Kleenair Bio +
DN220277

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

1.1 Product identifier: Kleenair Bio +
DN220277

Other means of identification:

Non-applicable

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

Relevant uses: Disinfectant ; biocide

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:

GARDX INTERNATIONAL LTD
LAKE HOUSE, 2 PORT WAY, PORT SOLENT,
PO6 4TY PORTSMOUTH - UNITED KINGDOM
Phone: +44 (0)1243 376426
product@gardx.co.uk
www.gardx.co.uk

AUTOMOTOSOL S.R.O
RYBNÁ 716/24
PRAHA 1
110 00
CZECH REPUBLIC

+420 222 703288

1.4 Emergency telephone number: +44 20 38850382 (24 hrs)

SECTION 2: HAZARDS IDENTIFICATION

2.1 Classification of the substance or mixture:

CLP Regulation (EC) No 1272/2008:

The product is not classified as hazardous according to CLP Regulation (EC) No 1272/2008.

2.2 Label elements:

CLP Regulation (EC) No 1272/2008:

Hazard statements:

Non-applicable

Precautionary statements:

P280: Wear protective gloves.
P501: Dispose of the contents/containers in accordance with the current legislation on waste treatment

2.3 Other hazards:

Product fails to meet PBT/vPvB criteria
Endocrine-disrupting properties: The product fails to meet the criteria.

SECTION 3: COMPOSITION/INFORMATION ON INGREDIENTS

3.1 Substance:

Non-applicable

3.2 Mixture:

Chemical description: Aqueous mixture composed of additives and biocides

Components:

In accordance with Annex II of Regulation (EC) No 1907/2006 (point 3), the product contains:

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SECTION 3: COMPOSITION/INFORMATION ON INGREDIENTS (continued)

Identification	Chemical name/Classification		Concentration
CAS: 56-81-5 EC: 200-289-5 Index: Non-applicable REACH: 01-2119471987-18-XXXX	**Glycerol**[1]	Not classified	**50 - <75 %**
	Regulation 1272/2008		
CAS: 57-55-6 EC: 200-338-0 Index: Non-applicable REACH: 01-2119456809-23-XXXX	**Propane-1,2-diol (Vp > 0.01 kPa 20 ºC)**[1]	Not classified	**25 - <50 %**
	Regulation 1272/2008		
CAS: 7173-51-5 EC: 230-525-2 Index: 612-131-00-6 REACH: 01-2119945987-15-XXXX	**Didecyldimethylammonium chloride**[1]	Self-classified	**<1 %**
	Regulation 1272/2008	Acute Tox. 4: H302; Aquatic Acute 1: H400; Aquatic Chronic 2: H411; Skin Corr. 1B: H314 - Danger	
CAS: 84-66-2 EC: 201-550-6 Index: Non-applicable REACH: 01-2119486682-27-XXXX	**Diethyl phthalate**[1]	Not classified	**<1 %**
	Regulation 1272/2008		
CAS: 85409-23-0 EC: 287-090-7 Index: Non-applicable REACH: 01-2120771812-51-XXXX	**Quaternary ammonium compounds, C12-14-alkyl[(ethylphenyl)methyl]dimethyl, chlorides**[1]	Self-classified	**<1 %**
	Regulation 1272/2008	Acute Tox. 4: H302; Aquatic Acute 1: H400; Aquatic Chronic 1: H410; Skin Corr. 1B: H314 - Danger	
CAS: 68391-01-5 EC: 269-919-4 Index: Non-applicable REACH: Non-applicable	**Quaternary ammonium compounds, benzyl-C12-18-alkyldimethyl, chlorides**[1]	Self-classified	**<1 %**
	Regulation 1272/2008	Acute Tox. 4: H302; Aquatic Acute 1: H400; Aquatic Chronic 1: H410; Skin Corr. 1B: H314 - Danger	
CAS: 67-63-0 EC: 200-661-7 Index: 603-117-00-0 REACH: 01-2119457558-25-XXXX	**propan-2-ol**[1]	ATP CLP00	**<1 %**
	Regulation 1272/2008	Eye Irrit. 2: H319; Flam. Liq. 2: H225; STOT SE 3: H336 - Danger	
CAS: 64-17-5 EC: 200-578-6 Index: 603-002-00-5 REACH: 01-2119457610-43-XXXX	**ethanol**[1]	Self-classified	**<1 %**
	Regulation 1272/2008	Eye Irrit. 2: H319; Flam. Liq. 2: H225 - Danger	

