



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

- 1.1 Product identifier:** Microsolve  
C222
- Other means of identification:**  
Non-applicable
- 1.2 Relevant identified uses of the substance or mixture and uses advised against:**  
Relevant uses: Multiuse cleaner; cleaner. For professional users/industrial user only.  
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
- 1.4 Emergency telephone number:** NPIS: 0844 892 0111 (healthcare professionals only) or NHS 111  
  
+44 (0) 777 8505 330 (24 hrs)

## SECTION 2: HAZARDS IDENTIFICATION

- 2.1 Classification of the substance or mixture:**  
Product classified regardless of its extreme pH.
- GB CLP Regulation:**  
Classification of this product has been carried out in accordance with GB CLP Regulation.  
Aquatic Chronic 3: Hazardous to the aquatic environment, long-term hazard, Category 3, H412  
Asp. Tox. 1: Aspiration hazard, Category 1, H304  
Eye Dam. 1: Serious eye damage, Category 1, H318  
Skin Irrit. 2: Skin irritation, Category 2, H315
- 2.2 Label elements:**
- GB CLP Regulation:**  
Danger
-  
- Hazard statements:**  
Aquatic Chronic 3: H412 - Harmful to aquatic life with long lasting effects.  
Asp. Tox. 1: H304 - May be fatal if swallowed and enters airways.  
Eye Dam. 1: H318 - Causes serious eye damage.  
Skin Irrit. 2: H315 - Causes skin irritation.
- Precautionary statements:**  
P273: Avoid release to the environment.  
P280: Wear protective gloves/protective clothing/eye protection.  
P301+P330+P331: IF SWALLOWED: rinse mouth. Do NOT induce vomiting.  
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.  
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**  
Distillates (petroleum), hydrotreated light (CAS: 64742-47-8); Silicic acid, sodium salt (1.6 < MR < 2.6) (CAS: 1344-09-8); Disodium metasilicate (CAS: 6834-92-0)
- Labelling for contents:**

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## SECTION 2: HAZARDS IDENTIFICATION (continued)

Component	Concentration interval
Aliphatic hydrocarbons	5 <= % (w/w) < 15
Non-ionic surfactants	15 <= % (w/w) < 30
Cationic surfactants	% (w/w) < 5

### 2.3 Other hazards:

Product fails to meet PBT/vPvB criteria

## SECTION 3: COMPOSITION/INFORMATION ON INGREDIENTS

### 3.1 Substance:

Non-applicable

### 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: 64742-47-8	<b>Distillates (petroleum), hydrotreated light</b> Asp. Tox. 1: H304; EUH066 - Danger	10 - <25 %
CAS: 68439-46-3	<b>Alcohol ethoxylated (C9-C11) (6 EO)</b> Acute Tox. 4: H302; Eye Dam. 1: H318 - Danger	3 - <10 %
CAS: 69011-36-5	<b>Isotridecanol, ethoxylated 3 mol EO</b> Aquatic Chronic 3: H412; Eye Irrit. 2: H319 - Warning	3 - <10 %
CAS: 68155-07-7	<b>Amides, C8-18 and C18-unsatd., N,N-bis(hydroxyethyl)</b> Aquatic Chronic 2: H411; Eye Dam. 1: H318; Skin Irrit. 2: H315 - Danger	3 - <10 %
CAS: 532-32-1	<b>Sodium benzoate</b> Eye Irrit. 2: H319 - Warning	3 - <10 %
CAS: 112-34-5	<b>2-(2-butoxyethoxy)ethanol</b> Eye Irrit. 2: H319 - Warning	3 - <10 %
CAS: 1554325-20-0	<b>Quaternary ammonium compounds, C12-14-alkyl(hydroxyethyl)dimethyl, ethoxylated, chlorides</b> Acute Tox. 4: H302; Eye Dam. 1: H318; Skin Irrit. 2: H315 - Danger	1 - <3 %
CAS: 6834-92-0	<b>Disodium metasilicate</b> Eye Dam. 1: H318; Met. Corr. 1: H290; Skin Corr. 1B: H314; STOT SE 3: H335 - Danger	<1 %
CAS: 1344-09-8	<b>Silicic acid, sodium salt (1.6 &lt; MR &lt; 2.6)</b> Eye Dam. 1: H318; Skin Irrit. 2: H315; STOT SE 3: H335 - Danger	<1 %
CAS: 56-81-5	<b>Glycerol</b>	<1 %
CAS: 1310-73-2	<b>sodium hydroxide</b> Eye Dam. 1: H318; Met. Corr. 1: H290; Skin Corr. 1A: H314 - Danger	<1 %

