



SAFETY DATA SHEET

B2020 Byotrol Surface Sanitiser

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

1.1. Product identifier

Product name B2020 Byotrol Surface Sanitiser

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

Identified uses Dilute to use sanitising liquid

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

Emergency telephone +44 (0) 1925 742 000
(Available only within office hours 9am - 5pm)

National emergency telephone number National Poisons Information Service (24-hour service)
Tel: +44 (0) 844 892 0111 (UK only)

SECTION 2: Hazards identification

2.1. Classification of the substance or mixture

Classification (EC 1272/2008)

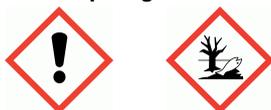
Physical hazards Not Classified

Health hazards Skin Irrit. 2 - H315 Eye Irrit. 2 - H319

Environmental hazards Aquatic Acute 1 - H400 Aquatic Chronic 2 - H411

2.2. Label elements

Hazard pictograms



Signal word Warning

Hazard statements H315 Causes skin irritation.
H319 Causes serious eye irritation.
H400 Very toxic to aquatic life.
H411 Toxic to aquatic life with long lasting effects.
EUH208 Contains Polyhexamethylene biguanide hydrochloride. May produce an allergic reaction.

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Precautionary statements	<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>P332+P313 If skin irritation occurs: Get medical advice/ attention.</p> <p>P337+P313 If eye irritation persists: Get medical advice/ attention.</p>
Supplementary precautionary statements	<p>P264 Wash contaminated skin thoroughly after handling.</p> <p>P321 Specific treatment (see medical advice on this label).</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>

2.3. Other hazards

This product does not contain any substances classified as PBT or vPvB.

SECTION 3: Composition/information on ingredients

3.2. Mixtures

Dodecyl dipropylenetriamine		1-5%
CAS number: 2372-82-9	EC number: 219-145-8	
M factor (Acute) = 10		
Classification		
Acute Tox. 3 - H301		
Skin Corr. 1B - H314		
STOT RE 2 - H373		
Aquatic Acute 1 - H400		
Lactic acid		1-5%
CAS number: 79-33-4	EC number: 201-196-2	REACH registration number: 01-2119474164-39-XXXX
Classification		
Skin Irrit. 2 - H315		
Eye Dam. 1 - H318		
Polyhexamethylene biguanide hydrochloride		<1%
CAS number: 27083-27-8		
M factor (Acute) = 10	M factor (Chronic) = 1	
Classification		
Acute Tox. 4 - H302		
Acute Tox. 2 - H330		
Eye Dam. 1 - H318		
Skin Sens. 1B - H317		
Carc. 2 - H351		
STOT RE 1 - H372		
Aquatic Acute 1 - H400		
Aquatic Chronic 1 - H410		

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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	IF INHALED: Remove person to fresh air and keep comfortable for breathing.
Ingestion	IF SWALLOWED: Rinse mouth. Do not induce vomiting.
Skin contact	IF ON SKIN: Wash with plenty of water.
Eye contact	IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
Protection of first aiders	First aid personnel should wear appropriate protective equipment during any rescue.

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

General information	The severity of the symptoms described will vary dependent on the concentration and the length of exposure.
Inhalation	May cause coughing and difficulties in breathing.
Ingestion	May cause stomach pain or vomiting.
Skin contact	Prolonged or repeated contact with skin may cause irritation, redness and dermatitis.
Eye contact	Prolonged contact may cause irritation, burning, tearing or blurred vision.

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

Notes for the doctor	Treat symptomatically.
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SECTION 5: Firefighting measures

5.1. Extinguishing media

Suitable extinguishing media	Carbon dioxide (CO ₂). 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. Control run-off water by containing and keeping it out of sewers and watercourses. Contain and collect extinguishing water.
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.
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For emergency responders Wear self-contained breathing apparatus. Wear protective clothing, gloves, eye and face protection. 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. 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 Avoid contact with skin, eyes and clothing.

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 Miscellaneous hazardous material 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

Occupational exposure limits

This product does not contain any substances with occupational exposure limit values.

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.

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SECTION 9: Physical and chemical properties

9.1. Information on basic physical and chemical properties

Appearance	Clear liquid.
Colour	Colourless to pale yellow.
Odour	Characteristic.
Odour threshold	Not determined.
pH	pH (concentrated solution): 9.00 - 9.50
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.
Upper/lower flammability or explosive limits	Not relevant.
Other flammability	Not relevant.
Vapour pressure	Not determined.
Vapour density	Not determined.
Relative density	0.99-1.01 @ 20°C
Bulk density	Not relevant.
Solubility(ies)	Soluble in water.
Partition coefficient	Not determined.
Auto-ignition temperature	Not determined.
Decomposition Temperature	Not determined.
Viscosity	Not relevant.
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

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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 Aldehydes. 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

ATE oral (mg/kg) 6,451.85

Acute toxicity - inhalation

ATE inhalation (vapours mg/l) 231.58

Skin corrosion/irritation

Skin corrosion/irritation Causes skin irritation.

Serious eye damage/irritation

Serious eye damage/irritation Causes serious eye irritation.

Respiratory sensitisation

Respiratory sensitisation Not classified.

Skin sensitisation

Skin sensitisation May cause an allergic skin reaction.

Germ cell mutagenicity

Genotoxicity - in vitro Not classified.

Genotoxicity - in vivo Not classified.

Carcinogenicity

Carcinogenicity Not classified.

Reproductive toxicity

Reproductive toxicity - fertility Not classified.

Reproductive toxicity - development Not classified.

Specific target organ toxicity - single exposure

STOT - single exposure Not classified.

Specific target organ toxicity - repeated exposure

STOT - repeated exposure Not classified.

Aspiration hazard

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

Disposal methods 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.

SECTION 14: Transport information

14.1. UN number

UN No. (ADR/RID) 3082

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 Dodecyl dipropylenetriamine, Polyhexamethylene biguanide hydrochloride)

Proper shipping name (IMDG) ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (CONTAINS Dodecyl dipropylenetriamine, Polyhexamethylene biguanide hydrochloride)

Proper shipping name (ICAO) ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (CONTAINS Dodecyl dipropylenetriamine, Polyhexamethylene biguanide hydrochloride)

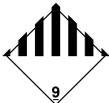
Proper shipping name (ADN) ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (CONTAINS Dodecyl dipropylenetriamine, Polyhexamethylene biguanide hydrochloride)

14.3. Transport hazard class(es)

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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
Emergency Action Code	•3Z
Hazard Identification Number (ADR/RID)	90
Tunnel restriction code	(E)

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

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Revision date	05/02/2019
Revision	4
Supersedes date	20/02/2017
SDS number	5216
Hazard statements in full	H301 Toxic if swallowed. H302 Harmful if swallowed. H314 Causes severe skin burns and eye damage. H315 Causes skin irritation. H317 May cause an allergic skin reaction. H318 Causes serious eye damage. H319 Causes serious eye irritation. H330 Fatal if inhaled. H351 Suspected of causing cancer. H372 Causes damage to organs (Respiratory tract) through prolonged or repeated exposure. H373 May cause damage to organs (Kidneys) through prolonged or repeated exposure. H400 Very toxic to aquatic life. H410 Very toxic to aquatic life with long lasting effects. H411 Toxic to aquatic life with long lasting effects. EUH208 Contains Polyhexamethylene biguanide hydrochloride. May produce an allergic reaction.

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.