

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

1.1. Product identifier

Product form : Mixture
Product name : Snowfoam
Product code : VC257

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

1.2.1. Relevant identified uses

Main use category : Professional use, Industrial use, Consumer use
Use of the substance/mixture : Cleaning/washing agents and additives

1.2.2. Uses advised against

No additional information available

1.3. Details of the supplier of the safety data sheet

Valet-Chem Ltd
Summit Close
NG17 8GJ Kirkby In Ashfield Nottingham, Nottinghamshire
United Kingdom
T +44 (0) 844 414 0987
info@valetchem.co.uk

1.4. Emergency telephone number

Emergency number : +44 (0) 844 414 0987

| Country/Area | Organisation/Company | Address | Emergency number | Comment |
|----------------|---|------------------------------------|------------------|-----------------------------------|
| United Kingdom | National Poisons Information Service (Birmingham Centre) City Hospital | Dudley Road B18 7QH | 0344 892 0111 | Only for healthcare professionals |
| United Kingdom | National Poisons Information Service (Cardiff Centre) University Hospital Llandough | Penlan Road CF64 2XX | 0344 892 0111 | Only for healthcare professionals |
| United Kingdom | National Poisons Information Service (Edinburgh Centre) Royal Infirmary of Edinburgh | Little France Crescent EH16 4SA | 0344 892 0111 | Only for healthcare professionals |
| United Kingdom | Guy's & St Thomas' Poisons Unit Medical Toxicology Unit, Guy's & St Thomas' Hospital Trust | Avonley Road SE14 5ER | +44 20 7188 7188 | |
| United Kingdom | NHS 111/NHS 24/NHS Direct | | 111 0845 4647 | or call a doctor |

SECTION 2: Hazards identification

2.1. Classification of the substance or mixture

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

Skin corrosion/irritation, Category 1 H314
Serious eye damage/eye irritation, Category 1 H318
Hazardous to the aquatic environment — Chronic Hazard, Category 3 H412

Full text of H- and EUH-statements: see section 16

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Adverse physicochemical, human health and environmental effects

Causes severe skin burns and eye damage. Causes serious eye damage. Harmful to aquatic life with long lasting effects.

2.2. Label elements

Labelling according to Regulation (EC) No. 1272/2008 [CLP]

Hazard pictograms (CLP)



GHS05

Signal word (CLP)

: Danger

Contains

: 1-propanaminium, 3-amino-N-(carboxymethyl)-N,N-dimethyl-, N-C8-18 (even numbered) acyl derivs., hydroxides, inner salts

Hazard statements (CLP)

: H314 - Causes severe skin burns and eye damage.

H412 - Harmful to aquatic life with long lasting effects.

Precautionary statements (CLP)

: P260 - Do not breathe dust/fume/gas/mist/vapours/spray.

P264 - Wash hands, forearms and face thoroughly after handling.

P273 - Avoid release to the environment.

P280 - Wear protective gloves/protective clothing/eye protection/face protection/hearing protection.

P301+P330+P331 - IF SWALLOWED: Rinse mouth. Do NOT induce vomiting.

P303+P361+P353 - IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water .

P304+P340 - IF INHALED: Remove person to fresh air and keep comfortable for breathing.

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.

P321 - Specific treatment (see supplemental first aid instruction on this label).

P405 - Store locked up.

P501 - Dispose of contents/container to hazardous or special waste collection point, in accordance with local, regional, national and/or international regulation.

2.3. Other hazards

Contains no PBT/vPvB substances $\geq 0.1\%$ assessed in accordance with REACH Annex XIII

| Component | |
|---|---|
| Substance(s) not meeting the PBT criteria of REACH regulation, in accordance with Annex XIII | 1-propanaminium, 3-amino-N-(carboxymethyl)-N,N-dimethyl-, N-C8-18 (even numbered) acyl derivs., hydroxides, inner salts (147170-44-3) |
| Substance(s) not meeting the vPvB criteria of REACH regulation, in accordance with Annex XIII | 1-propanaminium, 3-amino-N-(carboxymethyl)-N,N-dimethyl-, N-C8-18 (even numbered) acyl derivs., hydroxides, inner salts (147170-44-3) |

The mixture does not contain substance(s) included in the list established in accordance with Article 59(1) of REACH for having endocrine disrupting properties, or is not identified as having endocrine disrupting properties in accordance with the criteria set out in Commission Delegated Regulation (EU) 2017/2100 or Commission Regulation (EU) 2018/605

SECTION 3: Composition/information on ingredients

3.1. Substances

Not applicable

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3.2. Mixtures

| Name | Product identifier | % | Classification according to Regulation (EC) No. 1272/2008 [CLP] |
|---|--|------|--|
| 1-propanaminium, 3-amino-N-(carboxymethyl)-N,N-dimethyl-, N-C8-18 (even numbered) acyl derivs., hydroxides, inner salts | CAS-No.: 147170-44-3 EC-No.: 931-296-8 REACH-no: 01-2119488533-30 | 5-10 | Eye Dam. 1, H318 Aquatic Chronic 3, H412 |
| SODIUM HYDROXIDE | CAS-No.: 1310-73-2 EC-No.: 215-185-5 EC Index-No.: 011-002-00-6 | <1 | Met. Corr. 1, H290 Skin Corr. 1A, H314 Eye Dam. 1, H318 |
| 2-BUTOXYETHANOL substance with a Community workplace exposure limit | CAS-No.: 111-76-2 EC-No.: 203-905-0 EC Index-No.: 603-014-00-0 REACH-no: 01-2119475108-36 | 0.5 | Acute Tox. 4 (Inhalation), H332 Acute Tox. 4 (Dermal), H312 Acute Tox. 4 (Oral), H302 Eye Irrit. 2, H319 Skin Irrit. 2, H315 |

Specific concentration limits:

| Name | Product identifier | Specific concentration limits (%) |
|---|---|---|
| 1-propanaminium, 3-amino-N-(carboxymethyl)-N,N-dimethyl-, N-C8-18 (even numbered) acyl derivs., hydroxides, inner salts | CAS-No.: 147170-44-3 EC-No.: 931-296-8 REACH-no: 01-2119488533-30 | (4 < C ≤ 10) Eye Irrit. 2, H319 (10 < C < 100) Eye Dam. 1, H318 |
| SODIUM HYDROXIDE | CAS-No.: 1310-73-2 EC-No.: 215-185-5 EC Index-No.: 011-002-00-6 | (0.5 ≤ C < 2) Skin Irrit. 2, H315 (0.5 ≤ C < 2) Eye Irrit. 2, H319 (2 ≤ C < 5) Skin Corr. 1B, H314 (5 ≤ C < 100) Skin Corr. 1A, H314 |

Full text of H- and EUH-statements: see section 16

SECTION 4: First aid measures

4.1. Description of first aid measures

| | |
|---------------------------------------|--|
| First-aid measures general | : Call a physician immediately. |
| First-aid measures after inhalation | : Remove person to fresh air and keep comfortable for breathing. |
| First-aid measures after skin contact | : Rinse skin with water/shower. Take off immediately all contaminated clothing. Call a physician immediately. |
| First-aid measures after eye contact | : Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. Call a physician immediately. |
| First-aid measures after ingestion | : Rinse mouth. Do not induce vomiting. Call a physician immediately. |

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

| | |
|-------------------------------------|---------------------------|
| Symptoms/effects after skin contact | : Burns. |
| Symptoms/effects after eye contact | : Serious damage to eyes. |
| Symptoms/effects after ingestion | : Burns. |

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

Treat symptomatically.

SECTION 5: Firefighting measures

5.1. Extinguishing media

| | |
|------------------------------|--|
| Suitable extinguishing media | : Water spray. Dry powder. Foam. Carbon dioxide. |
|------------------------------|--|

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5.2. Special hazards arising from the substance or mixture

Hazardous decomposition products in case of fire : Toxic fumes may be released.

5.3. Advice for firefighters

Protection during firefighting : Do not attempt to take action without suitable protective equipment. Self-contained breathing apparatus. Complete protective clothing.

SECTION 6: Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures

6.1.1. For non-emergency personnel

Emergency procedures : Ventilate spillage area. Avoid contact with skin and eyes. Do not breathe dust/fume/gas/mist/vapours/spray.

6.1.2. For emergency responders

Protective equipment : Do not attempt to take action without suitable protective equipment. For further information refer to section 8: "Exposure controls/personal protection".

