



1 - IDENTIFICATION OF THE SUBSTANCE/MIXTURE AND OF THE COMPANY/UNDERTAKING

1.1	Product identifiers Trade Name or designation	DP1005 BioQuat
1.2	Identification of Uses Uses advised against	Agricultural Cleaner No specific uses are advised against
1.3	Supplier Telephone No. Fax No. Email	Biolink Limited. Halifax Way Pocklington Ind. Est Pocklington York YO42 1NR +44 (0) 1759 303444 +44 (0) 1759 303158 info@biolinklimited.co.uk
1.4	Emergency Phone	+44 (0) 1280 738605 (office hours only)

2 - HAZARDS IDENTIFICATION

2.1 Classification of the substance or mixture

Classification according to 67/548/EEC or 1999/45/EEC as amended

C, N, R41, R38, 50/53

Classification in accordance to EC 1272/2008 as amended

PHYSICAL HAZARDS

Not Classified

HEALTH HAZARDS

Skin Irritant Category 2

H315 Causes Skin irritation

Eye Damage Category 1

H318 Causes serious eye damage

ENVIRONMENTAL HAZARDS

Aquatic Acute Category 1

H400 Very toxic to aquatic life

Aquatic Chronic Category 2

H411 Toxic to aquatic life with long lasting effects

Hazard summary

Physical hazards

Not Classified

Health hazards

Causes Skin irritation. Causes serious eye damage

Environmental hazards

Very toxic to aquatic life with long lasting effects

Specific hazards

Not known

Main symptoms

May cause irritation to the skin. Symptoms may include redness, discomfort, and rash. Causes serious eye damage. Symptoms may include stinging, tearing, redness, swelling, and blurred vision.

Permanent eye damage including blindness could result.

1.2 Label elements

Label in accordance with EC 1272/2008 as amended

Contains QUATERNARY AMMONIUM COMPOUNDS 2.5%

Hazard pictograms



Signal word

Danger

Hazard statements

- H315 Causes Skin irritation
- H318 Causes serious eye damage
- H400 Very toxic to aquatic life
- H411 Toxic to aquatic life with long lasting effects

Precautionary statements

Prevention

- P273 Avoid release to the environment.
- P280 Wear protective gloves/protective clothing/eye protection/face protection.

Response

- P305+351+338 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing
- P302+ 352 IF ON SKIN: Wash with plenty of soap and water
- P332+313 If skin irritation or rash occurs: Get medical advice/ attention

Storage

N/A

Disposal

P501 Dispose of contents/container in accordance with local regulations.

Supplemental label information

Not applicable

1.3 Other hazards

Not known

3 - COMPOSITION/INFORMATION ON INGREDIENTS

3.2 Mixtures

ALCOHOLS, C9-11 ETHOXYLATED, < 2.5 EO		5-15%	
CAS-No.: 68439-46-3	EC No.:	EC Index No.:	Reach No.:
Classification (67/548/EEC)		Classification (EC 1272/2008)	
Xi, Xn, R22, R41		Acute Tox. 4-H302	
		Eye Dam. 1-H318	

QUATERNARY AMMONIUM COMPOUNDS, BENZYL-C12-16-ALKYLDIMETHYL, CHLORIDES		2.5%	
CAS-No.: 68424-85-1	EC No.: 270-325-2	EC Index No.: 612-131-00-6	Reach No.:
Classification (67/548/EEC) C, Xn, N, R34, R22, R50		Classification (EC 1272/2008) Met. Corr. 1 - H290 Acute Tox. 4 - H302 Skin Corr. 1B - H314 Eye Dam. 1- H318 Aquatic acute 1 -H400 Aquatic chronic 1 - H410	

The Full Text for all R-Phrases and Hazard Statements are Displayed in Section 16.

4 - FIRST AID MEASURES

General Information

First aiders should wear suitable protective clothing.

4.1 Description of first aid measures

Inhalation

Move the exposed person to fresh air at once. Get medical attention. Provide rest, warmth and fresh air. When breathing is difficult, properly trained personnel may assist affected person by administering oxygen.

Ingestion

Move the exposed person to fresh air at once. Get medical attention. Provide rest, warmth and fresh air. When breathing is difficult, properly trained personnel may assist affected person by administering oxygen.

Skin contact

Remove contaminated clothing. Wash off with plenty of water. Consult a doctor if symptoms persist.

Eye contact

Remove contaminated clothing. Wash off with plenty of water. Consult a physician if symptoms persist.

4.2 Most important symptoms and effects, both acute and delayed

Skin irritation and discomfort. Corrosive damage to the eyes.

