Safety Data Sheet

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This Safety Data Sheet has been prepared in accordance with the New Zealand, Hazardous Substances (Safety Data Sheets) Notice 2017.

SECTION 1: Identification

1.1. Product identifier
3M™ Non-Acid Disinfectant Bathroom Cleaner Concentrate (Product No.15, 3M™ Chemical Management Systems)

Product Identification Numbers
70-0715-9185-6

1.2. Recommended use and restrictions on use

Recommended use
Disinfectant

For Industrial or Professional use only

1.3. Supplier's details
Address: 3M New Zealand Ltd, 94 Apollo Drive, Rosedale 0632, Auckland
Telephone: (09) 477 4040
E Mail: innovation@nz.mmm.com
Website: 3m.co.nz

1.4. Emergency telephone number
24 hr Medical Emergency, National Poisons Centre, 0800 764 766 (0800 POISON)

SECTION 2: Hazard identification

Classified as hazardous in accordance with the relevant criteria of the HSNO Act 1996 and the Hazardous Substances (Hazard Classification) Notice 2020.
Refer to Section 14 of this Safety Data Sheet for product Dangerous Goods Classification.

2.1. Classification of the substance or mixture
Acute oral toxicity: Category 4
Acute inhalation toxicity: Category 4
Skin corrosion: Category 1B
Serious eye damage: Category 1
Specific target organ toxicity – repeated exposure: Category 2
Hazardous to the aquatic environment acute: Category 1
Hazardous to the aquatic environment chronic: Category 2

2.2. Label elements
SIGNAL WORD
Danger

Symbols:
Corrosion |Exclamation mark |Health Hazard |Environment |

Pictograms

HAZARD STATEMENTS:

H302	Harmful if swallowed.
H332	Harmful if inhaled.
H314	Causes severe skin burns and eye damage.
H373	May cause damage to organs through prolonged or repeated exposure: respiratory system.
H400	Very toxic to aquatic life.
H411	Toxic to aquatic life with long lasting effects.

PRECAUTIONARY STATEMENTS

Prevention

P260	Do not breathe dust/fume/gas/mist/vapours/spray.
P264	Wash thoroughly after handling.
P270	Do not eat, drink or smoke when using this product.
P271	Use only outdoors or in a well-ventilated area.
P273	Avoid release to the environment.
P280D	Wear protective gloves, protective clothing, and eye/face protection.

Response

P301 + P330 + P331	IF SWALLOWED: Rinse mouth. Do NOT induce vomiting.
P303 + P361 + P353	IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water or shower.
P304 + P340	IF INHALED: Remove person to fresh air and keep comfortable for breathing.
P305 + P351 + P338	IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
P310	Immediately call a POISON CENTER or doctor/physician.
P363	Wash contaminated clothing before reuse.
P391	Collect spillage.

Storage

P405	Store locked up.

Disposal

P501	Dispose of contents/container in accordance with applicable local/regional/national/international regulations.

2.3. Other hazards
May cause chemical gastrointestinal burns.

SECTION 3: Composition/information on ingredients

Ingredient	CAS Nbr	% by Weight
Water	7732-18-5	60 - 90
Alkyl C12-16 Dimethylbenzyl Ammonium Chloride	68424-85-1	1 - 5
C12-15 Alcohols Ethoxylated	68131-39-5	1 - 5
Didecyldimethylammonium chloride	7173-51-5	1 - 5
Dimethyldioctylammonium chloride	5538-94-3	1 - 5
Ethanol	64-17-5	1 - 5
Quaternium 24	32426-11-2	1 - 5
Tetrasodium EDTA	64-02-8	1 - 5

SECTION 4: First aid measures

4.1. Description of first aid measures

Inhalation
Remove person to fresh air. If you feel unwell, get medical attention.

Skin contact
Immediately flush with large amounts of water for at least 15 minutes. Remove contaminated clothing. Get immediate medical attention. Wash clothing before reuse.

Eye contact
Immediately flush with large amounts of water for at least 15 minutes. Remove contact lenses if easy to do. Continue rinsing. Immediately get medical attention.
A product risk assessment is recommended to determine if eye wash facilities may be required when using this product in the workplace.

If swallowed
Rinse mouth. Do not induce vomiting. Get immediate medical attention.

4.2. Most important symptoms and effects, both acute and delayed
No critical symptoms or effects. See Section 11.1, information on toxicological effects.

4.3. Indication of any immediate medical attention and special treatment required
Not applicable.

SECTION 5: Fire-fighting measures

5.1. Suitable extinguishing media
Use a fire fighting agent suitable for the surrounding fire.

5.2. Special hazards arising from the substance or mixture
None inherent in this product.

5.3. Special protective actions for fire-fighters
No special protective actions for fire-fighters are anticipated.

5.4. Hazchem code: 2X

SECTION 6: Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures
Evacuate area. Ventilate the area with fresh air. For large spill, or spills in confined spaces, provide mechanical ventilation to disperse or exhaust vapors, in accordance with good industrial hygiene practice. Refer to other sections of this SDS for information regarding physical and health hazards, respiratory protection, ventilation, and personal protective equipment.

6.2. Environmental precautions
Avoid release to the environment. For larger spills, cover drains and build dykes to prevent entry into sewer systems or bodies of water.

