

**Powershine  
L445**

Date of compilation: 12/10/2023    Revised: 30/07/2024    Version: 2 (Replaced 1)

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

- 1.1 Product identifier:** Powershine  
L445
- Other means of identification:**  
000720/03
- 1.2 Relevant identified uses of the substance or mixture and uses advised against:**
- Relevant uses (Professional users):  
- Detergent  
- Bodywork cleaning
- Relevant uses (Industrial user):  
- Detergent  
- Bodywork cleaning
- 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:**
- Nielsen Chemicals  
Rawdon Road, Moira,  
DE12 6DA, Swadlincote - Derbyshire - United Kingdom  
Phone: 01283 222277  
info@nielsenchemicals.com  
www.nielsenchemicals.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 1018675; 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).  
Aquatic Chronic 3: Hazardous to the aquatic environment, long-term hazard, Category 3, H412  
Eye Dam. 1: Serious eye damage, Category 1, H318  
Met. Corr. 1: Corrosive to metals, Category 1, H290  
Skin Corr. 1: Skin corrosion, Category 1, H314
- 2.2 Label elements:**
- GB CLP Regulation (UK S.I. 2019/720 and UK S.I. 2020/1567):**  
Danger
- 
- Hazard statements:**  
Aquatic Chronic 3: H412 - Harmful to aquatic life with long lasting effects.  
Met. Corr. 1: H290 - May be corrosive to metals.  
Skin Corr. 1: H314 - Causes severe skin burns and eye damage.
- Precautionary statements:**  
P273: Avoid release to the environment.  
P280: Wear protective gloves/protective clothing/face protection.  
P301+P330+P331: IF SWALLOWED: rinse mouth. Do NOT induce vomiting.  
P303+P361+P353: IF ON SKIN (or hair): Remove/Take off immediately all contaminated clothing. Rinse skin with water/shower.  
P305+P351+P338: IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.  
P501: Dispose of the contents and/or its container in line with regulations on dangerous waste or packaging and waste packaging respectively.
- Substances that contribute to the classification**  
Alcohol ethoxylated (C9-C11) (6 EO) (CAS: 68439-46-3); Quaternary ammonium compounds, C12-14-alkyltrimethyl, Me sulfates (CAS: 96690-44-7); sodium hydroxide (CAS: 1310-73-2)
- 2.3 Other hazards:**

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**SECTION 2: HAZARDS IDENTIFICATION (continued)**

Product does not meet PBT/vPvB criteria

**SECTION 3: COMPOSITION/INFORMATION ON INGREDIENTS**

**3.1 Substance:**

Not available

**3.2 Mixture:**

**Chemical description:** Mixture based on cationic and non-ionic surfactants

**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 EC: 614-482-0	<b>Alcohol ethoxylated (C9-C11) (6 EO)</b> Acute Tox. 4: H302; Eye Dam. 1: H318 - Danger	3 - <10 %
CAS: 96690-44-7 EC: 306-238-4 REAC: 01- 2120770734- H: 48-XXXX	<b>Quaternary ammonium compounds, C12-14-alkyltrimethyl, Me sulfates</b> Acute Tox. 3: H311; Acute Tox. 4: H302; Aquatic Acute 1: H400; Aquatic Chronic 1: H410; Eye Dam. 1: H318; Skin Corr. 1B: H314 - Danger	1 - <3 %
CAS: 1310-73-2 EC: 215-185-5 REAC: 01- 2119457892- H: 27-XXXX	<b>sodium hydroxide</b> Eye Dam. 1: H318; Met. Corr. 1: H290; Skin Corr. 1A: H314 - Danger	1 - <3 %
CAS: 97659-50-2 EC: 307-455-7	<b>Amines, N-C8-22-alkyltrimethylenedi-, acrylated, sodium salts</b> Eye Irrit. 2: H319 - Warning	1 - <3 %
CAS: 34590-94-8 EC: 252-104-2 REAC: 01- 2119450011- H: 60-XXXX	<b>Dipropylene Glycol Methyl Ether</b>	<1 %
CAS: 61789-77-3 EC: 263-087-6	<b>Quaternary ammonium compounds, dicoco alkyldimethyl, chlorides</b> Acute Tox. 4: H302; Aquatic Acute 1: H400; Aquatic Chronic 2: H411; Skin Corr. 1B: H314 - Danger	<1 %
CAS: 57-55-6 EC: 200-338-0 REAC: 01- 2119456809- H: 23-XXXX	<b>Propane-1,2-diol</b>	<1 %
CAS: 67-63-0 EC: 200-661-7 REAC: 01- 2119457558- H: 25-XXXX	<b>propan-2-ol</b> Eye Irrit. 2: H319; Flam. Liq. 2: H225; STOT SE 3: H336 - Danger	<1 %

