

Kleenair Bio
L5120

Date of compilation: 23/12/2022 Version: 1

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

1.1 Product identifier: Kleenair Bio
L5120

Other means of identification:

Non-applicable

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

Relevant uses: Disinfectant ; biocide . 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:

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:

Classification of this product has been carried out in accordance with CLP Regulation (EC) No 1272/2008.

Aquatic Chronic 3: Hazardous to the aquatic environment, long-term hazard, Category 3, H412

2.2 Label elements:

CLP Regulation (EC) No 1272/2008:**Hazard statements:**

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

Precautionary statements:

P273: Avoid release to the environment.

P280: Wear protective gloves.

P501: Dispose of contents and / or containers in accordance with regulations on hazardous waste or packaging and packaging waste respectively.

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:

- CONTINUED ON NEXT PAGE -

Kleenair Bio
L5120

Date of compilation: 23/12/2022 Version: 1

SECTION 3: COMPOSITION/INFORMATION ON INGREDIENTS (continued)

| Identification | Chemical name/Classification | Concentration |
|-------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------|---------------|
| CAS: 68424-85-1 EC: 939-253-5 Index: Non-applicable REACH: 01-2119965180-41-XXXX | Quaternary ammonium compounds, benzyl-C12-16-alkyldimethyl, chlorides (M=10)⁽¹⁾ Self-classified | <1 % |
| | Regulation 1272/2008 Acute Tox. 4: H302; Aquatic Acute 1: H400; Aquatic Chronic 1: H410; Eye Dam. 1: H318; Skin Corr. 1B: H314 - Danger | |
| 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. 3: H301; Aquatic Acute 1: H400; Aquatic Chronic 2: H411; Eye Dam. 1: H318; Skin Corr. 1B: H314 - Danger | |
| 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: 67-63-0 EC: 200-661-7 Index: 603-117-00-0 REACH: 01-211945758-25-XXXX | propan-2-ol⁽²⁾ ATP CLP00 | <1 % |
| | Regulation 1272/2008 Eye Irrit. 2: H319; Flam. Liq. 2: H225; STOT SE 3: H336 - Danger | |

⁽¹⁾ Substances presenting a health or environmental hazard which meet criteria laid down in Regulation (EU) No. 2020/878

⁽²⁾ 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 | |
|----------------------------------------------------------------------------------------------------------------------|----------|---------|
| | Acute | Chronic |
| Quaternary ammonium compounds, benzyl-C12-16-alkyldimethyl, chlorides (M=10) CAS: 68424-85-1 EC: 939-253-5 | 10 | 1 |
| Didecyldimethylammonium chloride CAS: 7173-51-5 EC: 230-525-2 | 10 | 1 |
| Quaternary ammonium compounds, C12-14-alkyl[(ethylphenyl)methyl]dimethyl, chlorides CAS: 85409-23-0 EC: 287-090-7 | 10 | 1 |

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:

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:

- CONTINUED ON NEXT PAGE -

Kleenair Bio
L5120

Date of compilation: 23/12/2022 Version: 1

SECTION 5: FIREFIGHTING MEASURES (continued)**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 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:****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

- CONTINUED ON NEXT PAGE -

Kleenair Bio
L5120

Date of compilation: 23/12/2022 Version: 1

SECTION 7: HANDLING AND STORAGE (continued)

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

7.2 Conditions for safe storage, including any incompatibilities:

A.- Technical measures for storage

Minimum Temp.: 4 °C

Maximum Temp.: 40 °C

B.- General conditions for storage

Avoid sources of heat, radiation, static electricity and contact with food. For additional information see subsection 10.5

7.3 Specific end use(s):

Except for the instructions already specified it is not necessary to provide any special recommendation regarding the uses of this product.

SECTION 8: EXPOSURE CONTROLS/PERSONAL PROTECTION

8.1 Control parameters:

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

2021 Code of Practice for the Chemical Agents Regulations:

| Identification | Occupational exposure limits | |
|----------------|-------------------------------------------|----------|
| | propan-2-ol CAS: 67-63-0 EC: 200-661-7 | OEL (8h) |
| | OEL (15 min) | 400 ppm |

