

Safety Data Sheet

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This Safety Data Sheet has been prepared in accordance with the SS586 Specification for Hazard Communication for Hazardous Chemicals and Dangerous Goods.

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SECTION 1: Identification

1.1. Product identifier

Alcohol Skin Antiseptics (2.0% CHG, 70% Isopropyl Alcohol) (tinted-solid)

1.2. Recommended use and restrictions on use

Recommended use

Sanitizer

1.3. Supplier's details

Address: 3M Technologies (S) Pte Ltd, 10 Ang Mo Kio Street 65, Singapore 569059

Telephone: +65 6450 8888 **Website:** www.3m.com.sg

1.4. Emergency telephone number

+65 6591 6601 (8.15am - 5.00pm, Monday - Friday)

SECTION 2: Hazard identification

2.1. Classification of the substance or mixture

Flammable Liquid: Category 2.

Serious Eye Damage/Irritation: Category 2.

Specific Target Organ Toxicity (single exposure): Category 3.

2.2. Label elements

SIGNAL WORD

DANGER!

Symbols

Flame |Exclamation mark |

Pictograms



Doggi 1 of 1

Alcohol Skin Antiseptics (2.0% CHG, 70% Isopropyl Alcohol) (tinted-solid)

HAZARD STATEMENTS

H225 Highly flammable liquid and vapour.

H319 Causes serious eye irritation. H336 May cause drowsiness or dizziness.

PRECAUTIONARY STATEMENTS

Prevention:

P210 Keep away from heat, hot surfaces, sparks, open flames and other ignition sources.

No smoking.

P261 Avoid breathing dust/fume/gas/mist/vapours/spray.

Response:

P305 + P351 + P338 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact

lenses, if present and easy to do. Continue rinsing.

P370 + P378 In case of fire: Use a fire fighting agent suitable for flammable liquids such as dry

chemical or carbon dioxide to extinguish.

2.3. Other hazards

Repeated exposure may cause skin dryness or cracking.

SECTION 3: Composition/information on ingredients

This material is a mixture.

Ingredient	CAS Nbr	% by Wt	
Propan-2-ol	67-63-0	60 - 90	
Water	7732-18-5	15 - 40	
D-gluconic acid, compound with N,N"-	18472-51-0	1 - 5	
bis(4-chlorophenyl)-3,12-diimino-2,4,11,13	-		
tetraazatetradecanediamidine (2:1)			

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

No need for first aid is anticipated. If signs/symptoms persist, get medical attention.

Eye contact

Immediately flush with large amounts of water. Remove contact lenses if easy to do. Continue rinsing. Get medical attention.

If swallowed

Rinse mouth. If you feel unwell, get medical attention.

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

Central nervous system depression (headache, dizziness, drowsiness, incoordination, nausea, slurred speech, giddiness, and unconsciousness).

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

Not applicable.

SECTION 5: Fire-fighting measures

5.1. Suitable extinguishing media

In case of fire: Use a fire fighting agent suitable for flammable liquids such as dry chemical or carbon dioxide to extinguish.

5.2. Special hazards arising from the substance or mixture

Closed containers exposed to heat from fire may build pressure and explode.

Hazardous Decomposition or By-Products

<u>Substance</u> Carbon monoxide. Carbon dioxide.

Condition

During combustion.

During combustion.

5.3. Special protective actions for fire-fighters

Water may not effectively extinguish fire; however, it should be used to keep fire-exposed containers and surfaces cool and prevent explosive rupture. Wear full protective clothing, including helmet, self-contained, positive pressure or pressure demand breathing apparatus, bunker coat and pants, bands around arms, waist and legs, face mask, and protective covering for exposed areas of the head.

SECTION 6: Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures

Evacuate area. Keep away from heat/sparks/open flames/hot surfaces. - No smoking. Use only non-sparking tools. 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. Warning! A motor could be an ignition source and could cause flammable gases or vapors in the spill area to burn or explode. 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.