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
Quaternary ammonium compounds, C12-14-alkyltrimethyl, Me sulfates CAS: 96690-44-7 EC: 306-238-4	LD50 oral	570 mg/kg	Rat
	LD50 dermal	429 mg/kg	Rabbit
	LC50 inhalation vapour	Not available	
Propane-1,2-diol CAS: 57-55-6 EC: 200-338-0	LD50 oral	Not available	
	LD50 dermal	Not available	
	LC50 inhalation vapour	41 mg/L (4 h)	Rat
Alcohol ethoxylated (C9-C11) (6 EO) CAS: 68439-46-3 EC: 614-482-0	LD50 oral	500 mg/kg	
	LD50 dermal	Not available	
	LC50 inhalation vapour	Not available	
Quaternary ammonium compounds, dicoco alkyldimethyl, chlorides CAS: 61789-77-3 EC: 263-087-6	LD50 oral	960 mg/kg	Rat
	LD50 dermal	Not available	
	LC50 inhalation vapour	Not available	

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**SECTION 4: FIRST AID MEASURES****4.1 Description of first aid measures:**

Request medical assistance immediately, 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:**

Request immediate medical assistance, showing the SDS of this product. Do not induce vomiting, because its expulsion from the stomach can be hazardous to the mucus of the main digestive tract, and also risk damage to the respiratory system through inhalation. Rinse out the mouth and throat, as they may have been affected during ingestion. In the case of loss of consciousness do not administer anything orally unless supervised by a doctor. Keep the person affected at rest.

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

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

**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:**

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**SECTION 6: ACCIDENTAL RELEASE MEASURES (continued)**

Isolate leaks provided that there is no additional risk for the people performing this task. Evacuate the area and keep out those without protection. Personal protection equipment must be used against potential contact with the spilt product (See section 8). Above all prevent the formation of any vapour-air flammable mixtures, through either ventilation or the use of an inert medium. Remove any source of ignition. Eliminate electrostatic charges by interconnecting all the conductive surfaces on which static electricity could form, and also ensuring that all surfaces are connected to the ground.

**For emergency responders:**

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

**6.2 Environmental precautions:**

Avoid at all cost any type of spillage into an aqueous medium. Contain the product absorbed appropriately in hermetically sealed containers. Notify the relevant authority in case of exposure to the general public or the environment.

**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

Comply with the current legislation concerning the prevention of industrial risks. Control spills and residues, destroying them with safe methods (section 6). Avoid leakages from the container. Maintain order and cleanliness where dangerous products are used.  
**KEEP ONLY IN ORIGINAL PACKAGING.**

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

Avoid the evaporation of the product as it contains flammable substances, which could form flammable vapour/air mixtures in the presence of sources of ignition. Control sources of ignition (mobile phones, sparks,...) and transfer at slow speeds to avoid the creation of electrostatic charges. Consult section 10 for 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

Due to the danger of this product for the environment it is recommended to use it within an area containing contamination control barriers in case of spillage, as well as having absorbent material in close proximity.

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

A.- Specific storage requirements

Minimum Temp.: 4 °C

Maximum Temp.: 40 °C

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**

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

**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		
	WEL (8h)	WEL (15 min)	WEL (30 min)
sodium hydroxide CAS: 1310-73-2			2 mg/m <sup>3</sup>
Propane-1,2-diol CAS: 57-55-6	150 ppm		474 mg/m <sup>3</sup>
Dipropylene Glycol Methyl Ether <sup>(1)</sup> CAS: 34590-94-8	50 ppm		308 mg/m <sup>3</sup>
propan-2-ol CAS: 67-63-0	400 ppm		999 mg/m <sup>3</sup>
	500 ppm		1250 mg/m <sup>3</sup>