6.2. Environmental precautions

Avoid release to the environment.

6.3. Methods and material for containment and cleaning up

Methods for cleaning up : Take up liquid spill into absorbent material.
Other information : Dispose of materials or solid residues at an authorized site.

6.4. Reference to other sections

For further information refer to section 13.

SECTION 7: Handling and storage

7.1. Precautions for safe handling

Precautions for safe handling : Ensure good ventilation of the work station. Avoid contact with skin and eyes. Do not breathe dust/fume/gas/mist/vapours/spray. Wear personal protective equipment.
Hygiene measures : Wash contaminated clothing before reuse. Do not eat, drink or smoke when using this product. Always wash hands after handling the product.

7.2. Conditions for safe storage, including any incompatibilities

Storage conditions : Store locked up. Store in a well-ventilated place. Keep cool.

Switzerland

Storage class (LK) : LK 8 - Corrosive materials

7.3. Specific end use(s)

No additional information available

SECTION 8: Exposure controls/personal protection

8.1. Control parameters

8.1.1 National occupational exposure and biological limit values

| SODIUM HYDROXIDE (1310-73-2) | |
|--|-----------------------------|
| Austria - Occupational Exposure Limits | |
| Local name | Natriumhydroxid (Ätznatron) |

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| SODIUM HYDROXIDE (1310-73-2) | |
|--|---|
| MAK (OEL TWA) | 2 mg/m ³ (E) |
| MAK (OEL STEL) | 4 mg/m ³ (E, 8x 5(Mow) min) |
| Regulatory reference | BGBI. II Nr. 156/2021 |
| Belgium - Occupational Exposure Limits | |
| Local name | Sodium (hydroxyde de) # Natriumhydroxide |
| OEL TWA | 2 mg/m ³ |
| Remark | 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. # M: de vermelding "M" duidt aan dat bij de blootstelling boven de grenswaarde irritatie optreedt of er gevaar bestaat voor acute vergiftiging. Het werkprocédé moet zo zijn ontworpen dat de blootstelling de grenswaarde nooit overschrijdt. Bij een controle geldt dat de bemonsterde periode zo kort mogelijk moet zijn om een betrouwbare meting te kunnen verrichten. Het meetresultaat wordt dan gerelateerd aan de beschouwde periode. |
| Regulatory reference | Koninklijk besluit/Arrêté royal 19/11/2020 |
| Bulgaria - Occupational Exposure Limits | |
| Local name | Натриева основа |
| OEL TWA | 2 mg/m ³ (алкални аерозоли) |
| Remark | • (Химични агенти, за които са определени гранични стойности във въздуха на работната среда за Европейската общност) |
| Regulatory reference | Наредба № 13 от 30.12.2003 г. за защита на работещите от рискове, свързани с експозиция на химични агенти при работа (изм. и доп. ДВ. бр. 47 от 2021 г., в сила от 04.06.2021 г.) |
| Croatia - Occupational Exposure Limits | |
| Local name | Natrijev hidroksid; kaustična soda |
| KGVI (OEL STEL) | 2 mg/m ³ |
| Regulatory reference | Pravilnik o izmjenama i dopunama Pravilnika o graničnim vrijednostima izloženosti opasnim tvarima pri radu i o biološkim graničnim vrijednostima (NN 1/2021) |
| Czech Republic - Occupational Exposure Limits | |
| Local name | Hydroxid sodný |
| PEL (OEL TWA) | 1 mg/m ³ |
| NPK-P (OEL C) | 2 mg/m ³ |
| Remark | I - dráždí sliznice (oči, dýchací cesty), respektive kůži. |
| Regulatory reference | Nařízení vlády č. 361/2007 Sb. (Předpis 195/2021 Sb.) |
| Denmark - Occupational Exposure Limits | |
| Local name | Natriumhydroxid |
| OEL C | 2 mg/m ³ |
| Regulatory reference | BEK nr 1426 af 28. juni 2021 |
| Estonia - Occupational Exposure Limits | |
| Local name | Naatriumhüdoksiid |
| OEL TWA | 1 mg/m ³ |

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| SODIUM HYDROXIDE (1310-73-2) | |
|---|--|
| OEL STEL | 2 mg/m ³ arvutatud 5-minutisele kokkupuuteajale |
| Regulatory reference | Vabariigi Valitsuse 20. märtsi 2001. a määruse nr 105 (RT I, 17.10.2019, 2); Vabariigi Valitsuse 10. märtsi 2019. a määruse nr 84 |
| Finland - Occupational Exposure Limits | |
| Local name | Natriumhydroksidi |
| HTP (OEL C) | 2 mg/m ³ |
| Regulatory reference | HTP-ARVOT 2020 (Sosiaali- ja terveystieteiden ministeriö) |
| France - Occupational Exposure Limits | |
| Local name | Sodium (hydroxyde de) |
| VME (OEL TWA) | 2 mg/m ³ |
| Remark | Valeurs recommandées/admises |
| Regulatory reference | Circulaire du Ministère du travail (réf.: INRS ED 984, 2016) |
| Greece - Occupational Exposure Limits | |
| Local name | Υδροξείδιο του νατρίου |
| OEL TWA | 2 mg/m ³ |
| OEL STEL | 2 mg/m ³ |
| Regulatory reference | Π.Δ. 90/1999 - Προστασία της υγείας των εργαζομένων που εκτίθενται σε ορισμένους χημικούς παράγοντες κατά τη διάρκεια της εργασίας τους |
| Hungary - Occupational Exposure Limits | |
| Local name | NÁTRIUM-HIDROXID |
| AK (OEL TWA) | 1 mg/m ³ |
| CK (OEL STEL) | 2 mg/m ³ |
| Remark | m (maró hatású anyag, amely felmarja a bőrt, nyálkahártyát, szemet vagy mindhármát); N (Irritáló anyagok, egyszerű fojtógázok, csekély egészségkárosító hatással bíró anyagok) |
| Regulatory reference | 5/2020. (II. 6.) ITM rendelet - A kémiai kóroki tényezők hatásának kitett munkavállalók egészségének és biztonságának védelméről |
| Ireland - Occupational Exposure Limits | |
| Local name | Sodium hydroxide |
| OEL STEL | 2 mg/m ³ |
| Regulatory reference | Chemical Agents Code of Practice 2021 |
| Latvia - Occupational Exposure Limits | |
| Local name | Nātrija hidroksīds (nātrija sārms, kaustiskā soda) |
| OEL TWA | 0.5 mg/m ³ |
| Regulatory reference | Ministru kabineta 2007. gada 15. maija noteikumiem Nr. 325 (Grozījumi Ministru kabineta 2011. gada 1. februārī noteikumiem Nr. 92) |
| Lithuania - Occupational Exposure Limits | |
| Local name | Natrio hidroksidas |
| NRV (OEL C) | 2 mg/m ³ |
| Remark | Ū (ūmus poveikis) |
| Regulatory reference | LIETUVOS HIGIENOS NORMA HN 23:2011 (Nr. V-695/A1-272, 2018-06-12) |

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| SODIUM HYDROXIDE (1310-73-2) | |
|---|---|
| Poland - Occupational Exposure Limits | |
| Local name | Wodorotlenek sodu |
| NDS (OEL TWA) | 0.5 mg/m ³ |
| NDSch (OEL STEL) | 1 mg/m ³ |
| Regulatory reference | Dz. U. 2018 poz. 1286 |
| Portugal - Occupational Exposure Limits | |
| Local name | Hidróxido de sódio |
| OEL C | 2 ppm |
| Regulatory reference | Norma Portuguesa NP 1796:2014 |
| Slovakia - Occupational Exposure Limits | |
| Local name | Hydroxid sodný |
| NPHV (OEL TWA) | 2 mg/m ³ |
| Regulatory reference | Nariadenie vlády č. 355/2006 Z. z. (236/2020 Z. z.) |
| Spain - Occupational Exposure Limits | |
| Local name | Hidróxido de sodio |
| VLA-EC (OEL STEL) | 2 mg/m ³ |
| Regulatory reference | Límites de Exposición Profesional para Agentes Químicos en España 2021. INSHT |
| Sweden - Occupational Exposure Limits | |
| Local name | Natriumhydroxid |
| NGV (OEL TWA) | 1 mg/m ³ inhalerbar fraktion |
| KTV (OEL STEL) | 2 mg/m ³ inhalerbar fraktion |
| Remark | 3 (Med inhalerbar fraktion menas den mängd partiklar, av totalmängden partiklar i luften, som man inandas genom näsa och mun) |
| Regulatory reference | Hygieniska gränsvärden (AFS 2018:1) |
| United Kingdom - Occupational Exposure Limits | |
| Local name | Sodium hydroxide |
| WEL STEL (OEL STEL) | 2 mg/m ³ |
| Regulatory reference | EH40/2005 (Fourth edition, 2020). HSE |
| Iceland - Occupational Exposure Limits | |
| Local name | Natriumhýdroxíð (vítissóti) |
| OEL STEL | 2 mg/m ³ |
| Regulatory reference | Reglugerð um mengunarmörk og aðgerðir til að draga úr mengun á vinnustöðum (Nr. 390/2009) |
| Norway - Occupational Exposure Limits | |
| Local name | Natriumhydroksid |
| Takverdi (OEL C) | 2 mg/m ³ |
| Regulatory reference | FOR-2021-06-28-2248 |
| North Macedonia - Occupational Exposure Limits | |
| Local name | Натриум хидроксид |