6.3. Methods and material for containment and cleaning up
Contain spill. Working from around the edges of the spill inward, cover with bentonite, vermiculite, or commercially available inorganic absorbent material. Mix in sufficient absorbent until it appears dry. Remember, adding an absorbent material does not remove a physical, health, or environmental hazard. Collect as much of the spilled material as possible. Place in a closed container approved for transportation by appropriate authorities. Clean up residue with water. Seal the container. Dispose of collected material as soon as possible in accordance with applicable local/regional/national/international regulations.

SECTION 7: Handling and storage

Refer to Section 15 - Controls for more information

7.1. Precautions for safe handling
For industrial/occupational use only. Not for consumer sale or use. This product is not intended to be used without prior dilution as specified on the product label. Grounding or safety shoes with electrostatic dissipating soles (ESD) are not required with a chemical dispensing system. Keep out of reach of children. Do not breathe dust/fume/gas/mist/vapours/spray. Do not get in eyes, on skin, or on clothing. Do not eat, drink or smoke when using this product. Wash thoroughly after handling. Avoid release to the environment. Wash contaminated clothing before reuse.

7.2. Conditions for safe storage including any incompatibilities
No special storage requirements.

7.3. Certified handler
Not required

SECTION 8: Exposure controls/personal protection

8.1 Control parameters

Occupational exposure limits
If a component is disclosed in section 3 but does not appear in the table below, an occupational exposure limit is not available for the component.

Ingredient	CAS Nbr	Agency	Limit type	Additional comments
Ethanol	64-17-5	ACGIH	STEL:1000 ppm	A3: Confirmed animal carcinogen.
Ethanol	64-17-5	New Zealand WES	TWA(8 hours):1880 mg/m3(1000 ppm)	

ACGIH : American Conference of Governmental Industrial Hygienists
AIHA : American Industrial Hygiene Association
CMRG : Chemical Manufacturer's Recommended Guidelines
New Zealand WES : New Zealand Workplace Exposure Standards.
TWA: Time-Weighted-Average
STEL: Short Term Exposure Limit
ppm: parts per million
mg/m³: milligrams per cubic metre
CEIL: Ceiling

8.2. Exposure controls

8.2.1. Engineering controls
NOTE: When used with a chemical dispensing system as directed, special ventilation is not required. Use general dilution ventilation and/or local exhaust ventilation to control airborne exposures to below relevant Exposure Limits and/or control dust/fume/gas/mist/vapours/spray. If ventilation is not adequate, use respiratory protection equipment.

8.2.2. Personal protective equipment (PPE)

Eye/face protection

NOTE: When used with a chemical dispensing system as directed, eye contact with the concentrate is not expected to occur. The following protection(s) are recommended if the product is not used with a chemical dispensing system or if there is an accidental release, wear protective eye/face protection. Select and use eye/face protection to prevent contact based on the results of an exposure assessment. The following eye/face protection(s) are recommended:
Full face shield.
Indirect vented goggles.

Refer AS/NZS 1336 - Recommended practices for occupational eye protection and for performance specifications AS/NZS 1337, Parts 1 - 6 - Personal eye-protection.

Skin/hand protection
NOTE: When used with a chemical dispensing system as directed, skin contact with the concentrate is not expected to occur.
If product is not used with a chemical dispensing system or if there is an accidental release:
Select and use gloves and/or protective clothing approved to relevant local standards to prevent skin contact based on the results of an exposure assessment. Selection should be based on use factors such as exposure levels, concentration of the substance or mixture, frequency and duration, physical challenges such as temperature extremes, and other use conditions. Consult with your glove and/or protective clothing manufacturer for selection of appropriate compatible gloves/protective clothing.
Note: Nitrile gloves may be worn over polymer laminate gloves to improve dexterity.
Gloves made from the following material(s) are recommended: Polymer laminate

If this product is used in a manner that presents a higher potential for exposure (eg. spraying, high splash potential etc.), then use of protective coveralls may be necessary.
If product is not used with a chemical dispensing system or if there is an accidental release:
Select and use body protection to prevent contact based on the results of an exposure assessment. The following protective clothing material(s) are recommended:
Apron - polymer laminate

Respiratory protection

NOTE: When used with a chemical dispensing system as directed, respiratory protection is not required.
If product is not used with a chemical dispensing system or if there is an accidental release:
An exposure assessment may be needed to decide if a respirator is required. If a respirator is needed, use respirators as part of a full respiratory protection program. Based on the results of the exposure assessment, select from the following respirator type(s) to reduce inhalation exposure:
Half facepiece or full facepiece air-purifying respirator suitable for organic vapors and particulates

For questions about suitability for a specific application, consult with your respirator manufacturer.

Refer AS/NZS 1715 - Selection, use and maintenance of respiratory protective equipment and AS/NZS 1716 - Respiratory protective devices.

