contain bioaccumulative component(s)

## 12.4. Mobility in soil

isotridecanol, ethoxylated

**(log) Koc**

| Parameter | Method | Value | Value determination |
|---|---|---|---|
| log Koc | | 2.376 - 2.645 | QSAR |

tetrasodium ethylene diamine tetraacetate

**(log) Koc**

| Parameter | Method | Value | Value determination |
|---|---|---|---|
| log Koc | SRC PCKOCWIN v1.66 | 3.02 | QSAR |

2-butoxyethanol

**(log) Koc**

| Parameter | Method | Value | Value determination |
|---|---|---|---|
| log Koc | SRC PCKOCWIN v2.0 | 0.451 - 0.882 | Calculated value |

**Percent distribution**

| Method | Fraction air | Fraction biota | Fraction sediment | Fraction soil | Fraction water | Value determination |
|---|---|---|---|---|---|---|
| Mackay level I | 0.31 % | 0 % | 0.01 % | 0.59 % | 99.09 % | QSAR |

2-(2-heptadec-8-enyl-2-imidazolin-1-yl)ethanol

**(log) Koc**

| Parameter | Method | Value | Value determination |
|---|---|---|---|
| log Koc | SRC PCKOCWIN v2.0 | 5.1 | Calculated value |

**Conclusion**

Contains component(s) that adsorb(s) into the soil
Contains component(s) with potential for mobility in the soil

### 12.5. Results of PBT and vPvB assessment

Does not contain component(s) that meet(s) the criteria of PBT and/or vPvB as listed in Annex XIII of Regulation (EC) No 1907/2006.

### 12.6. Endocrine disrupting properties

No evidence of endocrine disrupting properties

### 12.7. Other adverse effects

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**Greenhouse gases**

None of the known components is included in the list of fluorinated greenhouse gases (Regulation (EU) No 517/2014)

**Ozone-depleting potential (ODP)**

Not classified as dangerous for the ozone layer (Regulation (EC) No 1005/2009)

**Water ecotoxicity pH**

pH shift

isotridecanol, ethoxylated

**Groundwater**

Groundwater pollutant

disodium metasilicate

**Groundwater**

Groundwater pollutant

**Water ecotoxicity pH**

pH shift

2-butoxyethanol

**Groundwater**

Groundwater pollutant

potassium hydroxide

**Groundwater**

Groundwater pollutant

**Water ecotoxicity pH**

pH shift

2-(2-heptadec-8-enyl-2-imidazolin-1-yl)ethanol

**Water ecotoxicity pH**

pH shift

## SECTION 13: Disposal considerations

The information in this section is a general description. If applicable and available, exposure scenarios are attached in annex. Always use the relevant exposure scenarios that correspond to your identified use.

### 13.1. Waste treatment methods

**13.1.1 Provisions relating to waste**

**European Union**

Hazardous waste according to Directive 2008/98/EC, as amended by Regulation (EU) No 1357/2014 and Regulation (EU) No 2017/997.
Waste material code (Directive 2008/98/EC, Decision 2000/0532/EC).
20 01 29* (separately collected fractions (except 15 01): detergents containing hazardous substances). Depending on branch of industry and production process, also other waste codes may be applicable.

**13.1.2 Disposal methods**

Remove waste in accordance with local and/or national regulations. Hazardous waste shall not be mixed together with other waste. Different types of hazardous waste shall not be mixed together if this may entail a risk of pollution or create problems for the further management of the waste. Hazardous waste shall be managed responsibly. All entities that store, transport or handle hazardous waste shall take the necessary measures to prevent risks of pollution or damage to people or animals. Do not discharge into drains or the environment. Dispose of at authorized waste collection point.

**13.1.3 Packaging/Container**

**European Union**

Waste material code packaging (Directive 2008/98/EC).

15 01 10* (packaging containing residues of or contaminated by dangerous substances).

