

DEKASEPTOL GEL
Section: 1. IDENTIFICATION OF THE SUBSTANCE/MIXTURE AND OF THE COMPANY/UNDERTAKING
1.1 Product identifier

Product name : DEKASEPTOL GEL
 Product code : 104258E
 Use of the Substance/Mixture : Disinfectant
 Substance type: : Mixture

For professional users only.

Product dilution information : No dilution information provided.

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

Identified uses : Medical devices . Manual process
 Recommended restrictions on use : Reserved for industrial and professional use.

1.3 Details of the supplier of the safety data sheet

Company : Ecolab Ltd.
 PO Box 11; Winnington Avenue
 Northwich, Cheshire, United Kingdom CW8 4DX
 + 44 (0)1606 74488
 ccs@ecolab.com

1.4 Emergency telephone number

Emergency telephone number : +441618841235
 +32-(0)3-575-5555 Trans-European

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Section: 2. HAZARDS IDENTIFICATION
2.1 Classification of the substance or mixture
Classification (REGULATION (EC) No 1272/2008)

||Chronic aquatic toxicity, Category 2 H411

2.2 Label elements
Labelling (REGULATION (EC) No 1272/2008)

||Hazard pictograms :



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Hazard Statements : H411 Toxic to aquatic life with long lasting effects.
 Precautionary Statements : **Prevention:**
 P273 Avoid release to the environment.

2.3 Other hazards

None known.

Section: 3. COMPOSITION/INFORMATION ON INGREDIENTS

3.2 Mixtures

Hazardous components

Chemical Name	CAS-No. EC-No. REACH No.	Classification REGULATION (EC) No 1272/2008	Concentration: [%]
Dioctyl dimethyl ammonium chloride	5538-94-3 226-901-0 01-2120767055-53-0000	Acute toxicity Category 3; H301 Acute toxicity Category 2; H330 Acute toxicity Category 3; H311 Skin corrosion Sub-category 1B; H314 Serious eye damage Category 1; H318 Acute aquatic toxicity Category 1; H400 Chronic aquatic toxicity Category 1; H410	>= 0.25 - < 0.5
benzalkonium chloride	68424-85-1 270-325-2 01-2119983287-23	Acute toxicity Category 4; H302 Skin corrosion Category 1B; H314 Serious eye damage Category 1; H318 Acute aquatic toxicity Category 1; H400 Chronic aquatic toxicity Category 1; H410	< 0.1
glucoprotamin	164907-72-6 403-950-8 01-0000015357-68	Acute toxicity Category 4; H302 Acute toxicity Category 2; H330 Skin corrosion Category 1B; H314 Serious eye damage Category 1; H318 Acute aquatic toxicity Category 1; H400	< 0.1
Substances with a workplace exposure limit :			
2-(2-butoxyethoxy)ethanol	112-34-5 203-961-6 01-2119475104-44	Eye irritation Category 2; H319	>= 0.5 - < 1

For the full text of the H-Statements mentioned in this Section, see Section 16.

Section: 4. FIRST AID MEASURES

4.1 Description of first aid measures

In case of eye contact : Rinse with plenty of water.
 In case of skin contact : Rinse with plenty of water.
 If swallowed : Rinse mouth. Get medical attention if symptoms occur.
 If inhaled : Get medical attention if symptoms occur.

4.2 Most important symptoms and effects, both acute and delayed

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See Section 11 for more detailed information on health effects and symptoms.

4.3 Indication of immediate medical attention and special treatment needed

Treatment : Treat symptomatically.

Section: 5. FIREFIGHTING MEASURES

5.1 Extinguishing media

Suitable extinguishing media : Use extinguishing measures that are appropriate to local circumstances and the surrounding environment.

Unsuitable extinguishing media : None known.

5.2 Special hazards arising from the substance or mixture

Specific hazards during firefighting : Not flammable or combustible.

Hazardous combustion products : Depending on combustion properties, decomposition products may include following materials:
Carbon oxides
nitrogen oxides (NO_x)
Hydrogen chloride

5.3 Advice for firefighters

Special protective equipment for firefighters : Use personal protective equipment.

Further information : Collect contaminated fire extinguishing water separately. This must not be discharged into drains. Fire residues and contaminated fire extinguishing water must be disposed of in accordance with local regulations. In the event of fire and/or explosion do not breathe fumes.

Section: 6. ACCIDENTAL RELEASE MEASURES

6.1 Personal precautions, protective equipment and emergency procedures

Advice for non-emergency personnel : Ensure clean-up is conducted by trained personnel only. Refer to protective measures listed in sections 7 and 8.