SECTION 9: Physical and chemical properties

9.1. Information on basic physical and chemical properties

Physical state	Liquid.
Specific Physical Form:	Liquid.
Colour	Green
Odour	Floral
Odour threshold	*No data available.*
pH	6.2 - 7.6
Melting point/Freezing point	*Not applicable.*
Boiling point/Initial boiling point/Boiling range	± > 100 ºC
Flash point	No flash point
Evaporation rate	*No data available.*
Flammability (solid, gas)	Not applicable.
Flammable Limits(LEL)	*Not applicable.*
Flammable Limits(UEL)	*Not applicable.*
Vapor Density and/or Relative Vapor Density	*No data available.*
Density	1.001 - 1.009 g/ml
Relative density	1.001 - 1.009 [*Ref Std:*WATER=1]
Water solubility	Complete
Solubility- non-water	*No data available.*
Partition coefficient: n-octanol/water	*Not applicable.*
Autoignition temperature	*Not applicable.*
Decomposition temperature	*No data available.*
Viscosity/Kinematic Viscosity	14 Saybolt Universal Second - 19 Saybolt Universal Second [*Details:*S-90 Zahn #2]
Volatile organic compounds (VOC)	1 - 3 % weight [*Test Method:*calculated per CARB title 2]
Percent volatile	60 - 90 % weight
VOC less H2O & exempt solvents	145 - 155 g/l [*Test Method:*calculated per CARB title 2]

SECTION 10: Stability and reactivity

10.1 Reactivity
This material is considered to be non reactive under normal use conditions

10.2 Chemical stability
Stable.

10.3 Possibility of hazardous reactions
Hazardous polymerisation will not occur.

10.4 Conditions to avoid
None known.

10.5 Incompatible materials
None known.

10.6 Hazardous decomposition products

Substance	Condition
Carbon monoxide.	Not specified.
Carbon dioxide.	Not specified.

SECTION 11: Toxicological information

The information below may not be consistent with the material classification in Section 2 if specific ingredient classifications are mandated by a competent authority. In addition, toxicological data on ingredients may not be reflected in the material classification and/or the signs and symptoms of exposure, because an ingredient may be present below the threshold for labelling, an ingredient may not be available for exposure, or the data may not be relevant to the material as a whole.

11.1 Information on Toxicological effects

Signs and Symptoms of Exposure

Based on test data and/or information on the components, this material may produce the following health effects:

Inhalation
Harmful if inhaled. Respiratory tract irritation: Signs/symptoms may include cough, sneezing, nasal discharge, headache, hoarseness, and nose and throat pain. May cause additional health effects (see below).

Skin contact
Corrosive (skin burns): Signs/symptoms may include localised redness, swelling, itching, intense pain, blistering, ulceration, and tissue destruction.

Eye contact
Corrosive (eye burns): Signs/symptoms may include cloudy appearance of the cornea, chemical burns, severe pain, tearing, ulcerations, significantly impaired vision or complete loss of vision.

Ingestion
Harmful if swallowed.
Gastrointestinal corrosion: Signs/symptoms may include severe mouth, throat and abdominal pain, nausea, vomiting, and diarrhea; blood in the faeces and/or vomitus may also be seen.

Additional Health Effects:

Prolonged or repeated exposure may cause target organ effects:
Respiratory effects: Signs/symptoms may include cough, shortness of breath, chest tightness, wheezing, increased heart rate, bluish coloured skin (cyanosis), sputum production, changes in lung function tests, and respiratory failure.

Additional information:

This product contains ethanol. Alcoholic beverages and ethanol in alcoholic beverages have been classified by the International Agency for Research on Cancer as carcinogenic to humans. There are also data associating human consumption of alcoholic beverages with developmental toxicity and liver toxicity. Exposure to ethanol during the foreseeable use of this product is not expected to cause cancer, developmental toxicity, or liver toxicity.

Toxicological Data
If a component is disclosed in section 3 but does not appear in a table below, either no data are available for that endpoint or the data are not sufficient for classification.

Acute Toxicity

Name	Route	Species	Value
Overall product	Dermal		No data available; calculated ATE >5,000 mg/kg
Overall product	Inhalation-Dust/Mist(4 hr)		No data available; calculated ATE >1 - =5 mg/l
Overall product	Ingestion		No data available; calculated ATE >300 - =2,000 mg/kg
Alkyl C12-16 Dimethylbenzyl Ammonium Chloride	Dermal	Rabbit	LD50 3,413 mg/kg
Alkyl C12-16 Dimethylbenzyl Ammonium Chloride	Inhalation-Dust/Mist	Rat	LC50 0.25 mg/l

	(4 hours)		
Alkyl C12-16 Dimethylbenzyl Ammonium Chloride	Ingestion	Rat	LD50 398 mg/kg
Quaternium 24	Dermal		LD50 estimated to be > 5,000 mg/kg
Quaternium 24	Ingestion	Rat	LD50 > 5,000 mg/kg
Ethanol	Dermal	Rabbit	LD50 > 15,800 mg/kg
Ethanol	Inhalation-Vapor (4 hours)	Rat	LC50 124.7 mg/l
Ethanol	Ingestion	Rat	LD50 17,800 mg/kg
Tetrasodium EDTA	Inhalation-Dust/Mist (4 hours)	Rat	LC50 > 1.5 mg/l
Tetrasodium EDTA	Ingestion	Rat	LD50 1,658 mg/kg
Dimethyldioctylammonium chloride	Ingestion	Mouse	LD50 > 50 mg/kg
Didecyldimethylammonium chloride	Dermal	Rabbit	LD50 3,328 mg/kg
Dimethyldioctylammonium chloride	Dermal	Rabbit	LD50 170 mg/kg
Didecyldimethylammonium chloride	Ingestion	Rat	LD50 264 mg/kg
C12-15 Alcohols Ethoxylated	Dermal	Rat	LD50 5,000 mg/kg
C12-15 Alcohols Ethoxylated	Ingestion	Rat	LD50 1,200 mg/kg

