# KR3 Safety Floor Cleaner
# C408

Date of compilation: 22/06/2023 Revised: 21/05/2026 Version: 3 (Replaced 2)

## SECTION 1: IDENTIFICATION OF THE SUBSTANCE/MIXTURE AND OF THE COMPANY/UNDERTAKING

**1.1 Product identifier:** KR3 Safety Floor Cleaner
C408

**Other means of identification:**

SFC001/03

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

Relevant uses (Professional users): Multiuse cleaner

Uses advised against: All uses not specified in this section or in section 7.3

**1.3 Details of the supplier of the safety data sheet:**

Arrow Solutions
Rawdon Road, Moira,
DE12 6DA, Swadlincote - Derbyshire - United Kingdom
Phone: 01283 221044
sales@arrowchem.com
www.arrowchem.com

Represented By:
Authorised Rep Compliance Representing Reabrook Ltd
Ground Floor
Lower Baggot Street
Dublin
D02 P593
Ireland
www.authorisedrepcompliance.com

**1.4 Emergency telephone number:** For 24/7 multilingual advice for spill, leak, fire, exposure, or accident Call CHEMTREC at +44 20 3885 0382 / +44 20 3807 3798 and provide CCN 1018674; NPIS: 0344 892 0111 (healthcare professionals only) or NHS 111.

## SECTION 2: HAZARDS IDENTIFICATION

**2.1 Classification of the substance or mixture:**

**GB CLP Regulation (UK S.I. 2019/720 and UK S.I. 2020/1567):**

Classification of this product has been carried out in accordance with GB CLP Regulation (UK S.I. 2019/720 and UK S.I. 2020/1567).

Eye Dam. 1: Serious eye damage, Category 1, H318
Skin Irrit. 2: Skin irritation, Category 2, H315

**2.2 Label elements:**

**GB CLP Regulation (UK S.I. 2019/720 and UK S.I. 2020/1567):**

**Danger**



**Hazard statements:**

Eye Dam. 1: H318 - Causes serious eye damage.
Skin Irrit. 2: H315 - Causes skin irritation.

**Precautionary statements:**

P280: Wear protective gloves/eye protection.
P302+P352: IF ON SKIN: Wash with plenty of soap and water.
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.
P332+P313: If skin irritation occurs: Get medical advice/attention.
P501: Dispose of the contents/containers in accordance with the current legislation on waste treatment

**Substances that contribute to the classification**

Alcohol ethoxylated (C9-C11) (6 EO) (CAS: 68439-46-3)

**2.3 Other hazards:**

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## SECTION 2: HAZARDS IDENTIFICATION (continued)

Product does not meet PBT/vPvB criteria
Endocrine-disrupting properties: The product does not meet the criteria.

## SECTION 3: COMPOSITION/INFORMATION ON INGREDIENTS

**3.1 Substance:**

Not available

**3.2 Mixture:**

**Chemical description:** Tensoactive/s

**Components:**

In accordance with Annex II of The REACH etc. (Amendment etc.) (EU Exit) Regulations 2020, the product contains:

| Identification | Chemical name/Classification | Concentration |
|---|---|---|
| CAS: 68439-46-3<br>EC: 614-482-0<br>REACH: Not available | **Alcohol ethoxylated (C9-C11) (6 EO)**<br>Acute Tox. 4: H302; Eye Dam. 1: H318 - Danger | **3 - <10%** |
| CAS: 141-43-5<br>EC: 205-483-3<br>REACH: 01-2119486455-28-XXXX | **2-aminoethanol**<br>Acute Tox. 4: H302+H312+H332; Aquatic Chronic 3: H412; Eye Dam. 1: H318; Skin Corr. 1B: H314; STOT SE 3: H335 - Danger | **1 - <3%** |
| CAS: 97862-59-4<br>EC: 931-296-8<br>REACH: 01-2119488533-30-XXXX | **1-Propanaminium, 3-amino-N-(carboxymethyl)-N,N-dimethyl-, N-C8-18(even numbered) acyl derivs., hydroxides, inner salts**<br>Aquatic Chronic 3: H412; Eye Dam. 1: H318 - Danger | **1 - <3%** |

To obtain more information on the hazards of the substances consult sections 11, 12 and 16.