[1] Voluntarily-listed substance failing to meet any of the criteria set out in Regulation (EU) No. 2020/878

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

Other information:

Identification	M-factor	
Didecyldimethylammonium chloride CAS: 7173-51-5 EC: 230-525-2	Acute	10
	Chronic	1
Quaternary ammonium compounds, C12-14-alkyl[(ethylphenyl)methyl]dimethyl, chlorides CAS: 85409-23-0 EC: 287-090-7	Acute	10
	Chronic	1
Quaternary ammonium compounds, benzyl-C12-18-alkyldimethyl, chlorides CAS: 68391-01-5 EC: 269-919-4	Acute	10
	Chronic	1

Identification	Specific concentration limit
ethanol CAS: 64-17-5 EC: 200-578-6	% (w/w) >=50: Eye Irrit. 2 - H319

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:

This product is not classified as hazardous when in contact with the skin. However, in case of skin contact it is recommended to remove contaminated clothes and shoes, rinse the skin or if necessary shower the affected person thoroughly with cold water and neutral soap. In case of serious reaction consult a doctor.

By eye contact:

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SECTION 4: FIRST AID MEASURES (continued)

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,...) in accordance with Directive 89/654/EC.

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 spillage into the aquatic environment as it contains substances potentially dangerous for this. Contain the product absorbed in hermetically sealed containers. In the case of serious spillage into the aquatic environment notify the relevant authority.

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

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:

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

2021 Code of Practice for the Chemical Agents Regulations:

Identification	Occupational exposure limits		
Glycerol	OEL (8h)		10 mg/m³
CAS: 56-81-5 EC: 200-289-5	OEL (15 min)		
Benzyl acetate	OEL (8h)	10 ppm	
CAS: 140-11-4 EC: 205-399-7	OEL (15 min)		
Bornan-2-one	OEL (8h)	2 ppm	12 mg/m³
CAS: 76-22-2 EC: 200-945-0	OEL (15 min)	3 ppm	18 mg/m³
ethanol	OEL (8h)		
CAS: 64-17-5 EC: 200-578-6	OEL (15 min)	1000 ppm	
Isopentyl acetate	OEL (8h)	50 ppm	260 mg/m³
CAS: 123-92-2 EC: 204-662-3	OEL (15 min)	100 ppm	520 mg/m³
Citral	OEL (8h)	5 ppm	
CAS: 5392-40-5 EC: 226-394-6	OEL (15 min)		
propan-2-ol	OEL (8h)	200 ppm	
CAS: 67-63-0 EC: 200-661-7	OEL (15 min)	400 ppm	

DNEL (Workers):

Identification		Short exposure		Long exposure	
		Systemic	Local	Systemic	Local
Glycerol	Oral	Non-applicable	Non-applicable	Non-applicable	Non-applicable
CAS: 56-81-5	Dermal	Non-applicable	Non-applicable	Non-applicable	Non-applicable
EC: 200-289-5	Inhalation	Non-applicable	Non-applicable	Non-applicable	56 mg/m³
Propane-1,2-diol (Vp > 0.01 kPa 20 ºC)	Oral	Non-applicable	Non-applicable	Non-applicable	Non-applicable
CAS: 57-55-6	Dermal	Non-applicable	Non-applicable	Non-applicable	Non-applicable
EC: 200-338-0	Inhalation	Non-applicable	Non-applicable	168 mg/m³	10 mg/m³

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SECTION 8: EXPOSURE CONTROLS/PERSONAL PROTECTION (continued)

