Bio Clean 1l

SECTION 1: Identification of the substance/mixture and of the company/ undertaking

1.1. Product identifier

Trade name/designation:

Bio Clean 1l

Article No.:
T164001

UFI:
QWEQ-AQ5M-8SE3-80H3

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

Use of the substance/mixture:
All-purpose (or multi-purpose) non-abrasive cleaners including degreasing agents (unless otherwise specified in other subcategories of cleaning products)

Relevant identified uses:

	Process categories [PROC]
PROC 10:	Roller application or brushing
PROC 11:	Non industrial spraying

1.3. Details of the supplier of the safety data sheet

Supplier:

KANDO Service GmbH
Hartleitnerstraße 3
4653 Eberstalzell
Austria
Telephone: +43 (0) 7241 213 79
E-mail: msds@kando.eu

1.4. Emergency telephone number

Vergiftungsinformationszentrale (VIZ), Stubenring 6, 1010 Wien, 24h: 01 406 43 43, Montag - Freitag: 8 bis 16 Uhr, Tel.: 01 406 68 98 (keine medizinische Auskunft) (Only available during office hours.)

SECTION 2: Hazards identification

2.1. Classification of the substance or mixture

Classification according to Regulation (EC) No 1272/2008 [CLP]

Hazard classes and hazard categories	Hazard statements	Classification procedure
Serious eye damage/eye irritation *(Eye Irrit. 2)*	H319: Causes serious eye irritation.	

2.2. Label elements

Labelling according to Regulation (EC) No. 1272/2008 [CLP]

Hazard pictograms:



GHS07
Exclamation mark

Signal word: Warning

Hazard statements for health hazards	
H319	Causes serious eye irritation.

Supplemental hazard information: none

Precautionary statements	Response
P305 + P351 + P338	IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
P337 + P313	If eye irritation persists: Get medical advice/attention.

2.3. Other hazards

Other adverse effects:

This substance does not meet the PBT/vPvB criteria of REACH, Annex XIII. The inhalation of dust/mist or aerosols causes irritation of the respiratory tract.

SECTION 3: Composition/information on ingredients

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3.2. Mixtures

Additional information:

Labelling for contents according to regulation (EC) No. 648/2004
5% - < 15% phosphates, < 5% non-ionic surfactants

Hazardous ingredients / Hazardous impurities / Stabilisers:

Product identifiers	Substance name Classification according to Regulation (EC) No 1272/2008 [CLP]	Concentration
CAS No.: 67-63-0 EC No.: 200-661-7 Index No.: 603-117-00-0 REACH No.: 01-2119457558-25	**propan-2-ol** Eye Irrit. 2 (H319), Flam. Liq. 2 (H225), STOT SE 3 (H336)  Danger **Acute Toxicity Estimate** ATE (oral) > 2,000 mg/kg ATE (dermal) > 2,000 mg/kg ATE (inhalation, gases) > 25 ppmV ATE (inhalation, vapour) > 20 mg/L	2 – < 5 Vol-%
CAS No.: 112-34-5 EC No.: 203-961-6 Index No.: 603-096-00-8 REACH No.: 01-2119475104-44	**2-(2-butoxyethoxy)ethanol** Eye Irrit. 2 (H319)  Warning **Acute Toxicity Estimate** ATE (oral) > 2,000 mg/kg ATE (dermal) > 2,000 mg/kg ATE (inhalation, vapour) > 20 mg/L	2 – ≤ 5 Vol-%

Full text of H- and EUH-phrases: see section 16.

SECTION 4: First aid measures

4.1. Description of first aid measures

General information:

Remove contaminated, saturated clothing immediately.

Following inhalation:

Provide fresh air.

In case of skin contact:

After contact with skin, wash immediately with plenty of water and soap. Take off contaminated clothing and wash it before reuse.

After eye contact:

Rinse immediately carefully and thoroughly with eye-bath or water.

Following ingestion:

Rinse mouth immediately and drink 1 glass of of water. Do NOT induce vomiting.

Self-protection of the first aider:

Use personal protection equipment.

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

No information available.

4.3. Indication of any immediate medical attention and special treatment needed

Treat symptomatically.

SECTION 5: Firefighting measures

5.1. Extinguishing media

Suitable extinguishing media:
Water spray jet, alcohol resistant foam, Carbon dioxide (CO2), Extinguishing powder

Unsuitable extinguishing media:
Full water jet

5.2. Special hazards arising from the substance or mixture

Hazardous combustion products: Carbon dioxide (CO2), Carbon monoxide

5.3. Advice for firefighters

Adapt fire extinguishing measures to the surroundings.