Acute toxicity estimate for the substance in Part 3 of Annex VI to Regulation (EC) No 1272/2008 or as determined in accordance with Annex I to that Regulation:

| Identification | Acute toxicity | | Genus |
|---|---|---|---|
| 2-aminoethanol<br>CAS: 141-43-5<br>EC: 205-483-3 | LD50 oral | 1515 mg/kg | Rat |
| | LD50 dermal | 2504 mg/kg | Rabbit |
| | LC50 inhalation vapour | 11 mg/L | |
| Alcohol ethoxylated (C9-C11) (6 EO)<br>CAS: 68439-46-3<br>EC: 614-482-0 | LD50 oral | 500 mg/kg | |
| | LD50 dermal | Not available | |
| | LC50 inhalation vapour | Not available | |

## SECTION 4: FIRST AID MEASURES

**4.1 Description of first aid measures:**

The symptoms resulting from intoxication can appear after exposure, therefore, in case of doubt, seek medical attention for direct exposure to the chemical product or persistent discomfort, showing the SDS of this product.

**By inhalation:**

This product is not classified as hazardous through inhalation. However, in case of intoxication symptoms it is recommended to remove the person affected from the area of exposure, provide clean air and keep at rest. Request medical attention if symptoms persist.

**By skin contact:**

Remove contaminated clothing and footwear, rinse skin or shower the person affected if appropriate with plenty of cold water and neutral soap. In serious cases see a doctor. If the product causes burns or freezing, clothing should not be removed as this could worsen the injury caused if it is stuck to the skin. If blisters form on the skin, these should never be burst as this will increase the risk of infection.

**By eye contact:**

Rinse eyes thoroughly with lukewarm water for at least 15 minutes. Do not allow the person affected to rub or close their eyes. If the injured person uses contact lenses, these should be removed unless they are stuck to the eyes, in which case this could cause further damage. In all cases, after cleaning, a doctor should be consulted as quickly as possible with the SDS of the product.

**By ingestion/aspiration:**

Do not induce vomiting, but if it does happen keep the head down to avoid aspiration. Keep the person affected at rest. Rinse out the mouth and throat, as they may have been affected during ingestion.

**4.2 Most important symptoms and effects, both acute and delayed:**

Acute and delayed effects are indicated in sections 2 and 11.

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## SECTION 4: FIRST AID MEASURES (continued)

**4.3 Indication of any immediate medical attention and special treatment needed:**

Not relevant

## SECTION 5: FIREFIGHTING MEASURES

**5.1 Extinguishing media:**

**Suitable extinguishing media:**

Product is non-flammable under normal conditions of storage, handling and use. In the case of combustion as a result of improper handling, storage or use preferably use polyvalent powder extinguishers (ABC powder), in accordance with the Regulation on fire protection systems.

**Unsuitable extinguishing media:**

Non-applicable

**5.2 Special hazards arising from the substance or mixture:**

As a result of combustion or thermal decomposition reactive sub-products are created that can become highly toxic and, consequently, can present a serious health risk.

**5.3 Advice for firefighters:**

Depending on the magnitude of the fire it may be necessary to use full protective clothing and Self Contained Breathing Apparatus. Minimum emergency facilities and equipment should be available (fire blankets, portable first aid kit,...)

**Additional provisions:**

Act in accordance with the Internal Emergency Plan and the Information Sheets on actions to take after an accident or other emergencies. Eliminate all sources of ignition. In case of fire, cool the storage containers and tanks for products susceptible to combustion, explosion or BLEVE as a result of high temperatures. Avoid spillage of the products used to extinguish the fire into an aqueous medium.

## SECTION 6: ACCIDENTAL RELEASE MEASURES

**6.1 Personal precautions, protective equipment and emergency procedures:**

**For non-emergency personnel:**

Isolate leaks provided that there is no additional risk for the people performing this task. Personal protection equipment must be used against potential contact with the spilt product (See section 8). Evacuate the area and keep out those who do not have protection.

**For emergency responders:**

Wear protective equipment. Keep unprotected persons away. See section 8.

**6.2 Environmental precautions:**

It is recommended to avoid environmental spillage of both the product and its container.