Contact dermatitis and/or allergic reaction from repeated exposure.

4.3 Indication of any immediate medical attention and special treatment needed

Rinse eye immediately with sterile saline solution.

Seek medical attention in case of ingestion, inhalation or contact with eyes.

If swallowed gastric irrigation with activated carbon

5 - FIRE FIGHTING MEASURES

General Fire Hazards

5.1. Extinguishing media

SUITABLE EXTINGUISHING MEDIA

Water spray, Dry powder, foam.

UNSUITABLE EXTINGUISHING MEDIA

None

5.2. Special hazards arising from the substance or mixture

UNUSUAL FIRE & EXPLOSION HAZARDS

In case of fire toxic gases may be released. (COx, NOx, HCl).

SPECIFIC HAZARDS

None noted.

5.3. Advice for fire-fighters

SPECIAL FIRE FIGHTING PROCEDURES

Collect fire extinguishing water separately, do not allow to enter drains. Exceptionally large spillages should be notified to the appropriate authorities.

PROTECTIVE EQUIPMENT FOR FIRE-FIGHTERS

Wear self-contained breathing apparatus.

6 - ACCIDENTAL RELEASE MEASURES

6.1. Personal precautions, protective equipment and emergency procedures

Keep unnecessary people away. Wear protective clothing as described in Section 8 of this safety data sheet. Follow precautions for safe handling described in this safety data sheet. Ensure suitable personal protection (including respiratory protection) during removal of spillages in a confined area.

6.2. Environmental precautions

Do not let product enter drains. Discharge into the environment must be avoided. Appropriate authorities should be notified in case of contamination of sewerage or surface water.

6.3. Methods and material for containment and cleaning up

Prevent further leakage or spillage if safe to do so. If possible contain the spillage with adsorbent material, place in a suitable container and dispose of as described in section 13 of this safety data sheet.

Quats are incompatible with anionic compounds e.g. anionic surfactants. If large quantities are released into waste water collect in an appropriate container. Adjust with sodium lauryl sulphate solution (Concentration twice as high as the active ingredient in the waste water) to a mixture ratio of 1:1. Polluted surfaces can be decontaminated with a 10% sodium lauryl sulphate solution.

6.4. Reference to other sections

Personal protection –section 8.

Disposal considerations –Section 13.

7 - HANDLING AND STORAGE

7.1. Precautions for safe handling

Ensure good ventilation when using this product, avoid inhalation of vapours and spray. Handle with care and avoid spilling, skin and eye contact. Do not handle broken packages without protective equipment. Follow instructions and ensure correct dilution of this product before use.

7.2. Conditions for safe storage, including any incompatibilities

Store in tightly closed original container in a dry, cool and well-ventilated place. Keep in original container

7.3. Specific end use(s)

Cleaner

8 - EXPOSURE CONTROLS / PERSONAL PROTECTION

8.1. Control parameters

Not available

Biological limit values

Recommended monitoring procedures

Follow standard monitoring procedures.

Derived no-effect level (DNEL)

Not available

Predicted no effect concentrations (PNECs)

Not available

8.2 Exposure controls

**Appropriate Engineering controls**

No specific engineering measures are noted except that this product should be used in a well ventilated area.

Individual protection measures, such as personal protective equipment

In case of splashing where suitable protective equipment.

General information

Handle in accordance with good industrial hygiene and safety practice. Wash hands before breaks and at the end of workday

Respiratory equipment

Where risk assessment shows air-purifying respirators are appropriate use a respirator with multi-purpose combination (US) or type ABEK (EN 14387) respirator.

Hand protection

The selected protective gloves have to satisfy the specifications of EU Directive 89/686/EEC and the standard EN 374 derived from it.

Full contact

Material: Nitrile rubber

Minimum layer thickness: 0.6 mm

Break through time: >480 min

Splash contact

Material: Nitrile rubber

Minimum layer thickness: 0.2 mm

Break through time: >35 min

If used in solution, or mixed with other substances, and under conditions which differ from EN 374, contact the supplier of the CE approved gloves. This recommendation is advisory only and must be evaluated by an Industrial Hygienist familiar with the specific situation of anticipated use by our customers. It should not be construed as offering an approval for any specific use scenario.

Eye protection

In case of splashing, wear safety goggles or face shield.

Other protection

Wear appropriate clothing to prevent any possibility of liquid contact and repeated or prolonged vapour contact.

