

This safety data sheet was created pursuant to the requirements of:
UK REACH Regulations (SI 2019/758 as amended)

Revision date 14-Nov-2023

Revision Number 1

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

1.1. Product identifier

Product Code(s) 66289
Safety data sheet number 66289
Product Name B1999 FRAGRANCE-FREE ANTIBACTERIAL SPRAY
Pure substance/mixture Mixture

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

Recommended use Ready to use antibacterial spray

1.3. Details of the supplier of the safety data sheet

Supplier

Univar Solutions UK Ltd
Aquarius House
6 Mid Point Business Park
Bradford
GBR

For further information, please contact

E-mail address SDS.EMEA@univarsolutions.com
Non-Emergency Telephone Number +44 1274 267300 / +44 1274 267306

1.4. Emergency telephone number

Emergency Telephone SGS - +32 (0)3 575 55 55 (24h)

SECTION 2: Hazards identification

2.1. Classification of the substance or mixture

Chronic aquatic toxicity	Category 3 - (H412)
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2.2. Label elements

Hazard statements

H412 - Harmful to aquatic life with long lasting effects
EUH208 - Contains POLY(HEXAMETHYLENEBIGUANIDE) HYDROCHLORIDE. May produce an allergic reaction.

Precautionary statements

P273 - Avoid release to the environment

P391 - Collect spillage

P501 - Dispose of contents/ container to an approved waste disposal plant

Unknown aquatic toxicity

Contains 0 % of components with unknown hazards to the aquatic environment.

2.3. Other hazards

Causes mild skin irritation.

SECTION 3: Composition/information on ingredients**3.1 Substances**

Not applicable

3.2 Mixtures

Chemical name	Weight-%	EC No (EU Index No)	UK REACH registration number	Classification according to GB CLP (SI 2020/1567 as amended)	Specific concentration limit (SCL)	M-Factor	M-Factor (long-term)
POLY(HEXAMETHYLENEBIGUANIDE) HYDROCHLORIDE 32289-58-0	0 - 10%	27083-27-8 (616-207-00-X)	-	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)	-	10	10
QUATERNARY AMMONIUM COMPOUNDS, BENZYL-C12-16-ALKYLDIMETHYL, CHLORIDES 68424-85-1	0 - 10%	270-325-2	-	Acute Tox. 4 (H302) Skin Corr. 1B (H314) Eye Dam. 1 (H318) Aquatic Acute 1 (H400) Aquatic Chronic 1 (H410)	-	10	1

Full text of H- and EUH-phrases: see section 16This product does not contain candidate substances of very high concern at a concentration $\geq 0.1\%$ (UK REACH Article 59)**SECTION 4: First aid measures****4.1. Description of first aid measures****Inhalation**

IF INHALED: Remove to fresh air and keep at rest in a position comfortable for breathing. Get medical attention if symptoms occur.

Eye contact

IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. Get medical attention if irritation develops and

persists.

Skin contact

IF ON SKIN (or hair): Remove/Take off immediately all contaminated clothing. Rinse skin with water/shower. Get medical attention if symptoms occur.

Ingestion

Do NOT induce vomiting. Clean mouth with water and drink afterwards plenty of water. Never give anything by mouth to an unconscious person. Get medical attention if symptoms occur.

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

Prolonged contact may cause redness and irritation.

4.3. Indication of any immediate medical attention and special treatment needed**Note to doctors**

Treat symptomatically.

SECTION 5: Firefighting measures**5.1. Extinguishing media****Suitable Extinguishing Media**

Alcohol resistant foam. Water spray. Dry chemical. Carbon dioxide (CO₂). powder.

Large Fire

CAUTION: Use of water spray when fighting fire may be inefficient.

Unsuitable extinguishing media

Do not scatter spilled material with high pressure water streams.

5.2. Special hazards arising from the substance or mixture**Hazardous combustion products**

May emit toxic fumes under fire conditions.

5.3. Advice for firefighters**Special protective equipment and precautions for fire-fighters**

Firefighters should wear self-contained breathing apparatus and full firefighting turnout gear. Cool containers with flooding quantities of water until well after fire is out. Do not allow runoff to sewer, waterway or ground.

SECTION 6: Accidental release measures**6.1. Personal precautions, protective equipment and emergency procedures****Personal precautions**

Ensure adequate ventilation. Wear protective gloves/clothing and eye/face protection. Evacuate personnel to safe areas. Eliminate all ignition sources if safe to do so.