**6.3 Methods and material for containment and cleaning up:**

It is recommended:

Prevent the entrance of product in drains, sewers or watercourses. Absorb the spill using sand or inert absorbent and move it to a safe place. Do not absorb in sawdust or other combustible absorbents. Collect the product in appropriate containers and manage it according to current legislation.
Spillages in water or sea:
Small spillages:
Contain spillage using barriers or similar equipment. Use suitable absorbents for collection and treat the waste in accordance with current regulations.
Large spillages:
If possible, contain spillage in open water using barriers or similar equipment. If this is not possible, try to control its spread and collect the product with suitable mechanical means. Always consult experts before using dispersants and make sure you have the necessary approvals if they are to be used. Treat the waste according to current regulations.

**6.4 Reference to other sections:**

See sections 8 and 13.

## SECTION 7: HANDLING AND STORAGE

**7.1 Precautions for safe handling:**

A.- General precautions for safe use

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## SECTION 7: HANDLING AND STORAGE (continued)

Comply with the current legislation concerning the prevention of industrial risks with regards manually handling weights. Maintain order, cleanliness and dispose of using safe methods (section 6).

B.- Technical recommendations for the prevention of fires and explosions

Product is non-flammable under normal conditions of storage, handling and use. It is recommended to transfer at slow speeds to avoid the generation of electrostatic charges that can affect flammable products. Consult section 10 for information on conditions and materials that should be avoided.

C.- Technical recommendations on general occupational hygiene

Do not eat or drink during the process, washing hands afterwards with suitable cleaning products.

D.- Technical recommendations to prevent environmental risks

It is recommended to have absorbent material available at close proximity to the product (See subsection 6.3)

**7.2 Conditions for safe storage, including any incompatibilities:**

A.- Specific storage requirements

Minimum Temp.: 4 ºC

Maximum Temp.: 40 ºC

B.- General conditions for storage

Avoid sources of heat, radiation, static electricity and contact with food. For additional information see subsection 10.5

**7.3 Specific end use(s):**

Except for the instructions already specified it is not necessary to provide any special recommendation regarding the uses of this product.

## SECTION 8: EXPOSURE CONTROLS/PERSONAL PROTECTION

**8.1 Control parameters:**

Substances whose occupational exposure limits have to be assessed in the workplace:

EH40/2005 Workplace exposure limits, fourth edition, published 2020:

| Identification | Occupational exposure limits | | |
|---|---|---|---|
| sodium hydroxide | WEL (8h) | | |
| CAS: 1310-73-2 | WEL (15 min) | | 2 mg/m³ |
| 2-aminoethanol [(1)] | WEL (8h) | 1 ppm | 2.5 mg/m³ |
| CAS: 141-43-5 | WEL (15 min) | 3 ppm | 7.6 mg/m³ |

[(1)] Skin

**DNEL (Workers):**

| Identification | | Short exposure | | Long exposure | |
|---|---|---|---|---|---|
| | | Systemic | Local | Systemic | Local |
| 2-aminoethanol | Oral | Not relevant | Not relevant | Not relevant | Not relevant |
| CAS: 141-43-5 | Dermal | Not relevant | Not relevant | 3 mg/kg | Not relevant |
| EC: 205-483-3 | Inhalation | Not relevant | Not relevant | 1 mg/m³ | 0.51 mg/m³ |
| 1-Propanaminium, 3-amino-N-(carboxymethyl)-N,N-dimethyl-, N -C8-18(even numbered) acyl derivs., hydroxides, inner salts | Oral | Not relevant | Not relevant | Not relevant | Not relevant |
| CAS: 97862-59-4 | Dermal | Not relevant | Not relevant | 12.5 mg/kg | Not relevant |
| EC: 931-296-8 | Inhalation | Not relevant | Not relevant | 44 mg/m³ | Not relevant |

**DNEL (General population):**

| Identification | | Short exposure | | Long exposure | |
|---|---|---|---|---|---|
| | | Systemic | Local | Systemic | Local |
| 2-aminoethanol | Oral | Not relevant | Not relevant | 1.5 mg/kg | Not relevant |
| CAS: 141-43-5 | Dermal | Not relevant | Not relevant | 1.5 mg/kg | Not relevant |
| EC: 205-483-3 | Inhalation | Not relevant | Not relevant | 0.18 mg/m³ | 0.28 mg/m³ |
| 1-Propanaminium, 3-amino-N-(carboxymethyl)-N,N-dimethyl-, N -C8-18(even numbered) acyl derivs., hydroxides, inner salts | Oral | Not relevant | Not relevant | 7.5 mg/kg | Not relevant |
| CAS: 97862-59-4 | Dermal | Not relevant | Not relevant | 7.5 mg/kg | Not relevant |
| EC: 931-296-8 | Inhalation | Not relevant | Not relevant | 13.04 mg/m³ | Not relevant |