<sup>(1)</sup> Skin

**DNEL (Workers):**

Identification		Short exposure		Long exposure	
		Systemic	Local	Systemic	Local
Quaternary ammonium compounds, C12-14-alkyltrimethyl, Me sulfates CAS: 96690-44-7 EC: 306-238-4	Oral	Not relevant	Not relevant	Not relevant	Not relevant
	Dermal	Not relevant	Not relevant	Not relevant	Not relevant
	Inhalation	Not relevant	Not relevant	Not relevant	1 mg/m <sup>3</sup>
sodium hydroxide CAS: 1310-73-2 EC: 215-185-5	Oral	Not relevant	Not relevant	Not relevant	Not relevant
	Dermal	Not relevant	Not relevant	Not relevant	Not relevant
	Inhalation	Not relevant	Not relevant	Not relevant	1 mg/m <sup>3</sup>
Dipropylene Glycol Methyl Ether CAS: 34590-94-8 EC: 252-104-2	Oral	Not relevant	Not relevant	Not relevant	Not relevant
	Dermal	Not relevant	Not relevant	283 mg/kg	Not relevant
	Inhalation	Not relevant	Not relevant	308 mg/m <sup>3</sup>	Not relevant
Propane-1,2-diol CAS: 57-55-6 EC: 200-338-0	Oral	Not relevant	Not relevant	Not relevant	Not relevant
	Dermal	Not relevant	Not relevant	Not relevant	Not relevant
	Inhalation	Not relevant	Not relevant	168 mg/m <sup>3</sup>	10 mg/m <sup>3</sup>
propan-2-ol CAS: 67-63-0 EC: 200-661-7	Oral	Not relevant	Not relevant	Not relevant	Not relevant
	Dermal	Not relevant	Not relevant	888 mg/kg	Not relevant
	Inhalation	1000 mg/m <sup>3</sup>	Not relevant	500 mg/m <sup>3</sup>	Not relevant

**DNEL (General population):**

Identification		Short exposure		Long exposure	
		Systemic	Local	Systemic	Local
Quaternary ammonium compounds, C12-14-alkyltrimethyl, Me sulfates CAS: 96690-44-7 EC: 306-238-4	Oral	Not relevant	Not relevant	Not relevant	Not relevant
	Dermal	Not relevant	Not relevant	Not relevant	Not relevant
	Inhalation	Not relevant	Not relevant	Not relevant	1 mg/m <sup>3</sup>
sodium hydroxide CAS: 1310-73-2 EC: 215-185-5	Oral	Not relevant	Not relevant	Not relevant	Not relevant
	Dermal	Not relevant	Not relevant	Not relevant	Not relevant
	Inhalation	Not relevant	Not relevant	Not relevant	1 mg/m <sup>3</sup>
Dipropylene Glycol Methyl Ether CAS: 34590-94-8 EC: 252-104-2	Oral	Not relevant	Not relevant	36 mg/kg	Not relevant
	Dermal	Not relevant	Not relevant	121 mg/kg	Not relevant
	Inhalation	Not relevant	Not relevant	37.2 mg/m <sup>3</sup>	Not relevant
Propane-1,2-diol CAS: 57-55-6 EC: 200-338-0	Oral	Not relevant	Not relevant	Not relevant	Not relevant
	Dermal	Not relevant	Not relevant	Not relevant	Not relevant
	Inhalation	Not relevant	Not relevant	50 mg/m <sup>3</sup>	10 mg/m <sup>3</sup>
propan-2-ol CAS: 67-63-0 EC: 200-661-7	Oral	51 mg/kg	Not relevant	26 mg/kg	Not relevant
	Dermal	Not relevant	Not relevant	319 mg/kg	Not relevant
	Inhalation	178 mg/m <sup>3</sup>	Not relevant	114 mg/m <sup>3</sup>	Not relevant