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

## 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.

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**SECTION 4: FIRST AID MEASURES (continued)****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 medical assistance immediately, showing the SDS of this product. Do not induce vomiting, but if it does happen keep the head down to avoid aspiration. In the case of loss of consciousness do not administer anything orally unless supervised by a doctor. Rinse out the mouth and throat, as they may have been affected during ingestion. 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:**

Non-applicable

**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 (SCBA). 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:**

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:

Absorb the spillage using sand or inert absorbent and move it to a safe place. Do not absorb in sawdust or other combustible absorbents. For any concern related to disposal consult section 13.

**6.4 Reference to other sections:**

See sections 8 and 13.

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## 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 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

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.- Technical measures for storage

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

### 8.1 Control parameters:

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

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

Identification	Occupational exposure limits		
	WEL (8h)		
Glycerol CAS: 56-81-5	WEL (8h)		10 mg/m <sup>3</sup>
	WEL (15 min)		
2-(2-butoxyethoxy)ethanol CAS: 112-34-5	WEL (8h)	10 ppm	67.5 mg/m <sup>3</sup>
	WEL (15 min)	15 ppm	101.2 mg/m <sup>3</sup>
sodium hydroxide CAS: 1310-73-2	WEL (8h)		
	WEL (15 min)		2 mg/m <sup>3</sup>

#### DNEL (Workers):

Identification		Short exposure		Long exposure	
		Systemic	Local	Systemic	Local
Isotridecanol, ethoxylated 3 mol EO CAS: 69011-36-5 EC: 500-241-6	Oral	Non-applicable	Non-applicable	Non-applicable	Non-applicable
	Dermal	Non-applicable	Non-applicable	2080 mg/kg	Non-applicable
	Inhalation	Non-applicable	Non-applicable	294 mg/m <sup>3</sup>	Non-applicable
Sodium benzoate CAS: 532-32-1 EC: 208-534-8	Oral	Non-applicable	Non-applicable	Non-applicable	Non-applicable
	Dermal	Non-applicable	Non-applicable	62.5 mg/kg	Non-applicable
	Inhalation	Non-applicable	Non-applicable	3 mg/m <sup>3</sup>	0.1 mg/m <sup>3</sup>
2-(2-butoxyethoxy)ethanol CAS: 112-34-5 EC: 203-961-6	Oral	Non-applicable	Non-applicable	Non-applicable	Non-applicable
	Dermal	Non-applicable	Non-applicable	83 mg/kg	Non-applicable
	Inhalation	Non-applicable	101.2 mg/m <sup>3</sup>	67.5 mg/m <sup>3</sup>	67.5 mg/m <sup>3</sup>
Disodium metasilicate CAS: 6834-92-0 EC: 229-912-9	Oral	Non-applicable	Non-applicable	Non-applicable	Non-applicable
	Dermal	Non-applicable	Non-applicable	1.49 mg/kg	Non-applicable
	Inhalation	Non-applicable	Non-applicable	6.22 mg/m <sup>3</sup>	Non-applicable

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

Identification		Short exposure		Long exposure	
		Systemic	Local	Systemic	Local
Silicic acid, sodium salt (1.6 < MR < 2.6) CAS: 1344-09-8 EC: 215-687-4	Oral	Non-applicable	Non-applicable	Non-applicable	Non-applicable
	Dermal	Non-applicable	Non-applicable	1.59 mg/kg	Non-applicable
	Inhalation	Non-applicable	Non-applicable	5.61 mg/m <sup>3</sup>	Non-applicable
Glycerol CAS: 56-81-5 EC: 200-289-5	Oral	Non-applicable	Non-applicable	Non-applicable	Non-applicable
	Dermal	Non-applicable	Non-applicable	Non-applicable	Non-applicable
	Inhalation	Non-applicable	Non-applicable	Non-applicable	56 mg/m <sup>3</sup>
sodium hydroxide CAS: 1310-73-2 EC: 215-185-5	Oral	Non-applicable	Non-applicable	Non-applicable	Non-applicable
	Dermal	Non-applicable	Non-applicable	Non-applicable	Non-applicable
	Inhalation	Non-applicable	Non-applicable	Non-applicable	1 mg/m <sup>3</sup>