Identification		Short exposure		Long exposure	
		Systemic	Local	Systemic	Local
Diethyl phthalate	Oral	Non-applicable	Non-applicable	Non-applicable	Non-applicable
CAS: 84-66-2	Dermal	Non-applicable	Non-applicable	15 mg/kg	Non-applicable
EC: 201-550-6	Inhalation	Non-applicable	Non-applicable	10.56 mg/m³	Non-applicable
Quaternary ammonium compounds, C12-14-alkyl[(ethylphenyl) methyl]dimethyl, chlorides	Oral	Non-applicable	Non-applicable	Non-applicable	Non-applicable
CAS: 85409-23-0	Dermal	Non-applicable	Non-applicable	Non-applicable	Non-applicable
EC: 287-090-7	Inhalation	Non-applicable	Non-applicable	Non-applicable	1 mg/m³
propan-2-ol	Oral	Non-applicable	Non-applicable	Non-applicable	Non-applicable
CAS: 67-63-0	Dermal	Non-applicable	Non-applicable	888 mg/kg	Non-applicable
EC: 200-661-7	Inhalation	Non-applicable	Non-applicable	500 mg/m³	Non-applicable
ethanol	Oral	Non-applicable	Non-applicable	Non-applicable	Non-applicable
CAS: 64-17-5	Dermal	Non-applicable	Non-applicable	343 mg/kg	Non-applicable
EC: 200-578-6	Inhalation	Non-applicable	Non-applicable	950 mg/m³	Non-applicable

DNEL (General population):

Identification		Short exposure		Long exposure	
		Systemic	Local	Systemic	Local
Glycerol	Oral	Non-applicable	Non-applicable	229 mg/kg	Non-applicable
CAS: 56-81-5	Dermal	Non-applicable	Non-applicable	Non-applicable	Non-applicable
EC: 200-289-5	Inhalation	Non-applicable	Non-applicable	Non-applicable	33 mg/m³
Propane-1,2-diol (Vp > 0.01 kPa 20 ºC)	Oral	Non-applicable	Non-applicable	Non-applicable	Non-applicable
CAS: 57-55-6	Dermal	Non-applicable	Non-applicable	Non-applicable	Non-applicable
EC: 200-338-0	Inhalation	Non-applicable	Non-applicable	50 mg/m³	10 mg/m³
Diethyl phthalate	Oral	Non-applicable	Non-applicable	0.75 mg/kg	Non-applicable
CAS: 84-66-2	Dermal	Non-applicable	Non-applicable	7.5 mg/kg	Non-applicable
EC: 201-550-6	Inhalation	Non-applicable	Non-applicable	2.6 mg/m³	Non-applicable
Quaternary ammonium compounds, C12-14-alkyl[(ethylphenyl) methyl]dimethyl, chlorides	Oral	Non-applicable	Non-applicable	Non-applicable	Non-applicable
CAS: 85409-23-0	Dermal	Non-applicable	Non-applicable	Non-applicable	Non-applicable
EC: 287-090-7	Inhalation	Non-applicable	Non-applicable	Non-applicable	1 mg/m³
propan-2-ol	Oral	Non-applicable	Non-applicable	26 mg/kg	Non-applicable
CAS: 67-63-0	Dermal	Non-applicable	Non-applicable	319 mg/kg	Non-applicable
EC: 200-661-7	Inhalation	Non-applicable	Non-applicable	89 mg/m³	Non-applicable
ethanol	Oral	Non-applicable	Non-applicable	87 mg/kg	Non-applicable
CAS: 64-17-5	Dermal	Non-applicable	Non-applicable	206 mg/kg	Non-applicable
EC: 200-578-6	Inhalation	Non-applicable	Non-applicable	114 mg/m³	Non-applicable

PNEC:

Identification				
Glycerol	STP	1000 mg/L	Fresh water	0.885 mg/L
CAS: 56-81-5	Soil	0.141 mg/kg	Marine water	0.088 mg/L
EC: 200-289-5	Intermittent	8.85 mg/L	Sediment (Fresh water)	3.3 mg/kg
	Oral	Non-applicable	Sediment (Marine water)	0.33 mg/kg
Propane-1,2-diol (Vp > 0.01 kPa 20 ºC)	STP	20000 mg/L	Fresh water	260 mg/L
CAS: 57-55-6	Soil	50 mg/kg	Marine water	26 mg/L
EC: 200-338-0	Intermittent	183 mg/L	Sediment (Fresh water)	572 mg/kg
	Oral	Non-applicable	Sediment (Marine water)	57.2 mg/kg
Didecyldimethylammonium chloride	STP	0.14 mg/L	Fresh water	0.0011 mg/L
CAS: 7173-51-5	Soil	1.4 mg/kg	Marine water	0.00011 mg/L
EC: 230-525-2	Intermittent	0.00021 mg/L	Sediment (Fresh water)	61.86 mg/kg
	Oral	Non-applicable	Sediment (Marine water)	6.186 mg/kg

