



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

1.1 Product Identifier

Product Name: PureSeal BacClear Pro

Additional information:

This Safety Data Sheet relates to the material mentioned above by product name.

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

Biocidal product for professional use

1.3 Details of the supplier of the safety data sheet: Address and telephone number of the supplier

PureSeal Services UK Ltd

Basford Old Creamery

Newcastle Road

Chorlton

Crewe

CW25NQ

Phone: (UK) 0333 577 8086 E: info@puresealservices.co.uk, W: www.puresealservices.co.uk

SECTION 2: HAZARDS IDENTIFICATION

2.1 Classification of the substance or mixture

Classification according to Regulation (EC) No 1272/2008 respectively UN GHS

****	GHS05 corrosion H314 Causes severe skin burns and eye damage. H318 Causes serious eye damage.
	GHS09 environment Aquatic Acute 1 H400 Very toxic to aquatic life. Aquatic Chronic 1 H410 Very toxic to aquatic life with long lasting effects
	GHS07 Acute Tox. 4 H302 Harmful if swallowed.

2.2 Label elements

In accordance with Regulation (EC) No 1272/2008.

The product is labelled according to the CLP regulation.

Hazard Pictograms	GHS05 GHS09
Signal word	Danger







Hazard-determining components of labelling:	Quaternary ammonium compounds, benzyl (C12 - C16) alkyldimethyl, chlorides.	
Hazard statements	H302 Harmful if swallowed. H314 Causes severe skin burns and eye damage. H410 Very toxic to aquatic life with long lasting effects.	
	P273	Avoid release to the environment.
	P280	Wear protective gloves/protective clothing/ eye protection/face protection.
	P301+P330+P331	IF SWALLOWED: Rinse mouth. Do NOT induce vomiting.
Precautionary statements	P303+P361+P353 I	IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water [or shower].
	P305+P351+P338	IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
	P391	Collect spillage.

Supplemental information in terms of art. 25 CLP-Regulation (EC) Nr. 1272/2008:

As the information cannot be stated sufficiently legible on the label, it is also available in the safety data sheet which can be obtained by emailing info@puresealservices.co.uk. According to art. 35 of the REACH Regulation, the safety data sheet has to be provided to each employee anyway.

- a) Identity of every active substance and its concentration in metric units: See product label
- b) Nanomaterials contained in the product: Does not contain anynanomaterial.
- c) Authorisation number: This biocidal product is subject to the transitional periods of Art. 89 BPR.
- d) Name and address of the authorisation holder:

PureSeal Services UK Ltd, Basford Old Creamery, Newcastle Road, Chorlton, Crewe, CW2 5NQ

- e) Type of formulation: SL, soluble concentrate
- f) Intended or authorised applications:

Product-type 1: Human hygiene

Product-type 2: Disinfectants and algaecides not intended for direct application to humans or animals

Product-type 3: Veterinary hygiene Product-type 4: Food and feed area Product-type 8: Wood preservatives

Product-type 10: Construction material preservatives

Product-type 11: Preservatives for liquid-cooling and processing systems Product-type 12: Slimicides

g) Directions for use, frequency of application and dose rate: Use level: 0.02 - 100 g/kg

The ideal use concentration can be determined together with the technical team at PureSeal. Technical queries are to be sent to info@puresealservices.co.uk. Ideally the addition should occur within a closed system. If manual handling operations are necessary spraying or spilling shall be prevented. If fast rotating agitators might lead to spraying or even aerosol formation the agitator speed shall be reduced or the machine shall be switched off during the addition. The biocide product can be added at any time during production. Blowing out of product-carrying pipes with compressed air shall be omitted. Further information: see product information

- h) Particulars of likely direct or indirect adverse side effects and any directions for first aid: Instructions on first aid see section 4.
- i) Leaflet, if applicable warnings for vulnerable groups: A leaflet will not be created because all required information for the industrial user is stated in the safety data sheet.
- j) Directions for the safe disposal of the biocidal product and its packaging: Further information: see section 13
- k) Formulation batch number or designation and the expiry date relevant to normal conditions of storage: see product label
- l) Further information: Cleaning of tools: clean thoroughly with water. Dispose of wastewater properly.
- m) Categories of users to which the biocidal product is restricted: Industrial user
- n) Where applicable, information on any specific danger to the environment particularly concerning protection of non-target organisms and avoidance of contamination of water: see section 12







SECTION 3: COMPOSITION/INFORMATION ON INGREDIENTS

3.1 Mixtures

Dangerous components:

CAS: 68424-85-1 EINECS: 270-325-2	Quaternary ammonium compounds, benzyl (C12 - C16) alkyldimethyl, chlorides Alternative CAS numbers: 85409-22-9, 63449-41-2
	Skin Corr. 1B, H314; Eye Dam. 1, H318
	Aquatic Acute 1, H400 (M=10); Aquatic Chronic 1, H410 (M=1)
	① Acute Tox. 4, H302

Additional information: Hazard statements see section 16.

