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Revision: 30 October 2014 Version number: 3

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

1.1 Product identifier — **Patio Magic**

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

Hard surface biocide

Uses advised against: not available.

1.3 Details of the supplier of the safety data sheet

Brinton Products Ltd.
24 Roseneath Road
London SW11 6AH
Tel 01865 407333; Fax 0870 429 2035
admin@brintonproducts.co.uk

1.4 Emergency telephone number — 01865 407333

SECTION 2: Hazards identification

2.1 Classification of the substance or mixture

Classification according to Regulation (EC) No. 1272/2008: Skin Irrit 2, H315; Eye Dam 1, H318; Aquatic Acute 1, H400; Aquatic Chronic 2, H411.

Classification according to Directive 1999/45/EC: Xi, R36-38; N, R50.

2.2 Label elements

Signal word: Danger

Hazard statements:
Causes skin irritation.
Causes serious eye damage.
Very toxic to aquatic life.
Toxic to aquatic life with long lasting effects.

Precautionary statements

prevention:
Do not breathe mist/spray.
Wear protective gloves and eye/face protection.
Collect spillage.

response: IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. Immediately call a POISON CENTER or doctor.

storage: None.

disposal: Dispose of contents/container in accordance with local/national regulation.

Supplemental: None.

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information

2.3 Other hazards Not available.

SECTION 3: Composition/information on ingredients

3.2 Mixtures [a,b]

Declarable components	*Conc. (wt%)*	*EC No.*	*CAS No.*	*Reg. No.*	*Classification*	
					67/548/EEC	*1272/2008*
Benzalkonium chloride [c]	5–10	270-325-2	68424-85-1	NA	Xn (harmful), R22; C (corrosive), R34; N (dangerous for the environment), R50	Acute Tox 4, H302; Skin Corr 1B, H314; Eye Dam 1, H318; Aquatic Acute 1, H400; Aquatic Chronic 1, H410
Isotridecanol, ethoxylated	Ca. 1	500-241-6	69011-36-5	NA	Xn (harmful), R22; Xi (irritant), R41	Acute Tox 4, H302; Eye Dam 1, H318
Other components						
Water	>75	231-791-2	7732-18-5	NA	Not classified	Not classified

[a] NA: not available.

[b] See Section 16 ‘Other information’ for full text of the R- and H-phrases.

[c] Full name: Quaternary ammonium compounds, benzyl-C12-16-alkyldimethyl, chlorides.

SECTION 4: First aid measures

4.1 Description of first aid measures

Inhalation: If inhalation is suspected, remove exposed person to fresh air and keep at rest in a position comfortable for breathing. If experiencing respiratory symptoms, call a doctor.

Skin: Wash with plenty of soap and water. Call a doctor if irritation or other symptoms occur. Wash contaminated clothing before re-use.

Eye: In case of contact with eyes, irrigate with room-temperature water for several minutes, occasionally lifting eyelids. Speed is essential. Remove any contact lenses if easy to do. Continue rinsing. Get immediate medical attention.

Ingestion: If swallowed, rinse mouth thoroughly and give water to drink. Get medical attention. Do not induce vomiting, unless instructed by medical personnel.

4.2 Most important symptoms and effects, both acute and delayed Causes burns to eye, and digestive tract. Causes skin irritation. Inhalation of mist or spray may irritate or burn the respiratory system.

4.3 Indication of any immediate medical attention and special Treat symptoms as they occur. Dilution of the product with water will reduce its hazardous properties.

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treatment needed

SECTION 5: Firefighting measures

5.1 Extinguishing media

Suitable	Water spray, carbon dioxide, dry chemical powder and alcohol-resistant foam are recommended.
Unsuitable	Not available

5.2 Special hazards arising from the substance or mixture — The product is an aqueous solution, and is not flammable. However, if involved in a fire product may produce hazardous vapours and gases.

5.3 Advice for firefighters — Remove product from fire or cool with water spray. Firefighters should wear self-contained breathing apparatus and full protective clothing.