## SECTION 14: Transport information

### Road (ADR)

14.1. UN number

| | |
|---|---|
| UN number | 1719 |

14.2. UN proper shipping name

| | |
|---|---|
| Proper shipping name | caustic alkali liquid, n.o.s. (disodium metasilicate; potassium hydroxide) |

14.3. Transport hazard class(es)

| | |
|---|---|
| Hazard identification number | 80 |
| Class | 8 |
| Classification code | C5 |

14.4. Packing group

| | |
|---|---|
| Packing group | II |
| Labels | 8 |

14.5. Environmental hazards

| | |
|---|---|
| Environmentally hazardous substance mark | no |

14.6. Special precautions for user

| | |
|---|---|
| Special provisions | 274 |
| Limited quantities | Combination packagings: not more than 1 liter per inner packaging for liquids. A package shall not weigh more than 30 kg. (gross mass) |
| Specific mention | Classified corrosive on grounds of extreme pH value |

### Rail (RID)

14.1. UN number

| | |
|---|---|
| UN number | 1719 |

14.2. UN proper shipping name

| | |
|---|---|
| Proper shipping name | caustic alkali liquid, n.o.s. (disodium metasilicate; potassium hydroxide) |

14.3. Transport hazard class(es)

| | |
|---|---|
| Hazard identification number | 80 |
| Class | 8 |
| Classification code | C5 |

14.4. Packing group

| | |
|---|---|
| Packing group | II |
| Labels | 8 |

14.5. Environmental hazards

| | |
|---|---|
| Environmentally hazardous substance mark | no |

14.6. Special precautions for user

| | |
|---|---|
| Special provisions | 274 |
| Limited quantities | Combination packagings: not more than 1 liter per inner packaging for liquids. A package shall not weigh more than 30 kg. (gross mass) |
| Specific mention | Classified corrosive on grounds of extreme pH value |

### Inland waterways (ADN)

14.1. UN number

| | |
|---|---|
| UN number | 1719 |

14.2. UN proper shipping name

| | |
|---|---|
| Proper shipping name | caustic alkali liquid, n.o.s. (disodium metasilicate; potassium hydroxide) |

14.3. Transport hazard class(es)

| | |
|---|---|
| Class | 8 |
| Classification code | C5 |

14.4. Packing group

| | |
|---|---|
| Packing group | II |
| Labels | 8 |

14.5. Environmental hazards

| | |
|---|---|
| Environmentally hazardous substance mark | no |

14.6. Special precautions for user

| | |
|---|---|
| Special provisions | 274 |
| Limited quantities | Combination packagings: not more than 1 liter per inner packaging for liquids. A package shall not weigh more than 30 kg. (gross mass) |
| Specific mention | Classified corrosive on grounds of extreme pH value |

### Sea (IMDG/IMSBC)

14.1. UN number

| | |
|---|---|
| UN number | 1719 |

14.2. UN proper shipping name

| | |
|---|---|
| Proper shipping name | caustic alkali liquid, n.o.s. (disodium metasilicate; potassium hydroxide) |

14.3. Transport hazard class(es)

| | |
|---|---|
| Class | 8 |

14.4. Packing group

| | |
|---|---|
| Packing group | II |
| Labels | 8 |

14.5. Environmental hazards

| | |
|---|---|
| Marine pollutant | - |
| Environmentally hazardous substance mark | no |

14.6. Special precautions for user

| | |
|---|---|
| Special provisions | 274 |
| Limited quantities | Combination packagings: not more than 1 liter per inner packaging for liquids. A package shall not weigh more than 30 kg. (gross mass) |
| Specific mention | Classified corrosive on grounds of extreme pH value |

14.7. Maritime transport in bulk according to IMO instruments

| | |
|---|---|
| Annex II of MARPOL 73/78 | Not applicable, based on available data |

### Air (ICAO-TI/IATA-DGR)

14.1. UN number

| | |
|---|---|
| UN number | 1719 |

14.2. UN proper shipping name

| | |
|---|---|
| Proper shipping name | caustic alkali liquid, n.o.s. (disodium metasilicate; potassium hydroxide) |

14.3. Transport hazard class(es)

| | |
|---|---|
| Class | 8 |

14.4. Packing group

| | |
|---|---|
| Packing group | II |
| Labels | 8 |

14.5. Environmental hazards

| | |
|---|---|
| Environmentally hazardous substance mark | no |

14.6. Special precautions for user

| | |
|---|---|
| Special provisions | A3 |
| Special provisions | A803 |
| Specific mention | Classified corrosive on grounds of extreme pH value |