Advice for emergency responders : If specialised clothing is required to deal with the spillage, take note of any information in Section 8 on suitable and unsuitable materials.

6.2 Environmental precautions

Environmental precautions : Do not allow contact with soil, surface or ground water.

6.3 Methods and materials for containment and cleaning up

Methods for cleaning up : Stop leak if safe to do so. Contain spillage, and then collect with non-combustible absorbent material, (e.g. sand, earth, diatomaceous earth, vermiculite) and place in container for

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disposal according to local / national regulations (see section 13).
Flush away traces with water. For large spills, dike spilled material or otherwise contain material to ensure runoff does not reach a waterway.

6.4 Reference to other sections

See Section 1 for emergency contact information.
For personal protection see section 8.
See Section 13 for additional waste treatment information.

Section: 7. HANDLING AND STORAGE

7.1 Precautions for safe handling

Advice on safe handling : Use only with adequate ventilation. Wash hands thoroughly after handling. In case of mechanical malfunction, or if in contact with unknown dilution of product, wear full Personal Protective Equipment (PPE).

Hygiene measures : Handle in accordance with good industrial hygiene and safety practice. Remove and wash contaminated clothing before re-use. Wash face, hands and any exposed skin thoroughly after handling.

7.2 Conditions for safe storage, including any incompatibilities

Requirements for storage areas and containers : Keep out of reach of children. Keep container tightly closed. Store in suitable labeled containers.

Storage temperature : 0 °C to 25 °C

7.3 Specific end uses

Specific use(s) : Medical devices . Manual process

Section: 8. EXPOSURE CONTROLS/PERSONAL PROTECTION

8.1 Control parameters

Occupational Exposure Limits

Components	CAS-No.	Value type (Form of exposure)	Control parameters	Basis
2-(2-butoxyethoxy)ethanol	112-34-5	TWA	10 ppm 67.5 mg/m3	UKCOSSTD
		STEL	15 ppm 101.2 mg/m3	UKCOSSTD

DNEL

2-(2-butoxyethoxy)ethanol	:	End Use: Workers Exposure routes: Inhalation Potential health effects: Short-term - local Value: 101.2 mg/m3 End Use: Workers Exposure routes: Dermal Potential health effects: Long-term systemic effects
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	Value: 20 mg/kg End Use: Workers Exposure routes: Inhalation Potential health effects: Long-term systemic effects Value: 67.5 mg/m3 End Use: Workers Exposure routes: Inhalation Potential health effects: Short-term - local Value: 67.5 mg/m3
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PNEC

2-(2-butoxyethoxy)ethanol	: Fresh water Value: 1 mg/l Marine water Value: 0.1 mg/l Intermittent use/release Value: 3.9 mg/l Sewage treatment plant Value: 200 mg/l Sediment Value: 4 mg/kg Soil Value: 0.4 mg/kg Oral Value: 56 mg/kg
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8.2 Exposure controls

Appropriate engineering controls

Engineering measures : Good general ventilation should be sufficient to control worker exposure to airborne contaminants.

Individual protection measures

Hygiene measures : Handle in accordance with good industrial hygiene and safety practice. Remove and wash contaminated clothing before re-use. Wash face, hands and any exposed skin thoroughly after handling.

Eye/face protection (EN 166) : No special protective equipment required.

Hand protection (EN 374) : No special protective equipment required.

Skin and body protection (EN 14605) : No special protective equipment required.

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Respiratory protection (EN 143, 14387) : None required if airborne concentrations are maintained below the exposure limit listed in Exposure Limit Information. Use certified respiratory protection equipment meeting EU requirements(89/656/EEC, (EU) 2016/425), or equivalent, when respiratory risks cannot be avoided or sufficiently limited by technical means of collective protection or by measures, methods or procedures of work organization.

Environmental exposure controls

General advice : Consider the provision of containment around storage vessels.

Section: 9. PHYSICAL AND CHEMICAL PROPERTIES

9.1 Information on basic physical and chemical properties

Appearance : gel
Colour : blue
Odour : citrus
pH : 10.0, 100 %
Flash point : Not applicable.
Odour Threshold : Not applicable and/or not determined for the mixture
Melting point/freezing point : Not applicable and/or not determined for the mixture
Initial boiling point and boiling range : Not applicable and/or not determined for the mixture
Evaporation rate : Not applicable and/or not determined for the mixture
Flammability (solid, gas) : Not applicable and/or not determined for the mixture
Upper explosion limit : Not applicable and/or not determined for the mixture
Lower explosion limit : Not applicable and/or not determined for the mixture
Vapour pressure : Not applicable and/or not determined for the mixture
Relative vapour density : Not applicable and/or not determined for the mixture
Relative density : 1.0
Water solubility : soluble
Solubility in other solvents : Not applicable and/or not determined for the mixture
Partition coefficient: n-octanol/water : Not applicable and/or not determined for the mixture
Auto-ignition temperature : Not applicable and/or not determined for the mixture
Thermal decomposition : Not applicable and/or not determined for the mixture
Viscosity, kinematic : Not applicable and/or not determined for the mixture
Explosive properties : Not applicable and/or not determined for the mixture
Oxidizing properties : The substance or mixture is not classified as oxidizing.