SECTION 4: FIRST AID MEASURES

4.1 Description of first aid measures

Note:

Obtain special instructions from the poison information centre: 0844-892-0111 (UK only)

Personal protection for the First Aider.

After inhalation	Supply fresh air. Supply fresh air; consult doctor in case of symptoms.
After skin contact	IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water [or shower]. If skin irritation or rash occurs: Get medical advice/attention.
After eye contact	IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. Consult an eye specialist immediately.
After swallowing	IF SWALLOWED: Rinse mouth. Do NOT induce vomiting. IF SWALLOWED: Immediately call a POISON CENTER/ doctor. Do not give anything by mouth to an unconscious person. Bring vomiting person into recovery position.

4.2 Most important symptoms and effects, both acute and delayed

Corrosive damage to gastro-intestinal tract.

Information for doctor: Probable mucosal damage may contraindicate the use of gastric lavage.

Danger: Danger of gastric perforation.

4.3 Indication of any immediate medical attention and special treatment needed

If swallowed, gastric irrigation with activated carbon. Rinse eyes thoroughly with physiological saline.

SECTION 5: FIREFIGHTING MEASURES

5.1 Extinguishing media

Suitable extinguishing agents:

Product is non combustible. Use fire fighting measures that suit the environment.

Unsuitable extinguishing agents for reasons of safety: None

5.2 Special hazards arising from the substance or mixture

In case of fire, toxic incineration products may be released such as: Nitrogen oxides (NOx)

Hydrogen chloride (HCl)

Carbon monoxide (CO)

5.3 Advice for firefighters

Protective equipment: Wear self-contained breathing apparatus.

Additional information: Collect contaminated fire fighting water separately. It must not enter drain





SECTION 6: ACCIDENTAL RELEASE MEASURES

6.1 Personal precautions, protective equipment and emergency procedures

Hi risk of slipping on leaked/spilled product.

Wear protective equipment. Keep unprotected persons away.

When selecting the protective suit attention has to be paid to the complete and safe protection of skin and mucous membranes. Impermeable protective clothes, protective boots made of neoprene, complete face protection and nitrile-rubber-gloves with long tops should be worn.

6.2 Environmental precautions:

As the product is hazardous for the aquatic environment, it must be prevented from reaching surface water.

Inform authorities in case of contamination of water or sewage system.

6.3 Methods and material for containment and cleaning up:

Dam and absorb spillage with chemical binder.

Suitable binder: multi-purpose absorbent.

Dispose of contaminated material as waste according to item 13.

Decontamination procedure: Quats are incompatible with anionic compounds, e. g. with anionic surfactants. If product is released unintentionally into waste water, drain the contaminated waste water and collect it in an appropriate container. Adjust with sodium lauryl sulphate solution (concentration twice as high as the active ingredient in the wastewater) to a mixture ratio of 1:1. Request further instructions from the supplier. Polluted surfaces can be decontaminated with a 10% sodium lauryl sulphate solution.

6.4 Reference to other sections: None

SECTION 7: HANDLING AND STORAGE

7.1 Precautions for safe handling

Handle product in closed systems preferably. Clean contaminated work equipment immediately to avoid skin corrosion/-irritation and/or allergic skin reactions in case of unconscious skin contact. Assess hazards arising from work equipment and work places.

Information about protection against explosion and fire: No special measures required.

7.2 Conditions for safe storage, including any incompatibilities

Requirements to be met by storerooms and containers:

Should be stored in the delivery-container preferably.

Information about storage in a common storage facility: None

Further information about storageconditions: If the product crystallizes at low temperatures, it can be restored by slowly warming the product. The effectiveness is not affected hereby. Prevent release to the environment by adequate secondary containment design and use of appropriate spill control procedures.

Minimum storage temperature: 10 °C Sensitivity against frost: Protect from frost.

7.3 Specific end use(s): No further relevant information available.

SECTION 8: EXPOSURE CONTROLS/PERSONAL PROTECTION

8.1 Control parameters

Components with critical values that require monitoring at the workplace: None established.

Additional information: Information valid at the time of review of safety data sheet.

8.2 Exposure controls

Technical protective equipment:

In case of contamination devices to rinse eyes or skin immediately under running water must be available.

Personal protective equipment

General protective and hygienic measures:

Avoid contact with the eyes and the skin.