6.3. Methods and material for containment and cleaning up

Contain spill. Cover spill area with a fire extinguishing foam that is resistant to polar solvents. 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 using non-sparking tools. Place in a metal 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

7.1. Precautions for safe handling

For industrial/occupational use only. Not for consumer sale or use. Keep away from heat/sparks/open flames/hot surfaces. - No smoking. Use only non-sparking tools. Take precautionary measures against static discharge. Avoid breathing 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. Avoid contact with oxidising agents (eg. chlorine, chromic acid etc.) Wear low static or properly grounded shoes. To minimize the risk of ignition, determine applicable electrical classifications for the process using this product and select specific local exhaust ventilation equipment to avoid flammable vapor accumulation. Ground/bond container and receiving equipment if there is potential for static electricity accumulation during transfer.

7.2. Conditions for safe storage including any incompatibilities

Store in a well-ventilated place. Keep cool. Keep container tightly closed. Store away from heat. Store away from

acids. Store away from oxidising agents.

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.

Tor the component.				
Ingredient	CAS Nbr	Agency	Limit type	Additional comments
Propan-2-ol	67-63-0	ACGIH	TWA:200 ppm;STEL:400 ppm	A4: Not class. as human
				carcin
Propan-2-ol	67-63-0	Singapore PELs	TWA(8 hours):983	
			mg/m3(400 ppm);STEL(15	
			minutes):1230 mg/m3(500	
			ppm)	

ACGIH: American Conference of Governmental Industrial Hygienists

AIHA: American Industrial Hygiene Association

CMRG: Chemical Manufacturer's Recommended Guidelines

Singapore PELs: Singapore. Workplace Safety and Health (Permissible Exposure Levels of Toxic Substances) Order

TWA: Time-Weighted-Average STEL: Short Term Exposure Limit

CEIL: Ceiling

8.2. Exposure controls

8.2.1. Engineering controls

Use explosion-proof ventilation equipment.

8.2.2. Personal protective equipment (PPE)

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:

Indirect vented goggles.

Skin/hand protection

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.

Gloves made from the following material(s) are recommended: Butyl rubber.

Fluoroelastomer

Nitrile rubber.

Respiratory protection

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 vapours and particulates

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

SECTION 9: Physical and chemical properties

9.1. Information on basic physical and chemical properties

information on basic physical and chemical propertie	
Physical state	Liquid.
Specific Physical Form:	Liquid Impregnated Sponge
Color	Light Red
Odor	Moderate Alcohol
Odour threshold	No data available.
pH	5 - 8 Units not available or not applicable. [Details:at 25 C]
Melting point/Freezing point	No data available.
Boiling point/Initial boiling point/Boiling range	80 - 100 °C
Flash point	20 °C [Test Method:Open Cup]
Evaporation rate	No data available.
Flammability	Flammable Liquid: Category 2.
Flammable Limits(LEL)	2 % volume
Flammable Limits(UEL)	12 % volume
Vapour pressure	No data available.
Vapor Density and/or Relative Vapor Density	No data available.
Density	0.872 g/ml - 0.887 g/ml
Relative density	0.872 N/A - 0.887 N/A [<i>Ref Std</i> :WATER=1]
Water solubility	100 %
Solubility- non-water	No data available.
Partition coefficient: n-octanol/water	No data available.
Autoignition temperature	No data available.
Decomposition temperature	No data available.
Kinematic Viscosity	No data available.
Volatile organic compounds (VOC)	No data available.
Percent volatile	No data available.
VOC less H2O & exempt solvents	No data available.

|--|

SECTION 10: Stability and reactivity

10.1 Reactivity

This material may be reactive with certain agents under certain conditions - see the remaining headings in this section

10.2 Chemical stability

Stable.

10.3 Possibility of hazardous reactions

Hazardous polymerisation will not occur.

10.4 Conditions to avoid

Heat.

Light.

Sparks and/or flames.

10.5 Incompatible materials

Strong acids.

Strong oxidising agents.

10.6 Hazardous decomposition products **Substance**

Condition

None known.

Refer to section 5.2 for hazardous decomposition products during combustion.

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

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

Contact with the skin during product use is not expected to result in significant irritation. Prolonged or repeated exposure may cause: Dermal Defatting: Signs/symptoms may include localized redness, itching, drying and cracking of skin. Allergic Skin Reaction (non-photo induced) in sensitive people: Signs/symptoms may include redness, swelling, blistering, and itching.