Prevent water from firefighting from entering water-courses or drainage system.

SECTION 6: Accidental release measures

6.1 Personal precautions, protective equipment and emergency procedures — For large spills, wear personal protection. Keep unauthorised personnel from the spillage area. May cause slip hazard. Follow prescribed procedures for responding to spills and reporting to authorities.

6.2 Environmental precautions — Prevent product from entering water courses or drainage system by using bunding or absorption with inert material.

6.3 Methods and material for containment and cleaning up — Stop the source of leak or release. Clean up spill as soon as possible.

For small quantities, wipe off with cloth or paper, and wash affected area with water and detergent.

For large quantities, recover by using appropriate techniques such as pumping, or absorption with an inert material such as dry sand. Wash contaminated surfaces with water and detergent.

Collect spill, contaminated materials, and washings in a container for disposal.

6.4 Reference to other sections — For recommended personal protective equipment, see Section 8.

For disposal considerations, see Section 13.

SECTION 7: Handling and storage

7.1 Precautions for safe handling — Avoid contact with skin and eyes. Wear protective clothing as in Section 8. Good general ventilation is recommended. Wash hands after handling.

7.2 Conditions for safe storage, including any incompatibilities — Keep containers in a cool, dry place.

7.3 Specific end use(s) — Not available.

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SECTION 8: Exposure controls/personal protection

8.1 Control parameters

EU limit values	None.
UK limit values	None.
Monitoring procedure	BS EN 14042:2003; Workplace Atmospheres; Guide for the Application and Use of Procedures for the Assessment of Exposure to Chemical and Biological Agents, or specific national equivalent.
Other: human health (DNELs, DMELs)	Not available.
Other: environmental (PNEC)	Not available.

8.2 Exposure controls

Engineering controls	Good general ventilation is recommended for the workplace.
Personal protective equipment	For professional use, the need for personal protective equipment should be based on a workplace risk assessment for the particular use. Avoid skin and eye contact by wearing chemical resistant gloves (eg rubber, neoprene) and safety goggles. Where more extensive contact may occur, wear protective clothing (eg overalls, boots). Wear respiratory protective equipment if exposure to spray is possible. PPE should be to European (EN) standards.
Environmental exposure controls	Not available.

SECTION 9: Physical and chemical properties

9.1 Information on basic physical and chemical properties

Appearance	Clear, colourless liquid
Odour	Bland
Odour threshold	Not available
pH	Neutral
Melting/freezing point	Not available (0 °C for water)
Initial boiling point/range	Not available (100 °C for water)
Flash point	Not available
Evaporation rate	Not available
Flammability (solid, gas)	Not applicable
Flamm. or expl. limits	Not available
Vapour pressure	Not available (2310 Pa at 20 °C for water)
Vapour density	Not available
Relative density	0.995

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Solubilities	Soluble in water
Partition coeff. (log K_{ow})	Not available
Auto-ignition temp.	Not available
Decomposition temp.	Not available
Viscosity	Not available
Explosive properties	Not available
Oxidising properties	Not available

9.2 Other information Not available

SECTION 10: Stability and reactivity

10.1 Reactivity Not available.

10.2 Chemical stability Stable under recommended storage conditions. No hazardous polymerisation.

10.3 Possibility of hazardous reactions Not available.

10.4 Conditions to avoid Avoid storage at high temperatures, or in direct sunlight.

10.5 Incompatible materials Water-reactive substances, acids, and strong oxidizing agents.

10.6 Hazardous decomposition products Not available.

SECTION 11: Toxicological information

11.1 Information on toxicological effects

Acute toxicity	The product is not expected to meet the criteria for classification by the oral, dermal or inhalation routes.
Skin corrosion/irritation	Not classified as corrosive (test on mixture). May cause irritation of the linings of the mouth, throat and gastro-intestinal tract. One ingredient is classified as corrosive.
Serious eye damage/irritation	Ocular irritation and damage may occur.
Respiratory or skin sensitisation	Based on available information, no ingredient has been classified for this effect.
Germ cell mutagenicity	Based on available information, no ingredient has been classified for this effect.
Carcinogenicity	Based on available information, no ingredient has been classified for this effect.
Reproductive toxicity	Based on available information, no ingredient has been classified for this effect.
STOT-single exposure	Based on available information, no ingredient has been classified for

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	this effect.
STOT-repeated exposure	Based on available information, no ingredient has been classified for this effect.
Aspiration hazard	The product is not expected to meet the criteria for classification.