Wash hands during work breaks and at the end of the shift. Use skin cream for skin protection. Provide skin protection plan.

Respiratory protection: not required







HAND PROTECTION:



Chemical protective gloves (EN ISO 374-1:2016)

Wear protective gloves with long gauntlets preferably. Check the condition of protective gloves after each use for any damages like holes, cuts or tears. Do not wear protective gloves longer than necessary. After use of gloves apply skin cleaning agents and skin cosmetics.

Material of gloves Nitrile rubber, NBR

Penetration time of glove material:

Thickness: 0.4 mm; break-through time: 480 min; material: Nitrile; permeation: level 6

Gloves made of the following materials are not suitable:

Gloves for mechanical protection do not provide protection against chemicals.

EYE PROTECTION:



Face shield/visor (EN 166)

During filling/transfer, sample taking, repairs and elimination of faults.

To protect the eyes, face and neck against liquid splashes.

Use only with protective spectacles with side protection or full view goggles

BODY PROTECTION:



Protective clothing (EN 14605:2009-08)
Protective clothing against liquid chemicals (EN 14605)
Liquid-tight clothing (Type 3) with entire head and neck protecti

APRON:



Limitation and supervision of exposure into the environment: None

Risk management measures

The operators shall be instructed adequately.

The workplace shall be inspected regularly by competent personnel e.g. the safety representative





SECTION 9: PHYSICAL AND CHEMICAL PROPERTIES

9.1 Information on basic physical and chemical properties **General Information**

Appearance:	Form: Liquid Colour: Colourless to yellowish Clear The product could also be dyed as blue or green.	
Odour:	Mild	
Odour threshold:	Not relevant for safety	
pH-value at 20 °C:	6 - 9 slightly acidic (pH: 5-6,9) to slightly alkaline (pH: 7,1-9,9)	
Change in condition	Melting point/freezing point: ca. 0 °C Initial boiling point and boiling range: 107 °C	
Flash point	The mixture has no flashpoint	
Flammability (solid, gas)	Product is not inflammable.	
Auto ignition temperature	Not applicable.	
Self-inflammability	Product is not self-igniting.	
Explosive properties	No explosive properties (S 2021).	
Critical values for explosion	Lower: Not applicable Upper: Not applicable	
Oxidising properties	None	
Vapour pressure at 20 °C	23 mbar (H ₂ O)	
Density at 20 °C:	0.975 - 0.995 g/cm3	
Relative density (D ²⁰ ₄)	0.984 (OECD 109 - S 1774)	
Vapour density:	Not relevant for safety	
Evaporation rate:	Not relevant for safety	
Solubility in / Miscibility with Water:	Fully miscible	
Partition coefficient: n-octanol/water:	See section 12	
Viscosity:	dynamic at 20 °C: 130.4 mPas (OECD 114 - S 3312) kinematic at 40 °C: 74-52 mm²/s (OECD 114 - S 3312) This substance/mixture shows the properties of a Newtonian liquid at 20 °C and of a Non-Newtonian liquid at 40 °C.	

9.2 Other information

No further relevant information available.

SECTION 10: STABILITY AND REACTIVITY

10.1 Reactivity

The classification criteria for the property "corrosive to metals" according to Annex I section 2.16 CLP Regulation resp. the UN Regulations for the transport of dangerous goods, class 8, are not fulfilled. (\$ 4357) For information about suitable materials for vessels and piping see section 7.2 (Requirements to be met by storerooms and containers).

10.2 Chemical stability

Conditions to be avoided:

No decomposition if used and stored according to specifications.

Minimum shelf life: 24 months from production date, if stored at a temperature of about 20°C.







10.3 Possibility of hazardous reactions

No dangerous reactions known.

10.4 Conditions to avoid

No further relevant information available.

10.5 Incompatible materials

Oxidizing agents, Anionic compounds

10.6 Hazardous decomposition products

None, if storage and handling is done according to specification

SECTION 11: TOXICOLOGICAL INFORMATION

11.1 Information on toxicological effects

Acute toxicity: Harmful if swallowed.

Acute toxicity estimates (ATE) or LD ₅₀ /LC ₅₀ values:		
Oral	LD ₅₀	795 mg/kg (rat) S 477
Dermal	ATE	>5,000 mg/kg (calculated)

Skin corrosion/irritation:

Causes severe skin burns and eye damage.

Serious eye damage/irritation:

Causes serious eye damage.

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

Results of studies:

68424-85-1 Quaternary ammonium compounds, benzyl (C12 - C16) alkyldimethyl, chlorides	
OECD 406 (Buehler-Test)	(Guinea pig) not sensitising - S 480

Germ cell mutagenicity: 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.