5.4. Additional information

Collect contaminated fire extinguishing water separately. Do not allow entering drains or surface water.

SECTION 6: Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures

6.1.1. For non-emergency personnel

Personal precautions:
Use personal protection equipment. Avoid contact with skin, eyes and clothes. Ventilate affected area.

6.1.2. For emergency responders

Personal protection equipment:
Wear breathing apparatus if exposed to vapours/dusts/aerosols.

6.2. Environmental precautions

Do not allow to enter into surface water or drains. Do not allow to enter into soil/subsoil.

6.3. Methods and material for containment and cleaning up

For containment:
Absorb with liquid-binding material (sand, diatomaceous earth, acid- or universal binding agents).

For cleaning up:
Treat the recovered material as prescribed in the section on waste disposal.

Other information:
Collect in closed and suitable containers for disposal. Ventilate affected area.

6.4. Reference to other sections

See section 7 for further information on safe handling.
For further information on personal protective equipment: see section 8.
For further information on disposal: see section 13.

SECTION 7: Handling and storage

7.1. Precautions for safe handling

Protective measures

Advices on safe handling:
Avoid contact with skin, eyes and clothes. Do not mix with other chemicals. Use personal protection equipment. Do not eat, drink or smoke when using this product. Do not breathe gas/fumes/vapour/spray. Use only outdoors or in a well-ventilated area.

Fire prevent measures:
No special fire protection measures are necessary.

Advices on general occupational hygiene

Take off contaminated clothing. Wash hands before breaks and after work. Do not eat, drink or smoke when using this product.

7.2. Conditions for safe storage, including any incompatibilities

Requirements for storage rooms and vessels:
Keep container tightly closed.

Hints on storage assembly:
No special measures are necessary.
Storage class (TRGS 510, Germany): 12 – non-combustible liquids that cannot be assigned to any of the above storage classes

7.3. Specific end use(s)

Recommendation:
Cleaning agent
GISCODE:
GU 70

SECTION 8: Exposure controls/personal protection

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8.1. Control parameters

8.1.1. Occupational exposure limit values

Limit value type (country of origin)	Substance name	① Long-term occupational exposure limit value ② Short-term occupational exposure limit value ③ Instantaneous value ④ Monitoring and observation processes ⑤ Remark
MAK (AT)	**propan-2-ol** CAS No.: 67-63-0 EC No.: 200-661-7	② 800 ppm (2,000 mg/m³) ⑤ (max. 4x15 min./Schicht)
MAK (AT)	**propan-2-ol** CAS No.: 67-63-0 EC No.: 200-661-7	① 200 ppm (500 mg/m³)
MAK (AT) from 11 Sept 2007	**2-(2-butoxyethoxy)ethanol** CAS No.: 112-34-5 EC No.: 203-961-6	② 15 ppm (101.2 mg/m³) ⑤ (max. 4x15 min./Schicht)
IOELV (EU)	**2-(2-butoxyethoxy)ethanol** CAS No.: 112-34-5 EC No.: 203-961-6	① 10 ppm (67.5 mg/m³) ② 15 ppm (101.2 mg/m³)
MAK (AT) from 11 Sept 2007	**2-(2-butoxyethoxy)ethanol** CAS No.: 112-34-5 EC No.: 203-961-6	① 10 ppm (67.5 mg/m³)

8.1.2. Biological limit values

No data available

8.1.3. DNEL-/PNEC-values

Substance name	DNEL value	① DNEL type ② Exposure route
propan-2-ol CAS No.: 67-63-0 EC No.: 200-661-7	500 mg/m³	① DNEL worker ② Long-term – inhalation, systemic effects
propan-2-ol CAS No.: 67-63-0 EC No.: 200-661-7	89 mg/m³	① DNEL Consumer ② Long-term – inhalation, systemic effects
propan-2-ol CAS No.: 67-63-0 EC No.: 200-661-7	888 mg/kg bw/day	① DNEL worker ② Long-term - dermal, systemic effects
propan-2-ol CAS No.: 67-63-0 EC No.: 200-661-7	319 mg/kg bw/day	① DNEL Consumer ② Long-term - dermal, systemic effects
propan-2-ol CAS No.: 67-63-0 EC No.: 200-661-7	26 mg/kg bw/day	① DNEL Consumer ② Long-term - oral, systemic effects
2-(2-butoxyethoxy)ethanol CAS No.: 112-34-5 EC No.: 203-961-6	40.5 mg/m³	① DNEL Consumer ② Long-term – inhalation, systemic effects

