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

1.1 Product identifier: Citrol
C834

Other means of identification:

Non-applicable

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

Relevant uses: Degreaser. 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:

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
Eye Dam. 1: Serious eye damage, Category 1, H318
Skin Irrit. 2: Skin irritation, Category 2, H315
Skin Sens. 1B: Sensitisation, skin, Category 1B, H317

2.2 Label elements:

GB CLP Regulation:

Danger

Hazard statements:

Aquatic Chronic 3: H412 - Harmful to aquatic life with long lasting effects.
Eye Dam. 1: H318 - Causes serious eye damage.
Skin Irrit. 2: H315 - Causes skin irritation.
Skin Sens. 1B: H317 - May cause an allergic skin reaction.

Precautionary statements:

P273: Avoid release to the environment.
P280: Wear protective gloves/eye protection/face 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.
P333+P313: If skin irritation or rash occurs: Get medical advice/attention.
P501: Dispose of the contents/containers in accordance with the current legislation on waste treatment

Supplementary information:

Contains Hydrocarbons, terpene processing by-products.

Substances that contribute to the classification

Alcohols, C13-15, branched and linear, ethoxylated (CAS: 157627-86-6)

Labelling for contents:

- CONTINUED ON NEXT PAGE -

SECTION 2: HAZARDS IDENTIFICATION (continued)

Component	Concentration interval
Non-ionic surfactants	15 <= % (w/w) < 30
Phosphates	% (w/w) < 5
perfumes	

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 composed of additives, emulsions in solvents

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: 157627-86-6	**Alcohols, C13-15, branched and linear, ethoxylated** Acute Tox. 4: H302; Aquatic Chronic 3: H412; Eye Dam. 1: H318 - Danger	**3 - <10 %**
CAS: 68155-07-7	**Amides, C8-18 and C18-unsatd., N,N-bis(hydroxyethyl)** Aquatic Chronic 2: H411; Eye Dam. 1: H318; Skin Irrit. 2: H315 - Danger	**3 - <10 %**
CAS: 68956-56-9	**Hydrocarbons, terpene processing by-products** Aquatic Chronic 2: H411; Asp. Tox. 1: H304; Eye Irrit. 2: H319; Flam. Liq. 3: H226; Skin Irrit. 2: H315; Skin Sens. 1B: H317 - Danger	**3 - <10 %**
CAS: 112-34-5	**2-(2-butoxyethoxy)ethanol** Eye Irrit. 2: H319 - Warning	**3 - <10 %**
CAS: 532-32-1	**Sodium benzoate** Eye Irrit. 2: H319 - Warning	**3 - <10 %**
CAS: 68439-46-3	**Alcohol ethoxylated (C9-C11) (6 EO)** Acute Tox. 4: H302; Eye Dam. 1: H318 - Danger	**1 - <3 %**
CAS: 157627-86-6	**Alcohols, C13-15, branched and linear, ethoxylated (7 EO)** Acute Tox. 4: H302; Aquatic Chronic 3: H412; Eye Dam. 1: H318 - Danger	**1 - <3 %**
CAS: 128-37-0	**2,6-di-tert-butyl-p-cresol** Aquatic Acute 1: H400; Aquatic Chronic 1: H410 - Warning	**<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 does not contain substances classified as hazardous for inhalation, however, in case of symptoms of intoxication remove the person affected from the exposure area and provide with fresh air. Seek medical attention if the symptoms get worse or 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:

- CONTINUED ON NEXT PAGE -

SECTION 4: FIRST AID MEASURES (continued)

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.

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, manipulation and use, but the product contains flammable substances. In the case of inflammation as a result of improper manipulation, storage or use preferably use polyvalent powder extinguishers (ABC powder), in accordance with the Regulation on fire protection systems.

Unsuitable extinguishing media:

IT IS RECOMMENDED NOT to use full jet water as an extinguishing agent.

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. 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:

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.