**PNEL:**

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

Identification				
Quaternary ammonium compounds, C12-14-alkyltrimethyl, Me sulfates CAS: 96690-44-7 EC: 306-238-4	STP	0.9 mg/L	Fresh water	0.0000103 mg/L
	Soil	0.00582 mg/kg	Marine water	0.00000103 mg/L
	Intermittent	0.000103 mg/L	Sediment (Fresh water)	0.029 mg/kg
	Oral	Not relevant	Sediment (Marine water)	0.00291 mg/kg
Dipropylene Glycol Methyl Ether CAS: 34590-94-8 EC: 252-104-2	STP	4168 mg/L	Fresh water	19 mg/L
	Soil	2.74 mg/kg	Marine water	1.9 mg/L
	Intermittent	190 mg/L	Sediment (Fresh water)	70.2 mg/kg
	Oral	Not relevant	Sediment (Marine water)	7.02 mg/kg
Propane-1,2-diol CAS: 57-55-6 EC: 200-338-0	STP	20000 mg/L	Fresh water	260 mg/L
	Soil	50 mg/kg	Marine water	26 mg/L
	Intermittent	183 mg/L	Sediment (Fresh water)	572 mg/kg
	Oral	Not relevant	Sediment (Marine water)	57.2 mg/kg
propan-2-ol CAS: 67-63-0 EC: 200-661-7	STP	2251 mg/L	Fresh water	140.9 mg/L
	Soil	28 mg/kg	Marine water	140.9 mg/L
	Intermittent	140.9 mg/L	Sediment (Fresh water)	552 mg/kg
	Oral	0.16 g/kg	Sediment (Marine water)	552 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

Pictogram	PPE	Remarks
 Mandatory respiratory tract protection	Filter mask for gases and vapours (Filter type: FFP1)	Replace when there is a taste or smell of the contaminant inside the face mask. If the contaminant comes with warnings it is recommended to use isolation equipment.

C.- Specific protection for the hands

Pictogram	PPE	Remarks
 Mandatory hand protection	Chemical protective gloves (Material: Nitrile/Neoprene, Breakthrough time: > 480 min, Thickness: 0.1 mm, Conditions of use: Normal)	Replace the gloves at any sign of deterioration.

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	Face shield	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.

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

Pictogram	PPE	Remarks
	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 13832-1:2007

**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 ISO 3864-1:2011, ISO 3864-4:2011	 Eyewash stations	DIN 12 899 ISO 3864-1:2011, ISO 3864-4:2011

**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 °C: Liquid  
Appearance: Translucent  
Colour: Yellowish  
Odour: Mild  
Odour threshold: Not relevant \*

**Volatility:**

Boiling point at atmospheric pressure: 101 °C  
Vapour pressure at 20 °C: 2345 Pa  
Vapour pressure at 50 °C: 12352.2 Pa (12.35 kPa)  
Evaporation rate at 20 °C: Not relevant \*

**Product description:**

Density at 20 °C: Not relevant \*  
Relative density at 25 °C: 0.989 - 1.189  
Dynamic viscosity at 20 °C: Not relevant \*  
Kinematic viscosity at 20 °C: Not relevant \*  
Kinematic viscosity at 40 °C: Not relevant \*  
Concentration: Not relevant \*  
pH: >13  
Vapour density at 20 °C: Not relevant \*  
Partition coefficient n-octanol/water 20 °C: Not relevant \*  
Solubility in water at 20 °C: Not relevant \*  
Solubility properties: Water-soluble  
Decomposition temperature: Not relevant \*  
Melting point/freezing point: Not relevant \*

**Flammability:**

Flash Point: Non Flammable (>60 °C)

\*Not relevant due to the nature of the product, not providing information property of its hazards.

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**SECTION 11: TOXICOLOGICAL INFORMATION (continued)**

**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: Corrosive product, if it is swallowed causes burns destroying the tissues. For more information about secondary effects from skin contact see section 2.

**B- Inhalation (acute effect):**

- Acute toxicity : Based on available data, the classification criteria are not met, as it does not contain substances classified as hazardous for inhalation. For more information see section 3.
- Corrosivity/Irritability: Prolonged inhalation of the product is corrosive to mucous membranes and the upper respiratory tract

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

- Contact with the skin: Above all, skin contact may occur as fabrics of all thicknesses can be destroyed, resulting in burns. For more information on the secondary effects see section 2.
- Contact with the eyes: Produces serious eye damage after contact.

