



SAFETY DATA SHEET

Byotrol 4in1 Multipurpose Cleaner & Disinfectant Concentrate

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

1.1. Product identifier

Product name Byotrol 4in1 Multipurpose Cleaner & Disinfectant Concentrate

Product number B2047

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

1.3. Details of the supplier of the safety data sheet

Supplier Byotrol plc
 Building 303 (Ashton),
 Thornton Science Park,
 Pool Lane, Ince, Chester,
 CH2 4NU
 Tel: +44 (0) 1925 742 000
 Fax: +44 (0) 1925 363 099
 info@byotrol.com

1.4. Emergency telephone number

SECTION 2: Hazards identification

2.1. Classification of the substance or mixture

Classification (EC 1272/2008)

Physical hazards Not Classified

Health hazards Skin Irrit. 2 - H315 Eye Dam. 1 - H318

Environmental hazards Aquatic Acute 1 - H400 Aquatic Chronic 3 - H412

2.2. Label elements

Hazard pictograms



Signal word Danger

Hazard statements H315 Causes skin irritation.
 H318 Causes serious eye damage.
 H400 Very toxic to aquatic life.
 H412 Harmful to aquatic life with long lasting effects.

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Precautionary statements	<p>P264 Wash contaminated skin thoroughly after handling.</p> <p>P273 Avoid release to the environment.</p> <p>P280 Wear protective gloves/ protective clothing/ eye protection/ face protection.</p> <p>P302+P352 IF ON SKIN: Wash with plenty of water.</p> <p>P305+P351+P338 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.</p> <p>P310 Immediately call a POISON CENTER/ doctor.</p> <p>P321 Specific treatment (see medical advice on this label).</p> <p>P332+P313 If skin irritation occurs: Get medical advice/ attention.</p> <p>P362+P364 Take off contaminated clothing and wash it before reuse.</p> <p>P391 Collect spillage.</p> <p>P501 Dispose of contents/ container in accordance with national regulations.</p>
Contains	N,N-dimethyldecylamine N-oxide, Alcohols, C9-11, ethoxylated
Detergent labelling	5 - < 15% non-ionic surfactants, < 5% cationic surfactants, < 5% perfumes, Contains Hydroxyisohexyl 3-cyclohexene carboxaldehyde, Hexyl cinnamal, Butylphenyl Methylpropional, Citronello
Supplementary precautionary statements	<p>P310 Immediately call a POISON CENTER/ doctor.</p> <p>P321 Specific treatment (see medical advice on this label).</p> <p>P332+P313 If skin irritation occurs: Get medical advice/ attention.</p>

2.3. Other hazards

SECTION 3: Composition/information on ingredients

3.2. Mixtures

<p>N,N-dimethyldecylamine N-oxide 1-5%</p> <p>CAS number: 2605-79-0 EC number: 220-020-5</p> <p>M factor (Acute) = 1</p>
<p>Classification</p> <p>Acute Tox. 4 - H302</p> <p>Skin Irrit. 2 - H315</p> <p>Eye Dam. 1 - H318</p> <p>Aquatic Acute 1 - H400</p>
<p>propan-2-ol 1-5%</p> <p>CAS number: 67-63-0 EC number: 200-661-7</p>
<p>Classification</p> <p>Flam. Liq. 2 - H225</p> <p>Eye Irrit. 2 - H319</p> <p>STOT SE 3 - H336</p>

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Didecyldimethylammonium chloride (DDAC)	1-5%
CAS number: 7173-51-5	EC number: 230-525-2
M factor (Acute) = 10	M factor (Chronic) = 1
Classification	
Acute Tox. 3 - H301	
Acute Tox. 4 - H312	
Skin Corr. 1B - H314	
Aquatic Acute 1 - H400	
Aquatic Chronic 1 - H410	
Alcohols, C9-11, ethoxylated	1-5%
CAS number: 68439-45-2	
Classification	
Acute Tox. 4 - H302	
Eye Dam. 1 - H318	
Sodium carbonate	1-5%
CAS number: 497-19-8	EC number: 207-838-8
	REACH registration number: 01-2119485498-19-XXXX
Classification	
Eye Irrit. 2 - H319	
Alkyl (C12-16) dimethylbenzyl ammonium chloride (ADBAC/BKC (C12-C16))	<1%
CAS number: 68424-85-1	EC number: 270-325-2
M factor (Acute) = 10	M factor (Chronic) = 1
Classification	
Met. Corr. 1 - H290	
Acute Tox. 4 - H302	
Skin Corr. 1B - H314	
Aquatic Acute 1 - H400	
Aquatic Chronic 1 - H410	

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

SECTION 4: First aid measures

4.1. Description of first aid measures

Inhalation	Not expected to present a significant inhalation hazard under anticipated conditions of normal use.
Ingestion	Do not induce vomiting. Get medical attention if symptoms are severe or persist. Rinse mouth thoroughly with water. Give plenty of water to drink. Never give anything by mouth to an unconscious person.
Skin contact	Rinse immediately contaminated clothing and skin with plenty of water before removing clothes. Get medical attention.