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| SODIUM HYDROXIDE (1310-73-2) | |
|---|---|
| OEL TWA | 2 mg/m ³ (l) инхалабилна фракција – дел на вкупно суспендирани материи, кои работникот ги вдишува |
| KTV | 1 |
| Short time value [mg/m ³] | 2 mg/m ³ |
| Remark | (KTV) краткотрајна вредност (КТВ) значи концентрација на опасни хемиски супстанции во воздухот на работното место внатре во зона на дишење, на која работникот без опасност по здравјето може да е изложен на покусно време. Изложеноста на краткотрајни вредности може да трае највеќе 15 минути и не смее да се повтори повеќе од четирипати во работната смена, при што меѓу две изложености на оваа концентрација мора да измине најмалку 60 минути. Краткотрајната вредност е изразена во mg/m ³ или во ml/m ³ (ppm) а е дадена како многукратни дозволени пречекорувања на граничната вредност; (Y) |
| Regulatory reference | Правилник за минималните барања за безбедност и здравје при работа на вработени од ризици поврзани со изложување на хемиски супстанции („Службен весник на Република Македонија“ бр.46/10) |
| Switzerland - Occupational Exposure Limits | |
| Local name | Soude caustique / Natriumhydroxid [Aetznatron] |
| MAK (OEL TWA) | 2 mg/m ³ (i) / (e) |
| KZGW (OEL STEL) | 2 mg/m ³ (i) / (e) |
| Critical toxicity | VRS, Peau, Yeux / OAW, Haut, Auge |
| Notation | SS _c / SS _c |
| Remark | NIOSH, OSHA |
| Regulatory reference | www.suva.ch, 01.01.2021 |
| 2-BUTOXYETHANOL (111-76-2) | |
| EU - Indicative Occupational Exposure Limit (IOEL) | |
| Local name | 2-Butoxyethanol |
| IOEL TWA | 20 ppm |
| IOEL STEL | 246 mg/m ³ 50 ppm |
| Remark | Skin |
| Regulatory reference | COMMISSION DIRECTIVE 2000/39/EC |
| Austria - Occupational Exposure Limits | |
| Local name | 2-Butoxyethanol (Butylglykol; Ethylenglykolmonobutylether) |
| MAK (OEL TWA) | 98 mg/m ³ 20 ppm |
| MAK (OEL STEL) | 200 mg/m ³ (4x 30(Miw) min) 40 ppm (4x 30(Miw) min) |
| Remark | H |
| Regulatory reference | BGBl. II Nr. 156/2021 |
| Belgium - Occupational Exposure Limits | |
| Local name | 2-Butoxyéthanол # 2-Butoxy-ethanol |
| OEL TWA | 98 mg/m ³ |

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| 2-BUTOXYETHANOL (111-76-2) | |
|--|--|
| | 20 ppm |
| OEL STEL | 246 mg/m ³ |
| | 50 ppm |
| Remark | 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. # D: de vermelding "D" betekent dat de opname van het agens via de huid, de slijmvliezen of de ogen een belangrijk deel van de totale blootstelling vormt. Deze opname kan het gevolg zijn van zowel direct contact als zijn aanwezigheid in de lucht. |
| Regulatory reference | Koninklijk besluit/Arrêté royal 19/11/2020 |
| Bulgaria - Occupational Exposure Limits | |
| Local name | 2-Бутоксietанол |
| OEL TWA | 98 mg/m ³ |
| | 20 ppm |
| OEL STEL | 246 mg/m ³ |
| | 50 ppm |
| Remark | Кожа (възможна е значителна резорбция чрез кожата); • (Химични агенти, за които са определени гранични стойности във въздуха на работната среда за Европейската общност) |
| Regulatory reference | Наредба № 13 от 30.12.2003 г. за защита на работещите от рискове, свързани с експозиция на химични агенти при работа (изм. и доп. ДВ. бр. 47 от 2021 г., в сила от 04.06.2021 г.) |
| Croatia - Occupational Exposure Limits | |
| Local name | 2-Butoksietanol; etilen-glikol monobutil-eter; butilov celosolv |
| GVI (OEL TWA) | 98 mg/m ³ |
| | 20 ppm |
| KGVI (OEL STEL) | 246 mg/m ³ |
| | 50 ppm |
| Remark | Direktiva: 2000/39/EZ. Napomena: Koža (razvrstana kao tvar koja nadražuje kožu (H315)) |
| Regulatory reference | Pravilnik o izmjenama i dopunama Pravilnika o graničnim vrijednostima izloženosti opasnim tvarima pri radu i o biološkim graničnim vrijednostima (NN 1/2021) |
| Cyprus - Occupational Exposure Limits | |
| Local name | 2-Βουτοξυαιθανόλη |
| OEL TWA | 98 mg/m ³ |
| | 20 ppm |
| OEL STEL | 246 mg/m ³ |
| | 50 ppm |
| Remark | δέρμα |
| Regulatory reference | Κανονισμοί του 2007 (Κ.Δ.Π. 295/2007) |
| Czech Republic - Occupational Exposure Limits | |
| Local name | 2-Butoxyethanol (Butylcellosolv; Ethylenglykolmonobutylether) |
| PEL (OEL TWA) | 100 mg/m ³ |

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| 2-BUTOXYETHANOL (111-76-2) | |
|---|--|
| | 20 ppm |
| NPK-P (OEL C) | 200 mg/m ³ |
| | 41 ppm |
| Remark | D - při expozici se významně uplatňuje pronikání faktoru kůži, I - dráždí sliznice (oči, dýchací cesty), respektive kůži, B - u látky je zaveden biologický expoziční test (BET) v moči nebo krvi. |
| Regulatory reference | Nařízení vlády č. 361/2007 Sb. (Předpis 195/2021 Sb.) |
| Czech Republic - Biological limit values | |
| Local name | 2-Butoxyethanol (Butylcelosolv, Ethylenglykolmonobutylether) |
| BLV | 200 mg/g creatinine Ukazatel: Butoxyoctová kyselina - Biološki uzorak: moči - Doba odběru: konec směny na konci 0.17 mmol/mmol Creatinine Ukazatel: Butoxyoctová kyselina - Biološki uzorak: moči - Doba odběru: konec směny na konci |
| Regulatory reference | Vyhláška č. 107/2013 Sb. (kterou se mění vyhláška č. 432/2003 Sb.) |
| Denmark - Occupational Exposure Limits | |
| Local name | Butylglycol (2-Butoxyethanol; Butylcellosolve; Ethylenglykolmonobutylether) |
| OEL TWA | 98 mg/m ³ |
| | 20 ppm |
| Remark | E (betyder, at stoffet har en EF-grænseværdi); H (betyder, at stoffet kan optages gennem huden) |
| Regulatory reference | BEK nr 1426 af 28. juni 2021 |
| Estonia - Occupational Exposure Limits | |
| Local name | 2-butoksüetanool (o-butüületüleenglükool, etüleenglükoolmono-butüüleeter, butüülsellosolv) |
| OEL TWA | 98 mg/m ³ |
| | 20 ppm |
| OEL STEL | 246 mg/m ³ |
| | 50 ppm |
| Remark | A (Naha kaudu kergesti imenduv aine), S (Sensibiliseeriv aine) |
| Regulatory reference | Vabariigi Valitsuse 20. märtsi 2001. a määruse nr 105 (RT I, 17.10.2019, 2); Vabariigi Valitsuse 10. märtsi 2019. a määruse nr 84 |
| Finland - Occupational Exposure Limits | |
| Local name | 2-Butoksietanoli |
| HTP (OEL TWA) | 98 mg/m ³ |
| | 20 ppm |
| HTP (OEL STEL) | 250 mg/m ³ |
| | 50 ppm |
| Remark | Iho |
| Regulatory reference | HTP-ARVOT 2020 (Sosiaali- ja terveysministeriö) |
| France - Occupational Exposure Limits | |
| Local name | 2-Butoxyéthanol (Butylglycol) |
| VME (OEL TWA) | 49 mg/m ³ |