DNEL (Workers):

| Identification | | Short exposure | | Long exposure | |
|-------------------------------------------------------------------------------------------------------------------------|------------|----------------|----------------|-----------------------|---------------------|
| | | Systemic | Local | Systemic | Local |
| Quaternary ammonium compounds, C12-14-alkyl[(ethylphenyl)methyl]dimethyl, chlorides CAS: 85409-23-0 EC: 287-090-7 | Oral | Non-applicable | Non-applicable | Non-applicable | Non-applicable |
| | Dermal | Non-applicable | Non-applicable | Non-applicable | Non-applicable |
| | Inhalation | Non-applicable | Non-applicable | Non-applicable | 1 mg/m ³ |
| propan-2-ol CAS: 67-63-0 EC: 200-661-7 | Oral | Non-applicable | Non-applicable | Non-applicable | Non-applicable |
| | Dermal | Non-applicable | Non-applicable | 888 mg/kg | Non-applicable |
| | Inhalation | Non-applicable | Non-applicable | 500 mg/m ³ | Non-applicable |

DNEL (General population):

| Identification | | Short exposure | | Long exposure | |
|-------------------------------------------------------------------------------------------------------------------------|------------|----------------|----------------|----------------------|---------------------|
| | | Systemic | Local | Systemic | Local |
| Quaternary ammonium compounds, C12-14-alkyl[(ethylphenyl)methyl]dimethyl, chlorides CAS: 85409-23-0 EC: 287-090-7 | Oral | Non-applicable | Non-applicable | Non-applicable | Non-applicable |
| | Dermal | Non-applicable | Non-applicable | Non-applicable | Non-applicable |
| | Inhalation | Non-applicable | Non-applicable | Non-applicable | 1 mg/m ³ |
| propan-2-ol CAS: 67-63-0 EC: 200-661-7 | Oral | Non-applicable | Non-applicable | 26 mg/kg | Non-applicable |
| | Dermal | Non-applicable | Non-applicable | 319 mg/kg | Non-applicable |
| | Inhalation | Non-applicable | Non-applicable | 89 mg/m ³ | Non-applicable |

PNEC:

| Identification | | PNEC | | |
|-------------------------------------------------------------------------------------------------------------------------|--------------|----------------|-------------------------|---------------|
| | | STP | Fresh water | 0.0011 mg/L |
| Didecyltrimethylammonium chloride CAS: 7173-51-5 EC: 230-525-2 | Soil | 1.4 mg/kg | Marine water | 0.00011 mg/L |
| | Intermittent | 0.00021 mg/L | Sediment (Fresh water) | 61.86 mg/kg |
| | Oral | Non-applicable | Sediment (Marine water) | 6.186 mg/kg |
| | STP | 0.21 mg/L | Fresh water | 0.000415 mg/L |
| Quaternary ammonium compounds, C12-14-alkyl[(ethylphenyl)methyl]dimethyl, chlorides CAS: 85409-23-0 EC: 287-090-7 | Soil | 1.36 mg/kg | Marine water | 0.000042 mg/L |
| | Intermittent | 0.000154 mg/L | Sediment (Fresh water) | 6.81 mg/kg |
| | Oral | Non-applicable | Sediment (Marine water) | 0.681 mg/kg |
| | STP | 0.21 mg/L | Fresh water | 0.000415 mg/L |

- CONTINUED ON NEXT PAGE -

Kleenair Bio
L5120

Date of compilation: 23/12/2022 Version: 1

SECTION 8: EXPOSURE CONTROLS/PERSONAL PROTECTION (continued)

| Identification | | | | |
|----------------------------------------------|--------------|------------|-------------------------|------------|
| propan-2-ol CAS: 67-63-0 EC: 200-661-7 | STP | 2251 mg/L | Fresh water | 140.9 mg/L |
| | Soil | 28 mg/kg | Marine water | 140.9 mg/L |
| | Intermittent | 140.9 mg/L | Sediment (Fresh water) | 552 mg/kg |
| | Oral | 0.16 g/kg | Sediment (Marine water) | 552 mg/kg |

8.2 Exposure controls:

A.- Individual protection measures, such as personal protective equipment

As a preventative measure it is recommended to use basic Personal Protective Equipment, with the corresponding <<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

| Pictogram | PPE | Labelling | CEN Standard | Remarks |
|-----------------------------|---------------------------|------------|---------------------|------------------------------------------------------------------|
| Compulsory use of face mask | Filter mask for particles | CE CAT III | EN 149:2001+A1:2009 | Replace when an increase in resistance to breathing is observed. |