SECTION 12: ECOLOGICAL INFORMATION

12.1 Toxicity

Aquatic toxicity:

68424-85-1 Quaternary ammonium compounds, benzyl (C12 - C16) alkyldimethyl, chlorides		
EC ₁₀ / 72 h	0.0025 mg/l (Selenastrum capricornutum) (OECD 201) S 470	
EC ₅₀ / 72 h	0.02 mg/l (Selenastrum capricornutum) (OECD 201) S 470	
EC ₅₀ / 48 h	0.016 mg/l (Daphnia) Dossier (REACh)	
LC ₅₀ / 96 h (static)	0.85 mg/l (rainbow trout) (OECD 203) S 469	
NOEC/21d	0.025 mg/l (Daphnia) (OECD 211) S 575	
NOEC / 28 d	0.0322 mg/l (fathead minnow) (U.S. EPA FIFRA 72-4) Dossier (REACh)	

Evaluation: Very toxic to aquatic life. Toxic to aquatic life with long lasting effects.





Toxicity on activated sludge organisms:

68424-85-1 Quaternary ammonium compounds, benzyl (C12 - C16) alkyldimethyl, chlorides		
EC ₂₀ / 0.5 h	5 mg/l (OECD 209) S 2020	

Evaluation: Depending on concentration, toxic effects on activated sludge organisms are possible.

12.2 Persistence and degradability

Rapid degradability of organic substances:

68424-85-1 Quaternary ammonium compounds, benzyl (C12 - C16) alkyldimethyl, chlorides	
OECD 301 D Closed-Bottle-Test	> 60 % S 472

Evaluation:

The component(s) is (are) rapidly degradable. Substances are considered rapidly degradable in the environment if one of the following criteria holds true: if, in 28-day ready biodegradation studies, at least the following levels of degradation are achieved within 10 days of the start of degradation: 70% dissolved organic carbon or 60% oxygen depletion or carbon dioxide generation; (see CLP-Regulation Annex I section 4.1.2.9 and CLP Guidance version 4.1 Annex II.2).

Behaviour in sewage treatment plants:

68424-85-1 Quaternary ammonium compounds, benzyl (C12 - C16) alkyldimethyl, chlorides	
OECD 303 A: Activated Sludge Units	> 90 % S 1272

Evaluation: The substances are biodegradable/eliminable in activated sludge units.

12.3 Bioaccumulative potential

BCF / LogKow:

68424-85-1 Quaternary ammonium compounds, benzyl (C12 - C16) alkyldimethyl, chlorides		
OECD 305 Bioconcentration factor	79 (Fish) Dossier (REACh)	
OECD 107 LogKow (Shake Flask Method)	2.88 (n-octanol/water) S 2522	

Evaluation: Not worth-mentioning accumulating in organisms

12.4 Mobility in soil

No further relevant information available.

12.5 Results of PBT and vPvB assessment

PBT: This mixture does not contain substances that meet the PBT-criteria of REACH, annex XIII. **vPvB:** This mixture does not contain substances that meet the vPvB-criteria of REACH, annex XIII.

12.6 Other adverse effects

None

12.7 Additional information

Chemical Oxygen Demand (COD-value): 1130 mg O₂/g product Biological oxygen demand (BOD₅-value): Not determined Metals and their compounds (Directive 2006/11/EC): None

European Water Framework Directive (2000/60/EC):

The product does not contain any priority substances according WFD that require a water monitoring.

Absorbable organic halogen compounds (AOX - DIN EN ISO 9562 H 14):

The product does not contain substances, which can influence the AOX of waste water. Care should be paid to properly washing out the chloride when performing the AOX method.





SECTION 13: DISPOSAL CONSIDERATIONS

13.1 Waste treatment methods

Recommendation

Hazardous waste. Separate waste disposal to be applied.

Appropriate disposal operations according to Directive 2008/98/EC on waste: D 10 Incineration on land

European waste catalogue		
16 00 00	WASTES NOT OTHERWISE SPECIFIED IN THE LIST	
16 03 00	off-specification batches and unused products	
16 03 05*	organic wastes containing hazardous substances	

Contaminated packaging:

Recommendation:

Packaging can be reused or recycled after cleaning.

Cleaning liquid can be fed to a biological wastewater treatment plant.

Recommended cleaning agent: Water, if necessary with cleaning agent.