ATE = acute toxicity estimate

Skin Corrosion/Irritation

Name	Species	Value
Alkyl C12-16 Dimethylbenzyl Ammonium Chloride	Rabbit	Corrosive
Ethanol	Rabbit	No significant irritation
Tetrasodium EDTA	Rabbit	No significant irritation
Didecyldimethylammonium chloride	Rabbit	Corrosive
Dimethyldioctylammonium chloride	Rabbit	Corrosive

Serious Eye Damage/Irritation

Name	Species	Value
Alkyl C12-16 Dimethylbenzyl Ammonium Chloride	Rabbit	Corrosive
Ethanol	Rabbit	Severe irritant
Tetrasodium EDTA	Rabbit	Corrosive
Didecyldimethylammonium chloride	Rabbit	Corrosive
Dimethyldioctylammonium chloride	Rabbit	Corrosive
C12-15 Alcohols Ethoxylated	Not available	Corrosive

Sensitisation:

Skin Sensitisation

Name	Species	Value
Alkyl C12-16 Dimethylbenzyl Ammonium Chloride	Guinea pig	Not classified
Ethanol	Human	Not classified
Tetrasodium EDTA	Human and animal	Not classified
Didecyldimethylammonium chloride	Guinea pig	Not classified
Dimethyldioctylammonium chloride	similar compounds	Not classified

Respiratory Sensitisation

For the component/components, either no data are currently available or the data are not sufficient for classification.

Germ Cell Mutagenicity

Name	Route	Value
Alkyl C12-16 Dimethylbenzyl Ammonium Chloride	In Vitro	Not mutagenic
Alkyl C12-16 Dimethylbenzyl Ammonium Chloride	In vivo	Not mutagenic
Ethanol	In Vitro	Some positive data exist, but the data are not sufficient for classification
Ethanol	In vivo	Some positive data exist, but the data are not sufficient for classification
Tetrasodium EDTA	In Vitro	Some positive data exist, but the data are not sufficient for classification
Tetrasodium EDTA	In vivo	Some positive data exist, but the data are not sufficient for classification
Didecyldimethylammonium chloride	In Vitro	Not mutagenic
Didecyldimethylammonium chloride	In vivo	Not mutagenic
Dimethyldioctylammonium chloride	In Vitro	Not mutagenic

Carcinogenicity

Name	Route	Species	Value
Alkyl C12-16 Dimethylbenzyl Ammonium Chloride	Ingestion	Rat	Not carcinogenic
Ethanol	Ingestion	Multiple animal species	Some positive data exist, but the data are not sufficient for classification
Tetrasodium EDTA	Ingestion	Multiple animal species	Not carcinogenic
Didecyldimethylammonium chloride	Ingestion	Rat	Not carcinogenic

Reproductive Toxicity

Reproductive and/or Developmental Effects

Name	Route	Value	Species	Test result	Exposure Duration
Alkyl C12-16 Dimethylbenzyl Ammonium Chloride	Ingestion	Not classified for female reproduction	Rat	NOAEL 48 mg/kg/day	2 generation
Alkyl C12-16 Dimethylbenzyl Ammonium Chloride	Ingestion	Not classified for male reproduction	Rat	NOAEL 30.5 mg/kg/day	2 generation
Alkyl C12-16 Dimethylbenzyl Ammonium Chloride	Ingestion	Not classified for development	Rat	NOAEL 48 mg/kg/day	2 generation
Ethanol	Inhalation	Not classified for development	Rat	NOAEL 38 mg/l	during gestation
Ethanol	Ingestion	Not classified for development	Rat	NOAEL 5,200 mg/kg/day	premating & during gestation
Tetrasodium EDTA	Ingestion	Not classified for female reproduction	Rat	NOAEL 250 mg/kg/day	4 generation
Tetrasodium EDTA	Ingestion	Not classified for male reproduction	Rat	NOAEL 250 mg/kg/day	4 generation
Tetrasodium EDTA	Ingestion	Not classified for development	Rat	LOAEL 1,000 mg/kg/day	during gestation
Didecyldimethylammonium chloride	Ingestion	Not classified for female reproduction	Rat	NOAEL 137 mg/kg/day	2 generation
Didecyldimethylammonium chloride	Ingestion	Not classified for male reproduction	Rat	NOAEL 109 mg/kg/day	2 generation
Didecyldimethylammonium chloride	Ingestion	Not classified for development	Rabbit	NOAEL 12 mg/kg/day	during gestation
Dimethyldioctylammonium chloride	Ingestion	Not classified for development	Rat	NOAEL 50 mg/kg/day	during organogenesis

Target Organ(s)

Specific Target Organ Toxicity - single exposure

Name	Route	Target Organ(s)	Value	Species	Test result	Exposure

						Duration
Alkyl C12-16 Dimethylbenzyl Ammonium Chloride	Inhalation	respiratory irritation	Some positive data exist, but the data are not sufficient for classification	similar health hazards	NOAEL Not available.	
Ethanol	Inhalation	respiratory irritation	Some positive data exist, but the data are not sufficient for classification	Human	LOAEL 9.4 mg/l	not available
Ethanol	Inhalation	central nervous system depression	Not classified	Human and animal	NOAEL not available	
Ethanol	Ingestion	central nervous system depression	Not classified	Multiple animal species	NOAEL not available	
Ethanol	Ingestion	kidney and/or bladder	Not classified	Dog	NOAEL 3,000 mg/kg	
Tetrasodium EDTA	Inhalation	respiratory irritation	Some positive data exist, but the data are not sufficient for classification	similar health hazards	Irritation Positive	
Didecyldimethylammonium chloride	Inhalation	respiratory irritation	May cause respiratory irritation	similar health hazards	NOAEL Not available	
Dimethyldioctylammonium chloride	Inhalation	respiratory irritation	Some positive data exist, but the data are not sufficient for classification	similar health hazards	NOAEL Not available.	