Eye contact

Severe eye irritation: Signs/symptoms may include significant redness, swelling, pain, tearing, cloudy appearance of the cornea, and impaired vision.

Ingestion

Gastrointestinal irritation: Signs/symptoms may include abdominal pain, stomach upset, nausea, vomiting and diarrhoea. May cause additional health effects (see below).

Additional Health Effects:

Single exposure may cause target organ effects:

Central nervous system (CNS) depression: Signs/symptoms may include headache, dizziness, drowsiness, incoordination, nausea, slowed reaction time, slurred speech, giddiness, and unconsciousness.

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	Ingestion		No data available; calculated ATE >5,000 mg/kg		
Propan-2-ol	Dermal	Rabbit	LD50 12,870 mg/kg		
Propan-2-ol	Inhalation-	Rat	LC50 72.6 mg/l		
	Vapor (4				
	hours)				

Page: 6 of 11

Alcohol Skin Antiseptics (2.0% CHG, 70% Isopropyl Alcohol) (tinted-solid)

Propan-2-ol	Ingestion	Rat	LD50 4,710 mg/kg
D-gluconic acid, compound with N,N"-bis(4-chlorophenyl)-3,12-	Dermal	Rabbit	LD50 > 5,000 mg/kg
diimino-2,4,11,13-tetraazatetradecanediamidine (2:1)			
D-gluconic acid, compound with N,N"-bis(4-chlorophenyl)-3,12-	Ingestion	Rat	LD50 2,000 mg/kg
diimino-2,4,11,13-tetraazatetradecanediamidine (2:1)			

ATE = acute toxicity estimate

Skin Corrosion/Irritation

Name	Species	Value
Propan-2-ol	Multiple animal species	No significant irritation
D-gluconic acid, compound with N,N"-bis(4-chlorophenyl)-3,12-diimino-2,4,11,13-tetraazatetradecanediamidine (2:1)	Rabbit	No significant irritation

Serious Eye Damage/Irritation

Name	Species	Value
Propan-2-ol	Rabbit	Severe irritant
D-gluconic acid, compound with N,N"-bis(4-chlorophenyl)-3,12-diimino-	Rabbit	Corrosive
2,4,11,13-tetraazatetradecanediamidine (2:1)		

Sensitization:

Skin Sensitisation

Name	Species	Value
Propan-2-ol	Guinea	Not classified
D-gluconic acid, compound with N,N"-bis(4-chlorophenyl)-3,12-diimino-2,4,11,13-tetraazatetradecanediamidine (2:1)	Human and	Some positive data exist, but the data are not sufficient for classification
, ,,,	animal	

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
Propan-2-ol	In Vitro	Not mutagenic
Propan-2-ol	In vivo	Not mutagenic
D-gluconic acid, compound with N,N"-bis(4-chlorophenyl)-3,12-diimino-	In Vitro	Not mutagenic
2,4,11,13-tetraazatetradecanediamidine (2:1)		
D-gluconic acid, compound with N,N"-bis(4-chlorophenyl)-3,12-diimino-	In vivo	Not mutagenic
2,4,11,13-tetraazatetradecanediamidine (2:1)		

Carcinogenicity

eur emogement,			
Name	Route	Species	Value
Propan-2-ol	Inhalation	Rat	Some positive data exist, but the data are not sufficient for classification
D-gluconic acid, compound with N,N"-bis(4-chlorophenyl)-3,12-diimino-2,4,11,13-tetraazatetradecanediamidine (2:1)	Ingestion	Multiple animal species	Not carcinogenic

Reproductive Toxicity

Reproductive and/or Developmental Effects

cproductive and/or Developmental Effects								
Name	Route	Value	Species	Test result	Exposure Duration			
Propan-2-ol	Ingestion	Not classified for female reproduction	Rat	NOAEL	2 generation			