For emergency responders

Use personal protection recommended in Section 8.

6.2. Environmental precautions**Environmental precautions**

Do not allow runoff to sewer, waterway or ground.

6.3. Methods and material for containment and cleaning up**Methods for containment**

Prevent further leakage or spillage if safe to do so. Absorb spill with inert material (e.g. dry sand or earth), then place in a chemical waste container.

Methods for cleaning up	Collect spillage in containers, seal securely and deliver for disposal according to local regulations.
Prevention of secondary hazards	Clean contaminated objects and areas thoroughly observing environmental regulations.

6.4. Reference to other sections

Reference to other sections	See section 8 for more information. See section 13 for more information.
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SECTION 7: Handling and storage**7.1. Precautions for safe handling**

Advice on safe handling	Use personal protection recommended in Section 8. Avoid contact with eyes, skin and clothing. Ensure adequate ventilation.
General hygiene considerations	Avoid contact with skin, eyes or clothing. Remove contaminated clothing and protective equipment before entering eating areas. Take off all contaminated clothing and wash it before reuse. Wash hands and face before breaks and immediately after handling the product. Keep away from food, drink and animal feedingstuffs. Do not eat, drink or smoke when using the product.

7.2. Conditions for safe storage, including any incompatibilities

Storage Conditions	Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking. Keep container tightly closed in a dry and well-ventilated place. Keep/store only in original container. Keep from freezing. Protect from direct sunlight. Incompatible with oxidising agents. Keep at temperatures below 35°C / 95°F. See section 10 for more information.
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7.3. Specific end use(s)

Specific use(s)	See section 1 for more information.
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Risk Management Methods (RMM)	The information required is contained in this Safety Data Sheet.
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SECTION 8: Exposure controls/personal protection**8.1. Control parameters**

Exposure Limits	This product, as supplied, does not contain any hazardous materials with occupational exposure limits established by the region specific regulatory bodies.
Biological occupational exposure limits	This product, as supplied, does not contain any hazardous materials with biological limits established by the region specific regulatory bodies.

Derived No Effect Level (DNEL) - Workers

Chemical name	Oral	Dermal	Inhalation
QUATERNARY AMMONIUM		5.7 mg/kg bw/day [4] [6]	3.96 mg/m ³ [4] [6]

Chemical name	Oral	Dermal	Inhalation
COMPOUNDS, BENZYL-C12-16-ALKYLDIMETHYL, CHLORIDES 68424-85-1			

[4] Systemic health effects.
[6] Long term.
[7] Short term.

Derived No Effect Level (DNEL) - General Public

Chemical name	Oral	Dermal	Inhalation
QUATERNARY AMMONIUM COMPOUNDS, BENZYL-C12-16-ALKYLDIMETHYL, CHLORIDES 68424-85-1	3.4 mg/kg bw/day [4] [6]		1.64 mg/m ³ [4] [6]

[4] Systemic health effects.
[6] Long term.
[7] Short term.

Predicted No Effect Concentration (PNEC)

Chemical name	Freshwater	Freshwater (intermittent release)	Marine water	Marine water (intermittent release)	Air
QUATERNARY AMMONIUM COMPOUNDS, BENZYL-C12-16-ALKYLDI METHYL, CHLORIDES 68424-85-1	0.0009 mg/L	0.00016 mg/L	0.00096 mg/L		

Chemical name	Freshwater sediment	Marine sediment	Sewage treatment	Soil	Food chain
QUATERNARY AMMONIUM COMPOUNDS, BENZYL-C12-16-ALKYLDI METHYL, CHLORIDES 68424-85-1	12.27 mg/kg sediment dw	13.09 mg/kg sediment dw	0.4 mg/L	7 mg/kg soil dw	

8.2. Exposure controls

Engineering controls No information available.

Personal protective equipment

Eye/face protection Wear safety glasses with side shields (or goggles). Use eye protection according to EN 166.

Hand protection Wear suitable gloves. Gloves must conform to standard EN 374.

Gloves			
Duration of contact	PPE - Glove material	Glove thickness	Break through time
Long term (repeated)	Wear protective nitrile rubber gloves		>480 minutes

Skin and body protection Wear suitable protective clothing. Wear appropriate clothing to prevent reasonably probable skin contact.