SECTION 14: TRANSPORT INFORMATION

14.1 UN-Number

ADR, IMDG, IATA	UN1760
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14.2 UN proper shipping name

ADR	CORROSIVE LIQUID, N.O.S. (Quaternary ammonium compounds, benzyl (C12 - C16) alkyldimethyl, chlorides), ENVIRONMENTALLY HAZARDOUS	
IMDG	CORROSIVE LIQUID, N.O.S. (Quaternary ammonium compounds, benzyl (C12 - C16) alkyldimethyl, chlorides), MARINE POLLUTANT	
IATA	CORROSIVE LIQUID, N.O.S. (Quaternary ammonium compounds, benzyl (C12 - C16) alkyldimethyl, chlorides	

14.3 Transport hazard class(es)

ADR

ADR	
Class	8 (C9) Corrosive substances.
Label	8
IMDG	B \\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\
Class	8 Corrosive substances.
Label	8
IATA	B
Class	8 Corrosive substances.
Label	8





14.4 Packing group:

ADR, IMDG, IATA

14.5 Environmental hazards:

Marine pollutant:	Yes Symbol (fish and tree)			
Special marking (ADR):	Symbol (fish and tree)			

14.6 Special precautions for user

Warning: Corrosive substances.

Kemler Number:	80
EMS Number:	F-A,S-B
Segregation groups	To list the dangerous good under a certain segragation group is not necessary due to its intrinsic properties in compliance with IMDG section 7.2.5.3.
Stowage Category	В
Stowage Code	SW2 Clear of living quarters.

14.7 Transport in bulk according to Annex II of Marpol and the IBC Code: Not applicable. Transport/Additional information:

ADR

Limited quantities (LQ)	1L	
Excepted quantities (EQ)	Code: E2	Maximum net quantity per inner packaging: 30 ml Maximum net quantity per outer packaging: 500 ml
Transport category	2	
Tunnel restriction code	Е	

IMDG

Limited quantities (LQ)	1L		
Excepted quantities (EQ)	Code: E2	E2 Maximum net quantity per inner packaging: 30 ml Maximum net quantity per outer packaging: 500 ml	

ATA

Remarks:	Packing Instructions / max. net weight: Passenger aircraft: 851 / 1 L; Cargo aircraft: 855 / 3	
UN "Model Regulation"	UN 1760 CORROSIVE LIQUID, N.O.S. (QUATERNARY AMMONIUM COMPOUNDS, BENZYL (C12 - C16) ALKYLDIMETHYL, CHLORIDES), 8, II, ENVIRONMENTALLY	

SECTION 15: REGULATORY INFORMATION

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

EU legislation: The product is as classified uinder GHS/CLP- Regulation (EC) No 1272/2008 classification, labelling & packaging of substances & mixture. Safety Data Sheet prepared in accordance with REACH Commission Regulation (EU) No2015/830 (which amends Regulation (EC) No 453/2010 & 1907/2006). Ingredients are listed with classification under GHS/CLP - Regulation (EC) No 1272/2008 classification, labelling & packaging of substances & mixtures.





SECTION 16: OTHER INFORMATION

This data is based on our current knowledge. However, it does not constitute a guarantee for any specific product features and does not establish a legally valid contractual relationship.

Relevant phrases

H302 Harmful if swallowed.

H314 Causes severe skin burns and eye damage.

H318 Causes serious eye damage.

H400 Very toxic to aquatic life.

H410 Very toxic to aquatic life with long lasting effects.

Training hints

Further information regarding the directions for use can be found in the Product Data Sheet.

Classification according to Regulation (EC) No 1272/2008

The classification includes the relevant available information about the mixture or the substances contained therein. The evaluation of the available information within the scope of classification refers to the forms and aggregate states in which the mixture has been placed on the market and will be used most likely.

Acute toxicity - oral	On basis of test dat
Skin corrosion/irritation Serious eye damage/eye irritation Hazardous to the aquatic environment - short-term (acute) aquatic hazard Hazardous to the aquatic environment - long-term (chronic) aquatic hazard	Calculation method

Contact for technical information PureSeal BacClear Pro: info@puresealservices.co.uk Abbreviations and acronyms:

Acute Tox. 4: Acute toxicity - oral - Category 4

Skin Corr. 1B: Skin corrosion/irritation - Category 1B

Eye Dam. 1: Serious eye damage/eye irritation - Category 1

Aquatic Acute 1: Hazardous to the aquatic environment - acute aquatic hazard - Category 1 Aquatic Chronic 1: Hazardous to the aquatic environment - long-term aquatic hazard - Category 1

Key literature references and sources for data:

Data source(s): Biocidal product dossier(s) Own studies (reference to S-number).

Further information regarding physical-chemical, toxicological and ecotoxicological properties of the substances contained, can be taken from the data set for the substance (http://echa.europa.eu/en/).

* Data altered since the previous version.