SECTION 12: Ecological information

12.1 Toxicity

The product is expected to be very toxic to aquatic organisms.

Benzalkonium chloride is very toxic to aquatic organisms. After short-term testing in fish, Daphnia, and algae, the most sensitive species was Daphnia, EC_{50} (48 h), 0.0058; Daphnia (21 d reproduction test) NOEC, 0.0042 mg/L. M-factor (acute), 100; M-factor (chronic), 1.

12.2 Persistence and degradability

Benzalkonium chloride is readily biodegradable.

12.3 Bioaccumulative potential

Benzalkonium chloride has been shown not to bioaccumulate (bioconcentration factor 79, 35 d, bluegill sunfish).

12.4 Mobility in soil

Benzalkonium chloride is immobile in soil.

12.5 Results of PBT and vPvB assessment

Not available.

12.6 Other adverse effects

Not available

SECTION 13: Disposal considerations

13.1 Waste treatment methods

The product may be suitable for landfill, dilution and disposal via the drains, or incineration.

Disposal must be in accordance with current national and local regulations. For professional use, chemical residues generally count as special waste, and their disposal may be regulated in the EC member countries through corresponding laws and regulations. General EU requirements are given in the Waste Framework Directive (75/442/EEC) and the Hazardous Waste Directive (91/689/EEC).

SECTION 14: Transport information

14.1 UN Number

3082

14.2 UN proper shipping name

ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N O S (contains benzalkonium chloride)

14.3 Transport hazard class(es)

9

14.4 Packing group

III

14.5 Environmental hazards

Marine pollutant/environmentally hazardous

14.6 Special precautions for user

Not available

14.7 Transport in bulk

Not applicable

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according to Annex II of MARPOL73/78 and the IBC Code

SECTION 15: Regulatory information

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

UK: Workplace Exposure Limits EH40/2005 (Second edition, published 2011), Health and Safety Executive; Control of Substances Hazardous to Health Regulations 2002 (COSHH), as amended; COSHH Essentials: Easy steps to control chemicals, HSE Books 2003 (also available on the HSE web site); Control of Major Accident Hazards Regulations, 1999 (COMAH), as amended.

The surfactant contained in this mixture complies with the biodegradability criteria as laid down in Regulation (EC) No.648/2004 on detergents.

15.2 Chemical safety assessment

Not available.

SECTION 16: Other information

Revisions	This SDS is the second version in EU format showing classification and labelling according to the CLP Regulation, including a revised skin irritation classification based on test data.
Abbreviations	DNEL, derived no-effect level; DMEL, derived minimum effect level; EC, effect concentration; NOEC, No-observed-effect-concentration; STOT RE, specific organ toxicity repeated exposure; STOT SE, specific target organ toxicity single exposure.
References	Annex VI of Regulation 1272/2008 on *Harmonised Classification and Labelling for Certain Hazardous Substances*. Information on Registered Substances; Chemical Substance Search; European Chemicals Agency (ECHA), available at the ECHA website: http://echa.europa.eu. Classification and Labelling Inventory; European Chemicals Agency (ECHA); http://echa.europa.eu/. Supplier safety data sheets.
Basis of classification	The mixture is self-classified on the basis of available information on the ingredients.
List of R-phrases	R22, harmful if swallowed; R34, causes burns; R36, irritating to eyes; R38, irritating to skin; R41, risk of serious damage to eyes; R50, very toxic to aquatic organisms.
List of hazard statements	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; H411: Toxic to aquatic life with long lasting effects.