9.2 Other information

Not applicable and/or not determined for the mixture

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Section: 10. STABILITY AND REACTIVITY

10.1 Reactivity

No dangerous reaction known under conditions of normal use.

10.2 Chemical stability

Stable under normal conditions.

10.3 Possibility of hazardous reactions

No dangerous reaction known under conditions of normal use.

10.4 Conditions to avoid

None known.

10.5 Incompatible materials

None known.

10.6 Hazardous decomposition products

Depending on combustion properties, decomposition products may include following materials:

Carbon oxides
nitrogen oxides (NO_x)
Hydrogen chloride

Section: 11. TOXICOLOGICAL INFORMATION

11.1 Information on toxicological effects

Information on likely routes of exposure : Inhalation, Eye contact, Skin contact

Product

Acute oral toxicity : Acute toxicity estimate : > 2,000 mg/kg

Acute inhalation toxicity : 4 h Acute toxicity estimate : > 20 mg/l
Test atmosphere: vapour

Acute dermal toxicity : Acute toxicity estimate : > 2,000 mg/kg

Skin corrosion/irritation : There is no data available for this product.

Serious eye damage/eye irritation : There is no data available for this product.

Respiratory or skin sensitization : There is no data available for this product.

Carcinogenicity : There is no data available for this product.

Reproductive effects : There is no data available for this product.

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- Germ cell mutagenicity : There is no data available for this product.
- Teratogenicity : There is no data available for this product.
- STOT - single exposure : There is no data available for this product.
- STOT - repeated exposure : There is no data available for this product.
- Aspiration toxicity : There is no data available for this product.

Components

- Acute oral toxicity : Dioctyl dimethyl ammonium chloride
LD50 rat: 238 mg/kg
- benzalkonium chloride
LD50 rat: 344 mg/kg
- 2-(2-butoxyethoxy)ethanol
LD50 rat: 3,306 mg/kg

Components

- Acute inhalation toxicity : Dioctyl dimethyl ammonium chloride
4 h LD50 rat: 0.07 mg/l
Test atmosphere: dust/mist
- glucoprotamin
4 h LC50 rat: 0.3 mg/l
Test atmosphere: dust/mist

Components

- Acute dermal toxicity : Dioctyl dimethyl ammonium chloride
LD50 rabbit: 259 mg/kg
- benzalkonium chloride
LD50 rabbit: 3,340 mg/kg
- 2-(2-butoxyethoxy)ethanol
LD50 rabbit: 2,764 mg/kg

Potential Health Effects

- Eyes : Health injuries are not known or expected under normal use.
- Skin : Health injuries are not known or expected under normal use.
- Ingestion : Health injuries are not known or expected under normal use.
- Inhalation : Health injuries are not known or expected under normal use.
- Chronic Exposure : Health injuries are not known or expected under normal use.

Experience with human exposure

- Eye contact : No symptoms known or expected.
- Skin contact : No symptoms known or expected.

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Ingestion : No symptoms known or expected.

Inhalation : No symptoms known or expected.

Section: 12. ECOLOGICAL INFORMATION

12.1 Ecotoxicity

Environmental Effects : Toxic to aquatic life with long lasting effects.

Product

Toxicity to fish : no data available

Toxicity to daphnia and other aquatic invertebrates : no data available

Toxicity to algae : no data available

Components

Toxicity to fish : Dioctyl dimethyl ammonium chloride
96 h LC50 Oncorhynchus mykiss (rainbow trout): 0.35 mg/l

2-(2-butoxyethoxy)ethanol
96 h LC50 Fish: 1,300 mg/l

Components

Toxicity to daphnia and other aquatic invertebrates : Dioctyl dimethyl ammonium chloride
96 h LC50: 0.073 mg/l

benzalkonium chloride
48 h EC50 Daphnia magna (Water flea): 0.016 mg/l

Components

Toxicity to algae : Dioctyl dimethyl ammonium chloride
72 h EC50 Pseudokirchneriella subcapitata (algae): 0.122 mg/l

glucoprotamin
72 h EC50: > 0.01 mg/l

12.2 Persistence and degradability

Product

Biodegradability : The surfactants contained in the product are biodegradable according to the requirements of the detergent regulation 648/2004/EC

Components

Biodegradability : Dioctyl dimethyl ammonium chloride
Result: Poorly biodegradable

benzalkonium chloride
Result: Biodegradable

glucoprotamin
Result: Readily biodegradable.