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Eye contact Rinse immediately with plenty of water. Remove any contact lenses and open eyelids wide apart. Continue to rinse for at least 15 minutes and get medical attention.

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

General information The product is considered to be a low hazard under normal conditions of use.

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

Notes for the doctor Treat symptomatically.

SECTION 5: Firefighting measures

5.1. Extinguishing media

Suitable extinguishing media Carbon dioxide (CO₂). Powder. Water spray. Alcohol-resistant foam.

Unsuitable extinguishing media None known.

5.2. Special hazards arising from the substance or mixture

Specific hazards None known.

Hazardous combustion products Toxic gases and fumes may be released in a fire.

5.3. Advice for firefighters

Protective actions during firefighting Use fire-extinguishing media suitable for the surrounding fire. Fight fire with normal precautions from a reasonable distance. Cool containers exposed to heat with water spray and remove them from the fire area if it can be done without risk.

Special protective equipment for firefighters Wear positive-pressure self-contained breathing apparatus (SCBA) and appropriate protective clothing.

SECTION 6: Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures

For non-emergency personnel In case of fire: Wear self-contained breathing apparatus. Wear protective clothing, gloves, eye and face protection. Keep unnecessary and unprotected personnel away from the spillage. Eliminate all sources of ignition. Ventilate closed spaces before entering them.

For emergency responders Wear self-contained breathing apparatus. Wear protective clothing, gloves, eye and face protection. Dilute with plenty of water. Do not allow uncontrolled discharge of product into the environment. Evacuate unnecessary personnel.

6.2. Environmental precautions

Environmental precautions Avoid discharge to the aquatic environment.

6.3. Methods and material for containment and cleaning up

Methods for cleaning up Contain spillage with sand, earth or other suitable non-combustible material. Dilute with plenty of water. Contain and dispose of waste according to local regulations.

6.4. Reference to other sections

Reference to other sections For personal protection, see Section 8. For waste disposal, see Section 13.

SECTION 7: Handling and storage

7.1. Precautions for safe handling

Usage precautions Use only non-sparking tools. Avoid contact with skin, eyes and clothing.

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Advice on general occupational hygiene

Do not eat, drink or smoke when using this product. No specific hygiene procedures recommended but good personal hygiene practices should always be observed when working with chemical products.

7.2. Conditions for safe storage, including any incompatibilities

Storage precautions

Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking. Keep containers upright. Store in tightly-closed, original container in a dry, cool and well-ventilated place. Protect from freezing and direct sunlight. Avoid contact with oxidising agents. Store at temperatures not exceeding 35°C.

Storage class

Corrosive storage.

7.3. Specific end use(s)

Specific end use(s)

The identified uses for this product are detailed in Section 1.2.

SECTION 8: Exposure controls/Personal protection

8.1. Control parameters

8.2. Exposure controls

Protective equipment



Appropriate engineering controls

Wash hands at the end of each work shift and before eating, smoking and using the toilet. Mechanical ventilation or local exhaust ventilation may be required.

Eye/face protection

Chemical splash goggles. Tight-fitting safety glasses. Personal protective equipment for eye and face protection should comply with European Standard EN166.

Hand protection

To protect hands from chemicals, gloves should comply with European Standard EN374.

Other skin and body protection

Wear suitable protective clothing as protection against splashing or contamination.

Respiratory protection

If ventilation is inadequate, suitable respiratory protection must be worn.

SECTION 9: Physical and chemical properties

9.1. Information on basic physical and chemical properties

Appearance

Colourless to pale yellow liquid.

Colour

Colourless to pale yellow.

Odour

Characteristic.

Odour threshold

Not determined.

pH

pH (concentrated solution): 9.50-10.50

Melting point

Not determined.

Initial boiling point and range

Not determined.

Flash point

Not determined.

Evaporation rate

Not determined.

Evaporation factor

Not determined.

Flammability (solid, gas)

Not relevant.

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Upper/lower flammability or explosive limits	Not relevant.
Other flammability	Not relevant.
Vapour pressure	Not determined.
Vapour density	Not determined.
Bulk density	Not relevant.
Solubility(ies)	Soluble in water.
Partition coefficient	Not determined.
Auto-ignition temperature	Not determined.
Decomposition Temperature	Not determined.
Viscosity	Not determined.
Explosive properties	Not considered to be explosive.
Explosive under the influence of a flame	Not considered to be explosive.
Oxidising properties	The mixture itself has not been tested but none of the ingredient substances meet the criteria for classification as oxidising.
Comments	Information given is applicable to the product as supplied.

9.2. Other information

Other information None.

SECTION 10: Stability and reactivity

10.1. Reactivity

Reactivity Stable at normal ambient temperatures and when used as recommended.