Specific Target Organ Toxicity - repeated exposure

Name	Route	Target Organ(s)	Value	Species	Test result	Exposure Duration
Alkyl C12-16 Dimethylbenzyl Ammonium Chloride	Ingestion	heart | endocrine system | gastrointestinal tract | bone, teeth, nails, and/or hair | hematopoietic system | liver | immune system | nervous system | eyes | kidney and/or bladder | respiratory system | vascular system	Not classified	Rat	NOAEL 50 mg/kg/day	95 days
Ethanol	Inhalation	liver	Some positive data exist, but the data are not sufficient for classification	Rabbit	LOAEL 124 mg/l	365 days
Ethanol	Inhalation	hematopoietic system | immune system	Not classified	Rat	NOAEL 25 mg/l	14 days
Ethanol	Ingestion	liver	Some positive data exist, but the data are not sufficient for classification	Rat	LOAEL 8,000 mg/kg/day	4 months
Ethanol	Ingestion	kidney and/or bladder	Not classified	Dog	NOAEL 3,000 mg/kg/day	7 days
Tetrasodium EDTA	Inhalation	respiratory system	Causes damage to organs through prolonged or repeated exposure	Rat	NOAEL 3 mg/m3	13 weeks
Tetrasodium EDTA	Inhalation	liver | heart | skin | endocrine system | gastrointestinal tract | bone, teeth, nails, and/or hair | hematopoietic system | immune system | muscles | nervous system | eyes | kidney and/or bladder | vascular system	Not classified	Rat	NOAEL 15 mg/m3	13 weeks
Tetrasodium EDTA	Ingestion	hematopoietic	Not classified	Rat	NOAEL	13 weeks

		system | liver			2,500 mg/kg/day	
Tetrasodium EDTA	Ingestion	heart | gastrointestinal tract | muscles | kidney and/or bladder | respiratory system	Not classified	Rat	NOAEL 5,000 mg/kg/day	13 weeks
Didecyldimethylammonium chloride	Ingestion	gastrointestinal tract | hematopoietic system | immune system | heart | skin | endocrine system | bone, teeth, nails, and/or hair | liver | muscles | nervous system | eyes | kidney and/or bladder | respiratory system | vascular system	Not classified	Rat	NOAEL 175 mg/kg/day	13 weeks

Aspiration Hazard
For the component/components, either no data are currently available or the data are not sufficient for classification.

Please contact the address or phone number listed on the first page of the SDS for additional toxicological information on this material and/or its components.

SECTION 12: Ecological information

The information below may not be consistent with the material classification in Section 2 if specific ingredient classifications are mandated by a competent authority. Additional information leading to material classification in Section 2 is available upon request. In addition, environmental fate and effects data on ingredients may not be reflected in this section because an ingredient is present below the threshold for labelling, an ingredient is not expected to be available for exposure, or the data is considered not relevant to the material as a whole.

12.1. Toxicity
Ecotoxic to the aquatic environment.
Acute Aquatic Toxicity: Category 1
Chronic Aquatic Toxicity: Category 2

No product test data available.

Material	CAS Number	Organism	Type	Exposure	Test endpoint	Test result
Alkyl C12-16 Dimethylbenzyl Ammonium Chloride	68424-85-1	Diatom	Experimental	96 hours	ErC50	0.089 mg/l
Alkyl C12-16 Dimethylbenzyl Ammonium Chloride	68424-85-1	Green algae	Experimental	72 hours	ErC50	0.049 mg/l
Alkyl C12-16 Dimethylbenzyl Ammonium Chloride	68424-85-1	Mysid Shrimp	Experimental	96 hours	LC50	0.092 mg/l
Alkyl C12-16 Dimethylbenzyl Ammonium Chloride	68424-85-1	Rainbow trout	Experimental	96 hours	LC50	0.064 mg/l