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SECTION 8: EXPOSURE CONTROLS/PERSONAL PROTECTION (continued)

Identification				
Diethyl phthalate	STP	2 mg/L	Fresh water	0.012 mg/L
CAS: 84-66-2	Soil	0.137 mg/kg	Marine water	0.0012 mg/L
EC: 201-550-6	Intermittent	0.12 mg/L	Sediment (Fresh water)	0.137 mg/kg
	Oral	0.033 g/kg	Sediment (Marine water)	0.0137 mg/kg
Quaternary ammonium compounds, C12-14-alkyl[(ethylphenyl) methyl]dimethyl, chlorides	STP	0.21 mg/L	Fresh water	0.000415 mg/L
CAS: 85409-23-0	Soil	1.36 mg/kg	Marine water	0.000042 mg/L
EC: 287-090-7	Intermittent	0.000154 mg/L	Sediment (Fresh water)	6.81 mg/kg
	Oral	Non-applicable	Sediment (Marine water)	0.681 mg/kg
propan-2-ol	STP	2251 mg/L	Fresh water	140.9 mg/L
CAS: 67-63-0	Soil	28 mg/kg	Marine water	140.9 mg/L
EC: 200-661-7	Intermittent	140.9 mg/L	Sediment (Fresh water)	552 mg/kg
	Oral	0.16 g/kg	Sediment (Marine water)	552 mg/kg
ethanol	STP	580 mg/L	Fresh water	0.96 mg/L
CAS: 64-17-5	Soil	0.63 mg/kg	Marine water	0.79 mg/L
EC: 200-578-6	Intermittent	2.75 mg/L	Sediment (Fresh water)	3.6 mg/kg
	Oral	0.38 g/kg	Sediment (Marine water)	2.9 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 <<CE marking>> in accordance with Regulation (EU) 2016/425. 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	Labelling	CEN Standard	Remarks
 Mandatory hand protection	Protective gloves against minor risks	CE CAT I		Replace gloves in case of any sign of damage. For prolonged periods of exposure to the product for professional users/industrials, we recommend using CE III gloves in line with standards EN 420:2004+A1:2010 and EN ISO 374-1:2016+A1:2018.

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

D.- Eye and face protection

Pictogram	PPE	Labelling	CEN Standard	Remarks
 Mandatory face protection	Panoramic glasses against splash/projections.	CE CAT II	EN 166:2002 EN ISO 4007:2018	Clean daily and disinfect periodically according to the manufacturer´s instructions. Use if there is a risk of splashing.

E.- Body protection

Pictogram	PPE	Labelling	CEN Standard	Remarks
	Work clothing	CE CAT I		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	CE CAT II	EN ISO 20347:2012	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:	Translucent
Color:	Colourless
Odor:	Not available
Odour threshold:	Non-applicable *

Volatility:

Boiling point at atmospheric pressure:	186 ºC
Vapour pressure at 20 ºC:	154 Pa
Vapour pressure at 50 ºC:	914.86 Pa (0.91 kPa)
Evaporation rate at 20 ºC:	Non-applicable *

Product description:

Density at 20 ºC:	1149.5 kg/m³
Relative density at 20 ºC:	1.146 - 1.156
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:	Slightly soluble in cold water
Decomposition temperature:	Non-applicable *
Melting point/freezing point:	Non-applicable *

Flammability:

Flash Point:	Non Flammable (>60 ºC)
Flammability (solid, gas):	Non-applicable *
Autoignition temperature:	200 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 hazard classes as defined in Regulation (EC) No 1272/2008:

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

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

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SECTION 11: TOXICOLOGICAL INFORMATION (continued)

- 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, as it does not contain substances classified as hazardous for this effect. For more information see section 3.

