Date of compilation: 07/09/2023 Version: 1

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

1.1 Product identifier: Wypit
c504

Other means of identification:

Non-applicable

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

Relevant uses: cosmetic. 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:

The product is not classified as hazardous according to GB CLP Regulation.

2.2 Label elements:

This Regulation shall not apply to substances and mixtures in the following forms, which are in the finished state, intended for the final user: cosmetic products.

GB CLP Regulation:

Hazard statements:

Non-applicable

Precautionary statements:

Non-applicable

Supplementary information:

EUH210: Safety data sheet available on request.

2.3 Other hazards:

Product does not meet PBT/vPvB criteria

SECTION 3: COMPOSITION/INFORMATION ON INGREDIENTS

3.1 Substance:

Non-applicable

3.2 Mixture:

Chemical description: Mixture of substances

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: 5989-27-5	**(r)-p-mentha-1,8-diene** Aquatic Acute 1: H400; Aquatic Chronic 1: H410; Asp. Tox. 1: H304; Flam. Liq. 3: H226; Skin Irrit. 2: H315; Skin Sens. 1: H317 - Danger	**1 - <3 %**
CAS: 68139-30-0	**1-Propanaminium, N-(3-aminopropyl)-2-hydroxy-N,N-dimethyl-3-sulfo-, N-coco acyl derivs., hydroxides, inner salts** Aquatic Chronic 2: H411; Eye Dam. 1: H318 - Danger	**1 - <3 %**
CAS: 5989-54-8	**Dipentene** Aquatic Acute 1: H400; Aquatic Chronic 1: H410; Asp. Tox. 1: H304; Flam. Liq. 3: H226; Skin Irrit. 2: H315; Skin Sens. 1B: H317 - Danger	**<1 %**

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SECTION 3: COMPOSITION/INFORMATION ON INGREDIENTS (continued)

Identification	Chemical name/Classification	Concentration
CAS: 127-91-3	**Pin-2(10)-ene** Aquatic Acute 1: H400; Aquatic Chronic 1: H410; Asp. Tox. 1: H304; Flam. Liq. 3: H226; Skin Irrit. 2: H315; Skin Sens. 1B: H317 - Danger	**<1 %**
CAS: 80-56-8	**Pin-2(3)-ene** Acute Tox. 4: H302; Aquatic Acute 1: H400; Aquatic Chronic 1: H410; Asp. Tox. 1: H304; Flam. Liq. 3: H226; Skin Irrit. 2: H315; Skin Sens. 1B: H317 - Danger	**<1 %**
CAS: 99-85-4	**p-mentha-1,4-diene** Asp. Tox. 1: H304; Flam. Liq. 3: H226; Repr. 2: H361 - Danger	**<1 %**
CAS: 52-51-7	**bronopol (INN)** Acute Tox. 3: H301+H331; Acute Tox. 4: H312; Aquatic Acute 1: H400; Aquatic Chronic 2: H411; Eye Dam. 1: H318; Skin Irrit. 2: H315; STOT SE 3: H335 - 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:

In case the skin is affected (stinging, redness, rashes, blisters,...), seek medical help with this Safety Data Form.

By eye contact:

Rinse eyes thoroughly with water for at least 15 minutes. If the injured person uses contact lenses, these should be removed unless they are stuck to the eyes, in which case removal could cause further damage. In all cases, after cleaning, a doctor should be consulted as quickly as possible with the SDS for the product.

By ingestion/aspiration:

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

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

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

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:

- CONTINUED ON NEXT PAGE -

SECTION 5: FIREFIGHTING MEASURES (continued)

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:

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

6.3 Methods and material for containment and cleaning up:

It is recommended:

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:

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

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

7.2 Conditions for safe storage, including any incompatibilities:

A.- 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:

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SECTION 8: EXPOSURE CONTROLS/PERSONAL PROTECTION (continued)

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

There are no applicable occupational exposure limits for the substances contained in the product

DNEL (Workers):