Passenger and cargo transport

| | |
|---|---|
| Limited quantities: maximum net quantity per packaging | 0.5 L |

## SECTION 15: Regulatory information

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

**European legislation:**

VOC content Directive 2010/75/EU

| VOC content | Remark |
|---|---|
| 1.4 % | |
| 14.696 g/l | |

Indicative occupational exposure limit values (Directive 98/24/EC, 2000/39/EC, 2004/37/EC and amendments)

2-butoxyethanol

| Product name | Skin resorption |
|---|---|
| 2-Butoxyethanol | Skin |

Ingredients according to Regulation (EC) No 648/2004 and amendments

<5% non-ionic surfactants, <5% EDTA and salts thereof, <5% amphoteric surfactants, <5% cationic surfactants, perfumes

European drinking water standards (98/83/EC and 2020/2184)

disodium metasilicate

| Parameter | Parametric value | Note | Reference |
|---|---|---|---|
| Pesticides | 0.1 µg/l | | Listed in Annex I, Part B, of Directive (EU) 2020/2184 on the quality of water intended for human consumption. |
| Pesticides — Total | 0.5 µg/l | | Listed in Annex I, Part B, of Directive (EU) 2020/2184 on the quality of water intended for human consumption. |
| Sodium | 200 mg/l | | Listed in Annex I, Part C, of Directive (EU) 2020/2184 on the quality of water intended for human consumption. |

REACH Annex XVII - Restriction

Contains component(s) subject to restrictions of Annex XVII of Regulation (EC) No 1907/2006: restrictions on the manufacture, placing on the market and use of certain dangerous substances, mixtures and articles.

| | Designation of the substance, of the group of substances or of the mixture | Conditions of restriction |
|---|---|---|
| · isotridecanol, ethoxylated<br>· 2-butoxyethanol<br>· 2-(2-heptadec-8-enyl-2-imidazolin-1-yl) ethanol<br>· reaction products of 1H-imidazole-1-ethanol, 4,5-dihydro-, 2-(C11-17 and C17 unsatd. alkyl) derivs. and sodium hydroxide and 2-propenoic acid | Liquid substances or mixtures fulfilling the criteria for any of the following hazard classes or categories set out in Annex I to Regulation (EC) No 1272/2008:<br>(a) hazard classes 2.1 to 2.4, 2.6 and 2.7, 2.8 types A and B, 2.9, 2.10, 2.12, 2.13 categories 1 and 2, 2.14 categories 1 and 2, 2.15 types A to F;<br>(b) hazard classes 3.1 to 3.6, 3.7 adverse effects on sexual function and fertility or on development, 3.8 effects other than narcotic effects, 3.9 and 3.10;<br>(c) hazard class 4.1;<br>(d) hazard class 5.1. | 1. Shall not be used in:<br>— ornamental articles intended to produce light or colour effects by means of different phases, for example in ornamental lamps and ashtrays,<br>— tricks and jokes,<br>— games for one or more participants, or any article intended to be used as such, even with ornamental aspects,<br>2. Articles not complying with paragraph 1 shall not be placed on the market.<br>3. Shall not be placed on the market if they contain a colouring agent, unless required for fiscal reasons, or perfume, or both, if they:<br>— can be used as fuel in decorative oil lamps for supply to the general public, and,<br>— present an aspiration hazard and are labelled with H304,<br>4. Decorative oil lamps for supply to the general public shall not be placed on the market unless they conform to the European Standard on Decorative oil lamps (EN 14059) adopted by the European Committee for Standardisation (CEN).<br>5. Without prejudice to the implementation of other Community provisions relating to the classification, packaging and labelling of dangerous substances and mixtures, suppliers shall ensure, before the placing on the market, that the following requirements are met:<br>a) lamp oils, labelled with H304, intended for supply to the general public are visibly, legibly and indelibly marked as follows: “Keep lamps filled with this liquid out of the reach of children”; and, by 1 December 2010, “Just a sip of lamp oil — or even sucking the wick of lamps — may lead to life- threatening lung damage”;<br>b) grill lighter fluids, labelled with H304, intended for supply to the general public are legibly and indelibly marked by 1 December 2010 as follows: “Just a sip of grill lighter may lead to life threatening lung damage”;<br>c) lamp oils and grill lighters, labelled with H304, intended for supply to the general public are packaged in black opaque containers not exceeding 1 litre by 1 December 2010. |
| · tetrasodium ethylene diamine tetraacetate<br>· disodium metasilicate<br>· 2-butoxyethanol<br>· potassium hydroxide | Substances falling within one or more of the following points:<br>(a) substances classified as any of the following in Part 3 of Annex VI to Regulation (EC) No 1272/2008:<br>— carcinogen category 1A, 1B or 2, or germ cell mutagen category 1A, 1B or 2, but excluding any such substances classified due to effects only following exposure by inhalation<br>— reproductive toxicant category 1A, 1B or 2 but excluding any such substances classified due to effects only following exposure by inhalation<br>— skin sensitiser category 1, 1A or 1B<br>— skin corrosive category 1, 1A, 1B or 1C or skin irritant category 2<br>— serious eye damage category 1 or eye irritant category 2<br>(b) substances listed in Annex II to Regulation (EC) No 1223/2009 of the European Parliament and of the Council<br>(c) substances listed in Annex IV to Regulation (EC) No 1223/2009 for which a condition is specified in at least one of the columns g, h and i of the table in that Annex (d) substances listed in Appendix 13 to this Annex.<br>The ancillary requirements in paragraphs 7 and 8 of column 2 of this entry apply to all mixtures for use for tattooing purposes, whether or not they contain a substance falling within points (a) to (d) of this column of this entry. | Mixtures for tattooing purposes are subject to the restrictions of Regulation (EU) 2020/2081 |