Substance name	DNEL value	① DNEL type ② Exposure route
2-(2-butoxyethoxy)ethanol CAS No.: 112-34-5 EC No.: 203-961-6	67.5 mg/m³	① DNEL worker ② Long-term – inhalation, local effects
2-(2-butoxyethoxy)ethanol CAS No.: 112-34-5 EC No.: 203-961-6	40.5 mg/m³	① DNEL Consumer ② Long-term – inhalation, local effects
2-(2-butoxyethoxy)ethanol CAS No.: 112-34-5 EC No.: 203-961-6	101.2 mg/m³	① DNEL worker ② Acute - inhalation, local effects
2-(2-butoxyethoxy)ethanol CAS No.: 112-34-5 EC No.: 203-961-6	60.7 mg/m³	① DNEL Consumer ② Acute - inhalation, local effects
2-(2-butoxyethoxy)ethanol CAS No.: 112-34-5 EC No.: 203-961-6	83 mg/kg bw/ day	① DNEL worker ② Long-term - dermal, systemic effects
2-(2-butoxyethoxy)ethanol CAS No.: 112-34-5 EC No.: 203-961-6	50 mg/kg bw/ day	① DNEL Consumer ② Long-term - dermal, systemic effects
2-(2-butoxyethoxy)ethanol CAS No.: 112-34-5 EC No.: 203-961-6	6.25 mg/kg	① DNEL Consumer ② Long-term - oral, systemic effects
2-(2-butoxyethoxy)ethanol CAS No.: 112-34-5 EC No.: 203-961-6	5 mg/kg bw/ day	① DNEL Consumer ② Long-term - oral, systemic effects

Substance name	PNEC Value	① PNEC type
propan-2-ol CAS No.: 67-63-0 EC No.: 200-661-7	140.9 mg/L	① PNEC aquatic, freshwater
propan-2-ol CAS No.: 67-63-0 EC No.: 200-661-7	140.9 mg/L	① PNEC aquatic, marine water
propan-2-ol CAS No.: 67-63-0 EC No.: 200-661-7	2,251 mg/L	① PNEC sewage treatment plant
propan-2-ol CAS No.: 67-63-0 EC No.: 200-661-7	552 mg/kg	① PNEC sediment, freshwater
propan-2-ol CAS No.: 67-63-0 EC No.: 200-661-7	552 mg/kg	① PNEC sediment, marine water
propan-2-ol CAS No.: 67-63-0 EC No.: 200-661-7	28 mg/kg	① PNEC soil
propan-2-ol CAS No.: 67-63-0 EC No.: 200-661-7	140.9 mg/L	① PNEC aquatic, intermittent release
2-(2-butoxyethoxy)ethanol CAS No.: 112-34-5 EC No.: 203-961-6	1.1 mg/L	① PNEC aquatic, freshwater
2-(2-butoxyethoxy)ethanol CAS No.: 112-34-5 EC No.: 203-961-6	0.11 mg/L	① PNEC aquatic, marine water
2-(2-butoxyethoxy)ethanol CAS No.: 112-34-5 EC No.: 203-961-6	200 mg/L	① PNEC sewage treatment plant
2-(2-butoxyethoxy)ethanol CAS No.: 112-34-5 EC No.: 203-961-6	4.4 mg/kg	① PNEC sediment, freshwater

Substance name	PNEC Value	① PNEC type
2-(2-butoxyethoxy)ethanol CAS No.: 112-34-5 EC No.: 203-961-6	0.44 mg/kg	① PNEC sediment, marine water
2-(2-butoxyethoxy)ethanol CAS No.: 112-34-5 EC No.: 203-961-6	0.32 mg/kg	① PNEC soil
2-(2-butoxyethoxy)ethanol CAS No.: 112-34-5 EC No.: 203-961-6	56 mg/kg	① PNEC secondary poisoning

8.2. Exposure controls

8.2.1. Appropriate engineering controls

No further relevant information available.

8.2.2. Personal protection equipment

Eye/face protection:

Wear eye protection/face protection. EN 166

Skin protection:

Hand protection:
Tested protective gloves must be worn EN ISO 374
Suitable material: NBR (Nitrile rubber)
Breakthrough time: >10min
Thickness of the glove material >=0,1 mm
Diluted application solutions <= 1%:
Protective gloves may be dispensed with, provided equivalent protective measures are taken, taking into account increased skin exposure due to wet work (e.g. use of suitable skin protection ointments).

Body protection:
Wear suitable work clothing.

Respiratory protection:

When using the HD method or spraying over large areas: combination filter A1/P2 (EN 143, EN 14387).