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| 2-BUTOXYETHANOL (111-76-2) | |
|--|---|
| | 10 ppm |
| VLE (OEL C/STEL) | 246 mg/m ³ |
| | 50 ppm |
| Remark | Valeurs réglementaires contraignantes; risque de pénétration percutanée |
| Regulatory reference | Article R4412-149 du Code du travail (réf.: INRS ED 984, 2016; Décret n° 2019-1487; Décret n° 2020-1546; Décret n°2021-434) |
| Germany - Occupational Exposure Limits (TRGS 900) | |
| AGW (OEL TWA) | 49 mg/m ³ |
| | 10 ppm |
| Peak exposure limitation factor | 2(l) |
| Remark | EU - Europäische Union (Von der EU wurde ein Luftgrenzwert festgelegt: Abweichungen bei Wert und Spitzenbegrenzung sind möglich); DFG - Senatskommission zur Prüfung gesundheitsschädlicher Arbeitsstoffe der DFG (MAK-Kommission); H - hautresorptiv; Y - Ein Risiko der Fruchtschädigung braucht bei Einhaltung des Arbeitsplatzgrenzwertes und des biologischen Grenzwertes (BGW) nicht befürchtet zu werden |
| Regulatory reference | TRGS900 |
| Germany - Biological limit values (TRGS 903) | |
| Local name | 2-Butoxyethanol |
| Biological limit value | 150 mg/g creatinine Parameter: Butoxyessigsäure (nach Hydrolyse) - Untersuchungsmaterial: U = Urin - Probenahmezeitpunkt: b) Expositionsende, bzw. Schichtende, c) bei Langzeitexposition: am Schichtende nach mehreren vorangegangenen Schichten - Festlegung/Begründung: 11/2016 DFG |
| Regulatory reference | TRGS 903 |
| Gibraltar - Occupational Exposure Limits | |
| Local name | 2-Butoxyethanol |
| OEL TWA | 98 mg/m ³ |
| | 20 ppm |
| OEL STEL | 246 mg/m ³ |
| | 50 ppm |
| Remark | Skin |
| Regulatory reference | Factories (Control of Chemical Agents at Work) Regulations 2003 (LN. 2018/181) |
| Greece - Occupational Exposure Limits | |
| Local name | Βουτοξυ-αιθανόλη, 2- |
| OEL TWA | 120 mg/m ³ |
| | 25 ppm |
| Remark | Η ένδειξη «δέρμα» στις οριακές τιμές επαγγελματικής έκθεσης επισημαίνει το ενδεχόμενο σημαντικής διείσδυσης μέσω του δέρματος. |
| Regulatory reference | Π.Δ. 90/1999 - Προστασία της υγείας των εργαζομένων που εκτίθενται σε ορισμένους χημικούς παράγοντες κατά τη διάρκεια της εργασίας τους |
| Hungary - Occupational Exposure Limits | |
| Local name | 2-BUTOXIETANOL |
| AK (OEL TWA) | 98 mg/m ³ |

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| 2-BUTOXYETHANOL (111-76-2) | |
|---|---|
| CK (OEL STEL) | 246 mg/m ³ |
| Remark | b (Bőrön át is felszívódik), i (ingerlő anyag, amely irritálja a bőrt, nyálkahártyát, szemet vagy mindhármát); EU1 (2000/39/EK irányelvben közölt érték); T (Azok az anyagok, amelyek egészségkárosító hatása TARTÓS expozíciót követően jelentkezik) |
| Regulatory reference | 5/2020. (II. 6.) ITM rendelet - A kémiai kóroki tényezők hatásának kitett munkavállalók egészségének és biztonságának védelméről |
| Ireland - Occupational Exposure Limits | |
| Local name | 2-Butoxyethanol (EGBE) [Ethylene glycol monobutyl ether] |
| OEL TWA | 98 mg/m ³ 20 ppm |
| OEL STEL | 246 mg/m ³ 50 ppm |
| Remark | Sk (Substances which have the capacity to penetrate intact skin when they come in contact with it, and be absorbed into the body), IOELV (Indicative Occupational Exposure Limit Values) |
| Regulatory reference | Chemical Agents Code of Practice 2021 |
| Ireland - Biological limit values | |
| Local name | 2-Butoxyethanol |
| BMGV | 200 mg/g creatinine Parameter: BAA - Medium: urine - Sampling time: End of shift |
| Regulatory reference | Biological Monitoring Guidelines (HSA, 2011) |
| Italy - Occupational Exposure Limits | |
| Local name | Butossietanolo-2 |
| OEL TWA | 98 mg/m ³ 20 ppm |
| OEL STEL | 246 mg/m ³ 50 ppm |
| Remark | Cute |
| Regulatory reference | Allegato XXXVIII del D.Lgs. 9 aprile 2008, n. 81 e s.m.i. |
| Latvia - Occupational Exposure Limits | |
| Local name | 2-Butoksietanols, (etilēnglikola monobutilēteris, Butilcelosolvs) |
| OEL TWA | 98 mg/m ³ 20 ppm |
| OEL STEL | 246 mg/m ³ 50 ppm |
| Remark | Āda |
| Regulatory reference | Ministru kabineta 2007. gada 15. maija noteikumiem Nr. 325 |
| Lithuania - Occupational Exposure Limits | |
| Local name | Etilenglikolio monobutilēteris (butilglikolis, 2-butoksietanolis) |
| IPRV (OEL TWA) | 50 mg/m ³ 10 ppm |
| TPRV (OEL STEL) | 100 mg/m ³ |

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| 2-BUTOXYETHANOL (111-76-2) | |
|---|---|
| | 20 ppm |
| Remark | O (medžiaga į organizmą gali prasiskverbti pro nepažeistą odą) |
| Regulatory reference | LIETUVOS HIGIENOS NORMA HN 23:2011 (Nr. V-695/A1-272, 2018-06-12) |
| Luxembourg - Occupational Exposure Limits | |
| Local name | 2-Butoxyéthanol |
| OEL TWA | 98 mg/m ³ 20 ppm |
| OEL STEL | 246 mg/m ³ 50 ppm |
| Remark | Peau |
| Regulatory reference | Mémorial A N° 226 de 2021 concernant la protection de la sécurité et de la santé des salariés contre les risques liés à des agents chimiques sur le lieu de travail |
| Malta - Occupational Exposure Limits | |
| Local name | 2-Butoxyethanol |
| OEL TWA | 98 mg/m ³ 20 ppm |
| OEL STEL | 246 mg/m ³ 50 ppm |
| Remark | Skin # Ġilda |
| Regulatory reference | S.L.424.24 - Chemical Agents at Work Regulations (L.N.57 of 2018) |
| Netherlands - Occupational Exposure Limits | |
| Local name | 2-Butoxyethanol |
| TGG-8u (OEL TWA) | 100 mg/m ³ |
| TGG-15min (OEL STEL) | 246 mg/m ³ |
| Remark | H (Huidopname) Stoffen die relatief gemakkelijk door de huid kunnen worden opgenomen, hetgeen een substantiële bijdrage kan betekenen aan de totale inwendige blootstelling, hebben in de lijst een H-aanduiding. Bij deze stoffen moeten naast maatregelen tegen inademing ook adequate maatregelen ter voorkoming van huidcontact worden genomen. |
| Regulatory reference | Arbeidsomstandighedenregeling 2021 |
| Poland - Occupational Exposure Limits | |
| Local name | 2-Butoksyetanol (butoksyetylowy alkohol) |
| NDS (OEL TWA) | 98 mg/m ³ |
| NDSch (OEL STEL) | 200 mg/m ³ |
| Remark | Skóra (Oznakowanie substancji notacją „skóra” oznacza, że wchłanianie substancji przez skórę może być tak samo istotne jak przy narażeniu drogą oddechową). |
| Regulatory reference | Dz. U. 2018 poz. 1286 |
| Portugal - Occupational Exposure Limits | |
| Local name | 2-Butoxietanol (EGBE) |
| OEL TWA | 20 ppm |
| Remark | A3 (Agente carcinogénico confirmado nos animais de laboratório con relevância desconhecida no Homem); IBE (Índice biológico de exposição) |