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

- 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
sodium hydroxide CAS: 1310-73-2 EC: 215-185-5	LD50 oral	>2000 mg/kg	
	LD50 dermal	>2000 mg/kg	
	LC50 inhalation dust	>5 mg/L	
Quaternary ammonium compounds, C12-14-alkyltrimethyl, Me sulfates CAS: 96690-44-7 EC: 306-238-4	LD50 oral	570 mg/kg	Rat
	LD50 dermal	429 mg/kg	Rabbit
	LC50 inhalation vapour	>20 mg/L	
Alcohol ethoxylated (C9-C11) (6 EO) CAS: 68439-46-3 EC: 614-482-0	LD50 oral	500 mg/kg	
	LD50 dermal	>2000 mg/kg	
	LC50 inhalation vapour	>20 mg/L	
Amines, N-C8-22-alkyltrimethylenedi-, acrylated, sodium salts CAS: 97659-50-2 EC: 307-455-7	LD50 oral	>2000 mg/kg	
	LD50 dermal	>2000 mg/kg	
	LC50 inhalation dust	>5 mg/L	

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**SECTION 11: TOXICOLOGICAL INFORMATION (continued)**

Identification	Acute toxicity		Genus
	Route	Dose	
Dipropylene Glycol Methyl Ether CAS: 34590-94-8 EC: 252-104-2	LD50 oral	>5000 mg/kg	Rat
	LD50 dermal	9510 mg/kg	Rabbit
	LC50 inhalation vapour	>20 mg/L	
Quaternary ammonium compounds, dicoco alkyldimethyl, chlorides CAS: 61789-77-3 EC: 263-087-6	LD50 oral	960 mg/kg	Rat
	LD50 dermal	>2000 mg/kg	
	LC50 inhalation vapour	>20 mg/L	
Propane-1,2-diol CAS: 57-55-6 EC: 200-338-0	LD50 oral	>22000 mg/kg	
	LD50 dermal	>2000 mg/kg	
	LC50 inhalation vapour	41 mg/L (4 h)	Rat
	LC50 inhalation mist	44.9 mg/L (4 h)	Rat
propan-2-ol CAS: 67-63-0 EC: 200-661-7	LD50 oral	>5840 mg/kg	Rat
	LD50 dermal	>13900 mg/kg	Rabbit
	LC50 inhalation vapour	>25 mg/L (6 h)	Rat

**SECTION 12: ECOLOGICAL INFORMATION**

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

Harmful to aquatic life with long lasting effects.

**12.1 Toxicity:**

**Acute toxicity:**

Identification	Concentration		Species	Genus
	Endpoint	Dose		
Alcohol ethoxylated (C9-C11) (6 EO) CAS: 68439-46-3	LC50	6 mg/L (96 h)	N/A	Fish
	EC50	5.3 mg/L (48 h)	N/A	Crustacean
	EC50	Not relevant		
Quaternary ammonium compounds, C12-14-alkyltrimethyl, Me sulfates CAS: 96690-44-7	LC50	>0.1 - 1 mg/L (96 h)		Fish
	EC50	>0.1 - 1 mg/L (48 h)		Crustacean
	EC50	>0.1 - 1 mg/L (72 h)		Algae
sodium hydroxide CAS: 1310-73-2	LC50	189 mg/L (48 h)	Leuciscus idus	Fish
	EC50	33 mg/L	Crangon crangon	Crustacean
	EC50	Not relevant		
Dipropylene Glycol Methyl Ether CAS: 34590-94-8	LC50	10000 mg/L (96 h)	Pimephales promelas	Fish
	EC50	1919 mg/L (48 h)	Daphnia magna	Crustacean
	EC50	Not relevant		
Quaternary ammonium compounds, dicoco alkyldimethyl, chlorides CAS: 61789-77-3	LC50	>0.1 - 1 mg/L (96 h)		Fish
	EC50	>0.1 - 1 mg/L (48 h)		Crustacean
	EC50	>0.1 - 1 mg/L (72 h)		Algae
Propane-1,2-diol CAS: 57-55-6	LC50	51400 mg/L (96 h)	Pimephales promelas	Fish
	EC50	10000 mg/L (24 h)	Daphnia magna	Crustacean
	EC50	19100 mg/L (336 h)	Selenastrum capricornutum	Algae
propan-2-ol CAS: 67-63-0	LC50	9640 mg/L (96 h)	Pimephales promelas	Fish
	EC50	10000 mg/L (24 h)	Daphnia magna	Crustacean
	EC50	Not relevant		

**Chronic toxicity:**

Identification	Concentration		Species	Genus
	Endpoint	Dose		
Dipropylene Glycol Methyl Ether CAS: 34590-94-8	NOEC	Not relevant		
	NOEC	0.5 mg/L	Daphnia magna	Crustacean
Propane-1,2-diol CAS: 57-55-6	NOEC	Not relevant		
	NOEC	13020 mg/L	Ceriodaphnia sp.	Crustacean