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2-(2-butoxyethoxy)ethanol
Result: Readily biodegradable.

12.3 Bioaccumulative potential

no data available

12.4 Mobility in soil

no data available

12.5 Results of PBT and vPvB assessment

Product

Assessment : This substance/mixture contains no components considered to be either persistent, bioaccumulative and toxic (PBT), or very persistent and very bioaccumulative (vPvB) at levels of 0.1% or higher.

12.6 Other adverse effects

no data available

Section: 13. DISPOSAL CONSIDERATIONS

Dispose of in accordance with the European Directives on waste and hazardous waste. Waste codes should be assigned by the user, preferably in discussion with the waste disposal authorities.

13.1 Waste treatment methods

- Product : The product should not be allowed to enter drains, water courses or the soil. Where possible recycling is preferred to disposal or incineration. If recycling is not practicable, dispose of in compliance with local regulations. Dispose of wastes in an approved waste disposal facility.
- Contaminated packaging : Dispose of as unused product. Empty containers should be taken to an approved waste handling site for recycling or disposal. Do not re-use empty containers. Dispose of in accordance with local, state, and federal regulations.
- Guidance for Waste Code selection : Organic wastes containing not dangerous substances with concentration $\geq 0.1\%$. If this product is used in any further processes, the final user must redefine and assign the most appropriate European Waste Catalogue Code. It is the responsibility of the waste generator to determine the toxicity and physical properties of the material generated to determine the proper waste identification and disposal methods in compliance with applicable European (EU Directive 2008/98/EC) and local regulations.

Section: 14. TRANSPORT INFORMATION

The shipper/consignor/sender is responsible to ensure that the packaging, labeling, and markings are in compliance with the selected mode of transport.

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Land transport (ADR/ADN/RID)

- 14.1 UN number : 3082
14.2 UN proper shipping name : ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S.
(1-octanaminium, n,n-dimethyl-n-octyl-, chloride)
14.3 Transport hazard class(es) : 9
14.4 Packing group : III
14.5 Environmental hazards : Yes
14.6 Special precautions for user : None

Air transport (IATA)

- 14.1 UN number : 3082
14.2 UN proper shipping name : Environmentally hazardous substance, liquid, n.o.s.
(1-octanaminium, n,n-dimethyl-n-octyl-, chloride)
14.3 Transport hazard class(es) : 9
14.4 Packing group : III
14.5 Environmental hazards : Yes
14.6 Special precautions for user : None

Sea transport (IMDG/IMO)

- 14.1 UN number : 3082
14.2 UN proper shipping name : ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S.
(1-octanaminium, n,n-dimethyl-n-octyl-, chloride)
14.3 Transport hazard class(es) : 9
14.4 Packing group : III
14.5 Environmental hazards : Yes
14.6 Special precautions for user : None
14.7 Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code : Not applicable.

Section: 15. REGULATORY INFORMATION

15.1 Safety, health and environmental regulations/legislation specific for the substance or mixture

- according to Detergents Regulation EC 648/2004 : less than 5 %: Cationic surfactants, Non-ionic surfactants
Other constituents: Perfumes
Preservation agents:
glucoprotamin
Allergens:
Limonene

National Regulations

Take note of Dir 94/33/EC on the protection of young people at work.

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Other regulations : The Chemicals (Hazard Information and Packaging for Supply) Regulations.
The Control of Substances Hazardous to Health Regulations.
Health and Safety at Work Act.

15.2 Chemical Safety Assessment

No Chemical Safety Assessment has been carried out on the product.

Section: 16. OTHER INFORMATION

Procedure used to derive the classification according to REGULATION (EC) No 1272/2008

Classification	Justification
Chronic aquatic toxicity 2, H411	Calculation method

Full text of H-Statements

H301	Toxic if swallowed.
H302	Harmful if swallowed.
H311	Toxic in contact with skin.
H314	Causes severe skin burns and eye damage.
H318	Causes serious eye damage.
H319	Causes serious eye irritation.
H330	Fatal if inhaled.
H400	Very toxic to aquatic life.
H410	Very toxic to aquatic life with long lasting effects.