E- Sensitizing effects:

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

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

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

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

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

H- Aspiration hazard:

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

Other information:

Non-applicable

Specific toxicology information on the substances:

Identification	Acute toxicity		Genus
Glycerol	LD50 oral	12600 mg/kg	Rat
CAS: 56-81-5	LD50 dermal	Non-applicable	
EC: 200-289-5	LC50 inhalation	Non-applicable	
Didecyldimethylammonium chloride	LD50 oral	500 mg/kg	Rat
CAS: 7173-51-5	LD50 dermal	Non-applicable	
EC: 230-525-2	LC50 inhalation	Non-applicable	
Quaternary ammonium compounds, C12-14-alkyl[(ethylphenyl)methyl]dimethyl, chlorides	LD50 oral	397.5 mg/kg	Rat
CAS: 85409-23-0	LD50 dermal	Non-applicable	
EC: 287-090-7	LC50 inhalation	Non-applicable	
Quaternary ammonium compounds, benzyl-C12-18-alkyldimethyl, chlorides	LD50 oral	397.5 mg/kg	Rat
CAS: 68391-01-5	LD50 dermal	Non-applicable	
EC: 269-919-4	LC50 inhalation	Non-applicable	
propan-2-ol	LD50 oral	5280 mg/kg	Rat
CAS: 67-63-0	LD50 dermal	12800 mg/kg	Rat
EC: 200-661-7	LC50 inhalation	72.6 mg/L (4 h)	Rat
ethanol	LD50 oral	6200 mg/kg	Rat
CAS: 64-17-5	LD50 dermal	20000 mg/kg	Rabbit
EC: 200-578-6	LC50 inhalation	124.7 mg/L (4 h)	Rat

11.2 Information on other hazards:

Endocrine disrupting properties

Endocrine-disrupting properties: The product fails to meet the criteria.

Other information

- CONTINUED ON NEXT PAGE -

SECTION 11: TOXICOLOGICAL INFORMATION (continued)

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
Didecyldimethylammonium chloride	LC50	0.33 mg/L (96 h)	Pimephales promelas	Fish
CAS: 7173-51-5	EC50	0.06 mg/L (48 h)	Daphnia magna	Crustacean
EC: 230-525-2	EC50	Non-applicable		
Diethyl phthalate	LC50	61 mg/L (48 h)	Leuciscus idus	Fish
CAS: 84-66-2	EC50	52 mg/L (48 h)	Daphnia magna	Crustacean
EC: 201-550-6	EC50	Non-applicable		
Quaternary ammonium compounds, C12-14-alkyl[(ethylphenyl)methyl] dimethyl, chlorides	LC50	>0.1 - 1 mg/L (96 h)		Fish
CAS: 85409-23-0	EC50	>0.1 - 1 mg/L (48 h)		Crustacean
EC: 287-090-7	EC50	>0.1 - 1 mg/L (72 h)		Algae
Quaternary ammonium compounds, benzyl-C12-18-alkyldimethyl, chlorides	LC50	>0.1 - 1 mg/L (96 h)		Fish
CAS: 68391-01-5	EC50	>0.1 - 1 mg/L (48 h)		Crustacean
EC: 269-919-4	EC50	>0.1 - 1 mg/L (72 h)		Algae
propan-2-ol	LC50	9640 mg/L (96 h)	Pimephales promelas	Fish
CAS: 67-63-0	EC50	13299 mg/L (48 h)	Daphnia magna	Crustacean
EC: 200-661-7	EC50	1000 mg/L (72 h)	Scenedesmus subspicatus	Algae
ethanol	LC50	11000 mg/L (96 h)	Alburnus alburnus	Fish
CAS: 64-17-5	EC50	9268 mg/L (48 h)	Daphnia magna	Crustacean
EC: 200-578-6	EC50	1450 mg/L (192 h)	Microcystis aeruginosa	Algae

Chronic toxicity:

Identification	Concentration		Species	Genus
Didecyldimethylammonium chloride	NOEC	Non-applicable		
CAS: 7173-51-5 EC: 230-525-2	NOEC	0.021 mg/L	Daphnia magna	Crustacean
Diethyl phthalate	NOEC	5 mg/L	Cyprinus carpio	Fish
CAS: 84-66-2 EC: 201-550-6	NOEC	25 mg/L	Daphnia magna	Crustacean
ethanol	NOEC	250 mg/L	Danio rerio	Fish
CAS: 64-17-5 EC: 200-578-6	NOEC	2 mg/L	Ceriodaphnia dubia	Crustacean