		Short exposure		Long exposure	
Identification		Systemic	Local	Systemic	Local
(r)-p-mentha-1,8-diene	Oral	Non-applicable	Non-applicable	Non-applicable	Non-applicable
CAS: 5989-27-5	Dermal	Non-applicable	Non-applicable	9.5 mg/kg	Non-applicable
EC: 227-813-5	Inhalation	Non-applicable	Non-applicable	66.7 mg/m³	Non-applicable
Dipentene	Oral	Non-applicable	Non-applicable	Non-applicable	Non-applicable
CAS: 5989-54-8	Dermal	Non-applicable	Non-applicable	Non-applicable	Non-applicable
EC: 227-815-6	Inhalation	Non-applicable	Non-applicable	33.3 mg/m³	Non-applicable
Pin-2(10)-ene	Oral	Non-applicable	Non-applicable	Non-applicable	Non-applicable
CAS: 127-91-3	Dermal	Non-applicable	Non-applicable	0.8 mg/kg	Non-applicable
EC: 204-872-5	Inhalation	Non-applicable	Non-applicable	5.69 mg/m³	Non-applicable
Pin-2(3)-ene	Oral	Non-applicable	Non-applicable	Non-applicable	Non-applicable
CAS: 80-56-8	Dermal	Non-applicable	Non-applicable	0.542 mg/kg	Non-applicable
EC: 201-291-9	Inhalation	Non-applicable	Non-applicable	3.8 mg/m³	Non-applicable
p-mentha-1,4-diene	Oral	Non-applicable	Non-applicable	Non-applicable	Non-applicable
CAS: 99-85-4	Dermal	Non-applicable	Non-applicable	0.833 mg/kg	Non-applicable
EC: 202-794-6	Inhalation	Non-applicable	Non-applicable	2.939 mg/m³	Non-applicable
bronopol (INN)	Oral	Non-applicable	Non-applicable	Non-applicable	Non-applicable
CAS: 52-51-7	Dermal	Non-applicable	Non-applicable	2 mg/kg	Non-applicable
EC: 200-143-0	Inhalation	Non-applicable	Non-applicable	3.5 mg/m³	2.5 mg/m³

DNEL (General population):

		Short exposure		Long exposure	
Identification		Systemic	Local	Systemic	Local
(r)-p-mentha-1,8-diene	Oral	Non-applicable	Non-applicable	4.8 mg/kg	Non-applicable
CAS: 5989-27-5	Dermal	Non-applicable	Non-applicable	4.8 mg/kg	Non-applicable
EC: 227-813-5	Inhalation	Non-applicable	Non-applicable	16.6 mg/m³	Non-applicable
Dipentene	Oral	Non-applicable	Non-applicable	4.76 mg/kg	Non-applicable
CAS: 5989-54-8	Dermal	Non-applicable	Non-applicable	Non-applicable	Non-applicable
EC: 227-815-6	Inhalation	Non-applicable	Non-applicable	8.33 mg/m³	Non-applicable
Pin-2(10)-ene	Oral	Non-applicable	Non-applicable	0.3 mg/kg	Non-applicable
CAS: 127-91-3	Dermal	Non-applicable	Non-applicable	0.3 mg/kg	Non-applicable
EC: 204-872-5	Inhalation	Non-applicable	Non-applicable	1 mg/m³	Non-applicable
Pin-2(3)-ene	Oral	Non-applicable	Non-applicable	0.225 mg/kg	Non-applicable
CAS: 80-56-8	Dermal	Non-applicable	Non-applicable	0.225 mg/kg	Non-applicable
EC: 201-291-9	Inhalation	Non-applicable	Non-applicable	0.674 mg/m³	Non-applicable
p-mentha-1,4-diene	Oral	Non-applicable	Non-applicable	0.417 mg/kg	Non-applicable
CAS: 99-85-4	Dermal	Non-applicable	Non-applicable	0.417 mg/kg	Non-applicable
EC: 202-794-6	Inhalation	Non-applicable	Non-applicable	0.725 mg/m³	Non-applicable
bronopol (INN)	Oral	0.5 mg/kg	Non-applicable	0.18 mg/kg	Non-applicable
CAS: 52-51-7	Dermal	Non-applicable	Non-applicable	0.7 mg/kg	Non-applicable
EC: 200-143-0	Inhalation	Non-applicable	Non-applicable	0.6 mg/m³	Non-applicable

PNEC:

Identification				
(r)-p-mentha-1,8-diene	STP	1.8 mg/L	Fresh water	0.014 mg/L
CAS: 5989-27-5	Soil	0.763 mg/kg	Marine water	0.0014 mg/L
EC: 227-813-5	Intermittent	Non-applicable	Sediment (Fresh water)	3.85 mg/kg
	Oral	0.133 g/kg	Sediment (Marine water)	0.385 mg/kg

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SECTION 8: EXPOSURE CONTROLS/PERSONAL PROTECTION (continued)

Identification				
Dipentene	STP	0.2 mg/L	Fresh water	0.0054 mg/L
CAS: 5989-54-8	Soil	0.262 mg/kg	Marine water	0.00054 mg/L
EC: 227-815-6	Intermittent	0.0036 mg/L	Sediment (Fresh water)	1.322 mg/kg
	Oral	0.133 g/kg	Sediment (Marine water)	0.132 mg/kg
Pin-2(10)-ene	STP	3.26 mg/L	Fresh water	0.001004 mg/L
CAS: 127-91-3	Soil	0.067 mg/kg	Marine water	0.0001 mg/L
EC: 204-872-5	Intermittent	Non-applicable	Sediment (Fresh water)	0.337 mg/kg
	Oral	0.0131 g/kg	Sediment (Marine water)	0.034 mg/kg
Pin-2(3)-ene	STP	0.2 mg/L	Fresh water	0.000606 mg/L
CAS: 80-56-8	Soil	0.0317 mg/kg	Marine water	0.000061 mg/L
EC: 201-291-9	Intermittent	0.00303 mg/L	Sediment (Fresh water)	0.157 mg/kg
	Oral	0.00876 g/kg	Sediment (Marine water)	0.0157 mg/kg
p-mentha-1,4-diene	STP	10 mg/L	Fresh water	0.003 mg/L
CAS: 99-85-4	Soil	0.423 mg/kg	Marine water	0 mg/L
EC: 202-794-6	Intermittent	Non-applicable	Sediment (Fresh water)	0.49 mg/kg
	Oral	Non-applicable	Sediment (Marine water)	0.049 mg/kg
bronopol (INN)	STP	0.43 mg/L	Fresh water	0.01 mg/L
CAS: 52-51-7	Soil	0.5 mg/kg	Marine water	0.001 mg/L
EC: 200-143-0	Intermittent	0.003 mg/L	Sediment (Fresh water)	0.041 mg/kg
	Oral	Non-applicable	Sediment (Marine water)	0.003 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

Non-applicable

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

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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 ºC:	Liquid
Appearance:	Not available
Colour:	Not available
Odour:	Not available
Odour threshold:	Non-applicable *

Volatility:

Boiling point at atmospheric pressure:	110 ºC
Vapour pressure at 20 ºC:	2291 Pa
Vapour pressure at 50 ºC:	12071.06 Pa (12.07 kPa)
Evaporation rate at 20 ºC:	Non-applicable *

Product description:

Density at 20 ºC:	1024.8 kg/m³
Relative density at 20 ºC:	1.025
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:	Non-applicable *
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:	Non-applicable *
Decomposition temperature:	Non-applicable *
Melting point/freezing point:	Non-applicable *

Flammability:

Flash Point:	61 ºC
Flammability (solid, gas):	Non-applicable *
Autoignition temperature:	255 ºC
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 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

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

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: 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.

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 contains substances classified as hazardous for inhalation. 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: Based on available data, the classification criteria are not met. However, it contains substances classified as hazardous for skin contact. For more information see section 3.
- Contact with the eyes: 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.

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. However, it does 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. However, it contains substances classified as dangerous with sensitising effects. 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. However, it does contain substances classified as hazardous for this effect. For more information see section 3.