Full text of other abbreviations

ADN – European Agreement concerning the International Carriage of Dangerous Goods by Inland Waterways; ADR – European Agreement concerning the International Carriage of Dangerous Goods by Road; AICS – Australian Inventory of Chemical Substances; ASTM – American Society for the Testing of Materials; bw – Body weight; CLP – Classification Labelling Packaging Regulation; Regulation (EC) No 1272/2008; CMR – Carcinogen, Mutagen or Reproductive Toxicant; DIN – Standard of the German Institute for Standardisation; DSL – Domestic Substances List (Canada); ECHA – European Chemicals Agency; EC-Number – European Community number; ECx – Concentration associated with x% response; ELx – Loading rate associated with x% response; EmS – Emergency Schedule; ENCS – Existing and New Chemical Substances (Japan); ErCx – Concentration associated with x% growth rate response; GHS – Globally Harmonized System; GLP – Good Laboratory Practice; IARC – International Agency for Research on Cancer; IATA – International Air Transport Association; IBC – International Code for the Construction and Equipment of Ships carrying Dangerous Chemicals in Bulk; IC50 – Half maximal inhibitory concentration; ICAO – International Civil Aviation Organization; IECSC – Inventory of Existing Chemical Substances in China; IMDG – International Maritime Dangerous Goods; IMO – International Maritime Organization; ISHL – Industrial Safety and Health Law (Japan); ISO – International Organisation for Standardization; KECI – Korea Existing Chemicals Inventory; LC50 – Lethal Concentration to 50 % of a test population; LD50 – Lethal Dose to 50% of a test population (Median Lethal Dose); MARPOL – International Convention for the Prevention of Pollution from Ships; n.o.s. – Not Otherwise Specified; NO(A)EC – No Observed (Adverse) Effect Concentration; NO(A)EL – No Observed (Adverse) Effect Level; NOELR – No Observable Effect Loading Rate; NZIoC – New Zealand Inventory of Chemicals; OECD – Organization for Economic Co-operation and Development; OPPTS – Office of Chemical Safety and Pollution Prevention; PBT – Persistent, Bioaccumulative and Toxic substance; PICCS – Philippines Inventory of Chemicals and Chemical Substances; (Q)SAR – (Quantitative) Structure Activity Relationship; REACH – Regulation (EC) No 1907/2006 of the European Parliament and of the Council concerning the Registration, Evaluation, Authorisation and Restriction of Chemicals; RID – Regulations concerning the International Carriage of Dangerous Goods by Rail; SADT – Self-Accelerating Decomposition Temperature; SDS – Safety Data Sheet;

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TCSI – Taiwan Chemical Substance Inventory; TRGS – Technical Rule for Hazardous Substances; TSCA – Toxic Substances Control Act (United States); UN – United Nations; vPvB – Very Persistent and Very Bioaccumulative

Prepared by : Regulatory Affairs

Numbers quoted in the MSDS are given in the format: 1,000,000 = 1 million and 1,000 = 1 thousand. 0.1 = 1 tenth and 0.001 = 1 thousandth

REVISED INFORMATION: Significant changes to regulatory or health information for this revision is indicated by a bar in the left-hand margin of the SDS.

The information provided in this Safety Data Sheet is correct to the best of our knowledge, information and belief at the date of its publication. The information given is designed only as a guidance for safe handling, use, processing, storage, transportation, disposal and release and is not to be considered a warranty or quality specification. The information relates only to the specific material designated and may not be valid for such material used in combination with any other materials or in any process, unless specified in the text.

Annex: Exposure Scenarios

Exposure Scenario: Medical devices . Manual process

Life Cycle Stage : Widespread use by professional workers
Product category : **PC35** Washing and cleaning products (including solvent based products)

Contributing scenario controlling environmental exposure for:

Environmental release category : **ERC8a** Wide dispersive indoor use of processing aids in open systems
Daily amount per site : 7.5 kg
Type of Sewage Treatment Plant : Municipal sewage treatment plant

Contributing scenario controlling worker exposure for:

Process category : **PROC10** Roller application or brushing
Exposure duration : 480 min
Operational conditions and risk management measures : Indoor
Local Exhaust Ventilation is not required
General ventilation Ventilation rate per hour 1
Skin Protection : No
Respiratory Protection : No

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Contributing scenario controlling worker exposure for:

Process category : **PROC8a** Transfer of substance or preparation (charging/
discharging) from/ to vessels/ large containers at non-
dedicated facilities

Exposure duration : 60 min

Operational conditions and : Indoor
risk management measures

Local Exhaust Ventilation is not required

General ventilation Ventilation rate per hour 1

Skin Protection : Yes: See Section 8

Respiratory Protection : No