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| 2-BUTOXYETHANOL (111-76-2) | |
|--|---|
| Regulatory reference | Norma Portuguesa NP 1796:2014 |
| Portugal - Biological Exposure Indices | |
| Local name | 2-Butoxietanol (EGBE) |
| BEI | 200 mg/g creatinine Parâmetro: Ácido butoxiacético (BAA) - Meio: urina - Momento da amostragem: Fim do turno - Notação: Com hidrólise |
| Regulatory reference | Norma Portuguesa NP 1796:2014 |
| Romania - Occupational Exposure Limits | |
| Local name | 2-Butoxietanol/Etilenglicol monobutileter |
| OEL TWA | 98 mg/m ³ |
| | 20 ppm |
| OEL STEL | 246 mg/m ³ |
| | 50 ppm |
| Remark | P - posibilitatea unei penetrări cutanate importante |
| Regulatory reference | Hotărârea Guvernului nr. 1.218/2006 (Hotărârea nr. 53/2021) |
| Serbia - Occupational Exposure Limits | |
| Local name | 2-бutoксиетанол |
| OEL TWA | 98 mg/m ³ |
| | 20 ppm |
| OEL STEL | 246 mg/m ³ |
| | 50 ppm |
| Remark | EU* – напомена да се ради о хемијским материјама за које су утврђене индикативне граничне вредности изложености према Директиви 2000/39/ЕЗ (прва листа) |
| Regulatory reference | ПРАВИЛНИК о превентивним мерама за безбедан и здрав рад при излагању хемијским материјама („Службени гласник РС”, бр. 106/09 и 117/17) |
| Slovakia - Occupational Exposure Limits | |
| Local name | 2-Butoxyetanol (butylglykol) |
| NPHV (OEL TWA) | 98 mg/m ³ |
| | 20 ppm |
| NPHV (OEL STEL) | 246 mg/m ³ |
| | 50 ppm |
| Remark | K - znamená, že faktor môže byť ľahko absorbovaný kožou |
| Regulatory reference | Nariadenie vlády č. 355/2006 Z. z. (236/2020 Z. z.) |
| Slovenia - Occupational Exposure Limits | |
| Local name | 2-butoksietanol (butilglikol) |
| OEL TWA | 98 mg/m ³ |
| | 20 ppm |
| OEL STEL | 246 mg/m ³ |
| | 50 ppm |
| Remark | K (Lastnost lažjega prehajanja snovi v organizem skozi kožo), Y (Snovi, pri katerih ni nevarnosti za zarodek ob upoštevanju mejnih vrednosti in bat vrednosti), BAT (Biološka mejna vrednost), EU |

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| 2-BUTOXYETHANOL (111-76-2) | |
|--|---|
| Regulatory reference | Uradni list RS, št. 72/2021 z dne 11.5.2021 |
| Slovenia - Biological limit values | |
| Local name | 2-butoksietanol |
| BLV | 150 mg/g creatinine Parameter: butoksiocetna kislina (po hidrolizi) - Biološki vzorec: urin - Čas vzorčenja: ob koncu delovne izmene, pri dolgotrajni izpostavljenosti: ob koncu delovne izmene po več zaporednih delavnikih |
| Regulatory reference | Uradni list RS, št. 72/2021 z dne 11.5.2021 |
| Spain - Occupational Exposure Limits | |
| Local name | 2-Butoxietanol (Butil cellosolve; Éter monobutílico del etilenglicol) |
| VLA-ED (OEL TWA) | 98 mg/m ³ 20 ppm |
| VLA-EC (OEL STEL) | 245 mg/m ³ 50 ppm |
| Remark | Vía dérmica (Indica que, en las exposiciones a esta sustancia, la aportación por la vía cutánea puede resultar significativa para el contenido corporal total si no se adoptan medidas para prevenir la absorción. En estas situaciones, es aconsejable la utilización del control biológico para poder cuantificar la cantidad global absorbida del contaminante), VLI (Agente químico para el que la U.E. estableció en su día un valor límite indicativo), VLB® (Agente químico que tiene Valor Límite Biológico). |
| Regulatory reference | Límites de Exposición Profesional para Agentes Químicos en España 2021. INSHT |
| Spain - Biological limit values | |
| Local name | 2-Butoxietanol (Butil cellosolve; Éter monobutílico del etilenglicol) |
| BLV | 200 mg/g creatinine Parámetro: Ácido butoxiacético - Medio: Orina - Momento de muestreo: Final de la jornada laboral - Notas: Con hidrólisis |
| Regulatory reference | Límites de Exposición Profesional para Agentes Químicos en España 2021. INSHT |
| Sweden - Occupational Exposure Limits | |
| Local name | Etylenglykolmonobutyleter (2-Butoxietanol) |
| NGV (OEL TWA) | 50 mg/m ³ 10 ppm |
| KTV (OEL STEL) | 246 mg/m ³ 50 ppm |
| Remark | H (Ämnet kan lätt upptas genom huden. Det föreskrivna gränsvärdet bedöms ge tillräckligt skydd endast under förutsättning att huden är skyddad mot exponering för ämnet ifråga) |
| Regulatory reference | Hygieniska gränsvärden (AFS 2018:1) |
| United Kingdom - Occupational Exposure Limits | |
| Local name | 2-Butoxyethanol |
| WEL TWA (OEL TWA) | 123 mg/m ³ 25 ppm |
| WEL STEL (OEL STEL) | 246 mg/m ³ 50 ppm |
| Remark | Sk (Can be absorbed through the skin. The assigned substances are those for which there are concerns that dermal absorption will lead to systemic toxicity) |

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| 2-BUTOXYETHANOL (111-76-2) | |
|---|---|
| Regulatory reference | EH40/2005 (Fourth edition, 2020). HSE |
| United Kingdom - Biological limit values | |
| Local name | 2-Butoxyethanol |
| BMGV | 240 mmol/mol Creatinine Parameter: butoxyacetic acid - Medium: urine - Sampling time: Post shift |
| Regulatory reference | EH40/2005 (Fourth edition, 2020). HSE |
| Iceland - Occupational Exposure Limits | |
| Local name | 2-Bútoxýetanól (bútylglykól, bútylsellósov, etýlenglykólmonóbútyleter, glykólmonóbútyleter) |
| OEL TWA | 100 mg/m ³ 20 ppm |
| OEL STEL | 246 mg/m ³ 50 ppm |
| Remark | H (efnið getur auðveldlega borist inn í líkamann gegnum húð) |
| Regulatory reference | Reglugerð um mengunarmörk og aðgerðir til að draga úr mengun á vinnustöðum (Nr. 390/2009) |
| Norway - Occupational Exposure Limits | |
| Local name | 2-butoksyetanol (Butylglykol; Etylenglykolmonobutyleter) |
| Grenseverdi (OEL TWA) | 50 mg/m ³ 10 ppm |
| Remark | H: Kjemikalier som kan tas opp gjennom huden; E: EU har en veiledende grenseverdi og/eller anmerkning for stoffet. |
| Regulatory reference | FOR-2021-06-28-2248 |
| North Macedonia - Occupational Exposure Limits | |
| Local name | 2-бутоксиетанол (бутилгликол) |
| OEL TWA | 98 mg/m ³ 20 ppm |
| KTV | 2.5 |
| Short time value [mg/m ³] | 245 mg/m ³ |
| Short time value [ppm] | 50 ppm |
| Remark | (KTV) краткотрајна вредност (КТВ) значи концентрација на опасни хемиски супстанции во воздухот на работното место внатре во зона на дишење, на која работникот без опасност по здравјето може да е изложен на покусо време. Изложеноста на краткотрајни вредности може да трае највеќе 15 минути и не смее да се повтори повеќе од четирипати во работната смена, при што меѓу две изложености на оваа концентрација мора да измине најмалку 60 минути. Краткотрајната вредност е изразена во mg/m ³ или во ml/m ³ (ppm) а е дадена како многукратни дозволени пречекорувања на граничната вредност; (K) својство на полесно пренесување на супстанците во организмот преку кожата; (EU) European Union – гранична вредност, определена на ниво на Европската унија |
| Regulatory reference | Правилник за минималните барања за безбедност и здравје при работа на вработени од ризици поврзани со изложување на хемиски супстанции („Службен весник на Република Македонија“ бр.46/10) |