Other information:

Non-applicable

Specific toxicology information on the substances:

Identification	Acute toxicity		Genus
(r)-p-mentha-1,8-diene CAS: 5989-27-5	LD50 oral	4400 mg/kg	Rat
	LD50 dermal	>5000 mg/kg	Rabbit
	LC50 inhalation	Non-applicable	
1-Propanaminium, N-(3-aminopropyl)-2-hydroxy-N,N-dimethyl-3-sulfo-, N-coco acyl derivs., hydroxides, inner salts CAS: 68139-30-0	LD50 oral	2950 mg/kg	Rat
	LD50 dermal	>2000 mg/kg	Rat
	LC50 inhalation	Non-applicable	
Pin-2(3)-ene CAS: 80-56-8	LD50 oral	500 mg/kg	Rat
	LD50 dermal	Non-applicable	
	LC50 inhalation	Non-applicable	
p-mentha-1,4-diene CAS: 99-85-4	LD50 oral	3850 mg/kg	Rat
	LD50 dermal	Non-applicable	
	LC50 inhalation	Non-applicable	
bronopol (INN) CAS: 52-51-7	LD50 oral	>193 mg/kg	Rat
	LD50 dermal	1600 mg/kg	Rat
	LC50 inhalation	Non-applicable	

SECTION 12: ECOLOGICAL INFORMATION

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

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SECTION 12: ECOLOGICAL INFORMATION (continued)

12.1 Toxicity:

Acute toxicity:

Identification	Concentration		Species	Genus
(r)-p-mentha-1,8-diene	LC50	>0.1 - 1 mg/L (96 h)		Fish
CAS: 5989-27-5	EC50	>0.1 - 1 mg/L (48 h)		Crustacean
	EC50	>0.1 - 1 mg/L (72 h)		Algae
1-Propanaminium, N-(3-aminopropyl)-2-hydroxy-N,N-dimethyl-3-sulfo-, N-coco acyl derivs., hydroxides, inner salts	LC50	>1 - 10 mg/L (96 h)		Fish
CAS: 68139-30-0	EC50	>1 - 10 mg/L (48 h)		Crustacean
	EC50	>1 - 10 mg/L (72 h)		Algae
Dipentene	LC50	>0.1 - 1 mg/L (96 h)		Fish
CAS: 5989-54-8	EC50	>0.1 - 1 mg/L (48 h)		Crustacean
	EC50	>0.1 - 1 mg/L (72 h)		Algae
Pin-2(10)-ene	LC50	>0.1 - 1 mg/L (96 h)		Fish
CAS: 127-91-3	EC50	>0.1 - 1 mg/L (48 h)		Crustacean
	EC50	>0.1 - 1 mg/L (72 h)		Algae
Pin-2(3)-ene	LC50	>0.1 - 1 mg/L (96 h)		Fish
CAS: 80-56-8	EC50	>0.1 - 1 mg/L (48 h)		Crustacean
	EC50	>0.1 - 1 mg/L (72 h)		Algae
bronopol (INN)	LC50	>0.1 - 1 mg/L (96 h)		Fish
CAS: 52-51-7	EC50	>0.1 - 1 mg/L (48 h)		Crustacean
	EC50	>0.1 - 1 mg/L (72 h)		Algae

12.2 Persistence and degradability:

Substance-specific information:

Identification	Degradability		Biodegradability	
Pin-2(3)-ene	BOD5	Non-applicable	Concentration	100 mg/L
CAS: 80-56-8	COD	Non-applicable	Period	28 days
	BOD5/COD	Non-applicable	% Biodegradable	95 %
p-mentha-1,4-diene	BOD5	Non-applicable	Concentration	Non-applicable
CAS: 99-85-4	COD	Non-applicable	Period	28 days
	BOD5/COD	Non-applicable	% Biodegradable	27 %

12.3 Bioaccumulative potential:

Substance-specific information:

Identification	Bioaccumulation potential	
Pin-2(10)-ene	BCF	440
CAS: 127-91-3	Pow Log	4.35
	Potential	High
Pin-2(3)-ene	BCF	2800
CAS: 80-56-8	Pow Log	4.83
	Potential	Very High

12.4 Mobility in soil:

Identification	Absorption/desorption		Volatility	
Pin-2(10)-ene	Koc	Non-applicable	Henry	Non-applicable
CAS: 127-91-3	Conclusion	Non-applicable	Dry soil	Non-applicable
	Surface tension	2.685E-2 N/m (25 ºC)	Moist soil	Non-applicable
Pin-2(3)-ene	Koc	Non-applicable	Henry	Non-applicable
CAS: 80-56-8	Conclusion	Non-applicable	Dry soil	Non-applicable
	Surface tension	2.587E-2 N/m (25 ºC)	Moist soil	Non-applicable
p-mentha-1,4-diene	Koc	8038	Henry	Non-applicable
CAS: 99-85-4	Conclusion	Immobile	Dry soil	Non-applicable
	Surface tension	2.991E-2 N/m (25 ºC)	Moist soil	Non-applicable