**DNEL (General population):**

Identification		Short exposure		Long exposure	
		Systemic	Local	Systemic	Local
Isotridecanol, ethoxylated 3 mol EO CAS: 69011-36-5 EC: 500-241-6	Oral	Non-applicable	Non-applicable	25 mg/kg	Non-applicable
	Dermal	Non-applicable	Non-applicable	1250 mg/kg	Non-applicable
	Inhalation	Non-applicable	Non-applicable	87 mg/m <sup>3</sup>	Non-applicable
Sodium benzoate CAS: 532-32-1 EC: 208-534-8	Oral	Non-applicable	Non-applicable	16.6 mg/kg	Non-applicable
	Dermal	Non-applicable	Non-applicable	31.25 mg/kg	Non-applicable
	Inhalation	Non-applicable	Non-applicable	1.5 mg/m <sup>3</sup>	0.06 mg/m <sup>3</sup>
2-(2-butoxyethoxy)ethanol CAS: 112-34-5 EC: 203-961-6	Oral	Non-applicable	Non-applicable	5 mg/kg	Non-applicable
	Dermal	Non-applicable	Non-applicable	50 mg/kg	Non-applicable
	Inhalation	Non-applicable	60.7 mg/m <sup>3</sup>	40.5 mg/m <sup>3</sup>	40.5 mg/m <sup>3</sup>
Disodium metasilicate CAS: 6834-92-0 EC: 229-912-9	Oral	Non-applicable	Non-applicable	0.74 mg/kg	Non-applicable
	Dermal	Non-applicable	Non-applicable	0.74 mg/kg	Non-applicable
	Inhalation	Non-applicable	Non-applicable	1.55 mg/m <sup>3</sup>	Non-applicable
Silicic acid, sodium salt (1.6 < MR < 2.6) CAS: 1344-09-8 EC: 215-687-4	Oral	Non-applicable	Non-applicable	0.8 mg/kg	Non-applicable
	Dermal	Non-applicable	Non-applicable	0.8 mg/kg	Non-applicable
	Inhalation	Non-applicable	Non-applicable	1.38 mg/m <sup>3</sup>	Non-applicable
Glycerol CAS: 56-81-5 EC: 200-289-5	Oral	Non-applicable	Non-applicable	229 mg/kg	Non-applicable
	Dermal	Non-applicable	Non-applicable	Non-applicable	Non-applicable
	Inhalation	Non-applicable	Non-applicable	Non-applicable	33 mg/m <sup>3</sup>
sodium hydroxide CAS: 1310-73-2 EC: 215-185-5	Oral	Non-applicable	Non-applicable	Non-applicable	Non-applicable
	Dermal	Non-applicable	Non-applicable	Non-applicable	Non-applicable
	Inhalation	Non-applicable	Non-applicable	Non-applicable	1 mg/m <sup>3</sup>

**PNEC:**

Identification				
Isotridecanol, ethoxylated 3 mol EO CAS: 69011-36-5 EC: 500-241-6	STP	1.4 mg/L	Fresh water	0.074 mg/L
	Soil	0.1 mg/kg	Marine water	0.007 mg/L
	Intermittent	0.015 mg/L	Sediment (Fresh water)	0.604 mg/kg
	Oral	Non-applicable	Sediment (Marine water)	0.06 mg/kg
Sodium benzoate CAS: 532-32-1 EC: 208-534-8	STP	10 mg/L	Fresh water	0.13 mg/L
	Soil	0.06 mg/kg	Marine water	0.013 mg/L
	Intermittent	0.305 mg/L	Sediment (Fresh water)	1.76 mg/kg
	Oral	0.3 g/kg	Sediment (Marine water)	0.176 mg/kg
2-(2-butoxyethoxy)ethanol CAS: 112-34-5 EC: 203-961-6	STP	200 mg/L	Fresh water	1.1 mg/L
	Soil	0.32 mg/kg	Marine water	0.11 mg/L
	Intermittent	11 mg/L	Sediment (Fresh water)	4.4 mg/kg
	Oral	0.056 g/kg	Sediment (Marine water)	0.44 mg/kg
Disodium metasilicate CAS: 6834-92-0 EC: 229-912-9	STP	1000 mg/L	Fresh water	7.5 mg/L
	Soil	Non-applicable	Marine water	1 mg/L
	Intermittent	7.5 mg/L	Sediment (Fresh water)	Non-applicable
	Oral	Non-applicable	Sediment (Marine water)	Non-applicable