C.- Specific protection for the hands

| Pictogram | PPE | Labelling | CEN Standard | Remarks |
|---------------------------|------------------------------------------------------------------------------|------------|-------------------|--------------------------------------------------|
| Mandatory hand protection | Chemical protective gloves (Material: Nitrile, Breakthrough time: > 480 min) | CE CAT III | EN ISO 21420:2020 | 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 | 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

| 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

- CONTINUED ON NEXT PAGE -

**Kleenair Bio
L5120**

Date of compilation: 23/12/2022 Version: 1

SECTION 8: EXPOSURE CONTROLS/PERSONAL PROTECTION (continued)

Volatile organic compounds:

With regard to Directive 2010/75/EU, this product has the following characteristics:

| | |
|---------------------------|----------------|
| V.O.C. (Supply): | 0.07 % weight |
| V.O.C. density at 20 °C: | Non-applicable |
| Average carbon number: | 3 |
| Average molecular weight: | 60.1 g/mol |

SECTION 9: PHYSICAL AND CHEMICAL PROPERTIES

9.1 Information on basic physical and chemical properties:

Appearance:

| | |
|--------------------------|------------------|
| Physical state at 20 °C: | Liquid |
| Appearance: | Transparent |
| Color: | Colourless |
| Odor: | Characteristic |
| Odour threshold: | Non-applicable * |

Volatility:

| | |
|----------------------------------------|------------------|
| Boiling point at atmospheric pressure: | 100 °C |
| Vapour pressure at 20 °C: | Non-applicable * |
| Vapour pressure at 50 °C: | Non-applicable * |
| Evaporation rate at 20 °C: | Non-applicable * |

Product description:

| | |
|----------------------------------------------|------------------|
| Density at 20 °C: | Non-applicable * |
| Relative density at 20 °C: | 1 |
| Dynamic viscosity at 20 °C: | Non-applicable * |
| Kinematic viscosity at 20 °C: | Non-applicable * |
| Kinematic viscosity at 40 °C: | Non-applicable * |
| Concentration: | Non-applicable * |
| pH: | ~7 |
| Vapour density at 20 °C: | Non-applicable * |
| Partition coefficient n-octanol/water 20 °C: | Non-applicable * |
| Solubility in water at 20 °C: | Non-applicable * |
| Solubility properties: | Non-applicable * |
| Decomposition temperature: | Non-applicable * |
| Melting point/freezing point: | 0 °C |

Flammability:

| | |
|----------------------------|------------------------|
| Flash Point: | Non Flammable (>60 °C) |
| Flammability (solid, gas): | Non-applicable * |
| Autoignition temperature: | 399 °C |
| Lower flammability limit: | Non-applicable * |
| Upper flammability limit: | Non-applicable * |

Particle characteristics:

| | |
|-----------------------------|----------------|
| Median equivalent diameter: | Non-applicable |
|-----------------------------|----------------|

9.2 Other information:

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

- CONTINUED ON NEXT PAGE -

**Kleenair Bio
L5120**

Date of compilation: 23/12/2022 Version: 1

SECTION 9: PHYSICAL AND CHEMICAL PROPERTIES (continued)

Information with regard to physical hazard classes:

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

Other safety characteristics:

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

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

SECTION 10: STABILITY AND REACTIVITY

10.1 Reactivity:

No hazardous reactions are expected because the product is stable under recommended storage conditions. See section 7.

10.2 Chemical stability:

Chemically stable under the indicated conditions of storage, handling and use.

10.3 Possibility of hazardous reactions:

Under the specified conditions, hazardous reactions that lead to excessive temperatures or pressure are not expected.

10.4 Conditions to avoid:

Applicable for handling and storage at room temperature:

| Shock and friction | Contact with air | Increase in temperature | Sunlight | Humidity |
|--------------------|------------------|-------------------------|------------|----------------|
| Not applicable | Not applicable | 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 (CO₂), 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.

- CONTINUED ON NEXT PAGE -

Kleenair Bio
L5120

Date of compilation: 23/12/2022 Version: 1

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, 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 |
|-------------------------------------------------------------------------------------------------------------------------|-----------------|-----------------|--------|
| | LD50 oral | LD50 dermal | |
| Didecyltrimethylammonium chloride CAS: 7173-51-5 EC: 230-525-2 | LD50 oral | 238 mg/kg | Rat |
| | LD50 dermal | 3342 mg/kg | Rabbit |
| | LC50 inhalation | Non-applicable | |
| Quaternary ammonium compounds, benzyl-C12-16-alkyldimethyl, chlorides (M=10) CAS: 68424-85-1 EC: 939-253-5 | LD50 oral | 500 mg/kg | Rat |
| | LD50 dermal | Non-applicable | |
| | LC50 inhalation | Non-applicable | |
| Quaternary ammonium compounds, C12-14-alkyl[(ethylphenyl)methyl]dimethyl, chlorides CAS: 85409-23-0 EC: 287-090-7 | LD50 oral | 397.5 mg/kg | Rat |
| | LD50 dermal | Non-applicable | |
| | LC50 inhalation | Non-applicable | |
| propan-2-ol CAS: 67-63-0 EC: 200-661-7 | LD50 oral | 5280 mg/kg | Rat |
| | LD50 dermal | 12800 mg/kg | Rat |
| | LC50 inhalation | 72.6 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