12.2 Persistence and degradability:

Substance-specific information:

Identification	Degradability		Biodegradability	
Glycerol	BOD5	Non-applicable	Concentration	100 mg/L
CAS: 56-81-5	COD	Non-applicable	Period	14 days
EC: 200-289-5	BOD5/COD	Non-applicable	% Biodegradable	63 %
Didecyldimethylammonium chloride	BOD5	Non-applicable	Concentration	100 mg/L
CAS: 7173-51-5	COD	Non-applicable	Period	28 days
EC: 230-525-2	BOD5/COD	Non-applicable	% Biodegradable	0 %
Diethyl phthalate	BOD5	Non-applicable	Concentration	100 mg/L
CAS: 84-66-2	COD	Non-applicable	Period	28 days
EC: 201-550-6	BOD5/COD	Non-applicable	% Biodegradable	88 %
propan-2-ol	BOD5	1.19 g O2/g	Concentration	100 mg/L
CAS: 67-63-0	COD	2.23 g O2/g	Period	14 days
EC: 200-661-7	BOD5/COD	0.53	% Biodegradable	86 %

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SECTION 12: ECOLOGICAL INFORMATION (continued)

Identification	Degradability		Biodegradability	
ethanol	BOD5	Non-applicable	Concentration	100 mg/L
CAS: 64-17-5	COD	Non-applicable	Period	14 days
EC: 200-578-6	BOD5/COD	Non-applicable	% Biodegradable	89 %

12.3 Bioaccumulative potential:

Substance-specific information:

Identification	Bioaccumulation potential	
Glycerol	BCF	3
CAS: 56-81-5	Pow Log	-1.76
EC: 200-289-5	Potential	Low
Didecyldimethylammonium chloride	BCF	81
CAS: 7173-51-5	Pow Log	4.66
EC: 230-525-2	Potential	Moderate
Diethyl phthalate	BCF	117
CAS: 84-66-2	Pow Log	2.07
EC: 201-550-6	Potential	High
propan-2-ol	BCF	3
CAS: 67-63-0	Pow Log	0.05
EC: 200-661-7	Potential	Low
ethanol	BCF	3
CAS: 64-17-5	Pow Log	-0.31
EC: 200-578-6	Potential	Low

12.4 Mobility in soil:

Identification	Absorption/desorption		Volatility	
Glycerol	Koc	Non-applicable	Henry	Non-applicable
CAS: 56-81-5	Conclusion	Non-applicable	Dry soil	Non-applicable
EC: 200-289-5	Surface tension	6.516E-2 N/m (25 ºC)	Moist soil	Non-applicable
Propane-1,2-diol (Vp > 0.01 kPa 20 ºC)	Koc	Non-applicable	Henry	Non-applicable
CAS: 57-55-6	Conclusion	Non-applicable	Dry soil	Non-applicable
EC: 200-338-0	Surface tension	3.547E-2 N/m (25 ºC)	Moist soil	Non-applicable
Didecyldimethylammonium chloride	Koc	440000	Henry	Non-applicable
CAS: 7173-51-5	Conclusion	Immobile	Dry soil	Non-applicable
EC: 230-525-2	Surface tension	Non-applicable	Moist soil	Non-applicable
Diethyl phthalate	Koc	Non-applicable	Henry	6.181E-2 Pa·m³/mol
CAS: 84-66-2	Conclusion	Non-applicable	Dry soil	No
EC: 201-550-6	Surface tension	3.699E-2 N/m (25 ºC)	Moist soil	No
propan-2-ol	Koc	1.5	Henry	8.207E-1 Pa·m³/mol
CAS: 67-63-0	Conclusion	Very High	Dry soil	Yes
EC: 200-661-7	Surface tension	2.24E-2 N/m (25 ºC)	Moist soil	Yes
ethanol	Koc	1	Henry	4.61E-1 Pa·m³/mol
CAS: 64-17-5	Conclusion	Very High	Dry soil	Yes
EC: 200-578-6	Surface tension	2.339E-2 N/m (25 ºC)	Moist soil	Yes

12.5 Results of PBT and vPvB assessment:

Product fails to meet PBT/vPvB criteria

12.6 Endocrine disrupting properties:

Endocrine-disrupting properties: The product fails to meet the criteria.