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

Identification				
Silicic acid, sodium salt (1.6 < MR < 2.6) CAS: 1344-09-8 EC: 215-687-4	STP	348 mg/L	Fresh water	7.5 mg/L
	Soil	Non-applicable	Marine water	1 mg/L
	Intermittent	7.5 mg/L	Sediment (Fresh water)	Non-applicable
	Oral	Non-applicable	Sediment (Marine water)	Non-applicable
Glycerol CAS: 56-81-5 EC: 200-289-5	STP	1000 mg/L	Fresh water	0.885 mg/L
	Soil	0.141 mg/kg	Marine water	0.088 mg/L
	Intermittent	8.85 mg/L	Sediment (Fresh water)	3.3 mg/kg
	Oral	Non-applicable	Sediment (Marine water)	0.33 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>>. 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**


The use of protection equipment will be necessary if a mist forms or if the occupational exposure limits are exceeded.

**C.- Specific protection for the hands**

Pictogram	PPE	Remarks
 Mandatory hand protection	Chemical protective gloves (Material: Nitrile/Neoprene, Breakthrough time: > 480 min, Thickness: 0.08 mm, Conditions of use: Normal)	Replace the gloves at any sign of deterioration.
 Mandatory hand protection	Chemical protective gloves (Material: PVC, Breakthrough time: > 480 min, Thickness: 0.08 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	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 20345:2012 y EN 13832-1:2007

**F.- Additional emergency measures**

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

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:**

In accordance with the community legislation for the protection of the environment it is recommended to avoid environmental spillage of both the product and its container. For additional information see 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: Yellow  
Odour: Characteristic  
Odour threshold: Non-applicable \*

**Volatility:**

Boiling point at atmospheric pressure: 115 °C  
Vapour pressure at 20 °C: 2280 Pa  
Vapour pressure at 50 °C: 12010.19 Pa (12.01 kPa)  
Evaporation rate at 20 °C: Non-applicable \*

**Product description:**

Density at 20 °C: 1004.9 kg/m<sup>3</sup>  
Relative density at 20 °C: 1.005  
Dynamic viscosity at 20 °C: 30 - 100 cP  
Kinematic viscosity at 20 °C: 30 - 100 mm<sup>2</sup>/s  
Kinematic viscosity at 40 °C: <20.49 mm<sup>2</sup>/s  
Concentration: Non-applicable \*  
pH: 11.5 - 13 (at 100 %)  
Vapour density at 20 °C: Non-applicable \*  
Partition coefficient n-octanol/water 20 °C: Non-applicable \*  
Solubility in water at 20 °C: Non-applicable \*  
Solubility properties: Emulsifiable  
Decomposition temperature: Non-applicable \*  
Melting point/freezing point: Non-applicable \*

**Flammability:**

Flash Point: Non Flammable (>60 °C)  
Flammability (solid, gas): Non-applicable \*  
Autoignition temperature: 204 °C  
Lower flammability limit: Non-applicable \*  
Upper flammability limit: Non-applicable \*

**Particle characteristics:**

Median equivalent diameter: Non-applicable

**9.2 Other information:**

\*Not relevant 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)

### Information with regard to physical hazard classes:

Explosive properties:	Non-applicable *
Oxidising properties:	Non-applicable *
Corrosive to metals:	Non-applicable *
Heat of combustion:	Non-applicable *
Aerosols-total percentage (by mass) of flammable components:	Non-applicable *

### Other safety characteristics:

Surface tension at 20 °C:	Non-applicable *
Refraction index:	Non-applicable *

\*Not relevant 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.

### 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	Not applicable

### 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<sub>2</sub>), 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

Contains glycols. It is recommended not to breathe the vapours for prolonged periods of time due to the possibility of effects that are hazardous to the health.

#### 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, as it does not contain 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.

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

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):

- 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:

The consumption of a considerable dose can cause pulmonary damage.