Respiratory protection In case of inadequate ventilation wear respiratory protection.
Respirator with ABEK filter.

General hygiene considerations Avoid contact with skin, eyes or clothing. Remove contaminated clothing and protective equipment before entering eating areas. Take off all contaminated clothing and wash it before reuse. Wash hands and face before breaks and immediately after handling the product. Keep away from food, drink and animal feedingsuffs. Do not eat, drink or smoke when using the product.

SECTION 9: Physical and chemical properties

9.1. Information on basic physical and chemical properties

Physical state Liquid
Colour clear Colourless to pale yellow
Odour Characteristic.
Odour threshold No information available

<u>Property</u>	<u>Values</u>	<u>Remarks • Method</u>
Melting point / freezing point		No information available.
Initial boiling point and boiling range		No information available.
Flammability		No information available.
Flammability Limit in Air		No information available.
Upper flammability or explosive limits		
Lower flammability or explosive limits		
Flash point		No information available.
Autoignition temperature		No information available.
Decomposition temperature		No information available.
pH	6.00 - 8.00	No information available.
pH (as aqueous solution)		No information available.
Kinematic viscosity		No information available.
Dynamic viscosity		No information available.
Water solubility	Soluble in water	No information available.
Solubility(ies)		No information available.
Partition coefficient		No information available.
Vapour pressure		No information available.
Relative density		No information available.
Bulk density		No information available.
Liquid Density	No information available	No information available.
Relative vapour density		No information available.
Particle characteristics		No information available.
Particle Size	No information available	
Particle Size Distribution	No information available	
Explosive properties	No information available	

Oxidising properties No information available

9.2. Other information

SECTION 10: Stability and reactivity

10.1. Reactivity

Reactivity Stable under normal conditions.

10.2. Chemical stability

Stability Stable under normal conditions.

Explosion data

Sensitivity to mechanical impact None.

Sensitivity to static discharge None.

10.3. Possibility of hazardous reactions

Possibility of hazardous reactions None under normal processing.

10.4. Conditions to avoid

Conditions to avoid Keep away from heat, sparks and open flame.

10.5. Incompatible materials

Incompatible materials Anionic surfactants. Sodium hypochlorite. Oxidising agents.

10.6. Hazardous decomposition products

Hazardous decomposition products None known based on information supplied.

SECTION 11: Toxicological information

11.1. Information on toxicological effects

Information on likely routes of exposure

Product Information

Eye contact Specific test data for the substance or mixture is not available.

Skin contact Specific test data for the substance or mixture is not available. Causes mild skin irritation. Prolonged contact may cause redness and irritation.

Ingestion Specific test data for the substance or mixture is not available.

Symptoms related to the physical, chemical and toxicological characteristics

Symptoms Prolonged contact may cause redness and irritation.

Acute toxicity

Numerical measures of toxicity

The following values are calculated based on chapter 3.1 of the GHS document

ATEmix (inhalation-gas) 52,088.50 ppm
ATEmix (inhalation-vapour) 260.90 mg/l
ATEmix (inhalation-dust/mist) 26.10 mg/l

Component Information

Chemical name	Oral LD50	Dermal LD50	Inhalation LC50
POLY(HEXAMETHYLENEBIGUANIDE) HYDROCHLORIDE	501 mg/kg (Rat, Female) 549 mg/kg (Rat, Male)	> 5 000 mg/kg (Rat)	0.37 mg/l (Rat) 4h
QUATERNARY AMMONIUM COMPOUNDS, BENZYL-C12-16-ALKYLDIMETHYL, CHLORIDES	= 795 mg/kg (Rat)	> 2000 mg/kg (Rat)	-

Delayed and immediate effects as well as chronic effects from short and long-term exposure

Skin corrosion/irritation Classification based on data available for ingredients. Causes mild skin irritation. Prolonged contact may cause redness and irritation.

QUATERNARY AMMONIUM COMPOUNDS, BENZYL-C12-16-ALKYLDIMETHYL, CHLORIDES (68424-85-1)

Method	Species	Exposure route	Effective dose	Exposure time	Results
					Causes severe burns

Serious eye damage/eye irritation No information available.