**12.2 Persistence and degradability:**

**Substance-specific information:**

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**SECTION 12: ECOLOGICAL INFORMATION (continued)**

Identification	Degradability		Biodegradability	
Alcohol ethoxylated (C9-C11) (6 EO) CAS: 68439-46-3 EC: 614-482-0	BOD5	Not relevant	Concentration	Not relevant
	COD	Not relevant	Period	28 days
	BOD5/COD	Not relevant	% Biodegradable	60 %
Quaternary ammonium compounds, C12-14-alkyltrimethyl, Me sulfates CAS: 96690-44-7 EC: 306-238-4	BOD5	Not relevant	Concentration	5 mg/L
	COD	Not relevant	Period	28 days
	BOD5/COD	Not relevant	% Biodegradable	75 %
Dipropylene Glycol Methyl Ether CAS: 34590-94-8 EC: 252-104-2	BOD5	Not relevant	Concentration	Not relevant
	COD	0 g O <sub>2</sub> /g	Period	28 days
	BOD5/COD	Not relevant	% Biodegradable	73 %
Quaternary ammonium compounds, dicoco alkyldimethyl, chlorides CAS: 61789-77-3 EC: 263-087-6	BOD5	Not relevant	Concentration	Not relevant
	COD	Not relevant	Period	28 days
	BOD5/COD	Not relevant	% Biodegradable	82 %
Propane-1,2-diol CAS: 57-55-6 EC: 200-338-0	BOD5	1.08 g O <sub>2</sub> /g	Concentration	100 mg/L
	COD	1.63 g O <sub>2</sub> /g	Period	28 days
	BOD5/COD	0.66	% Biodegradable	90 %
propan-2-ol CAS: 67-63-0 EC: 200-661-7	BOD5	1.19 g O <sub>2</sub> /g	Concentration	100 mg/L
	COD	2.23 g O <sub>2</sub> /g	Period	14 days
	BOD5/COD	0.53	% Biodegradable	86 %

**12.3 Bioaccumulative potential:**

**Substance-specific information:**

Identification	Bioaccumulation potential	
Quaternary ammonium compounds, C12-14-alkyltrimethyl, Me sulfates CAS: 96690-44-7 EC: 306-238-4	BCF	
	Pow Log	3.5
	Potential	
Dipropylene Glycol Methyl Ether CAS: 34590-94-8 EC: 252-104-2	BCF	1
	Pow Log	-0.06
	Potential	Low
Propane-1,2-diol CAS: 57-55-6 EC: 200-338-0	BCF	1
	Pow Log	-0.92
	Potential	Low
propan-2-ol CAS: 67-63-0 EC: 200-661-7	BCF	3
	Pow Log	0.05
	Potential	Low

**12.4 Mobility in soil:**

Identification	Absorption/desorption		Volatility	
Propane-1,2-diol CAS: 57-55-6	Koc	Not relevant	Henry	Not relevant
	Conclusion	Not relevant	Dry soil	Not relevant
	Surface tension	3.547E-2 N/m (25 °C)	Moist soil	Not relevant
propan-2-ol CAS: 67-63-0	Koc	1.5	Henry	8.207E-1 Pa·m <sup>3</sup> /mol
	Conclusion	Very High	Dry soil	Yes
	Surface tension	2.24E-2 N/m (25 °C)	Moist soil	Yes

Water-soluble

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

Product does not meet PBT/vPvB criteria

**12.6 Other adverse effects:**

Not described

**SECTION 13: DISPOSAL CONSIDERATIONS**

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**SECTION 13: DISPOSAL CONSIDERATIONS (continued)**

**13.1 Waste treatment methods:**

**Type of waste:**

HP8 Corrosive, HP14 Ecotoxic

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

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**

**Transport of dangerous goods by land:**

With regard to ADR 2023 and RID 2023:



- |   |  |
|---|--|
| <b>14.1 UN number:</b>  | UN1760   |
| <b>14.2 UN proper shipping name:</b>  | CORROSIVE LIQUID, N.O.S. (Quaternary ammonium compounds, C12-14-alkyltrimethyl, Me sulfates) |
| <b>14.3 Transport hazard class(es):</b>   | 8  |
| Labels:   | 8  |
| <b>14.4 Packing group:</b>  | II   |
| <b>14.5 Environmental hazards:</b>  | No   |
| <b>14.6 Special precautions for user</b>  |  |
| Tunnel restriction code:  | E  |
| Physico-Chemical properties:  | see section 9  |
| Limited quantities:   | 1 L  |
| <b>14.7 Transport in bulk according to Annex II of Marpol and the IBC Code:</b> | Not relevant   |

**Transport of dangerous goods by sea:**

With regard to IMDG 41-22:



- |   |  |
|---|--|
| <b>14.1 UN number:</b>  | UN1760   |
| <b>14.2 UN proper shipping name:</b>  | CORROSIVE LIQUID, N.O.S. (Quaternary ammonium compounds, C12-14-alkyltrimethyl, Me sulfates) |
| <b>14.3 Transport hazard class(es):</b>   | 8  |
| Labels:   | 8  |
| <b>14.4 Packing group:</b>  | II   |
| <b>14.5 Marine pollutant:</b>   | No   |
| <b>14.6 Special precautions for user</b>  |  |
| Special regulations:  | 274  |
| EmS Codes:  | F-A, S-B   |
| Physico-Chemical properties:  | see section 9  |
| Limited quantities:   | 1 L  |
| Segregation group:  | SGG18  |
| <b>14.7 Transport in bulk according to Annex II of Marpol and the IBC Code:</b> | Not relevant   |

**Transport of dangerous goods by air:**

With regard to IATA/ICAO 2024:

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**SECTION 14: TRANSPORT INFORMATION (continued)**



<b>14.1 UN number:</b>	UN1760
<b>14.2 UN proper shipping name:</b>	CORROSIVE LIQUID, N.O.S. (Quaternary ammonium compounds, C12-14-alkyltrimethyl, Me sulfates)
<b>14.3 Transport hazard class(es):</b>	8
Labels:	8
<b>14.4 Packing group:</b>	II
<b>14.5 Environmental hazards:</b>	No
<b>14.6 Special precautions for user</b>	
Physico-Chemical properties:	see section 9
<b>14.7 Transport in bulk according to Annex II of Marpol and the IBC Code:</b>	Not relevant

**SECTION 15: REGULATORY INFORMATION**

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

- 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 biodegradability 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.

Labelling for contents:

Component	Concentration interval
Cationic surfactants	% (w/w) < 5
Non-ionic surfactants	% (w/w) < 5
Amphoteric surfactants	% (w/w) < 5

**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.
- COSHH-SR24 Storing chemical products (small scale).
- COSHH-SR2 Diluting chemical concentrates.
- COSHH-SR4 Manual cleaning and disinfecting surfaces.
- The Product Safety and Metrology etc. (Amendment etc.) (EU Exit) Regulations 2019: SCHEDULE 34 - Amendment of Regulation (EC) No 1223/2009 and related amendments.
- The Detergents (Amendment) (EU Exit) Regulations 2020.

**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:**

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**SECTION 16: OTHER INFORMATION (continued)**

H290: May be corrosive to metals.  
H318: Causes serious eye damage.  
H314: Causes severe skin burns and eye damage.  
H412: Harmful to aquatic life with long lasting effects.

**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. 3: H311 - Toxic in contact with skin.  
Acute Tox. 4: H302 - Harmful if swallowed.  
Aquatic Acute 1: H400 - Very toxic to aquatic life.  
Aquatic Chronic 1: H410 - Very toxic to aquatic life with long lasting effects.  
Aquatic Chronic 2: H411 - Toxic to aquatic life with long lasting effects.  
Eye Dam. 1: H318 - Causes serious eye damage.  
Eye Irrit. 2: H319 - Causes serious eye irritation.  
Flam. Liq. 2: H225 - Highly flammable liquid and vapour.  
Met. Corr. 1: H290 - May be corrosive to metals.  
Skin Corr. 1A: H314 - Causes severe skin burns and eye damage.  
Skin Corr. 1B: H314 - Causes severe skin burns and eye damage.  
STOT SE 3: H336 - May cause drowsiness or dizziness.

**Classification procedure:**

Eye Dam. 1: Calculation method  
Skin Corr. 1: Calculation method  
Aquatic Chronic 3: 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 -