**Other information:**

Non-applicable

**Specific toxicology information on the substances:**

Identification	Acute toxicity		Genus
	LD50 oral	LD50 dermal	
Alcohol ethoxylated (C9-C11) (6 EO) CAS: 68439-46-3	LD50 oral	500 mg/kg (ATEi)	
	LD50 dermal	Non-applicable	
	LC50 inhalation	Non-applicable	
Isotridecanol, ethoxylated 3 mol EO CAS: 69011-36-5	LD50 oral	>10000 mg/kg	Rat
	LD50 dermal	Non-applicable	
	LC50 inhalation	Non-applicable	
Amides, C8-18 and C18-unsatd., N,N-bis(hydroxyethyl) CAS: 68155-07-7	LD50 oral	>5000 mg/kg	Rat
	LD50 dermal	Non-applicable	
	LC50 inhalation	Non-applicable	
Quaternary ammonium compounds, C12-14-alkyl(hydroxyethyl)dimethyl, ethoxylated, chlorides CAS: 1554325-20-0	LD50 oral	500 mg/kg	Rat
	LD50 dermal	Non-applicable	
	LC50 inhalation	Non-applicable	
Sodium benzoate CAS: 532-32-1	LD50 oral	4070 mg/kg	Rat
	LD50 dermal	Non-applicable	
	LC50 inhalation	Non-applicable	
Glycerol CAS: 56-81-5	LD50 oral	27200 mg/kg	Rat
	LD50 dermal	>2000 mg/kg	Guinean pig
	LC50 inhalation	>5.85 mg/L (6 h)	Rat
sodium hydroxide CAS: 1310-73-2	LD50 oral	>2000 mg/kg	
	LD50 dermal	Non-applicable	
	LC50 inhalation	Non-applicable	

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**SECTION 12: ECOLOGICAL INFORMATION**

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

**12.1 Toxicity:**

**Acute toxicity:**

Identification	Concentration		Species	Genus
	LC50	EC50		
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	Non-applicable		
Isotridecanol, ethoxylated 3 mol EO CAS: 69011-36-5	LC50	>10 - 100 mg/L (96 h)		Fish
	EC50	>10 - 100 mg/L (48 h)		Crustacean
	EC50	>10 - 100 mg/L (72 h)		Algae
Amides, C8-18 and C18-unsatd., N,N-bis(hydroxyethyl) CAS: 68155-07-7	LC50	>1 - 10 mg/L (96 h)		Fish
	EC50	>1 - 10 mg/L (48 h)		Crustacean
	EC50	>1 - 10 mg/L (72 h)		Algae
2-(2-butoxyethoxy)ethanol CAS: 112-34-5	LC50	1300 mg/L (96 h)	Lepomis macrochirus	Fish
	EC50	2850 mg/L (24 h)	Daphnia magna	Crustacean
	EC50	53 mg/L (192 h)	Microcystis aeruginosa	Algae
Disodium metasilicate CAS: 6834-92-0	LC50	210 mg/L (96 h)	Brachydanio rerio	Fish
	EC50	216 mg/L (96 h)	Daphnia magna	Crustacean
	EC50	Non-applicable		
Silicic acid, sodium salt (1.6 < MR < 2.6) CAS: 1344-09-8	LC50	260 mg/L (96 h)	N/A	Fish
	EC50	750 mg/L (48 h)	N/A	Crustacean
	EC50	345 mg/L (72 h)	N/A	Algae
sodium hydroxide CAS: 1310-73-2	LC50	189 mg/L (48 h)	Leuciscus idus	Fish
	EC50	33 mg/L	Crangon crangon	Crustacean
	EC50	Non-applicable		

**Chronic toxicity:**

Identification	Concentration		Species	Genus
	NOEC	EC50		
Amides, C8-18 and C18-unsatd., N,N-bis(hydroxyethyl) CAS: 68155-07-7	NOEC	0.07 mg/L	Daphnia magna	Crustacean
	NOEC	Non-applicable		

**12.2 Persistence and degradability:**

**Substance-specific information:**

Identification	Degradability		Biodegradability	
	Parameter	Value	Parameter	Value
Alcohol ethoxylated (C9-C11) (6 EO) CAS: 68439-46-3	BOD5	Non-applicable	Concentration	Non-applicable
	COD	Non-applicable	Period	28 days
	BOD5/COD	Non-applicable	% Biodegradable	60 %
2-(2-butoxyethoxy)ethanol CAS: 112-34-5	BOD5	0.25 g O2/g	Concentration	100 mg/L
	COD	2.08 g O2/g	Period	28 days
	BOD5/COD	0.12	% Biodegradable	92 %
Glycerol CAS: 56-81-5	BOD5	Non-applicable	Concentration	100 mg/L
	COD	Non-applicable	Period	14 days
	BOD5/COD	Non-applicable	% Biodegradable	63 %