				1,000 mg/kg/day	
Propan-2-ol	Ingestion	Not classified for male reproduction	Rat	NOAEL 500 mg/kg/day	2 generation
Propan-2-ol	Ingestion	Not classified for development	Rat	NOAEL 400 mg/kg/day	during organogenesis
Propan-2-ol	Inhalation	Not classified for development	Rat	LOAEL 9 mg/l	during gestation
D-gluconic acid, compound with N,N"-bis(4-chlorophenyl)-3,12-diimino-2,4,11,13-tetraazatetradecanediamidine (2:1)	Ingestion	Not classified for development	Rat	NOAEL 30 mg/kg/day	during gestation

Target Organ(s)

Specific Target Organ Toxicity - single exposure

Name	Route	Target Organ(s)	Value	Species	Test result	Exposure Duration
Propan-2-ol	Inhalation	central nervous system depression	May cause drowsiness or dizziness	Human	NOAEL Not available	
Propan-2-ol	Inhalation	respiratory irritation	Some positive data exist, but the data are not sufficient for classification	Human	NOAEL Not available	
Propan-2-ol	Inhalation	auditory system	Not classified	Guinea pig	NOAEL 13.4 mg/l	24 hours
Propan-2-ol	Ingestion	central nervous system depression	May cause drowsiness or dizziness	Human	NOAEL Not available	poisoning and/or abuse
D-gluconic acid, compound with N,N"-bis(4- chlorophenyl)-3,12- diimino-2,4,11,13- tetraazatetradecanediamidi ne (2:1)	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
Propan-2-ol	Inhalation	kidney and/or bladder	Not classified	Rat	NOAEL 12.3 mg/l	24 months
Propan-2-ol	Inhalation	nervous system	Not classified	Rat	NOAEL 12 mg/l	13 weeks
Propan-2-ol	Ingestion	kidney and/or bladder	Not classified	Rat	NOAEL 400 mg/kg/day	12 weeks
D-gluconic acid, compound with N,N"- bis(4-chlorophenyl)-3,12- diimino-2,4,11,13- tetraazatetradecanediamidi ne (2:1)	Ingestion	liver	Some positive data exist, but the data are not sufficient for classification	Dog	NOAEL 0.89 mg/kg/day	1 years
D-gluconic acid, compound with N,N"- bis(4-chlorophenyl)-3,12- diimino-2,4,11,13- tetraazatetradecanediamidi ne (2:1)	Ingestion	immune system	Not classified	Rabbit	NOAEL 71 mg/kg/day	2 years
D-gluconic acid, compound with N,N"- bis(4-chlorophenyl)-3,12- diimino-2,4,11,13- tetraazatetradecanediamidi ne (2:1)	Ingestion	hematopoietic system kidney and/or bladder	Not classified	Rat	NOAEL 71 mg/kg/day	2 years

Aspiration Hazard

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

Page: 8 of 11

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

Acute aquatic hazard:

GHS Acute 2: Toxic to aquatic life.

Chronic aquatic hazard:

GHS Chronic 3: Harmful to aquatic life with long lasting effects.

No product test data available.