Alkyl C12-16 Dimethylbenzyl Ammonium Chloride	68424-85-1	Sheepshead Minnow	Experimental	96 hours	LC50	0.86 mg/l
Alkyl C12-16 Dimethylbenzyl Ammonium Chloride	68424-85-1	Water flea	Experimental	48 hours	EC50	0.0058 mg/l
Alkyl C12-16 Dimethylbenzyl Ammonium Chloride	68424-85-1	Diatom	Experimental	96 hours	NOEC	0.035 mg/l
Alkyl C12-16 Dimethylbenzyl Ammonium Chloride	68424-85-1	Fathead minnow	Experimental	28 days	NOEC	0.0322 mg/l
Alkyl C12-16 Dimethylbenzyl Ammonium Chloride	68424-85-1	Green algae	Experimental	72 hours	ErC10	0.009 mg/l
Alkyl C12-16 Dimethylbenzyl Ammonium Chloride	68424-85-1	Water flea	Experimental	21 days	NOEC	0.00415 mg/l
Alkyl C12-16 Dimethylbenzyl Ammonium Chloride	68424-85-1	Activated sludge	Experimental	3 hours	EC50	7.75 mg/l
Alkyl C12-16 Dimethylbenzyl Ammonium Chloride	68424-85-1	Mustard	Experimental	16 days	EC50	277 mg/kg (Dry Weight)
Alkyl C12-16 Dimethylbenzyl Ammonium Chloride	68424-85-1	Redworm	Experimental	14 days	LC50	7,070 mg/kg (Dry Weight)
Alkyl C12-16 Dimethylbenzyl Ammonium Chloride	68424-85-1	Redworm	Experimental	56 days	NOEC	125 mg/kg (Dry Weight)
Alkyl C12-16 Dimethylbenzyl Ammonium Chloride	68424-85-1	Soil microbes	Experimental	28 days	EC50	130 mg/kg (Dry Weight)
C12-15 Alcohols Ethoxylated	68131-39-5	Fish	Analogous Compound	96 hours	LC50	1 mg/l
C12-15 Alcohols Ethoxylated	68131-39-5	Green algae	Analogous Compound	72 hours	ErC50	0.57 mg/l
C12-15 Alcohols Ethoxylated	68131-39-5	Water flea	Analogous Compound	48 hours	LC50	0.1 mg/l
C12-15 Alcohols	68131-39-5	Green algae	Analogous Compound	72 hours	NOEC	0.035 mg/l

Ethoxylated						
Didecyldimethylammonium chloride	7173-51-5	Green algae	Experimental	72 hours	ErC50	0.062 mg/l
Didecyldimethylammonium chloride	7173-51-5	Water flea	Experimental	48 hours	EC50	0.029 mg/l
Didecyldimethylammonium chloride	7173-51-5	Zebra Fish	Experimental	96 hours	LC50	0.49 mg/l
Didecyldimethylammonium chloride	7173-51-5	Green algae	Experimental	72 hours	NOEC	0.013 mg/l
Didecyldimethylammonium chloride	7173-51-5	Water flea	Experimental	21 days	NOEC	0.021 mg/l
Didecyldimethylammonium chloride	7173-51-5	Activated sludge	Experimental	3 hours	EC10	5.95 mg/l
Didecyldimethylammonium chloride	7173-51-5	Red Clover	Experimental	14 days	EC50	106 mg/kg (Dry Weight)
Didecyldimethylammonium chloride	7173-51-5	Redworm	Experimental	56 days	NOEC	125 mg/kg (Dry Weight)
Didecyldimethylammonium chloride	7173-51-5	Soil microbes	Experimental	28 days	EC10	70 mg/kg (Dry Weight)
Dimethyldioctylammonium chloride	5538-94-3	Activated sludge	Analogous Compound	3 hours	EC50	11 mg/l
Dimethyldioctylammonium chloride	5538-94-3	Rainbow trout	Experimental	96 hours	LC50	0.35 mg/l
Dimethyldioctylammonium chloride	5538-94-3	Water flea	Experimental	48 hours	EC50	0.1 mg/l
Dimethyldioctylammonium chloride	5538-94-3	Zebra Fish	Analogous Compound	34 days	NOEC	0.032 mg/l
Ethanol	64-17-5	Fathead minnow	Experimental	96 hours	LC50	14,200 mg/l
Ethanol	64-17-5	Fish	Experimental	96 hours	LC50	11,000 mg/l
Ethanol	64-17-5	Green algae	Experimental	72 hours	EC50	275 mg/l
Ethanol	64-17-5	Water flea	Experimental	48 hours	LC50	5,012 mg/l
Ethanol	64-17-5	Green algae	Experimental	72 hours	ErC10	11.5 mg/l
Ethanol	64-17-5	Water flea	Experimental	10 days	NOEC	9.6 mg/l
Quaternium 24	32426-11-2	Green algae	Analogous Compound	72 hours	ErC50	0.062 mg/l
Quaternium 24	32426-11-2	Water flea	Analogous Compound	48 hours	EC50	0.029 mg/l
Quaternium 24	32426-11-2	Zebra Fish	Analogous Compound	96 hours	LC50	0.49 mg/l
Quaternium 24	32426-11-2	Green algae	Analogous	72 hours	NOEC	0.013 mg/l

			Compound			
Quaternium 24	32426-11-2	Water flea	Analogous Compound	21 days	NOEC	0.021 mg/l
Quaternium 24	32426-11-2	Activated sludge	Analogous Compound	3 hours	EC50	17.9 mg/l
Quaternium 24	32426-11-2	Red Clover	Analogous Compound	14 days	EC50	106 mg/kg (Dry Weight)
Quaternium 24	32426-11-2	Redworm	Analogous Compound	56 days	NOEC	125 mg/kg (Dry Weight)
Quaternium 24	32426-11-2	Soil microbes	Analogous Compound	28 days	EC10	70 mg/kg (Dry Weight)
Tetrasodium EDTA	64-02-8	Bluegill	Experimental	96 hours	LC50	401.7 mg/l
Tetrasodium EDTA	64-02-8	Green algae	Experimental	72 hours	ErC50	>100 mg/l
Tetrasodium EDTA	64-02-8	Water flea	Experimental	24 hours	EC50	610 mg/l
Tetrasodium EDTA	64-02-8	Water flea	Analogous Compound	21 days	NOEC	25 mg/l
Tetrasodium EDTA	64-02-8	Zebra Fish	Analogous Compound	35 days	NOEC	35.1 mg/l
Tetrasodium EDTA	64-02-8	Green algae	Experimental	72 hours	ErC10	>100 mg/l
Tetrasodium EDTA	64-02-8	Plant	Analogous Compound	21 days	NOEC	84 mg/kg (Dry Weight)
Tetrasodium EDTA	64-02-8	Redworm	Analogous Compound	14 days	LC50	156.46 mg/kg (Dry Weight)
Tetrasodium EDTA	64-02-8	Activated sludge	Experimental	30 minutes	EC10	>1,000 mg/l