SECTION 7: HANDLING AND STORAGE

7.1 Precautions for safe handling:

- CONTINUED ON NEXT PAGE -

SECTION 7: HANDLING AND STORAGE (continued)

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

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.- Technical measures for storage

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 monitored in the workplace:

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

Identification	Occupational exposure limits		
Glycerol	WEL (8h)		10 mg/m³
CAS: 56-81-5	WEL (15 min)		
2,6-di-tert-butyl-p-cresol	WEL (8h)		10 mg/m³
CAS: 128-37-0	WEL (15 min)		
2-(2-butoxyethoxy)ethanol	WEL (8h)	10 ppm	67.5 mg/m³
CAS: 112-34-5	WEL (15 min)	15 ppm	101.2 mg/m³

DNEL (Workers):

Identification		Short exposure		Long exposure	
		Systemic	Local	Systemic	Local
Hydrocarbons, terpene processing by-products	Oral	Non-applicable	Non-applicable	Non-applicable	Non-applicable
CAS: 68956-56-9	Dermal	Non-applicable	Non-applicable	0.8 mg/kg	Non-applicable
EC: 273-309-3	Inhalation	Non-applicable	Non-applicable	2.9 mg/m³	Non-applicable
2-(2-butoxyethoxy)ethanol	Oral	Non-applicable	Non-applicable	Non-applicable	Non-applicable
CAS: 112-34-5	Dermal	Non-applicable	Non-applicable	83 mg/kg	Non-applicable
EC: 203-961-6	Inhalation	Non-applicable	101.2 mg/m³	67.5 mg/m³	67.5 mg/m³
Sodium benzoate	Oral	Non-applicable	Non-applicable	Non-applicable	Non-applicable
CAS: 532-32-1	Dermal	Non-applicable	Non-applicable	62.5 mg/kg	Non-applicable
EC: 208-534-8	Inhalation	Non-applicable	Non-applicable	3 mg/m³	0.1 mg/m³
2,6-di-tert-butyl-p-cresol	Oral	Non-applicable	Non-applicable	Non-applicable	Non-applicable
CAS: 128-37-0	Dermal	Non-applicable	Non-applicable	0.5 mg/kg	Non-applicable
EC: 204-881-4	Inhalation	Non-applicable	Non-applicable	3.5 mg/m³	Non-applicable

DNEL (General population):

- CONTINUED ON NEXT PAGE -

SECTION 8: EXPOSURE CONTROLS/PERSONAL PROTECTION (continued)

Identification		Short exposure		Long exposure	
		Systemic	Local	Systemic	Local
Hydrocarbons, terpene processing by-products	Oral	Non-applicable	Non-applicable	0.3 mg/kg	Non-applicable
CAS: 68956-56-9	Dermal	Non-applicable	Non-applicable	0.3 mg/kg	Non-applicable
EC: 273-309-3	Inhalation	Non-applicable	Non-applicable	0.7 mg/m³	Non-applicable
2-(2-butoxyethoxy)ethanol	Oral	Non-applicable	Non-applicable	5 mg/kg	Non-applicable
CAS: 112-34-5	Dermal	Non-applicable	Non-applicable	50 mg/kg	Non-applicable
EC: 203-961-6	Inhalation	Non-applicable	60.7 mg/m³	40.5 mg/m³	40.5 mg/m³
Sodium benzoate	Oral	Non-applicable	Non-applicable	16.6 mg/kg	Non-applicable
CAS: 532-32-1	Dermal	Non-applicable	Non-applicable	31.25 mg/kg	Non-applicable
EC: 208-534-8	Inhalation	Non-applicable	Non-applicable	1.5 mg/m³	0.06 mg/m³
2,6-di-tert-butyl-p-cresol	Oral	Non-applicable	Non-applicable	Non-applicable	Non-applicable
CAS: 128-37-0	Dermal	Non-applicable	Non-applicable	0.25 mg/kg	Non-applicable
EC: 204-881-4	Inhalation	Non-applicable	Non-applicable	0.86 mg/m³	Non-applicable

PNEC:

Identification				
Hydrocarbons, terpene processing by-products	STP	6.4 mg/L	Fresh water	0.0021 mg/L
CAS: 68956-56-9	Soil	0.11 mg/kg	Marine water	0.00021 mg/L
EC: 273-309-3	Intermittent	0.021 mg/L	Sediment (Fresh water)	0.542 mg/kg
	Oral	0.0131 g/kg	Sediment (Marine water)	0.0542 mg/kg
2-(2-butoxyethoxy)ethanol	STP	200 mg/L	Fresh water	1.1 mg/L
CAS: 112-34-5	Soil	0.32 mg/kg	Marine water	0.11 mg/L
EC: 203-961-6	Intermittent	11 mg/L	Sediment (Fresh water)	4.4 mg/kg
	Oral	0.056 g/kg	Sediment (Marine water)	0.44 mg/kg
Sodium benzoate	STP	10 mg/L	Fresh water	0.13 mg/L
CAS: 532-32-1	Soil	0.06 mg/kg	Marine water	0.013 mg/L
EC: 208-534-8	Intermittent	0.305 mg/L	Sediment (Fresh water)	1.76 mg/kg
	Oral	0.3 g/kg	Sediment (Marine water)	0.176 mg/kg
2,6-di-tert-butyl-p-cresol	STP	0.17 mg/L	Fresh water	0.000199 mg/L
CAS: 128-37-0	Soil	0.04769 mg/kg	Marine water	0.00002 mg/L
EC: 204-881-4	Intermittent	0.00199 mg/L	Sediment (Fresh water)	0.0996 mg/kg
	Oral	0.00833 g/kg	Sediment (Marine water)	0.00996 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: 0.1 mm, Conditions of use: Normal)	Replace the gloves at any sign of deterioration.
 Mandatory hand protection	Chemical protective gloves (Material: Butyl, Breakthrough time: > 480 min, Thickness: 0.1 mm, Conditions of use: Normal)	Replace the gloves at any sign of deterioration.

- CONTINUED ON NEXT PAGE -

SECTION 8: EXPOSURE CONTROLS/PERSONAL PROTECTION (continued)

Pictogram	PPE	Remarks
 Mandatory hand protection	Chemical protective gloves (Material: PVC, 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	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

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 ºC:	Liquid
Appearance:	Transparent
Colour:	Wheat
Odour:	Fruity
Odour threshold:	Non-applicable *

Volatility:

Boiling point at atmospheric pressure:	107 ºC
Vapour pressure at 20 ºC:	2308 Pa
Vapour pressure at 50 ºC:	12159.36 Pa (12.16 kPa)
Evaporation rate at 20 ºC:	Non-applicable *

Product description:

*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)

Density at 20 ºC:	Non-applicable *
Relative density at 20 ºC:	1.043
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:	10.5 - 11.5 (at 100 %)
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:	Emulsifiable
Decomposition temperature:	Non-applicable *
Melting point/freezing point:	Non-applicable *
Flammability:	
Flash Point:	>61 ºC
Flammability (solid, gas):	Non-applicable *
Autoignition temperature:	204 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 *
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 *

*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	Precaution	Precaution	Not applicable

- CONTINUED ON NEXT PAGE -

SECTION 10: STABILITY AND REACTIVITY (continued)

10.5 Incompatible materials:

Acids	Water	Oxidising materials	Combustible materials	Others
Avoid strong acids	Not applicable	Avoid direct impact	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

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, as it does not 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):

- 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: Prolonged contact with the skin can result in episodes of allergic contact dermatitis.

F- Specific target organ toxicity (STOT) - single 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.

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. However, it does contain substances classified as hazardous for this effect. For more information see section 3.

Other information:

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SECTION 11: TOXICOLOGICAL INFORMATION (continued)

Non-applicable

Specific toxicology information on the substances:

Identification	Acute toxicity		Genus
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	
Alcohols, C13-15, branched and linear, ethoxylated CAS: 157627-86-6	LD50 oral	500 mg/kg (ATEi)	
	LD50 dermal	Non-applicable	
	LC50 inhalation	Non-applicable	
Alcohol ethoxylated (C9-C11) (6 EO) CAS: 68439-46-3	LD50 oral	500 mg/kg (ATEi)	
	LD50 dermal	Non-applicable	
	LC50 inhalation	Non-applicable	
Alcohols, C13-15, branched and linear, ethoxylated (7 EO) CAS: 157627-86-6	LD50 oral	500 mg/kg (ATEi)	
	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	
2,6-di-tert-butyl-p-cresol CAS: 128-37-0	LD50 oral	10000 mg/kg	Rat
	LD50 dermal	Non-applicable	
	LC50 inhalation	Non-applicable	