**National legislation Belgium**

NOVAKLEEN HEAVY DUTY

No data available

2-butoxyethanol

| | |
|---|---|
| Résorption peau | 2-Butoxyéthanol; D; La mention “D” signifie que la résorption de l’agent, via la peau, les muqueuses ou les yeux, constitue une partie importante de l’exposition totale. Cette résorption peut se faire tant par contact direct que par présence de l’agent dans l’air. |

**National legislation The Netherlands**

NOVAKLEEN HEAVY DUTY

| | |
|---|---|
| Waterbezwaarlijkheid | A (2); Algemene Beoordelingsmethodiek (ABM) |

2-butoxyethanol

| | |
|---|---|
| Huidopname (wettelijk) | 2-Butoxyethanol; H |

**National legislation France**

NOVAKLEEN HEAVY DUTY

No data available

2-butoxyethanol

| | |
|---|---|
| Risque de pénétration percutanée | 2-Butoxyéthanol; Risque de pénétration percutanée |

**National legislation Germany**

NOVAKLEEN HEAVY DUTY

| | |
|---|---|
| Lagerklasse (TRGS510) | 8 A: Brennbare ätzende Gefahrstoffe |
| WGK | 2; Verordnung über Anlagen zum Umgang mit wassergefährdenden Stoffen (AwSV) - 18. April 2017 |

isotridecanol, ethoxylated

| | |
|---|---|
| TA-Luft | 5.2.5/I |

tetrasodium ethylene diamine tetraacetate

| | |
|---|---|
| TA-Luft | 5.2.5/I |

disodium metasilicate

| | |
|---|---|
| TA-Luft | 5.2.1 |

2-butoxyethanol

| | |
|---|---|
| TA-Luft | 5.2.5/I |
| TRGS900 - Risiko der Fruchtschädigung | 2-Butoxyethanol; Y; Risiko der Fruchtschädigung braucht bei Einhaltung des Arbeitsplatzgrenzwertes und des biologischen Grenzwertes nicht befürchtet zu werden |
| Hautresorptive Stoffe | 2-Butoxyethanol; H; Hautresorptiv |