**12.3 Bioaccumulative potential:**

**Substance-specific information:**

Identification	Bioaccumulation potential	
	Parameter	Value
Distillates (petroleum), hydrotreated light CAS: 64742-47-8	BCF	130
	Pow Log	3.3
	Potential	High
2-(2-butoxyethoxy)ethanol CAS: 112-34-5	BCF	0.46
	Pow Log	0.56
	Potential	Low

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## SECTION 12: ECOLOGICAL INFORMATION (continued)

Identification	Bioaccumulation potential	
Glycerol CAS: 56-81-5	BCF	3
	Pow Log	-1.76
	Potential	Low

### 12.4 Mobility in soil:

Identification	Absorption/desorption		Volatility	
2-(2-butoxyethoxy)ethanol CAS: 112-34-5	Koc	48	Henry	7.2E-9 Pa·m <sup>3</sup> /mol
	Conclusion	Very High	Dry soil	No
	Surface tension	3.395E-2 N/m (25 °C)	Moist soil	No
Glycerol CAS: 56-81-5	Koc	Non-applicable	Henry	Non-applicable
	Conclusion	Non-applicable	Dry soil	Non-applicable
	Surface tension	6.516E-2 N/m (25 °C)	Moist soil	Non-applicable

### 12.5 Results of PBT and vPvB assessment:

Product fails to meet PBT/vPvB criteria

### 12.6 Other adverse effects:

Not described

## SECTION 13: DISPOSAL CONSIDERATIONS

### 13.1 Waste treatment methods:

Code	Description	Waste class
20 01 29*	detergents containing hazardous substances	Dangerous

#### Type of waste:

HP5 Specific Target Organ Toxicity (STOT)/Aspiration Toxicity, HP14 Ecotoxic, HP4 Irritant — skin irritation and eye damage

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

Consult the authorized waste service manager on the assessment and disposal operations in accordance The Waste 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-dangerous 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 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:

- Substances listed in UK candidate list of substances of very high concern (SVHCs): Non-applicable
- Substances listed in UK REACH Authorisation List (Annex 14): Non-applicable

#### 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:

**SECTION 15: REGULATORY INFORMATION (continued)**

Component	Concentration interval
Aliphatic hydrocarbons	5 <= % (w/w) < 15
Non-ionic surfactants	15 <= % (w/w) < 30
Cationic surfactants	% (w/w) < 5

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

Contains more than 3 % of 2-(2-butoxyethoxy)ethanol by weight. 1. Shall not be placed on the market for the first time after 27 June 2010, for supply to the general public, as a constituent of spray paints or spray cleaners in aerosol dispensers in concentrations equal to or greater than 3 % by weight. 2. Spray paints and spray cleaners in aerosol dispensers containing DEGBE and not conforming to paragraph 1 shall not be placed on the market for supply to the general public after 27 December 2010. 3. Without prejudice to other Community legislation concerning the classification, packaging and labelling of substances and mixtures, suppliers shall ensure before the placing on the market that paints other than spray paints containing DEGBE in concentrations equal to or greater than 3 % by weight of that are placed on the market for supply to the general public are visibly, legibly and indelibly marked by 27 December 2010 as follows: 'Do not use in paint spraying equipment'.

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:**

H315: Causes skin irritation.

H318: Causes serious eye damage.

H304: May be fatal if swallowed and enters airways.

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:**

Acute Tox. 4: H302 - Harmful if swallowed.

Aquatic Chronic 2: H411 - Toxic to aquatic life with long lasting effects.

Aquatic Chronic 3: H412 - Harmful to aquatic life with long lasting effects.

Asp. Tox. 1: H304 - May be fatal if swallowed and enters airways.

Eye Dam. 1: H318 - Causes serious eye damage.

Eye Irrit. 2: H319 - Causes serious eye irritation.

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.

Skin Irrit. 2: H315 - Causes skin irritation.

STOT SE 3: H335 - May cause respiratory irritation.

**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.

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

**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 -