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
Alcohols, C13-15, branched and linear, ethoxylated CAS: 157627-86-6	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
Hydrocarbons, terpene processing by-products CAS: 68956-56-9	LC50	5.07 mg/L (96 h)	Danio rerio	Fish
	EC50	2.1 mg/L (48 h)	Daphnia magna	Crustacean
	EC50	4.8 mg/L (72 h)	Pseudokirchneriella subcapitata	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
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		
Alcohols, C13-15, branched and linear, ethoxylated (7 EO) CAS: 157627-86-6	LC50	>10 - 100 mg/L (96 h)		Fish
	EC50	>10 - 100 mg/L (48 h)		Crustacean
	EC50	>10 - 100 mg/L (72 h)		Algae
2,6-di-tert-butyl-p-cresol CAS: 128-37-0	LC50	0.57 mg/L (96 h)	Brachydanio rerio	Fish
	EC50	0.61 mg/L (48 h)	Daphnia magna	Crustacean
	EC50	Non-applicable		

Chronic toxicity:

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SECTION 12: ECOLOGICAL INFORMATION (continued)

Identification	Concentration		Species	Genus
Amides, C8-18 and C18-unsatd., N,N-bis(hydroxyethyl)	NOEC	0.07 mg/L	Daphnia magna	Crustacean
CAS: 68155-07-7	NOEC	Non-applicable		
2,6-di-tert-butyl-p-cresol	NOEC	0.053 mg/L	Oryzias latipes	Fish
CAS: 128-37-0	NOEC	0.069 mg/L	Daphnia magna	Crustacean

12.2 Persistence and degradability:

Substance-specific information:

Identification	Degradability		Biodegradability	
Hydrocarbons, terpene processing by-products	BOD5	Non-applicable	Concentration	2 mg/L
CAS: 68956-56-9	COD	Non-applicable	Period	28 days
	BOD5/COD	Non-applicable	% Biodegradable	83 %
2-(2-butoxyethoxy)ethanol	BOD5	0.25 g O2/g	Concentration	100 mg/L
CAS: 112-34-5	COD	2.08 g O2/g	Period	28 days
	BOD5/COD	0.12	% Biodegradable	92 %
Alcohol ethoxylated (C9-C11) (6 EO)	BOD5	Non-applicable	Concentration	Non-applicable
CAS: 68439-46-3	COD	Non-applicable	Period	28 days
	BOD5/COD	Non-applicable	% Biodegradable	60 %
2,6-di-tert-butyl-p-cresol	BOD5	Non-applicable	Concentration	50 mg/L
CAS: 128-37-0	COD	Non-applicable	Period	28 days
	BOD5/COD	Non-applicable	% Biodegradable	4.5 %

12.3 Bioaccumulative potential:

Substance-specific information:

Identification	Bioaccumulation potential	
2-(2-butoxyethoxy)ethanol	BCF	0.46
CAS: 112-34-5	Pow Log	0.56
	Potential	Low
2,6-di-tert-butyl-p-cresol	BCF	1365
CAS: 128-37-0	Pow Log	5.1
	Potential	Very High

12.4 Mobility in soil:

Identification	Absorption/desorption		Volatility	
2-(2-butoxyethoxy)ethanol	Koc	48	Henry	7.2E-9 Pa·m³/mol
CAS: 112-34-5	Conclusion	Very High	Dry soil	No
	Surface tension	3.395E-2 N/m (25 ºC)	Moist soil	No
2,6-di-tert-butyl-p-cresol	Koc	8183	Henry	3.42E-1 Pa·m³/mol
CAS: 128-37-0	Conclusion	Immobile	Dry soil	Yes
	Surface tension	1.255E-2 N/m (258.85 ºC)	Moist soil	Yes

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:

HP14 Ecotoxic, HP4 Irritant — skin irritation and eye damage

Waste management (disposal and evaluation):

- CONTINUED ON NEXT PAGE -

SECTION 13: DISPOSAL CONSIDERATIONS (continued)

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:

Component	Concentration interval
Non-ionic surfactants	15 <= % (w/w) < 30
Phosphates	% (w/w) < 5
perfumes	

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.

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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.
H412: Harmful to aquatic life with long lasting effects.
H317: May cause an allergic skin reaction.

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 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.
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.
Flam. Liq. 3: H226 - Flammable liquid and vapour.
Skin Irrit. 2: H315 - Causes skin irritation.
Skin Sens. 1B: H317 - May cause an allergic skin reaction.

Classification procedure:

Skin Irrit. 2: Calculation method
Eye Dam. 1: Calculation method
Aquatic Chronic 3: Calculation method
Skin Sens. 1B: 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

- END OF SAFETY DATA SHEET -