10.2. Chemical stability

Stability Stable at normal ambient temperatures and when used as recommended.

10.3. Possibility of hazardous reactions

Possibility of hazardous reactions Stable at normal ambient temperatures and when used as recommended.

10.4. Conditions to avoid

Conditions to avoid Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking.

10.5. Incompatible materials

Materials to avoid Anionics. Hypochlorite. Oxidising agents.

10.6. Hazardous decomposition products

Hazardous decomposition products None known.

SECTION 11: Toxicological information

11.1. Information on toxicological effects

Acute toxicity - oral

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ATE oral (mg/kg) 5,869.72

Acute toxicity - inhalation

ATE inhalation (dusts/mists mg/l) 207.0

Skin corrosion/irritation

Skin corrosion/irritation

Germ cell mutagenicity

Genotoxicity - in vitro Not classified.

Genotoxicity - in vivo Not classified.

Reproductive toxicity

Reproductive toxicity - fertility Not classified.

Reproductive toxicity - development Not classified.

Aspiration hazard

Aspiration hazard Not classified.

SECTION 12: Ecological information

12.1. Toxicity

Toxicity When used as instructed, the product is not considered harmful to aquatic organisms or to cause long-term adverse effects in the environment.

12.2. Persistence and degradability

Persistence and degradability Not determined.

12.3. Bioaccumulative potential

Partition coefficient Not determined.

12.4. Mobility in soil

Mobility Not determined.

12.5. Results of PBT and vPvB assessment

Results of PBT and vPvB assessment This product does not contain any substances classified as PBT or vPvB.

12.6. Other adverse effects

Other adverse effects Not determined.

SECTION 13: Disposal considerations

13.1. Waste treatment methods

General information Dispose of waste product or used containers in accordance with local regulations Do not discharge into drains or watercourses or onto the ground. Containers with collected spillage must be properly labelled with correct contents and hazard symbol.

Disposal methods The generation of waste should be minimised or avoided wherever possible.

SECTION 14: Transport information

14.1. UN number

UN No. (ADR/RID) 3082

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UN No. (IMDG)	3082
UN No. (ICAO)	3082
UN No. (ADN)	3082

14.2. UN proper shipping name

Proper shipping name (ADR/RID)	ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (CONTAINS Didecyldimethylammonium chloride (DDAC), Alkyl (C12-16) dimethylbenzyl ammonium chloride (ADBAC/BKC (C12-C16)))
Proper shipping name (IMDG)	ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (CONTAINS Didecyldimethylammonium chloride (DDAC), Alkyl (C12-16) dimethylbenzyl ammonium chloride (ADBAC/BKC (C12-C16)))
Proper shipping name (ICAO)	ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (CONTAINS Didecyldimethylammonium chloride (DDAC), Alkyl (C12-16) dimethylbenzyl ammonium chloride (ADBAC/BKC (C12-C16)))
Proper shipping name (ADN)	ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (CONTAINS Didecyldimethylammonium chloride (DDAC), Alkyl (C12-16) dimethylbenzyl ammonium chloride (ADBAC/BKC (C12-C16)))

14.3. Transport hazard class(es)

ADR/RID class	9
ADR/RID classification code	M6
ADR/RID label	9
IMDG class	9
ICAO class/division	9
ADN class	9

Transport labels



14.4. Packing group

ADR/RID packing group	III
IMDG packing group	III
ICAO packing group	III
ADN packing group	III

14.5. Environmental hazards

Environmentally hazardous substance/marine pollutant



14.6. Special precautions for user

EmS	F-A, S-F
ADR transport category	3

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Emergency Action Code •3Z

Hazard Identification Number 90
(ADR/RID)

Tunnel restriction code (-)

14.7. Transport in bulk according to Annex II of MARPOL and the IBC Code

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

EU legislation Regulation (EC) No 1272/2008 of the European Parliament and of the Council of 16 December 2008 on classification, labelling and packaging of substances and mixtures (as amended).

15.2. Chemical safety assessment

No chemical safety assessment has been carried out.

SECTION 16: Other information

Revision date 25/07/2019

Revision 3

Supersedes date 03/07/2019

SDS number 5224

Hazard statements in full H225 Highly flammable liquid and vapour.
H290 May be corrosive to metals.
H301 Toxic if swallowed.
H302 Harmful if swallowed.
H312 Harmful in contact with skin.
H314 Causes severe skin burns and eye damage.
H315 Causes skin irritation.
H318 Causes serious eye damage.
H319 Causes serious eye irritation.
H336 May cause drowsiness or dizziness.
H400 Very toxic to aquatic life.
H410 Very toxic to aquatic life with long lasting effects.
H412 Harmful to aquatic life with long lasting effects.

This 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. Such information is, to the best of the company's knowledge and belief, accurate and reliable as of the date indicated. However, no warranty, guarantee or representation is made to its accuracy, reliability or completeness. It is the user's responsibility to satisfy himself as to the suitability of such information for his own particular use.