Hygiene measures

DO NOT SMOKE IN WORK AREA! Wash at the end of each work shift and before eating, smoking and using the toilet. Promptly remove any clothing that becomes contaminated. Wash promptly with soap & water if skin becomes contaminated. Use appropriate skin cream to prevent drying of skin. When using do not eat, drink or smoke

Environmental exposure controls

Do not discharge into the watercourse or drains

9 - PHYSICAL AND CHEMICAL PROPERTIES

9.1. Information on basic physical and chemical properties

Appearance	
Physical State:	Liquid
Form:	Solution
Colour	Clear green
Odour	Faint odour
pH	7.0- 8.0 (Undiluted)
BP/BP Range	N/A
MP/MP Range	N/A
Relative Density	1-1.05 (1.0 typical)
Refractive Index:	11 – 14 %
Solubility	Completely miscible in water

9.2. Other information

Not known

10 - STABILITY AND REACTIVITY

10.1 Reactivity

Not expected under normal conditions of use

10.2 Chemical stability

Stable under normal temperature conditions

10.3 Possibility of hazardous reactions

Not expected under normal conditions of use

10.4 Conditions to avoid

Avoid exposure to high temperatures or direct sunlight

10.5 Incompatible materials

Materials to avoid -strong acids or alkalis. Oxidising agents. Anionic compounds

10.6 Hazardous decomposition products

None, see section 5 for decomposition products under fire conditions

11 - TOXICOLOGICAL INFORMATION

General information

Information on likely routes of exposure

Inhalation

No specific symptoms noted

Skin contact

May cause irritation to the skin. Symptoms may include redness, discomfort, and rash.

Eye contact

Causes serious eye damage. Symptoms may include stinging, tearing, redness, swelling, and blurred vision. Permanent eye damage including blindness could result.

Ingestion

No specific symptoms noted, may cause irritation to soft tissue.

Symptoms

May cause irritation to the skin. Symptoms may include redness, discomfort, and rash. Causes serious eye damage. Symptoms may include stinging, tearing, redness, swelling, and blurred vision. Permanent eye damage including blindness could result.

11.1 Information on toxicological effects**Acute toxicity**

(Rat)	QUATERNARY AMMONIUM COMPOUNDS, BENZYL-C12-16-ALKYLDIMETHYL, CHLORIDES			
	Oral	LD50	795 mg/kg (Rat)	
	Dermal	ATEmix	> 5000 mg/kg (calculated)	
	ALCOHOLS, C9-11 ETHOXYLATED, < 2.5 EO	Oral	LD50	>200-2000 mg/kg

Skin corrosion/irritation

QUATERNARY AMMONIUM COMPOUNDS, BENZYL-C12-16-ALKYLDIMETHYL, CHLORIDES		
OECD 404	Corrosive (Rabbit)	

Serious eye damage/eye irritation

No data available, eye damage is assumed based on skin corrosive classification of the quaternary ammonium compounds

Respiratory sensitisation

Based on the available data not classified as a respiratory sensitiser

Skin sensitisation

QUATERNARY AMMONIUM COMPOUNDS, BENZYL-C12-16-ALKYLDIMETHYL, CHLORIDES		
OECD 406	Not sensitising (Guinea pig)	

Germ cell mutagenicity

Based on the available data not classified as a mutagen

Carcinogenicity

Based on the available data not classified as a carcinogen

IARC Monographs. Overall Evaluation of Carcinogenicity

Not listed

Reproductive toxicity

Based on the available data not classified as a reproductive toxic

Specific target organ toxicity - single exposure

Based on the available data not classified as a STOT SE

Specific target organ toxicity - repeated exposure

Based on the available data not classified as a STOT RE

Aspiration hazard

Based on the available data not classified as an aspiration hazard

Mixture versus substance information

No data available

Other information

Not available

12 - ECOLOGICAL INFORMATION**12.1 Toxicity**

QUATERNARY AMMONIUM COMPOUNDS, BENZYL-C12-16-ALKYLDIMETHYL, CHLORIDES		
Toxicity to fish	LC50 96 h	0.085 mg/l (rainbow trout)
Toxicity to aquatic invertebrates	EC50 48 h	0.016 mg/l <i>Daphnia magna</i> .
Toxicity to Algae	EC50 72 h	0.025 mg/l <i>P. subcapitata</i>
ALCOHOLS, C9-11 ETHOXYLATED, < 2.5 EO		
Toxicity to fish	LC50 96 h	1-10 mg/l