**PNEC:**

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## SECTION 8: EXPOSURE CONTROLS/PERSONAL PROTECTION (continued)

| Identification | | | | |
|---|---|---|---|---|
| 2-aminoethanol | STP | 100 mg/L | Fresh water | 0.07 mg/L |
| CAS: 141-43-5 | Soil | 1.29 mg/kg | Marine water | 0.007 mg/L |
| EC: 205-483-3 | Intermittent | 0.028 mg/L | Sediment (Fresh water) | 0.357 mg/kg |
| | Oral | Not relevant | Sediment (Marine water) | 0.036 mg/kg |
| 1-Propanaminium, 3-amino-N-(carboxymethyl)-N,N-dimethyl-, N -C8-18(even numbered) acyl derivs., hydroxides, inner salts | STP | 3000 mg/L | Fresh water | 0.013 mg/L |
| CAS: 97862-59-4 | Soil | 0.85 mg/kg | Marine water | 0.001 mg/L |
| EC: 931-296-8 | Intermittent | Not relevant | Sediment (Fresh water) | 11.1 mg/kg |
| | Oral | Not relevant | Sediment (Marine water) | 1.11 mg/kg |

**8.2 Exposure controls:**

A.- Individual protection measures, such as personal protective equipment

As a preventative measure it is recommended to use basic Personal Protective Equipment, with the corresponding <<UKCA marking>> or <<CE marking>>. For more information on Personal Protective Equipment (storage, use, cleaning, maintenance, class of protection,…) consult the information leaflet provided by the manufacturer. For more information see subsection 7.1. All information contained herein is a recommendation which needs some specification from the labour risk prevention services as it is not known whether the company has additional measures at its disposal.

B.- Respiratory protection

If the working conditions and/or safety measures adopted do not allow keeping the airborne concentration of the product below the exposure limits (if any) or at acceptable levels (if no exposure limits exist), suitable respiratory protection equipment chosen by a qualified professional should be used.

C.- Specific protection for the hands

| Pictogram | PPE | Remarks |
|---|---|---|
|  Mandatory hand protection | Protective gloves against minor risks (Material: Nitrile, Breakthrough time: > 480 min, Thickness: 0.062 mm, Conditions of use: Splashing) | Replace gloves in case of any sign of damage. For prolonged periods of exposure to the product for professional users/industrials, we recommend using CE III gloves in line with standards EN ISO 21420:2020 and EN ISO 374-1:2016+A1:2018 |

As the product is a mixture of several substances, the resistance of the glove material can not be calculated in advance with total reliability and has therefore to be checked prior to the application.

D.- Eye and face protection

| Pictogram | PPE | Remarks |
|---|---|---|
|  Mandatory face protection | Panoramic glasses against splash/projections. | Clean daily and disinfect periodically according to the manufacturer´s instructions. Use if there is a risk of splashing. |

E.- Body protection

| Pictogram | PPE | Remarks |
|---|---|---|
| | Work clothing | Replace before any evidence of deterioration. For periods of prolonged exposure to the product for professional/industrial users CE III is recommended, in accordance with the regulations in EN ISO 6529:2013, EN ISO 6530:2005, EN ISO 13688:2013, EN 464:1994. |
| | Anti-slip work shoes | Replace before any evidence of deterioration. For periods of prolonged exposure to the product for professional/industrial users CE III is recommended, in accordance with the regulations in EN ISO 20345:2022 y EN 13832-1:2019 |

F.- Additional emergency measures

It is advised to implement additional emergency equipments in workplaces that are particularly exposed to the product or in situations where risk assessments highlight the necessity of such equipments.

| Emergency measure | Standards | Emergency measure | Standards |
|---|---|---|---|
|  Emergency shower | ANSI Z358-1<br>ISO 3864-1:2011, ISO 3864-4:2011 |  Eyewash stations | DIN 12 899<br>ISO 3864-1:2011, ISO 3864-4:2011 |

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## SECTION 8: EXPOSURE CONTROLS/PERSONAL PROTECTION (continued)

**Environmental exposure controls:**

To comply with environmental protection regulations, it is recommended to prevent any spillage of the product and its container. For more detailed information, please refer to subsection 7.1.D.