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| 2-BUTOXYETHANOL (111-76-2) | |
|---|---|
| Switzerland - Occupational Exposure Limits | |
| Local name | 2-Butoxyéthanol / 2-Butoxyethanol [Butylglykol, Ethylenglykolmonobutylether] |
| MAK (OEL TWA) | 49 mg/m ³ |
| | 10 ppm |
| KZGW (OEL STEL) | 98 mg/m ³ |
| | 20 ppm |
| Critical toxicity | VRS, Yeux / OAW, Auge |
| Notation | R, SS _C , B / H, SS _C , B |
| Remark | INRS, HSE, NIOSH |
| Regulatory reference | www.suva.ch, 01.01.2021 |
| Switzerland - BAT | |
| Local name | 2-Butoxyéthanol / 2-Butoxyethanol |
| BAT | 150 mg/g creatinine (Paramètre biologique: Acide 2-butoxyacétique (après hydrolyse); Substrat d'examen: Urine; Moment du prélèvement: Fin de l'exposition, de la période de travail. Exposition de longue durée: après plusieurs périodes de travail.) / (Biologischer Parameter: 2-Butoxyessigsäure (nach Hydrolyse); Untersuchungsmaterial: Urin; Probenahmezeitpunkt: Expositionsende, bzw. Schichtende. Bei Langzeitexposition: nach mehreren vorangegangenen Schichten.) |
| Regulatory reference | Ordonnance 832.30 (OPA), article 50 al. 3, www.suva.ch/valeurs-limites / Verordnung 832.30 (VUV), Art. 50 Abs. 3, www.suva.ch/grenzwerte |

8.1.2. Recommended monitoring procedures

No additional information available

8.1.3. Air contaminants formed

No additional information available

8.1.4. DNEL and PNEC

No additional information available

8.1.5. Control banding

No additional information available

8.2. Exposure controls

8.2.1. Appropriate engineering controls

Appropriate engineering controls:

Ensure good ventilation of the work station.

8.2.2. Personal protection equipment

Personal protective equipment symbol(s):



8.2.2.1. Eye and face protection

Eye protection:

Safety glasses

8.2.2.2. Skin protection

Skin and body protection:

Wear suitable protective clothing

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Hand protection:

Protective gloves

8.2.2.3. Respiratory protection

Respiratory protection:

In case of insufficient ventilation, wear suitable respiratory equipment

8.2.2.4. Thermal hazards

No additional information available

8.2.3. Environmental exposure controls

Environmental exposure controls:

Avoid release to the environment.

SECTION 9: Physical and chemical properties

9.1. Information on basic physical and chemical properties

| | |
|---|--------------------|
| Physical state | : Liquid |
| Colour | : Various colours. |
| Odour | : Pleasant. |
| Odour threshold | : Not available |
| Melting point | : Not applicable |
| Freezing point | : Not available |
| Boiling point | : Not available |
| Flammability | : Non flammable. |
| Lower explosion limit | : Not available |
| Upper explosion limit | : Not available |
| Flash point | : > 93 °C |
| Auto-ignition temperature | : Not available |
| Decomposition temperature | : Not available |
| pH | : 12.5 – 13.5 |
| Viscosity, kinematic | : Not available |
| Solubility | : Not available |
| Partition coefficient n-octanol/water (Log Kow) | : Not available |
| Vapour pressure | : Not available |
| Vapour pressure at 50 °C | : Not available |
| Density | : Not available |
| Relative density | : Not available |
| Relative vapour density at 20 °C | : Not available |
| Particle characteristics | : Not applicable |

9.2. Other information

9.2.1. Information with regard to physical hazard classes

No additional information available

9.2.2. Other safety characteristics

No additional information available

SECTION 10: Stability and reactivity

10.1. Reactivity

The product is non-reactive under normal conditions of use, storage and transport.

10.2. Chemical stability

Stable under normal conditions.

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10.3. Possibility of hazardous reactions

No dangerous reactions known under normal conditions of use.

10.4. Conditions to avoid

None under recommended storage and handling conditions (see section 7).

10.5. Incompatible materials

No additional information available

10.6. Hazardous decomposition products

Under normal conditions of storage and use, hazardous decomposition products should not be produced.

SECTION 11: Toxicological information

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

Acute toxicity (oral) : Not classified
Acute toxicity (dermal) : Not classified
Acute toxicity (inhalation) : Not classified

1-propanaminium, 3-amino-N-(carboxymethyl)-N,N-dimethyl-, N-C8-18 (even numbered) acyl derivs., hydroxides, inner salts (147170-44-3)

| | |
|--------------------|--|
| LD50 oral rat | > 2000 mg/kg bodyweight Animal: rat, Guideline: OECD Guideline 401 (Acute Oral Toxicity), Guideline: EU Method B.1 (Acute Toxicity (Oral)) |
| LD50 dermal rat | 2000 mg/kg |
| LD50 dermal rabbit | > 2000 mg/kg bodyweight Animal: rabbit, Guideline: other:Modification of the techniques described in Appraisal of the Safety of Chemicals in Foods, Drugs & Cosmetics, compiled by staff of the Division of Pharmacology, Food and Drug Administration |

2-BUTOXYETHANOL (111-76-2)

| | |
|-----------------|---|
| LD50 oral rat | 1746 mg/kg bodyweight Animal: rat, Animal sex: male, Guideline: OECD Guideline 401 (Acute Oral Toxicity), 95% CL: 1322 - 2301 |
| LD50 oral | 1414 mg/kg bodyweight Animal: guinea pig, Guideline: OECD Guideline 401 (Acute Oral Toxicity), 95% CL: 1020 - 1961 |
| LD50 dermal rat | > 2000 mg/kg bodyweight Animal: rat, Guideline: OECD Guideline 402 (Acute Dermal Toxicity) |

Skin corrosion/irritation : Causes severe skin burns.
pH: 12.5 – 13.5
Serious eye damage/irritation : Causes serious eye damage.
pH: 12.5 – 13.5
Respiratory or skin sensitisation : Not classified
Germ cell mutagenicity : Not classified
Carcinogenicity : Not classified
Reproductive toxicity : Not classified
STOT-single exposure : Not classified
STOT-repeated exposure : Not classified

1-propanaminium, 3-amino-N-(carboxymethyl)-N,N-dimethyl-, N-C8-18 (even numbered) acyl derivs., hydroxides, inner salts (147170-44-3)

| | |
|-------------------------------------|---|
| LOAEL (dermal, rat/rabbit, 90 days) | 50 mg/kg bodyweight Animal: rat |
| NOAEL (oral, rat, 90 days) | > 750 mg/kg bodyweight Animal: rat, Guideline: OECD Guideline 407 (Repeated Dose 28-Day Oral Toxicity in Rodents) |

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2-BUTOXYETHANOL (111-76-2)

| | |
|-------------------------------------|---|
| NOAEL (dermal, rat/rabbit, 90 days) | > 150 mg/kg bodyweight Animal: rabbit, Guideline: OECD Guideline 411 (Subchronic Dermal Toxicity: 90-Day Study), Remarks on results: other: |
|-------------------------------------|---|

Aspiration hazard : Not classified

1-propanaminium, 3-amino-N-(carboxymethyl)-N,N-dimethyl-, N-C8-18 (even numbered) acyl derivs., hydroxides, inner salts (147170-44-3)

| | |
|----------------------|---------------------------|
| Viscosity, kinematic | ≈ 1180 mm ² /s |
|----------------------|---------------------------|

11.2. Information on other hazards

No additional information available

SECTION 12: Ecological information

12.1. Toxicity

| | |
|---|--|
| Ecology - general | : Harmful to aquatic life with long lasting effects. |
| Hazardous to the aquatic environment, short-term (acute) | : Not classified |
| Hazardous to the aquatic environment, long-term (chronic) | : Harmful to aquatic life with long lasting effects. |