Thermal hazards:

No further relevant information available.

Other protection measures:

Wear suitable work clothing.

8.2.3. Environmental exposure controls

Section 6: Accidental Release Measures

SECTION 9: Physical and chemical properties

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9.1. Information on basic physical and chemical properties

Appearance

Physical state: Liquid
Colour: colourless
Odour: characteristic
flammability: No data available

Safety relevant basis data

Parameter	Value	at °C	① Method ② Remark
pH	12 – 13	20 °C	
Melting point	≈ 0 °C		
Freezing point	≈ 0 °C		
Initial boiling point and boiling range	≈ 100 °C		
Flash point	> 60 °C		
Evaporation rate	*No data available*		
Auto-ignition temperature	*No data available*		

Parameter	Value	at °C	① Method ② Remark
Upper/lower flammability or explosive limits	*No data available*		
Vapour pressure	*No data available*		
Vapour density	*No data available*		
Density	1.05 g/cm³	20 °C	
Bulk density	*not applicable*		
Water solubility	completely miscible	20 °C	
Partition coefficient: n-octanol/water	*not applicable*		
Dynamic viscosity	< 10 mPa* s	25 °C	
Kinematic viscosity	*No data available*		

9.2. Other information
No further relevant information available.

SECTION 10: Stability and reactivity

10.1. Reactivity
Exothermic reaction with: Acid

10.2. Chemical stability
The product is stable under storage at normal ambient temperatures.

10.3. Possibility of hazardous reactions
Exothermic reaction with: Acid

10.4. Conditions to avoid
The product is stable under storage at normal ambient temperatures.

10.5. Incompatible materials
Acid

10.6. Hazardous decomposition products
No known hazardous decomposition products.

SECTION 11: Toxicological information

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11.1. Information on hazard classes as defined in Regulation (EC) No 1272/2008

propan-2-ol CAS No.: 67-63-0 EC No.: 200-661-7
LD_{50} oral: >2,000 mg/kg (Rat)
LD_{50} dermal: >2,000 mg/kg (Rat)
LC_{50} Acute inhalation toxicity (gas): >25 ppmV 4 h (Rat)
LC_{50} Acute inhalation toxicity (vapour): >20 mg/L 6 h (Rat)
2-(2-butoxyethoxy)ethanol CAS No.: 112-34-5 EC No.: 203-961-6
LD_{50} oral: >2,000 mg/kg (Rat)
LD_{50} dermal: >2,000 mg/kg (Rat)
LC_{50} Acute inhalation toxicity (vapour): >20 mg/L (Rat)

Acute oral toxicity:
Based on available data, the classification criteria are not met.

Acute dermal toxicity:
Based on available data, the classification criteria are not met.

Acute inhalation toxicity:
Based on available data, the classification criteria are not met.

Skin corrosion/irritation:
Based on available data, the classification criteria are not met.

Serious eye damage/irritation:
Causes serious eye irritation.

Respiratory or skin sensitisation:
Based on available data, the classification criteria are not met.

Germ cell mutagenicity:
Based on available data, the classification criteria are not met.

Carcinogenicity:
Based on available data, the classification criteria are not met.

Reproductive toxicity:
Based on available data, the classification criteria are not met.

STOT-single exposure:
Based on available data, the classification criteria are not met.

STOT-repeated exposure:
Based on available data, the classification criteria are not met.

Aspiration hazard:
Based on available data, the classification criteria are not met.

Additional information:
No further relevant information available.

11.2. Information on other hazards

Endocrine disrupting properties:
None of the ingredients are included.

SECTION 12: Ecological information

12.1. Toxicity

Assessment/classification:
No further relevant information available.

12.2. Persistence and degradability

Biodegradation:
The surfactants contained in this mixture comply with the biodegradability criteria as laid down in Regulation (EC) No.648/2004 on detergents.

Additional information:
No further relevant information available.

12.3. Bioaccumulative potential

Bioconcentration factor (BCF):
No indication of bioaccumulation potential.

Partition coefficient: n-octanol/water:
not applicable

12.4. Mobility in soil

The product has not been tested.

12.5. Results of PBT and vPvB assessment

The substances in the mixture do not meet the PBT/vPvB criteria according to REACH, annex XIII.

12.6. Endocrine disrupting properties

This product does not contain a substance that has endocrine disrupting properties with respect to non-target organisms as no components meets the criteria.

12.7. Other adverse effects

No information available.

SECTION 13: Disposal considerations

13.1. Waste treatment methods

Dispose of waste according to applicable legislation. Delivery to an approved waste disposal company.