12.5 Results of PBT and vPvB assessment:

- CONTINUED ON NEXT PAGE -

SECTION 12: ECOLOGICAL INFORMATION (continued)

Product does not meet PBT/vPvB criteria

12.6 Other adverse effects:

Not described

SECTION 13: DISPOSAL CONSIDERATIONS

13.1 Waste treatment methods:

Type of waste:

Non-applicable

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

Transport of dangerous goods by land:

With regard to ADR 2023 and RID 2023:

14.1	**UN number:**	UN3082
14.2	**UN proper shipping name:**	ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (1-Propanaminium, N-(3-aminopropyl)-2-hydroxy-N,N-dimethyl-3-sulfo-, N-coco acyl derivs., hydroxides, inner salts; (r)-p-mentha-1,8-diene)
14.3	**Transport hazard class(es):**	9
	Labels:	9
14.4	**Packing group:**	III
14.5	**Environmental hazards:**	Yes
14.6	**Special precautions for user**	
	Tunnel restriction code:	-
	Physico-Chemical properties:	see section 9
	Limited quantities:	5 L
14.7	**Transport in bulk according to Annex II of Marpol and the IBC Code:**	Non-applicable

Transport of dangerous goods by sea:

With regard to IMDG 40-20:

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SECTION 14: TRANSPORT INFORMATION (continued)

14.1	**UN number:**	UN3082
14.2	**UN proper shipping name:**	ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (1-Propanaminium, N-(3-aminopropyl)-2-hydroxy-N,N-dimethyl-3-sulfo-, N-coco acyl derivs., hydroxides, inner salts; (r)-p-mentha-1,8-diene)
14.3	**Transport hazard class(es):**	9
	Labels:	9
14.4	**Packing group:**	III
14.5	**Marine pollutant:**	Yes
14.6	**Special precautions for user**	
	Special regulations:	335, 969, 274
	EmS Codes:	F-A, S-F
	Physico-Chemical properties:	see section 9
	Limited quantities:	5 L
	Segregation group:	Non-applicable
14.7	**Transport in bulk according to Annex II of Marpol and the IBC Code:**	Non-applicable

Transport of dangerous goods by air:

With regard to IATA/ICAO 2023:

14.1	**UN number:**	UN3082
14.2	**UN proper shipping name:**	ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (1-Propanaminium, N-(3-aminopropyl)-2-hydroxy-N,N-dimethyl-3-sulfo-, N-coco acyl derivs., hydroxides, inner salts; (r)-p-mentha-1,8-diene)
14.3	**Transport hazard class(es):**	9
	Labels:	9
14.4	**Packing group:**	III
14.5	**Environmental hazards:**	Yes
14.6	**Special precautions for user**	
	Physico-Chemical properties:	see section 9
14.7	**Transport in bulk according to Annex II of Marpol and the IBC Code:**	Non-applicable

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

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

Non-applicable

Specific provisions in terms of protecting people or the environment:

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

Other legislation:

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

SECTION 16: OTHER INFORMATION

Legislation related to safety data sheets:

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

- CONTINUED ON NEXT PAGE -

SECTION 16: OTHER INFORMATION (continued)

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. 3: H301+H331 - Toxic if swallowed or if inhaled.
Acute Tox. 4: H302 - Harmful if swallowed.
Acute Tox. 4: H312 - Harmful in contact with skin.
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.
Asp. Tox. 1: H304 - May be fatal if swallowed and enters airways.
Eye Dam. 1: H318 - Causes serious eye damage.
Flam. Liq. 3: H226 - Flammable liquid and vapour.
Repr. 2: H361 - Suspected of damaging fertility or the unborn child.
Skin Irrit. 2: H315 - Causes skin irritation.
Skin Sens. 1: H317 - May cause an allergic skin reaction.
Skin Sens. 1B: H317 - May cause an allergic skin reaction.
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.

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 -