12.7 Other adverse effects:

Not described

SECTION 13: DISPOSAL CONSIDERATIONS

13.1 Waste treatment methods:

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SECTION 13: DISPOSAL CONSIDERATIONS (continued)

Code	Description	Waste class (Regulation (EU) No 1357/2014)
20 01 99	other fractions not otherwise specified	Non dangerous

Type of waste (Regulation (EU) No 1357/2014):

Non-applicable

Waste management (disposal and evaluation):

Consult the authorized waste service manager on the assessment and disposal operations in accordance with Annex 1 and Annex 2 (Directive 2008/98/EC). As under 15 01 (2014/955/EU) 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 Regulation (EC) No 1907/2006 (REACH) the community or state provisions related to waste management are stated

Community legislation: Directive 2008/98/EC, 2014/955/EU, Regulation (EU) No 1357/2014

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:

Composition of the active ingredients (Regulation (EU) No 528/2012): ethanol (0.001%); 2-phenoxyethanol (0.079%); Didecyldimethylammonium chloride (0.3%); Quaternary ammonium compounds, C12-14-alkyl[(ethylphenyl)methyl]dimethyl, chlorides (0.013%); Quaternary ammonium compounds, benzyl-C12-18-alkyldimethyl, chlorides (0.013%); propan-2-ol (0.001%)

Candidate substances for authorisation under the Regulation (EC) No 1907/2006 (REACH): Non-applicable

Substances included in Annex XIV of REACH ("Authorisation List") and sunset date: Non-applicable

Regulation (EC) No 1005/2009, about substances that deplete the ozone layer: Non-applicable

Article 95, REGULATION (EU) No 528/2012: Didecyldimethylammonium chloride (Product-type 1, 2, 3, 4, 8, 10, 11, 12) ; Quaternary ammonium compounds, C12-14-alkyl[(ethylphenyl)methyl]dimethyl, chlorides (Product-type 1, 2, 3, 4, 10, 11, 12, 22) ; Quaternary ammonium compounds, benzyl-C12-18-alkyldimethyl, chlorides (Product-type 1, 2, 3, 4, 10, 11, 12, 22) ; propan-2-ol (Product-type 1, 2, 4) ; ethanol (Product-type 1, 2, 4)

REGULATION (EU) No 649/2012, in relation to the import and export of hazardous chemical products: Contains Didecyldimethylammonium chloride

Limitations to commercialisation and the use of certain dangerous substances and mixtures (Annex XVII 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:

Chemicals (Amendment) Act 2010 (No. 32 of 2010) as amended by S.I. No. 623/2015- Safety, Health and Welfare at Work (Chemical Agents) (Amendment) Regulations 2015
Chemicals Act 2008 (No. 13 of 2008)
Safety, Health and Welfare (chemical agents) (amendment) regulations 2021 (S.I. No. 232 of 2021) and associated Code of Practice
Chemical Agents Regulations (S.I. No. 619 of 2001)
European Communities (Waste Directive) Regulations, S.I. No. 126 of 2011
S.I. No. 315/2016 - European Union (Waste Directive) (Amendment) Regulations 2016.
S.I. No. 323/2020 - European Union (Waste Directive) Regulations 2020
Chemicals Act (Control of Major Accident Hazards involving Dangerous Substances) Regulations 2015 (S.I. No. 209 of 2015)
The Chemicals Act (CLP Regulation) Regulations 2011 (S.I. No. 102 of 2011)

Regulation (EU) No 528/2012 of the European Parliament and of the Council of 22 May 2012 concerning the making available on the market and use of biocidal products

15.2 Chemical safety assessment:

The supplier has not carried out evaluation of chemical safety.

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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-Guide to the compilation of safety data sheets of Regulation (EC) No 1907/2006 (COMMISSION REGULATION (EU) 2020/878)

Modifications related to the previous Safety Data Sheet which concerns the ways of managing risks.:

Non-applicable

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

CLP Regulation (EC) No 1272/2008:

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

Classification procedure:

Non-applicable

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 -