1-propanaminium, 3-amino-N-(carboxymethyl)-N,N-dimethyl-, N-C8-18 (even numbered) acyl derivs., hydroxides, inner salts (147170-44-3)

| | |
|------------------------|---|
| LC50 - Fish [1] | 1.11 mg/l Test organisms (species): Pimephales promelas |
| EC50 - Crustacea [1] | 6.5 mg/l Test organisms (species): Daphnia magna |
| EC50 96h - Algae [1] | ≈ 8 mg/l Test organisms (species): Pseudokirchneriella subcapitata (previous names: Raphidocelis subcapitata, Selenastrum capricornutum) |
| EC50 96h - Algae [2] | > 10 mg/l Test organisms (species): Pseudokirchneriella subcapitata (previous names: Raphidocelis subcapitata, Selenastrum capricornutum) |
| ErC50 algae | 2.4 mg/l |
| LOEC (chronic) | 0.24 mg/l Test organisms (species): Daphnia magna Duration: '21 d' |
| NOEC chronic fish | 0.135 mg/l 37 Days - Oncorhynchus mykiss (rainbow trout) |
| NOEC chronic crustacea | 0.3 mg/l 21 d - Daphnia magna (Water flea) |

SODIUM HYDROXIDE (1310-73-2)

| | |
|----------------------|--|
| EC50 - Crustacea [1] | 40.4 mg/l Test organisms (species): Ceriodaphnia sp. |
|----------------------|--|

2-BUTOXYETHANOL (111-76-2)

| | |
|----------------------|---|
| LC50 - Fish [1] | 1474 mg/l Test organisms (species): Oncorhynchus mykiss (previous name: Salmo gairdneri) |
| EC50 - Crustacea [1] | ≈ 1800 mg/l Test organisms (species): Daphnia magna |
| EC50 72h - Algae [1] | 911 mg/l Test organisms (species): Pseudokirchneriella subcapitata (previous names: Raphidocelis subcapitata, Selenastrum capricornutum) |
| EC50 72h - Algae [2] | 1840 mg/l Test organisms (species): Pseudokirchneriella subcapitata (previous names: Raphidocelis subcapitata, Selenastrum capricornutum) |
| NOEC (chronic) | 100 mg/l Test organisms (species): Daphnia magna Duration: '21 d' |
| NOEC chronic fish | ≥ 100 mg/l Test organisms (species): Oryzias latipes Duration: '14 d' |

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12.2. Persistence and degradability

Snowfoam

| | |
|-------------------------------|------------------------|
| Persistence and degradability | Not rapidly degradable |
|-------------------------------|------------------------|

1-propanaminium, 3-amino-N-(carboxymethyl)-N,N-dimethyl-, N-C8-18 (even numbered) acyl derivs., hydroxides, inner salts (147170-44-3)

| | |
|-------------------------------|--------------------------------|
| Persistence and degradability | 92.5 % biodegradation 28 DAYS. |
|-------------------------------|--------------------------------|

SODIUM HYDROXIDE (1310-73-2)

| | |
|-------------------------------|------------------------|
| Persistence and degradability | Not rapidly degradable |
|-------------------------------|------------------------|

2-BUTOXYETHANOL (111-76-2)

| | |
|-------------------------------|------------------------|
| Persistence and degradability | Not rapidly degradable |
|-------------------------------|------------------------|

12.3. Bioaccumulative potential

1-propanaminium, 3-amino-N-(carboxymethyl)-N,N-dimethyl-, N-C8-18 (even numbered) acyl derivs., hydroxides, inner salts (147170-44-3)

| | |
|---|------|
| Partition coefficient n-octanol/water (Log Pow) | 3.75 |
|---|------|

12.4. Mobility in soil

1-propanaminium, 3-amino-N-(carboxymethyl)-N,N-dimethyl-, N-C8-18 (even numbered) acyl derivs., hydroxides, inner salts (147170-44-3)

| | |
|-----------------|-----------|
| Surface tension | 27.7 mN/m |
|-----------------|-----------|

12.5. Results of PBT and vPvB assessment

Component

| | |
|--|---|
| Substance(s) not meeting the PBT criteria of REACH regulation, in accordance with Annex XIII | 1-propanaminium, 3-amino-N-(carboxymethyl)-N,N-dimethyl-, N-C8-18 (even numbered) acyl derivs., hydroxides, inner salts (147170-44-3) |
|--|---|

| | |
|---|---|
| Substance(s) not meeting the vPvB criteria of REACH regulation, in accordance with Annex XIII | 1-propanaminium, 3-amino-N-(carboxymethyl)-N,N-dimethyl-, N-C8-18 (even numbered) acyl derivs., hydroxides, inner salts (147170-44-3) |
|---|---|

12.6. Endocrine disrupting properties

No additional information available

12.7. Other adverse effects

No additional information available

SECTION 13: Disposal considerations

13.1. Waste treatment methods

Waste treatment methods : Dispose of contents/container in accordance with licensed collector's sorting instructions.

SECTION 14: Transport information






In accordance with ADR / IMDG / IATA / ADN / RID

| ADR | IMDG | IATA | ADN | RID |
|-------------------------------------|---------|---------|---------|---------|
| 14.1. UN number or ID number | | | | |
| UN 1824 | UN 1824 | UN 1824 | UN 1824 | UN 1824 |

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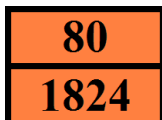
according to the REACH Regulation (EC) 1907/2006 amended by Regulation (EU) 2020/878

| ADR | IMDG | IATA | ADN | RID |
|---|---|---|---|---|
| 14.2. UN proper shipping name | | | | |
| SODIUM HYDROXIDE SOLUTION | SODIUM HYDROXIDE SOLUTION | Sodium hydroxide solution | SODIUM HYDROXIDE SOLUTION | SODIUM HYDROXIDE SOLUTION |
| Transport document description | | | | |
| UN 1824 SODIUM HYDROXIDE SOLUTION, 8, III, (E) | UN 1824 SODIUM HYDROXIDE SOLUTION, 8, III | UN 1824 Sodium hydroxide solution, 8, III | UN 1824 SODIUM HYDROXIDE SOLUTION, 8, III | UN 1824 SODIUM HYDROXIDE SOLUTION, 8, III |
| 14.3. Transport hazard class(es) | | | | |
| 8 | 8 | 8 | 8 | 8 |
|  |  |  |  |  |
| 14.4. Packing group | | | | |
| III | III | III | III | III |
| 14.5. Environmental hazards | | | | |
| Dangerous for the environment: No | Dangerous for the environment: No Marine pollutant: No | Dangerous for the environment: No | Dangerous for the environment: No | Dangerous for the environment: No |
| No supplementary information available | | | | |

14.6. Special precautions for user

Overland transport

| | |
|---|---------------------------|
| Classification code (ADR) | : C5 |
| Limited quantities (ADR) | : 5I |
| Excepted quantities (ADR) | : E1 |
| Packing instructions (ADR) | : P001, IBC03, LP01, R001 |
| Mixed packing provisions (ADR) | : MP19 |
| Portable tank and bulk container instructions (ADR) | : T4 |
| Portable tank and bulk container special provisions (ADR) | : TP1 |
| Tank code (ADR) | : L4BN |
| Tank special provisions (ADR) | : TU42 |
| Vehicle for tank carriage | : AT |
| Transport category (ADR) | : 3 |
| Special provisions for carriage - Packages (ADR) | : V12 |
| Hazard identification number (Kemler No.) | : 80 |
| Orange plates | : |



| | |
|-------------------------------|------|
| Tunnel restriction code (ADR) | : E |
| EAC code | : 2R |

Transport by sea

| | |
|---------------------------------|--------------|
| Special provisions (IMDG) | : 223 |
| Limited quantities (IMDG) | : 5 L |
| Excepted quantities (IMDG) | : E1 |
| Packing instructions (IMDG) | : P001, LP01 |
| IBC packing instructions (IMDG) | : IBC03 |
| Tank instructions (IMDG) | : T4 |
| Tank special provisions (IMDG) | : TP1 |
| EmS-No. (Fire) | : F-A |

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| | |
|------------------------------------|---|
| EmS-No. (Spillage) | : S-B |
| Stowage category (IMDG) | : A |
| Segregation (IMDG) | : SGG18, SG35 |
| Properties and observations (IMDG) | : Colourless liquid. Colourless liquid. Reacts with ammonium salts, evolving ammonia gas. Causes burns to skin, eyes and mucous membranes. Reacts violently with acids. |

Air transport

| | |
|--|------------|
| PCA Excepted quantities (IATA) | : E1 |
| PCA Limited quantities (IATA) | : Y841 |
| PCA limited quantity max net quantity (IATA) | : 1L |
| PCA packing instructions (IATA) | : 852 |
| PCA max net quantity (IATA) | : 5L |
| CAO packing instructions (IATA) | : 856 |
| CAO max net quantity (IATA) | : 60L |
| Special provisions (IATA) | : A3, A803 |
| ERG code (IATA) | : 8L |