## SECTION 9: PHYSICAL AND CHEMICAL PROPERTIES

**9.1 Information on basic physical and chemical properties:**

**Appearance:**

| | |
|---|---|
| Physical state at 20 ºC: | Liquid |
| Appearance: | Transparent |
| Colour: | Red |
| Odour: | Characteristic |
| Odour threshold: | Non-applicable * |

**Volatility:**

| | |
|---|---|
| Boiling point at atmospheric pressure: | 101 ºC |
| Vapour pressure at 20 ºC: | 2330 Pa |
| Vapour pressure at 50 ºC: | 12275.44 Pa (12.28 kPa) |
| Evaporation rate at 20 ºC: | Non-applicable * |

**Product description:**

| | |
|---|---|
| Density at 20 ºC: | 1004 - 1024 kg/m³ |
| Relative density at 20 ºC: | 1.004 - 1.024 |
| Dynamic viscosity at 20 ºC: | Non-applicable * |
| Kinematic viscosity at 20 ºC: | Non-applicable * |
| Kinematic viscosity at 40 ºC: | Non-applicable * |
| Concentration: | Non-applicable * |
| pH: | ~10.8 (ASTM D3838-05) |
| Relative vapour density at 20 ºC: | Non-applicable * |
| Partition coefficient n-octanol/water 20 ºC: | Non-applicable * |
| Solubility in water at 20 ºC: | Non-applicable * |
| Solubility properties: | Water-soluble |
| Decomposition temperature: | Non-applicable * |
| Melting point/freezing point: | Non-applicable * |

**Flammability:**

| | |
|---|---|
| Flash Point: | Non Flammable (>60 ºC) |
| Flammability (solid, gas): | Non-applicable * |
| Autoignition temperature: | 424 ºC |
| Lower flammability limit: | Non-applicable * |
| Upper flammability limit: | Non-applicable * |

**Particle characteristics:**

| | |
|---|---|
| Median equivalent diameter: | Non-applicable * |

**9.2 Other information:**

**Information with regard to physical hazard classes:**

| | |
|---|---|
| Explosive properties: | Non-applicable * |
| Oxidising properties: | Non-applicable * |
| Corrosive to metals: | Non-applicable * |

*Non-applicable due to the nature of the product, not providing information property of its hazards.

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## SECTION 9: PHYSICAL AND CHEMICAL PROPERTIES (continued)

| | |
|---|---|
| Heat of combustion: | Non-applicable * |
| Aerosols-total percentage (by mass) of flammable components: | Non-applicable * |
| **Other safety characteristics:** | |
| Surface tension at 20 ºC: | Non-applicable * |
| Refraction index: | Non-applicable * |

*Non-applicable due to the nature of the product, not providing information property of its hazards.

## SECTION 10: STABILITY AND REACTIVITY

**10.1 Reactivity:**

No hazardous reactions are expected because the product is stable under recommended storage conditions. See section 7 from Safety Data Sheet.

**10.2 Chemical stability:**

Chemically stable under the indicated conditions of storage, handling and use.

**10.3 Possibility of hazardous reactions:**

Under the specified conditions, hazardous reactions that lead to excessive temperatures or pressure are not expected.

**10.4 Conditions to avoid:**

Applicable for handling and storage at room temperature:

| Shock and friction | Contact with air | Increase in temperature | Sunlight | Humidity |
|---|---|---|---|---|
| Not applicable | Not applicable | Not applicable | Not applicable | Not applicable |

**10.5 Incompatible materials:**

| Acids | Water | Oxidising materials | Combustible materials | Others |
|---|---|---|---|---|
| Avoid strong acids | Not applicable | Precaution | Not applicable | Avoid alkalis or strong bases |

**10.6 Hazardous decomposition products:**

See subsection 10.3, 10.4 and 10.5 to find out the specific decomposition products. Depending on the decomposition conditions, complex mixtures of chemical substances can be released: carbon dioxide ($CO_2$), carbon monoxide and other organic compounds.

## SECTION 11: TOXICOLOGICAL INFORMATION

**11.1 Information on toxicological effects:**

The experimental information related to the toxicological properties of the product itself is not available

**Dangerous health implications:**

In case of exposure that is repetitive, prolonged or at concentrations higher than the recommended occupational exposure limits, adverse effects on health may result, depending on the means of exposure:

A- Ingestion (acute effect):

- Acute toxicity: Based on available data, the classification criteria are not met, however, it contains substances classified as dangerous for consumption. For more information see section 3.
- Corrosivity/Irritability: The consumption of a considerable dose can cause irritation in the throat, abdominal pain, nausea and vomiting.