13.1.1. Product/Packaging disposal

Waste codes/waste designations according to EWC/AVV

Waste code product

07 06 01 *	aqueous washing liquids and mother liquors

**: Evidence for disposal must be provided.*

Waste code packaging

15 01 02	Plastic packaging

Waste treatment options

Appropriate disposal / Package:

Non-contaminated packages may be recycled.

SECTION 14: Transport information

Land transport (ADR/RID)	Inland waterway craft (ADN)	Sea transport (IMDG)	Air transport (ICAO-TI / IATA-DGR)
14.1. UN number or ID number			
No dangerous good in sense of these transport regulations.	No dangerous good in sense of these transport regulations.	No dangerous good in sense of these transport regulations.	No dangerous good in sense of these transport regulations.
14.2. UN proper shipping name			
No dangerous good in sense of these transport regulations.	No dangerous good in sense of these transport regulations.	No dangerous good in sense of these transport regulations.	No dangerous good in sense of these transport regulations.
* **14.3. Transport hazard class(es)**			
not relevant	not relevant	not relevant	not relevant
14.4. Packing group			
not relevant	not relevant	not relevant	not relevant
14.5. Environmental hazards			
not relevant	not relevant	not relevant	not relevant
14.6. Special precautions for user			
not relevant	not relevant	not relevant	not relevant

14.7. Maritime transport in bulk according to IMO instruments

not applicable

SECTION 15: Regulatory information

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

15.1.1. EU legislation

Restrictions on use:

Use restriction according to REACH annex XVII, no.: Entry 3, Entry 40, Entry 55, Entry 75

Other regulations (EU):

This product is not assigned to a hazard category.

Directive 2004/42/EC on the limitation of emissions of volatile organic compounds:

Volatile organic compounds (VOC) content in percent by weight: 1.7 Vol-%

15.1.2. National regulations

No data available

15.2. Chemical Safety Assessment

A chemical safety assessment has not been carried out.

15.3. Additional information

Regulation (EC) No. 648/2004 [Detergents regulation]

SECTION 16: Other information

* 16.1. Indication of changes

3.2.	Mixtures
8.1.	Control parameters
9.1.	Information on basic physical and chemical properties
11.1.	Information on hazard classes as defined in Regulation (EC) No 1272/2008
14.3.	Transport hazard class(es)
16.1.	Indication of changes
16.2.	Abbreviations and acronyms

* 16.2. Abbreviations and acronyms

ACGIH	American Conference of Governmental Industrial Hygienists
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
BCF	Bioconcentration Factor
CAS	Chemical Abstracts Service
CLP	Classification, Labelling and Packaging
DIN	German Institute for Standardization / German Industrial Standard
DNEL	derived no-effect level
EN	European Standard
ES	Exposure scenario
EWC	European Waste Catalogue
ICAO	International Civil Aviation Organization
IMDG	International Maritime Dangerous Goods
IMO	International Maritime Organization
KG	body weight
LC_{50}	Lethal (fatal) Concentration 50%
LD_{50}	Lethal (fatal) Dose 50%
MAK	Maximum concentration in the workplace air (CH)
NFPA	National Fire Protection Association
NIOSH	National Institute for Occupational Safety & Health
OSHA	Occupational Safety & Health Administration
PBT	persistent and bioaccumulative and toxic
PNEC	Predicted No Effect Concentration
PROC	Process Category
REACH	Registration, Evaluation and Authorization of Chemicals
RID	Dangerous goods regulations for transport by rail
TRGS	Technische Regeln für Gefahrstoffe
UN	United Nations
VOC	Volatile organic compounds
ZNS	central nervous system

16.3. Key literature references and sources for data

No data available

16.4. Classification for mixtures and used evaluation method according to regulation (EC) No 1272/2008 [CLP]

Hazard classes and hazard categories	Hazard statements	Classification procedure
Serious eye damage/eye irritation *(Eye Irrit. 2)*	H319: Causes serious eye irritation.	

16.5. List of relevant hazard statements and/or precautionary statements from sections 2 to 15

Hazard statements	
H225	Highly flammable liquid and vapour.
H319	Causes serious eye irritation.
H336	May cause drowsiness or dizziness.

16.6. Training advice

No data available

16.7. Additional information

To the best of our knowledge, the information contained herein is accurate. However, neither the above-mentioned supplier nor its subsidiaries assume any liability with regard to the correctness or completeness of the information provided. A final determination of the suitability of individual materials is the sole responsibility of the user. All materials may involve unknown risks and should be used with caution. While certain risks are described herein, we cannot guarantee that these are the only possible risks.

* Data changed compared with the previous version.