Non-applicable

- CONTINUED ON NEXT PAGE -

Kleenair Bio
L5120

Date of compilation: 23/12/2022 Version: 1

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 |
|--------------------------------------------------------------------------------------------------------------------------|---------------|----------------------|-------------------------|------------|
| Quaternary ammonium compounds, benzyl-C12-16-alkyldimethyl, chlorides (M=10) CAS: 68424-85-1 EC: 939-253-5 | LC50 | Non-applicable | | |
| | EC50 | 0.0058 mg/L (48 h) | Daphnia magna | Crustacean |
| | EC50 | Non-applicable | | |
| Didecyldimethylammonium chloride CAS: 7173-51-5 EC: 230-525-2 | LC50 | >0.1 - 1 mg/L (96 h) | | Fish |
| | EC50 | >0.1 - 1 mg/L (48 h) | | Crustacean |
| | EC50 | >0.1 - 1 mg/L (72 h) | | Algae |
| Quaternary ammonium compounds, C12-14-alkyl[(ethylphenyl)methyl] dimethyl, chlorides CAS: 85409-23-0 EC: 287-090-7 | LC50 | >0.1 - 1 mg/L (96 h) | | Fish |
| | EC50 | >0.1 - 1 mg/L (48 h) | | Crustacean |
| | EC50 | >0.1 - 1 mg/L (72 h) | | Algae |
| propan-2-ol CAS: 67-63-0 EC: 200-661-7 | LC50 | 9640 mg/L (96 h) | Pimephales promelas | Fish |
| | EC50 | 13299 mg/L (48 h) | Daphnia magna | Crustacean |
| | EC50 | 1000 mg/L (72 h) | Scenedesmus subspicatus | Algae |

Chronic toxicity:

| Identification | Concentration | | Species | Genus |
|---------------------------------------------------------------------------------------------------------------|---------------|----------------|---------------|------------|
| Quaternary ammonium compounds, benzyl-C12-16-alkyldimethyl, chlorides (M=10) CAS: 68424-85-1 EC: 939-253-5 | NOEC | Non-applicable | | |
| | NOEC | 0.025 mg/L | Daphnia magna | Crustacean |
| Didecyldimethylammonium chloride CAS: 7173-51-5 EC: 230-525-2 | NOEC | Non-applicable | | |
| | NOEC | 0.021 mg/L | Daphnia magna | Crustacean |

12.2 Persistence and degradability:

Substance-specific information:

| Identification | Degradability | | Biodegradability | |
|---------------------------------------------------------------------|---------------|----------------|------------------|----------|
| | | | | |
| Didecyldimethylammonium chloride CAS: 7173-51-5 EC: 230-525-2 | BOD5 | Non-applicable | Concentration | 100 mg/L |
| | COD | Non-applicable | Period | 28 days |
| | BOD5/COD | Non-applicable | % Biodegradable | 0 % |
| propan-2-ol CAS: 67-63-0 EC: 200-661-7 | BOD5 | 1.19 g O2/g | Concentration | 100 mg/L |
| | COD | 2.23 g O2/g | Period | 14 days |
| | BOD5/COD | 0.53 | % Biodegradable | 86 % |

12.3 Bioaccumulative potential:

Substance-specific information:

| Identification | Bioaccumulation potential | |
|---------------------------------------------------------------------|---------------------------|----------|
| Didecyldimethylammonium chloride CAS: 7173-51-5 EC: 230-525-2 | BCF | 71 |
| | Pow Log | 2.59 |
| | Potential | Moderate |
| propan-2-ol CAS: 67-63-0 EC: 200-661-7 | BCF | 3 |
| | Pow Log | 0.05 |
| | Potential | Low |