QUATERNARY AMMONIUM COMPOUNDS, BENZYL-C12-16-ALKYLDIMETHYL, CHLORIDES (68424-85-1)

Method	Species	Exposure route	Effective dose	Exposure time	Results
					Causes serious eye damage

Respiratory or skin sensitisation No information available.

QUATERNARY AMMONIUM COMPOUNDS, BENZYL-C12-16-ALKYLDIMETHYL, CHLORIDES (68424-85-1)

Method	Species	Exposure route	Results
	Guinea pig	Dermal	No sensitisation responses were observed

Germ cell mutagenicity No information available.

Component Information

QUATERNARY AMMONIUM COMPOUNDS, BENZYL-C12-16-ALKYLDIMETHYL, CHLORIDES (68424-85-1)

Method	Species	Results
OECD Test No. 471: Bacterial Reverse Mutation Test	in vitro	Not mutagenic
OECD Test No. 474: Mammalian Erythrocyte Micronucleus Test	in vivo	Not mutagenic

Carcinogenicity No information available.

The table below indicates whether each agency has listed any ingredient as a carcinogen.

Chemical name	United Kingdom
POLY(HEXAMETHYLENEBIGUANIDE) HYDROCHLORIDE	Carc. 2

Reproductive toxicity No information available.

STOT - single exposure No information available.

POLY(HEXAMETHYLENEBIGUANIDE) HYDROCHLORIDE (32289-58-0)

Method	Species	Exposure route	Effective dose	Exposure time	Results
					Causes damage to organs through prolonged or repeated exposure

STOT - repeated exposure No information available.

Aspiration hazard No information available.

Other adverse effects No information available.

SECTION 12: Ecological information

12.1. Toxicity

Ecotoxicity Very toxic to aquatic life. Toxic to aquatic life with long lasting effects. Harmful to aquatic life with long lasting effects.

Unknown aquatic toxicity Contains 0 % of components with unknown hazards to the aquatic environment.

POLY(HEXAMETHYLENEBIGUANIDE) HYDROCHLORIDE (32289-58-0)

Method	Species	Endpoint type	Effective dose	Exposure time	Results
	Oncorhynchus mykiss (rainbow trout)	LC50	0.026 mg/L	96 hours	
	Daphnia magna	EC50	0.04 mg/L	48 hours	
OECD Test No. 202: Daphnia sp., Acute Immobilisation Test	Daphnia magna	EC50	0.09 mg/L	48 hours	
OECD Test No. 201: Freshwater Algae and Cyanobacteria, Growth Inhibition Test	Pseudokirchneriella subcapitata	ErC50	0.0191 mg/L	72 hours	
OECD Test No. 211: Daphnia magna Reproduction Test	Daphnia magna	NOEC	0.0084 mg/L	21 days	
	Bacteria toxicity	EC50	38 mg/L	4 hours	

QUATERNARY AMMONIUM COMPOUNDS, BENZYL-C12-16-ALKYLDIMETHYL, CHLORIDES (68424-85-1)

Method	Species	Endpoint type	Effective dose	Exposure time	Results
OECD Test No. 201: Freshwater Algae and Cyanobacteria, Growth Inhibition Test	Algae	EC50	0.026 mg/L	72 hours	Very toxic to aquatic life

OECD Test No. 202: Daphnia sp., Acute Immobilisation Test	Daphnia magna	EC50	0.016 mg/L	48 hours	Very toxic to aquatic life
OECD Test No. 203: Fish, Acute Toxicity Test	Fish	LC50	0.085 mg/L	96 hours	Very toxic to aquatic life
OECD Test No. 211: Daphnia magna Reproduction Test	Daphnia magna	NOEC	0.025 mg/L	21 days	Very toxic to aquatic life with long lasting effects

12.2. Persistence and degradability

Persistence and degradability No information available.

POLY(HEXAMETHYLENEBIGUANIDE) HYDROCHLORIDE (32289-58-0)

Method	Exposure time	Value	Results
			Not readily biodegradable

QUATERNARY AMMONIUM COMPOUNDS, BENZYL-C12-16-ALKYLDIMETHYL, CHLORIDES (68424-85-1)

Method	Exposure time	Value	Results
			Readily biodegradable

12.3. Bioaccumulative potential

Bioaccumulation

Component Information

Chemical name	Partition coefficient
QUATERNARY AMMONIUM COMPOUNDS, BENZYL-C12-16-ALKYLDIMETHYL, CHLORIDES	2.75

12.4. Mobility in soil

Mobility in soil No information available.