potassium hydroxide

| | |
|---|---|
| TA-Luft | 5.2.1 |

2-(2-heptadec-8-enyl-2-imidazolin-1-yl)ethanol

| | |
|---|---|
| TA-Luft | 5.2.5/I |

reaction products of 1H-imidazole-1-ethanol, 4,5-dihydro-, 2-(C11-17 and C17 unsatd. alkyl) derivs. and sodium hydroxide and 2-propenoic acid

| | |
|---|---|
| TA-Luft | 5.2.5/I |

**National legislation United Kingdom**

NOVAKLEEN HEAVY DUTY

No data available

2-butoxyethanol

| | |
|---|---|
| Skin absorption | 2-Butoxyethanol; Sk |

**Other relevant data**

NOVAKLEEN HEAVY DUTY

No data available

2-butoxyethanol

| | |
|---|---|
| IARC - classification | 3; 2-butoxyethanol |
| TLV - Carcinogen | 2-Butoxyethanol; A3 |

### 15.2. Chemical safety assessment

No chemical safety assessment has been conducted for the mixture.

## SECTION 16: Other information

**Full text of any H- and EUH-statements referred to under section 3:**

H290 May be corrosive to metals.
H302 Harmful if swallowed.
H312 Harmful in contact with skin.
H314 Causes severe skin burns and eye damage.
H315 Causes skin irritation.
H317 May cause an allergic skin reaction.
H318 Causes serious eye damage.
H319 Causes serious eye irritation.
H332 Harmful if inhaled.
H335 May cause respiratory irritation.
H373 May cause damage to organs (gastrointestinal tract, thymus) through prolonged or repeated exposure if swallowed.
H373 May cause damage to organs (respiratory tract) through prolonged or repeated exposure if inhaled.
H400 Very toxic to aquatic life.
H410 Very toxic to aquatic life with long lasting effects.
H412 Harmful to aquatic life with long lasting effects.
EUH208 Contains a sensitising substance. May produce an allergic reaction.

| | |
|---|---|
| (*) | INTERNAL CLASSIFICATION BY BIG |
| ADI | Acceptable daily intake |
| AOEL | Acceptable operator exposure level |
| ATE | Acute Toxicity Estimate |
| CLP (EU-GHS) | Classification, labelling and packaging (Globally Harmonised System in Europe) |
| DMEL | Derived Minimal Effect Level |
| DNEL | Derived No Effect Level |
| EC50 | Effect Concentration 50 % |
| ErC50 | EC50 in terms of reduction of growth rate |
| LC50 | Lethal Concentration 50 % |
| LD50 | Lethal Dose 50 % |
| NOAEL | No Observed Adverse Effect Level |
| NOEC | No Observed Effect Concentration |

| | |
|---|---|
| OECD | Organisation for Economic Co-operation and Development |
| PBT | Persistent, Bioaccumulative & Toxic |
| PNEC | Predicted No Effect Concentration |
| STP | Sludge Treatment Process |
| vPvB | very Persistent & very Bioaccumulative |

The information in this safety data sheet is based on data and samples provided to BIG. The sheet was written to the best of our ability and according to the state of knowledge at that time. The safety data sheet only constitutes a guideline for the safe handling, use, consumption, storage, transport and disposal of the substances/preparations/mixtures mentioned under point 1. New safety data sheets are written from time to time. Only the most recent versions may be used. Unless indicated otherwise word for word on the safety data sheet, the information does not apply to substances/preparations/mixtures in purer form, mixed with other substances or in processes. The safety data sheet offers no quality specification for the substances/preparations/mixtures in question. Compliance with the instructions in this safety data sheet does not release the user from the obligation to take all measures dictated by common sense, regulations and recommendations or which are necessary and/or useful based on the real applicable circumstances. BIG does not guarantee the accuracy or exhaustiveness of the information provided and cannot be held liable for any changes by third parties. This safety data sheet is only to be used within the European Union, Switzerland, Iceland, Norway and Liechtenstein. Any use outside of this area is at your own risk. Use of this safety data sheet is subject to the licence and liability limiting conditions as stated in your BIG licence agreement or when this is failing the general conditions of BIG. All intellectual property rights to this sheet are the property of BIG and its distribution and reproduction are limited. Consult the mentioned agreement/conditions for details.