B- Inhalation (acute effect):

- Acute toxicity : Based on available data, the classification criteria are not met. However, it contains substances classified as hazardous for inhalation. For more information see section 3.
- Corrosivity/Irritability: Based on available data, the classification criteria are not met. However, it does contain substances classified as hazardous for this effect. For more information see section 3.

C- Contact with the skin and the eyes (acute effect):

- Contact with the skin: Produces skin inflammation.
- Contact with the eyes: Produces serious eye damage after contact.

D- CMR effects (carcinogenicity, mutagenicity and toxicity to reproduction):

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## SECTION 11: TOXICOLOGICAL INFORMATION (continued)

- Carcinogenicity: Based on available data, the classification criteria are not met, as it does not contain substances classified as hazardous for the effects mentioned. For more information see section 3.
- Mutagenicity: Based on available data, the classification criteria are not met, as it does not contain substances classified as hazardous for this effect. For more information see section 3.
- Reproductive toxicity: Based on available data, the classification criteria are not met, as it does not contain substances classified as hazardous for this effect. For more information see section 3.

E- Sensitizing effects:

- Respiratory: Based on available data, the classification criteria are not met, as it does not contain substances classified as hazardous with sensitising effects. For more information see section 3.
- Skin: Based on available data, the classification criteria are not met, as it does not contain substances classified as hazardous for this effect. For more information see section 3.

F- Specific target organ toxicity (STOT) - single exposure:

Based on available data, the classification criteria are not met. However, it contains substances classified as hazardous for inhalation. For more information see section 3.

G- Specific target organ toxicity (STOT)-repeated exposure:

- Specific target organ toxicity (STOT)-repeated exposure: Based on available data, the classification criteria are not met, as it does not contain substances classified as hazardous for this effect. For more information see section 3.
- Skin: Based on available data, the classification criteria are not met, as it does not contain substances classified as hazardous for this effect. For more information see section 3.

H- Aspiration hazard:

Based on available data, the classification criteria are not met, as it does not contain substances classified as hazardous for this effect. For more information see section 3.

**Other information:**

Not relevant

**Specific toxicology information on the substances:**

| Identification | Acute toxicity | | Genus |
|---|---|---|---|
| 2-aminoethanol<br>CAS: 141-43-5<br>EC: 205-483-3 | LD50 oral | 1515 mg/kg | Rat |
| | LD50 dermal | 2504 mg/kg | Rabbit |
| | LC50 inhalation vapour | 11 mg/L | |
| Alcohol ethoxylated (C9-C11) (6 EO)<br>CAS: 68439-46-3<br>EC: 614-482-0 | LD50 oral | 500 mg/kg | |
| | LD50 dermal | >2000 mg/kg | |
| | LC50 inhalation vapour | >20 mg/L | |
| 1-Propanaminium, 3-amino-N-(carboxymethyl)-N,N-dimethyl-, N-C8-18(even numbered) acyl derivs., hydroxides, inner salts<br>CAS: 97862-59-4<br>EC: 931-296-8 | LD50 oral | 2335 mg/kg | Rat |
| | LD50 dermal | >2000 mg/kg | |
| | LC50 inhalation dust | >5 mg/L | |

**11.2 Information on other hazards:**

**Endocrine disrupting properties**

Endocrine-disrupting properties: The product does not meet the criteria.

## SECTION 12: ECOLOGICAL INFORMATION

The experimental information related to the eco-toxicological properties of the product itself is not available

Based on available data, the classification criteria are not met. However, it does contain substances classified as hazardous for this effect. For more information see section 3.