12.5. Results of PBT and vPvB assessment

PBT and vPvB assessment The product does not contain any substance(s) classified as PBT or vPvB.

Chemical name	PBT and vPvB assessment
QUATERNARY AMMONIUM COMPOUNDS, BENZYL-C12-16-ALKYLDIMETHYL, CHLORIDES	The substance is not PBT / vPvB

12.6. Other adverse effects

No information available.

SECTION 13: Disposal considerations**13.1. Waste treatment methods**

Waste from residues/unused products Waste is classified as hazardous waste. Disposal to licensed waste disposal site in accordance with the local Waste Disposal Authority.

Contaminated packaging Do not reuse empty containers.

SECTION 14: Transport information**IATA**

14.1 UN number or ID number	Not regulated
14.2	
14.3 Transport hazard class(es)	Not regulated
14.4 Packing group	Not regulated
14.5 Environmental hazards	Not applicable
14.6 Special precautions for user	
Special Provisions	None

IMDG

14.1 UN number or ID number	Not regulated
14.3 Transport hazard class(es)	Not regulated
14.4 Packing group	Not regulated
14.5 Environmental hazards	Not applicable
14.6 Special precautions for user	
Special Provisions	None
14.7 Maritime transport in bulk according to IMO instruments	No information available

RID

14.1 UN number or ID number	Not regulated
14.2 UN proper shipping name	Not regulated
14.3 Transport hazard class(es)	Not regulated
14.4 Packing group	Not regulated
14.5 Environmental hazards	Not applicable
14.6 Special precautions for user	
Special Provisions	None

ADR

14.1 UN number or ID number	Not regulated
14.2 UN proper shipping name	Not regulated
14.3 Transport hazard class(es)	Not regulated
14.4 Packing group	Not regulated
14.5 Environmental hazards	Not applicable
14.6 Special precautions for user	
Special Provisions	None

SECTION 15: Regulatory information**15.1. Safety, health and environmental regulations/legislation specific for the substance or mixture****National regulations****Authorisations and/or restrictions on use:**

This product contains one or more substances subject to restriction (UK REACH - Annex XVII).

This product does not contain substances subject to authorisation (UK REACH - Annex XIV).

Persistent Organic Pollutants

Not applicable

Export Notification requirements

Not applicable

Dangerous substance category per COMAH Regulations 2015 (as amended)

E1 - Hazardous to the Aquatic Environment in Category Acute 1 or Chronic 1

Named dangerous substances per COMAH Regulations 2015 (as amended)

Not applicable

The Ozone-Depleting Substances Regulations 2015

Not applicable

The Biocidal Products Regulations 2001 (as amended)

Chemical name	The Biocidal Products Regulations 2001 (as amended)
POLY(HEXAMETHYLENEBIGUANIDE) HYDROCHLORIDE - 32289-58-0	Product-type 2: Disinfectants and algacides not intended for direct application to humans or animals Product-type 3: Veterinary hygiene Product-type 4: Food and feed area Product-type 11: Preservatives for liquid-cooling and processing systems
QUATERNARY AMMONIUM COMPOUNDS, BENZYL-C12-16-ALKYLDIMETHYL, CHLORIDES - 68424-85-1	Product-type 2: Disinfectants and algacides 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 1: Human hygiene Product-type 10: Construction material preservatives Product-type 11: Preservatives for liquid-cooling and processing systems Product-type 12: Slimicides Product-type 22: Embalming and taxidermist fluids

The Water Environment (Water Framework Directive) (England and Wales) Regulations 2017 (as amended)

Not applicable

Poisons Act 1972 (Explosive Precursors) Regulations (as Amended)

Not applicable

International Inventories

TSCA	Contact supplier for inventory compliance status
DSL/NDL	Contact supplier for inventory compliance status
EINECS/ELINCS	Contact supplier for inventory compliance status
ENCS	Contact supplier for inventory compliance status
IECSC	Contact supplier for inventory compliance status
KECL	Contact supplier for inventory compliance status
PICCS	Contact supplier for inventory compliance status
AIIC	Contact supplier for inventory compliance status
NZIoC	Contact supplier for inventory compliance status

Legend:

TSCA	- United States Toxic Substances Control Act Section 8(b) Inventory
DSL/NDL	- Canadian Domestic Substances List/Non-Domestic Substances List
EINECS/ELINCS	- European Inventory of Existing Chemical Substances/European List of Notified Chemical Substances
ENCS	- Japan Existing and New Chemical Substances
IECSC	- China Inventory of Existing Chemical Substances
KECL	- Korean Existing and Evaluated Chemical Substances
PICCS	- Philippines Inventory of Chemicals and Chemical Substances
AIIC	- Australian Inventory of Industrial Chemicals
NZIoC	- New Zealand Inventory of Chemicals

15.2. Chemical safety assessment

Chemical Safety Report	No information available
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SECTION 16: Other information**Key or legend to abbreviations and acronyms used in the safety data sheet****Full text of H-Statements referred to under section 3**

H302 - Harmful if swallowed
H314 - Causes severe skin burns and eye damage
H317 - May cause an allergic skin reaction
H318 - Causes serious eye damage
H330 - Fatal if inhaled
H351 - Suspected of causing cancer
H372 - Causes damage to organs through prolonged or repeated exposure
H400 - Very toxic to aquatic life
H410 - Very toxic to aquatic life with long lasting effects

Legend

SVHC: Substances of Very High Concern for Authorisation:

Legend Section 8: Exposure controls/personal protection

TWA	TWA (time-weighted average)	STEL	STEL (Short Term Exposure Limit)
Ceiling	Maximum limit value	*	Skin designation
+	Sensitisers		

Revision Note ***Indicates updated data since last publication

Classification procedure

Classification according to Regulation (EC) No. 1272/2008 [CLP]	Method Used
Acute oral toxicity	Calculation method
Acute dermal toxicity	Calculation method
Acute inhalation toxicity - gas	Calculation method
Acute inhalation toxicity - vapour	Calculation method
Acute inhalation toxicity - dust/mist	Calculation method
Skin corrosion/irritation	Calculation method
Serious eye damage/eye irritation	Calculation method
Respiratory sensitisation	Calculation method
Skin sensitisation	Calculation method
Mutagenicity	Calculation method
Carcinogenicity	Calculation method
Reproductive toxicity	Calculation method
STOT - single exposure	Calculation method
STOT - repeated exposure	Calculation method
Acute aquatic toxicity	Calculation method
Chronic aquatic toxicity	Calculation method
Aspiration hazard	Calculation method
Ozone	Calculation method

Key literature references and sources for data used to compile the SDS

Agency for Toxic Substances and Disease Registry (ATSDR)
U.S. Environmental Protection Agency ChemView Database
European Food Safety Authority (EFSA)
European Chemicals Agency (ECHA) Committee for Risk Assessment (ECHA_RAC)
European Chemicals Agency (ECHA) (ECHA_API)
EPA (Environmental Protection Agency)
Acute Exposure Guideline Level(s) (AEGL(s))
U.S. Environmental Protection Agency Federal Insecticide, Fungicide, and Rodenticide Act
U.S. Environmental Protection Agency High Production Volume Chemicals
Food Research Journal
Hazardous Substance Database
International Uniform Chemical Information Database (IUCLID)
National Institute of Technology and Evaluation (NITE)
Australian National Industrial Chemicals Notification and Assessment Scheme (NICNAS)

NIOSH (National Institute for Occupational Safety and Health)
National Library of Medicine's ChemID Plus (NLM CIP)
National Library of Medicine's PubMed database (NLM PUBMED)
National Toxicology Program (NTP)
New Zealand's Chemical Classification and Information Database (CCID)
Organisation for Economic Co-operation and Development Environment, Health, and Safety Publications
Organisation for Economic Co-operation and Development High Production Volume Chemicals Programme
Organisation for Economic Co-operation and Development Screening Information Data Set
World Health Organization

Prepared By Amy Whitfield

Revision date 14-Nov-2023

**This material safety data sheet complies with the requirements of UK REACH Regulations (SI 2019/758 as amended)
Take note of Directive 98/24/EC on the protection of the health and safety of workers from the risks related to chemical
agents at work**

Disclaimer

The information provided in this Safety Data Sheet is correct to the best of our knowledge, information and belief at the date of its publication. The information given is designed only as a guidance for safe handling, use, processing, storage, transportation, disposal and release and is not to be considered a warranty or quality specification. The 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, unless specified in the text.

End of Safety Data Sheet