12.2. Persistence and degradability

Material	CAS Number	Test type	Duration	Study Type	Test result	Protocol
Alkyl C12-16 Dimethylbenzyl Ammonium Chloride	68424-85-1	Experimental Biodegradation	28 days	CO2 evolution	95.5 %CO2 evolution/THCO2 evolution	OECD 301B - Modified sturm or CO2
Alkyl C12-16 Dimethylbenzyl Ammonium Chloride	68424-85-1	Experimental Hydrolysis		Hydrolytic half-life (pH 7)	>1 years (t 1/2)	EC C.7 Hydrolysis at pH
C12-15 Alcohols Ethoxylated	68131-39-5	Analogous Compound Biodegradation	28 days	CO2 evolution	82 %CO2 evolution/THCO2 evolution	OECD 301B - Modified sturm or CO2
Didecyldimethylammonium chloride	7173-51-5	Experimental Aquatic Inherent Biodegrad.	28 days	Dissolv. Organic Carbon Deplet	80 % removal of DOC	OECD 301B - Modified sturm or CO2
Didecyldimethylammonium chloride	7173-51-5	Experimental Biodegradation	28 days	CO2 evolution	67-71 %CO2 evolution/THCO2 evolution	OECD 301B - Modified sturm or CO2
Didecyldimethylammonium chloride	7173-51-5	Experimental Biodegradation	59 days	Dissolv. Organic Carbon Deplet	>99.95 % removal of DOC	OECD 303A - Simulated Aerobic

Didecyldimethylammonium chloride	7173-51-5	Experimental Soil Inherent Biodegradability	114 days	CO2 evolution	49 %CO2 evolution/THCO2 evolution	
Dimethyldioctylammonium chloride	5538-94-3	Experimental Biodegradation	28 days	CO2 evolution	86 %CO2 evolution/THCO2 evolution	OECD 301B - Modified sturm or CO2
Ethanol	64-17-5	Experimental Biodegradation	14 days	BOD	89 %BOD/ThOD	OECD 301C - MITI test (I)
Quaternium 24	32426-11-2	Analogous Compound Aquatic Inherent Biodegrad.	28 days	Dissolv. Organic Carbon Deplet	80 % removal of DOC	EC C.9 Zhan-Wellens
Quaternium 24	32426-11-2	Analogous Compound Biodegradation	28 days	CO2 evolution	>67 %CO2 evolution/THCO2 evolution	OECD 301B - Modified sturm or CO2
Quaternium 24	32426-11-2	Analogous Compound Biodegradation	59 days	Dissolv. Organic Carbon Deplet	>99.95 % removal of DOC	OECD 303A - Simulated Aerobic
Quaternium 24	32426-11-2	Analogous Compound Soil Inherent Biodegradability	114 days	CO2 evolution	49 %CO2 evolution/THCO2 evolution	
Tetrasodium EDTA	64-02-8	Analogous Compound Biodegradation	28 days	BOD	2 %BOD/ThOD	OECD 301D - Closed bottle test
Tetrasodium EDTA	64-02-8	Experimental Aquatic Inherent Biodegrad.	28 days	Dissolv. Organic Carbon Deplet	<10 % removal of DOC	OECD 302B Zahn-Wellens/EVPA
Tetrasodium EDTA	64-02-8	Analogous Compound Soil Inherent Biodegradability	315 days	CO2 evolution	70.5 %CO2 evolution/THCO2 evolution	

12.3 : Bioaccumulative potential

Material	CAS Number	Test type	Duration	Study Type	Test result	Protocol
Alkyl C12-16 Dimethylbenzyl Ammonium Chloride	68424-85-1	Experimental BCF - Fish	35 days	Bioaccumulation factor	79	
Alkyl C12-16 Dimethylbenzyl Ammonium Chloride	68424-85-1	Estimated Bioconcentration		Log Kow	2.75	
C12-15 Alcohols Ethoxylated	68131-39-5	Modeled BCF - Fish		Bioaccumulation factor	470	Catalogic™
C12-15 Alcohols Ethoxylated	68131-39-5	Experimental Bioconcentration		Log Kow	5.79	OECD 123 log Kow slow stir