**12.1 Toxicity:**

**Acute toxicity:**

| Identification | Concentration | | Species | Genus |
|---|---|---|---|---|
| Alcohol ethoxylated (C9-C11) (6 EO) | LC50 | 6 mg/L (96 h) | N/A | Fish |
| CAS: 68439-46-3 | EC50 | 5.3 mg/L (48 h) | N/A | Crustacean |
| | EC50 | Not relevant | | |

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## SECTION 12: ECOLOGICAL INFORMATION (continued)

| Identification | Concentration | | Species | Genus |
|---|---|---|---|---|
| 2-aminoethanol | LC50 | Not relevant | | |
| CAS: 141-43-5 | EC50 | 27 mg/L (48 h) | Daphnia magna | Crustacean |
| | EC50 | 22 mg/L (72 h) | Desmodesmus subspicatus | Algae |
| 1-Propanaminium, 3-amino-N-(carboxymethyl)-N,N-dimethyl-, N-C8-18 (even numbered) acyl derivs., hydroxides, inner salts | LC50 | 1.9 mg/L (96 h) | N/A | Fish |
| CAS: 97862-59-4 | EC50 | 6.5 mg/L (48 h) | Daphnia magna | Crustacean |
| | EC50 | 4.66 mg/L (72 h) | Desmodesmus subspicatus | Algae |

**Chronic toxicity:**

| Identification | Concentration | | Species | Genus |
|---|---|---|---|---|
| 1-Propanaminium, 3-amino-N-(carboxymethyl)-N,N-dimethyl-, N-C8-18 (even numbered) acyl derivs., hydroxides, inner salts | NOEC | 0.135 mg/L | Oncorhynchus mykiss | Fish |
| CAS: 97862-59-4 | NOEC | 0.32 mg/L | Daphnia magna | Crustacean |

**12.2 Persistence and degradability:**

**Substance-specific information:**

| Identification | Degradability | | Biodegradability | |
|---|---|---|---|---|
| Alcohol ethoxylated (C9-C11) (6 EO) | BOD5 | Not relevant | Concentration | Not relevant |
| CAS: 68439-46-3 | COD | Not relevant | Period | 28 days |
| EC: 614-482-0 | BOD5/COD | Not relevant | % Biodegradable | 60 % |
| 2-aminoethanol | BOD5 | Not relevant | Concentration | 20 mg/L |
| CAS: 141-43-5 | COD | Not relevant | Period | 21 days |
| EC: 205-483-3 | BOD5/COD | Not relevant | % Biodegradable | 90 % |
| 1-Propanaminium, 3-amino-N-(carboxymethyl)-N,N-dimethyl-, N-C8-18(even numbered) acyl derivs., hydroxides, inner salts | BOD5 | Not relevant | Concentration | 10 mg/L |
| CAS: 97862-59-4 | COD | Not relevant | Period | 28 days |
| EC: 931-296-8 | BOD5/COD | Not relevant | % Biodegradable | 87 % |

**12.3 Bioaccumulative potential:**

**Substance-specific information:**

| Identification | Bioaccumulation potential | |
|---|---|---|
| 2-aminoethanol | BCF | 3 |
| CAS: 141-43-5 | Pow Log | -2.3 |
| EC: 205-483-3 | Potential | Low |

**12.4 Mobility in soil:**

| Identification | Absorption/desorption | | Volatility | |
|---|---|---|---|---|
| 2-aminoethanol | Koc | 15 | Henry | 3E-3 Pa·m³/mol |
| CAS: 141-43-5 | Conclusion | Very High | Dry soil | Not relevant |
| | Surface tension | 5.025E-2 N/m (25 ºC) | Moist soil | Not relevant |

Water-soluble

**12.5 Results of PBT and vPvB assessment:**

Product does not meet PBT/vPvB criteria

**12.6 Endocrine disrupting properties:**

Endocrine-disrupting properties: The product does not meet the criteria.

## SECTION 13: DISPOSAL CONSIDERATIONS

**13.1 Waste treatment methods:**

| Code | Description | Waste class |
|---|---|---|
| 20 01 29* | detergents containing hazardous substances | Hazardous |

**Type of waste:**

HP4 Irritant — skin irritation and eye damage

**Waste management (disposal and evaluation):**

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## SECTION 13: DISPOSAL CONSIDERATIONS (continued)

Consult the authorized waste service manager on the assessment and disposal operations in accordance The Waste (England & Wales) Regulations 2011, 2011 No. 988. As under 15 01 of the code and in case the container has been in direct contact with the product, it will be processed the same way as the actual product. Otherwise, it will be processed as non-hazardous residue. Waste should not be disposed of to drains. See paragraph 6.2.

**Regulations related to waste management:**

In accordance with Annex II of UK REACH the provisions related to waste management are stated:

UK legislation: The Waste (England & Wales) Regulations 2011.