12.2 Persistence and degradability

QUATERNARY AMMONIUM COMPOUNDS, BENZYL-C12-16-ALKYLDIMETHYL, CHLORIDES		
OECD 301 D	70% Activated Sludge	
COD	1130 mg/g	

12.3 Bioaccumulative potential**Partition coefficient n-octanol/water (log Kow)**

QUATERNARY AMMONIUM COMPOUNDS, BENZYL-C12-16-ALKYLDIMETHYL, CHLORIDES

- 12.4 Mobility in soil**
No data available
- 12.5 Results of PBT and vPvB assessment**
No data available
- 12.6 Other adverse effects**
Not known

13 - DISPOSAL CONSIDERATIONS

13.1 Waste treatment methods

Dispose of waste and residues in accordance with local authority requirements

Residual waste

Dispose of waste and residues in accordance with local authority requirements

Contaminated packaging

Dispose of as unused product.

EU Waste Code

02-01-08

Disposal methods/information

Wear protective equipment as outlined in section 8 of this safety data sheet when handling this product contaminated materials and packaging.

Special precautions

Not noted.

14 - TRANSPORT INFORMATION

Road Transport Notes

14.1 UN-number

ADR/RID: 3082

IMDG: 3082

IATA: 3082

14.2 UN proper shipping name

ADR/RID: ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (QUATERNARY AMMONIUM COMPOUNDS, BENZYL-C12-16-ALKYLDIMETHYL, CHLORIDES)

IMDG: ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (QUATERNARY AMMONIUM COMPOUNDS, BENZYL-C12-16-ALKYLDIMETHYL, CHLORIDES)

IATA: ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (QUATERNARY AMMONIUM COMPOUNDS, BENZYL-C12-16-ALKYLDIMETHYL, CHLORIDES)

14.3 Transport hazard class(es)

ADR/RID: 9 (M6)

IMDG: 9

IATA: 9

14.4 Packaging group

ADR/RID: III

IMDG: III

IATA: III

14.5 Environmental hazards

IMDG: Marine pollutant: Yes

14.6 Special precautions for users

N/A

14.7 Transport in bulk according to Annex II of MARPOL73/78 and the IBC Code

N/A

Further information

Limited quantities:	5L
Expected quantities:	E1
Transport Category (Tunnel Restriction Code):	3 (E)
Hazard Identification Number:	90

15 - REGULATORY INFORMATION**15.1 Safety, health and environmental regulations/legislation specific for the substance or mixture**

Other regulations The product is classified and labelled in accordance with EC directives or respective national laws. This Safety Data Sheet complies with the requirements of Regulation (EC) No 1907/2006.

15.2 Chemical Safety Assessment

National regulations Young people under 18 years old are not allowed to work with this product according to the EU Directive 94/33/EC on the protection of young people at work. Follow national regulation for work with chemical agents.

15.2 Chemical safety assessment

No Chemical Safety Assessment has been carried out.

16 - OTHER INFORMATION**List of abbreviations**

CO Carbon Monoxide
NO Nitrogen Oxide
HCL Hydrochloric acid
TWA Time weighted average
STEL Short Term exposure limit
DW Dry weight

References**Information on evaluation method leading to the classification of mixture**

The classification for health and environmental hazards is derived by a combination of calculation methods and test data, if available.

Full text of any statements or R-phrases and H-statements under Sections 2 to 15

C Corrosive
Xn Harmful
Xi Irritant
N Dangerous to the environment
R22 Harmful if swallowed
R34 Causes burns
R41 Risk of serious damage to eyes
R38 Irritating to skin
R50 Very toxic to aquatic organisms
R50/53 Very toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment
H290 May be corrosive to metals
H302 Harmful if swallowed
H314 Causes severe skin burns and eye damage
H315 Causes Skin irritation

H318 Causes serious eye damage
H400 Very toxic to aquatic life
H410 Very toxic to aquatic life with long lasting effects
H315 Causes Skin irritation
H318 Causes serious eye damage
H400 Very toxic to aquatic life
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.
P305+351+338 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing
P302+ 352 IF ON SKIN: Wash with plenty of soap and water
P332+313 If skin irritation or rash occurs: Get medical advice/ attention
P501 Dispose of contents/container in accordance with local regulations.

Training information Follow training instructions when handling this material.

Disclaimer

Biolink cannot anticipate all conditions under which this information and its product, or the products of other manufacturers in combination with its product, may be used. It is the user's responsibility to ensure safe conditions for handling, storage and disposal of the product, and to assume liability for loss, injury, damage or expense due to improper use. This information is provided without warranty. The information is believed to be correct. This information should be used to make an independent determination of the methods to safeguard workers and the environment. The information in the sheet was written based on the best knowledge and experience currently available.