Didecyldimethylammonium chloride	7173-51-5	Experimental BCF - Fish	60 days	Bioaccumulation factor	<=95	OECD305-Bioconcentration
Didecyldimethylammonium chloride	7173-51-5	Experimental Bioconcentration		Log Kow	2.58	OECD 107 log Kow shke flsk mtd
Dimethyldioctylammonium chloride	5538-94-3	Analogous Compound BCF - Fish	60 days	Bioaccumulation factor	≤95	OECD305-Bioconcentration
Ethanol	64-17-5	Experimental Bioconcentration		Log Kow	-0.35	
Quaternium 24	32426-11-2	Analogous Compound BCF - Fish	60 days	Bioaccumulation factor	<=95	OECD305-Bioconcentration
Quaternium 24	32426-11-2	Analogous Compound Bioconcentration		Log Kow	2.58	OECD 107 log Kow shke flsk mtd
Tetrasodium EDTA	64-02-8	Analogous Compound BCF - Fish	28 days	Bioaccumulation factor	1.8	
Tetrasodium EDTA	64-02-8	Analogous Compound Bioconcentration		Log Kow	-4.3	

12.4. Mobility in soil
Please contact manufacturer for more details

12.5 Other adverse effects
No information available.

SECTION 13: Disposal considerations

13.1. Disposal methods
In accordance with the Hazardous Substances (Disposal) Notice 2017 and the relevant criteria of the HSNO Act 1996.

Dispose of waste product in a permitted industrial waste facility. As a disposal alternative, incinerate in a permitted waste incineration facility. Proper destruction may require the use of additional fuel during incineration processes. Empty drums/barrels/containers used for transporting and handling hazardous chemicals (chemical substances/mixtures/preparations classified as Hazardous as per applicable regulations) shall be considered, stored, treated & disposed of as hazardous wastes unless otherwise defined by applicable waste regulations. Consult with the respective regulating authorities to determine the available treatment and disposal facilities.

Packaging (that may or may not contain any residual substance) may be lawfully disposed of by householders or other consumers through public or commercial waste collection services.

SECTION 14: Transport Information

New Zealand Land Transport Rule: Dangerous Goods - Road/Rail Transport
UN No.: UN1903
Proper Shipping Name: DISINFECTANT, LIQUID, CORROSIVE, N.O.S. , (Benzyl-C12-16-Alkyldimethyl Ammonium Chlorides, Didecyldimethylammonium Chloride)

Class/Division: 8
Sub Risk: Not applicable.
Packing Group: III
Special Instructions: Limited quantity may apply
Hazchem Code: 2X
IERG: 36

International Air Transport Association (IATA) - Air Transport
UN No.: UN1903
Proper Shipping Name: DISINFECTANT, LIQUID, CORROSIVE, N.O.S. , (Benzyl-C12-16-Alkyldimethyl Ammonium Chlorides, Didecyldimethylammonium Chloride)
Class/Division: 8
Sub Risk: Not applicable.
Packing Group: III

International Maritime Dangerous Goods Code (IMDG) - Marine Transport
UN No.: UN1903
Proper Shipping Name: DISINFECTANT, LIQUID, CORROSIVE, N.O.S. , (Benzyl-C12-16-Alkyldimethyl Ammonium Chlorides, Didecyldimethylammonium Chloride)
Class/Division: 8
Sub Risk: Not applicable.
Packing Group: III
Marine Pollutant: Not applicable.
Special Instructions: Limited quantity may apply

SECTION 15: Regulatory information

HSNO Approval number	HSR002526
Group standard name	Cleaning Products (Corrosive) Group Standard 2020
HSNO Hazard classification	Refer to Section 2: Hazard identification

NZ Inventory of Chemicals (NZIoC) Status
All applicable chemical ingredients in this material are in compliance with NZIoC listing requirements.

Controls in accordance with The Health and Safety at Work Act 2015, Health and Safety at Work (Hazardous Substances) Regulations 2017 and the HSNO Act 1996, Hazardous Substances (Hazardous Property Controls) Notice 2017

Certified handler	Not required
Location Compliance Certificate	Not required
Hazardous atmosphere zone	Not required
Fire extinguishers	Not required
Emergency response plan	100 L or 100 kg (for Hazardous to the aquatic environment Category 1 substances); or 1 000 L or 1 000 kg (for Acute toxicity Category 4, Skin sensitisation Category 1, Respiratory sensitisation Category 1, Skin corrosion Category 1B, Hazardous to the aquatic environment Category 2 or Hazardous to the aquatic environment Category 3 substances); or 10 000 L or 10 000 kg (for all other substances)
Secondary containment	100 L or 100 kg (for Hazardous to the aquatic environment Category 1 substances); or 1 000 L or 1 000 kg (for Acute toxicity Category 4, Skin sensitisation Category 1, Respiratory sensitisation Category 1, Skin corrosion Category 1B, Hazardous to the aquatic environment Category 2 or Hazardous to the aquatic environment Category 3 substances); or 10 000 L or 10 000 kg (for all other substances)
Tracking	Not required
Warning signage	100 L or 100 kg (for Hazardous to the aquatic environment Category 1

substances); or 250 L or 250 kg (for Skin corrosion Category 1B substances); or 1 000 L or 1 000 kg (for all other substances)

SECTION 16: Other information

Revision information:
Complete document review.

Document group:	29-5532-6	**Version number:**	7.01
Issue Date:	31/08/2023	**Supersedes date:**	22/06/2023

Key to abbreviations and acronyms
GHS refers to the Globally Harmonised System of Classification and Labelling of Chemicals, 7th revised edition of 2017
HSNO means Hazardous Substances and New Organisms Act 1996

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