12.4 Mobility in soil:

| Identification | Absorption/desorption | | Volatility | |
|----------------------------------------------|-----------------------|---------------------|------------|---------------------------------|
| | | | | |
| propan-2-ol CAS: 67-63-0 EC: 200-661-7 | Koc | 1.5 | Henry | 8.207E-1 Pa·m ³ /mol |
| | Conclusion | Very High | Dry soil | Yes |
| | Surface tension | 2.24E-2 N/m (25 °C) | Moist soil | Yes |

12.5 Results of PBT and vPvB assessment:

Product fails to meet PBT/vPvB criteria

12.6 Endocrine disrupting properties:

- CONTINUED ON NEXT PAGE -

Kleenair Bio
L5120

Date of compilation: 23/12/2022 Version: 1

SECTION 12: ECOLOGICAL INFORMATION (continued)

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

HP14 Ecotoxic

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): Didecyltrimethylammonium chloride (0.117%); Quaternary ammonium compounds, C12-14-alkyl[(ethylphenyl)methyl]dimethyl, chlorides (0.117%); Quaternary ammonium compounds, benzyl-C12-16-alkyldimethyl, chlorides (M=10) (0.251%); propan-2-ol (0.066%)

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: Quaternary ammonium compounds, benzyl-C12-16-alkyldimethyl, chlorides (M=10) (Product-type 1, 2, 3, 4, 8, 10, 11, 12, 22) ; Didecyltrimethylammonium 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) ; propan-2-ol (Product-type 1, 2, 4)

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

Limitations to commercialisation and the use of certain dangerous substances and mixtures (Annex XVII REACH, etc):

Shall not be used in:

- ornamental articles intended to produce light or colour effects by means of different phases, for example in ornamental lamps and ashtrays,
- tricks and jokes,
- games for one or more participants, or any article intended to be used as such, even with ornamental aspects.

Specific provisions in terms of protecting people or the environment:

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

Other legislation:

- CONTINUED ON NEXT PAGE -

Kleenair Bio
L5120

Date of compilation: 23/12/2022 Version: 1

SECTION 15: REGULATORY INFORMATION (continued)

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.

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 2:

H412: Harmful to aquatic life with long lasting effects.

Texts of the legislative phrases mentioned in section 3:

The phrases indicated do not refer to the product itself; they are present merely for informative purposes and refer to the individual components which appear in section 3

CLP Regulation (EC) No 1272/2008:

Acute Tox. 3: H301 - Toxic if swallowed.

Acute Tox. 4: H302 - Harmful if swallowed.

Aquatic Acute 1: H400 - Very toxic to aquatic life.

Aquatic Chronic 1: H410 - Very toxic to aquatic life with long lasting effects.

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

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

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

Flam. Liq. 2: H225 - Highly flammable liquid and vapour.

Skin Corr. 1B: H314 - Causes severe skin burns and eye damage.

STOT SE 3: H336 - May cause drowsiness or dizziness.

Classification procedure:

Aquatic Chronic 3: Calculation method

Advice related to training:

Training is recommended in order to prevent industrial risks for staff using this product and to facilitate their comprehension and interpretation of this safety data sheet, as well as the label on the product.

Principal bibliographical sources:

<http://echa.europa.eu>

<http://eur-lex.europa.eu>

Abbreviations and acronyms:

- CONTINUED ON NEXT PAGE -

Kleenair Bio
L5120

Date of compilation: 23/12/2022 Version: 1

SECTION 16: OTHER INFORMATION (continued)

ADR: European agreement concerning the international carriage of dangerous goods by road
IMDG: International maritime dangerous goods code
IATA: International Air Transport Association
ICAO: International Civil Aviation Organisation
COD: Chemical Oxygen Demand
BOD5: 5day biochemical oxygen demand
BCF: Bioconcentration factor
LD50: Lethal Dose 50
LC50: Lethal Concentration 50
EC50: Effective concentration 50
LogPOW: Octanolwater partition coefficient
Koc: Partition coefficient of organic carbon
UFI: unique formula identifier
IARC: International Agency for Research on Cancer

The information contained in this safety data sheet is based on sources, technical knowledge and current legislation at European and state level, without being able to guarantee its accuracy. This information cannot be considered a guarantee of the properties of the product, it is simply a description of the security requirements. The occupational methodology and conditions for users of this product are not within our awareness or control, and it is ultimately the responsibility of the user to take the necessary measures to obtain the legal requirements concerning the manipulation, storage, use and disposal of chemical products. The information on this safety data sheet only refers to this product, which should not be used for needs other than those specified.

- END OF SAFETY DATA SHEET -