## SECTION 14: TRANSPORT INFORMATION

This product is not regulated for transport (ADR/RID,IMDG,IATA)

## SECTION 15: REGULATORY INFORMATION

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

- Prior Informed Consent (PIC) List: Not relevant
- Substances listed in UK candidate list of substances of very high concern (SVHCs): Not relevant
- Substances listed in UK REACH Authorisation List (Annex 14): Not relevant

**The Detergents (Amendment) (EU Exit) Regulations:**

In accordance with this regulation the product complies with the following:

The tensoactives contained in this mixture comply with the biodegradibility criteria stipulated in The Detergents (Amendment) (EU Exit) Regulations. The information to prove this is available to the relevant authorities of the Member States and will be shown to them by direct request or the request of a detergent manufacturer.

**Restrictions to commercialisation and the use of certain dangerous substances and mixtures (Annex XVII UK REACH, etc ….):**

Shall not be used in:
—ornamental articles intended to produce light or colour effects by means of different phases, for example in ornamental lamps and ashtrays,
—tricks and jokes,
—games for one or more participants, or any article intended to be used as such, even with ornamental aspects.

**Specific provisions in terms of protecting people or the environment:**

It is recommended to use the information included in this safety data sheet as a basis for conducting workplace-specific risk assessments in order to establish the necessary risk prevention measures for the handling, use, storage and disposal of this product.

**Other legislation:**

The REACH etc. (Amendment etc.) (EU Exit) Regulations 2020.
The Chemicals (Health and Safety) and Genetically Modified Organisms (Contained Use) (Amendment etc.) (EU Exit) Regulations 2020.
Control of Substances Hazardous to Health Regulations 2002 (as amended)
EH40/2005 Workplace exposure limits.

## SECTION 16: OTHER INFORMATION

**Legislation related to safety data sheets:**

This safety data sheet has been designed in accordance with ANNEX II-The REACH etc. (Amendment etc.) (EU Exit) Regulations 2020.

**Texts of the legislative phrases mentioned in section 2:**

H315: Causes skin irritation.
H318: Causes serious eye damage.

**Texts of the legislative phrases mentioned in section 3:**

The phrases indicated do not refer to the product itself; they are present merely for informative purposes and refer to the individual components which appear in section 3

**GB CLP Regulation (UK S.I. 2019/720 and UK S.I. 2020/1567):**

Acute Tox. 4: H302 - Harmful if swallowed.
Acute Tox. 4: H302+H312+H332 - Harmful if swallowed, in contact with skin or if inhaled.
Aquatic Chronic 3: H412 - Harmful to aquatic life with long lasting effects.
Eye Dam. 1: H318 - Causes serious eye damage.
Skin Corr. 1B: H314 - Causes severe skin burns and eye damage.
STOT SE 3: H335 - May cause respiratory irritation.

**Classification procedure:**

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## SECTION 16: OTHER INFORMATION (continued)

Skin Irrit. 2: Calculation method
Eye Dam. 1: Calculation method

**Advice related to training:**

Training is recommended in order to prevent industrial risks for staff using this product and to facilitate their comprehension and interpretation of this safety data sheet, as well as the label on the product.

**Principal bibliographical sources:**

http://echa.europa.eu
http://eur-lex.europa.eu

**Abbreviations and acronyms:**

ADR: European agreement concerning the international carriage of dangerous goods by road
IMDG: International maritime dangerous goods code
IATA: International Air Transport Association
ICAO: International Civil Aviation Organisation
COD: Chemical Oxygen Demand
BOD5: 5day biochemical oxygen demand
BCF: Bioconcentration factor
LD50: Lethal Dose 50
LC50: Lethal Concentration 50
EC50: Effective concentration 50
LogPOW: Octanolwater partition coefficient
Koc: Partition coefficient of organic carbon
UFI: unique formula identifier
IARC: International Agency for Research on Cancer

The information contained in this safety data sheet is based on sources, technical knowledge and current legislation at UK, without being able to guarantee its accuracy. This information cannot be considered a guarantee of the properties of the product, it is simply a description of the security requirements. The occupational methodology and conditions for users of this product are not within our awareness or control, and it is ultimately the responsibility of the user to take the necessary measures to obtain the legal requirements concerning the manipulation, storage, use and disposal of chemical products. The information on this safety data sheet only refers to this product, which should not be used for needs other than those specified.

- END OF SAFETY DATA SHEET -