Inland waterway transport

| | |
|-----------------------------------|----------|
| Classification code (ADN) | : C5 |
| Limited quantities (ADN) | : 5 L |
| Excepted quantities (ADN) | : E1 |
| Carriage permitted (ADN) | : T |
| Equipment required (ADN) | : PP, EP |
| Number of blue cones/lights (ADN) | : 0 |

Rail transport

| | |
|---|---------------------------|
| Classification code (RID) | : C5 |
| Limited quantities (RID) | : 5L |
| Excepted quantities (RID) | : E1 |
| Packing instructions (RID) | : P001, IBC03, LP01, R001 |
| Mixed packing provisions (RID) | : MP19 |
| Portable tank and bulk container instructions (RID) | : T4 |
| Portable tank and bulk container special provisions (RID) | : TP1 |
| Tank codes for RID tanks (RID) | : L4BN |
| Special provisions for RID tanks (RID) | : TU42 |
| Transport category (RID) | : 3 |
| Special provisions for carriage – Packages (RID) | : W12 |
| Colis express (express parcels) (RID) | : CE8 |
| Hazard identification number (RID) | : 80 |

14.7. Maritime transport in bulk according to IMO instruments

Not applicable

SECTION 15: Regulatory information

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

15.1.1. EU-Regulations

REACH Annex XVII (Restriction List)

Contains no REACH substances with Annex XVII restrictions

REACH Annex XIV (Authorisation List)

Contains no REACH Annex XIV substances

REACH Candidate List (SVHC)

Contains no substance on the REACH candidate list

PIC Regulation (Prior Informed Consent)

Contains no substance subject to Regulation (EU) No 649/2012 of the European Parliament and of the Council of 4 July 2012 concerning the export and import of hazardous chemicals.

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POP Regulation (Persistent Organic Pollutants)

Contains no substance subject to Regulation (EU) No 2019/1021 of the European Parliament and of the Council of 20 June 2019 on persistent organic pollutants

Ozone Regulation (1005/2009)

Contains no substance subject to REGULATION (EU) No 1005/2009 OF THE EUROPEAN PARLIAMENT AND OF THE COUNCIL of 16 September 2009 on substances that deplete the ozone layer.

Dual-Use Regulation (428/2009)

Contains no substance subject to the COUNCIL REGULATION (EC) No 428/2009 of 5 May 2009 setting up a Community regime for the control of exports, transfer, brokering and transit of dual-use items.

Explosives Precursors Regulation (2019/1148)

Contains no substance subject to Regulation (EU) 2019/1148 of the European Parliament and of the Council of 20 June 2019 on the marketing and use of explosives precursors.

Drug Precursors Regulation (273/2004)

Contains no substance subject to Regulation (EC) 273/2004 of the European Parliament and of the Council of 11 February 2004 on the manufacture and the placing on market of certain substances used in the illicit manufacture of narcotic drugs and psychotropic substances.

15.1.2. National regulations

France

| Occupational diseases | |
|-----------------------|---|
| Code | Description |
| RG 84 | Conditions caused by liquid organic solvents for professional use: saturated or unsaturated aliphatic or cyclic liquid hydrocarbons and mixtures thereof; liquid halogenated hydrocarbons; nitrated derivatives of aliphatic hydrocarbons; alcohols; glycols, glycol ethers; ketones; aldehydes; aliphatic and cyclic ethers, including tetrahydrofuran; esters; dimethylformamide and dimethylacetamine; acetonitrile and propionitrile; pyridine; dimethylsulfone and dimethylsulfoxide |

Germany

| | |
|--|---|
| Employment restrictions | : Observe restrictions according Act on the Protection of Working Mothers (MuSchG). Observe restrictions according Act on the Protection of Young People in Employment (JArbSchG). |
| Water hazard class (WGK) | : WGK 3, Highly hazardous to water (Classification according to AwSV, Annex 1). |
| Hazardous Incident Ordinance (12. BImSchV) | : Is not subject of the Hazardous Incident Ordinance (12. BImSchV) |

Netherlands

| | |
|--|-------------------------------------|
| SZW-lijst van kankerverwekkende stoffen | : None of the components are listed |
| SZW-lijst van mutagene stoffen | : None of the components are listed |
| SZW-lijst van reprotoxische stoffen – Borstvoeding | : None of the components are listed |
| SZW-lijst van reprotoxische stoffen – Vruchtbaarheid | : None of the components are listed |
| SZW-lijst van reprotoxische stoffen – Ontwikkeling | : None of the components are listed |

Denmark

| | |
|-----------------------------|---|
| Classification remarks | : Emergency management guidelines for the storage of flammable liquids must be followed |
| Danish National Regulations | : Young people below the age of 18 years are not allowed to use the product Pregnant/breastfeeding women working with the product must not be in direct contact with the product |

15.2. Chemical safety assessment

No chemical safety assessment has been carried out

SECTION 16: Other information

Abbreviations and acronyms:

| | |
|-----|---|
| ADN | European Agreement concerning the International Carriage of Dangerous Goods by Inland Waterways |
|-----|---|

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Abbreviations and acronyms:

| | |
|---------|---|
| ADR | European Agreement concerning the International Carriage of Dangerous Goods by Road |
| ATE | Acute Toxicity Estimate |
| BCF | Bioconcentration factor |
| BLV | Biological limit value |
| BOD | Biochemical oxygen demand (BOD) |
| COD | Chemical oxygen demand (COD) |
| DMEL | Derived Minimal Effect level |
| DNEL | Derived-No Effect Level |
| EC-No. | European Community number |
| EC50 | Median effective concentration |
| EN | European Standard |
| IARC | International Agency for Research on Cancer |
| IATA | International Air Transport Association |
| IMDG | International Maritime Dangerous Goods |
| LC50 | Median lethal concentration |
| LD50 | Median lethal dose |
| LOAEL | Lowest Observed Adverse Effect Level |
| NOAEC | No-Observed Adverse Effect Concentration |
| NOAEL | No-Observed Adverse Effect Level |
| NOEC | No-Observed Effect Concentration |
| OECD | Organisation for Economic Co-operation and Development |
| OEL | Occupational Exposure Limit |
| PBT | Persistent Bioaccumulative Toxic |
| PNEC | Predicted No-Effect Concentration |
| RID | Regulations concerning the International Carriage of Dangerous Goods by Rail |
| SDS | Safety Data Sheet |
| STP | Sewage treatment plant |
| ThOD | Theoretical oxygen demand (ThOD) |
| TLM | Median Tolerance Limit |
| VOC | Volatile Organic Compounds |
| CAS-No. | Chemical Abstract Service number |
| N.O.S. | Not Otherwise Specified |
| vPvB | Very Persistent and Very Bioaccumulative |
| ED | Endocrine disrupting properties |

Full text of H- and EUH-statements:

| | |
|---------------------------|-------------------------------------|
| Acute Tox. 4 (Dermal) | Acute toxicity (dermal), Category 4 |
| Acute Tox. 4 (Inhalation) | Acute toxicity (inhal.), Category 4 |
| Acute Tox. 4 (Oral) | Acute toxicity (oral), Category 4 |

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| Full text of H- and EUH-statements: | |
|-------------------------------------|---|
| Aquatic Chronic 3 | Hazardous to the aquatic environment — Chronic Hazard, Category 3 |
| Eye Dam. 1 | Serious eye damage/eye irritation, Category 1 |
| Eye Irrit. 2 | Serious eye damage/eye irritation, Category 2 |
| 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. |
| H318 | Causes serious eye damage. |
| H319 | Causes serious eye irritation. |
| H332 | Harmful if inhaled. |
| H412 | Harmful to aquatic life with long lasting effects. |
| Met. Corr. 1 | Corrosive to metals, Category 1 |
| Skin Corr. 1A | Skin corrosion/irritation, Category 1, Sub-Category 1A |
| Skin Corr. 1B | Skin corrosion/irritation, Category 1, Sub-Category 1B |
| Skin Irrit. 2 | Skin corrosion/irritation, Category 2 |

Safety Data Sheet (SDS), EU

This information is based on our current knowledge and is intended to describe the product for the purposes of health, safety and environmental requirements only. It should not therefore be construed as guaranteeing any specific property of the product.