Propan2-0-1 67-63-0 Bacteria Experimental 16 hours LOEC 1,050 mg/l	Material	CAS Nbr	Organism	Type	Exposure	Test endpoint	Test result
Propan=2-ol 67-63-0 Invertebrate Experimental 24 hours LC50 >10,000 mg/l	Propan-2-ol	67-63-0	Bacteria	Experimental	16 hours	LOEC	1,050 mg/l
Propan-2-ol 67-63-0 Medaka Experimental 96 hours LC50 >100 mg/l	Propan-2-ol	67-63-0	Green algae	Experimental	72 hours	EC50	>1,000 mg/l
Propan-2-ol 67-63-0 Water flea Experimental 48 hours EC50 >1,000 mg/l	Propan-2-ol	67-63-0	Invertebrate	Experimental	24 hours	LC50	>10,000 mg/l
Propan-2-ol 67-63-0 Green algae Experimental 72 hours NOEC 1,000 mg/l	Propan-2-ol	67-63-0	Medaka	Experimental	96 hours	LC50	>100 mg/l
Propan-2-ol 67-63-0 Water flea Experimental 21 days NOEC 100 mg/l	Propan-2-ol	67-63-0	Water flea	Experimental	48 hours	EC50	>1,000 mg/l
Propan-2-ol 67-63-0 Water flea Experimental 21 days NOEC 100 mg/l	Propan-2-ol		Green algae	Experimental	72 hours		
D-gluconic acid, compound with N,N"-bis(4-chloropheny)-3,12-dimino-2,4,11,13-tetraazatetradecane diamidine (2:1)	Propan-2-ol	67-63-0	Water flea	Experimental		NOEC	100 mg/l
N,N"-bis(4-chlorophenyl)-3,12-dimino-2,4,11,13-tetraazatetradecane diamidine (2:1)	,	18472-51-0	Activated sludge	Experimental	3 hours	EC50	25 mg/l
chlorophenyl)- 3,12-dimino- 2,4,11,13- tetraazatetradecane diamidine (2:1) D-gluconic acid, compound with N,N"-bis(4- chlorophenyl)- 3,12-dimino- 2,4,11,13- tetraazatetradecane diamidine (2:1) D-gluconic acid, compound with N,N"-bis(4- chlorophenyl)- 3,12-dimino- 2,4,11,13- tetraazatetradecane diamidine (2:1) D-gluconic acid, compound with N,N"-bis(4- chlorophenyl)- 3,12-dimino- 2,4,11,13- tetraazatetradecane diamidine (2:1) D-gluconic acid, compound with N,N"-bis(4- chlorophenyl)- 3,12-dimino- 2,4,11,13- tetraazatetradecane diamidine (2:1) D-gluconic acid, compound with N,N"-bis(4- chlorophenyl)- 3,12-dimino- 2,4,11,13- tetraazatetradecane diamidine (2:1) D-gluconic acid, compound with N,N"-bis(4- chlorophenyl)- 3,12-dimino- 2,4,11,13- tetraazatetradecane diamidine (2:1) D-gluconic acid, la472-51-0 Green algae Experimental 72 hours NOEC 0.007 mg/l							
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compound with N,N"-bis(4-chlorophenyl)-3,12-dimino-2,4,11,13-tetrazatetradecane diamidine (2:1)	D-gluconic acid,	18472-51-0	Green algae	Experimental	72 hours	ErC50	0.081 mg/l
chlorophenyl)- 3,12-diimino- 2,4,11,13- tetraazatetradecane diamidine (2:1) D-gluconic acid, compound with N,N"-bis(4- chlorophenyl)- 3,12-diimino- 2,4,11,13- tetraazatetradecane diamidine (2:1) D-gluconic acid, compound with N,N"-bis(4- chlorophenyl)- 3,12-diimino- 2,4,11,13- tetraazatetradecane diamidine (2:1) D-gluconic acid, compound with N,N"-bis(4- chlorophenyl)- 3,12-diimino- 2,4,11,13- tetraazatetradecane diamidine (2:1) D-gluconic acid, compound with compound with N,N"-bis(4- chlorophenyl)- 3,12-diimino- 2,4,11,13- tetraazatetradecane diamidine (2:1) D-gluconic acid, 18472-51-0 Green algae Experimental 72 hours NOEC 0.007 mg/l				1			
3,12-dimino- 2,4,11,13- tetraazatetradecane diamidine (2:1) D-gluconic acid, compound with N,N"-bis(4- chlorophenyl)- 3,12-diimino- 2,4,11,13- tetraazatetradecane diamidine (2:1) D-gluconic acid, compound with N,N"-bis(4- chlorophenyl)- 3,12-diimino- 2,4,11,13- tetraazatetradecane diamidine (2:1) D-gluconic acid, compound with N,N"-bis(4- chlorophenyl)- 3,12-diimino- 2,4,11,13- tetraazatetradecane diamidine (2:1) D-gluconic acid, compound with N,N"-bis(4- chlorophenyl)- 3,12-diimino- 2,4,11,13- tetraazatetradecane diamidine (2:1) D-gluconic acid, l8472-51-0 Green algae Experimental 72 hours NOEC 0.007 mg/l	N,N"-bis(4-						
2,4,11,13- tetraazatetradecane diamidine (2:1) D-gluconic acid, compound with N,N"-bis(4- chlorophenyl)- 3,12-diimino- 2,4,11,13- tetraazatetradecane diamidine (2:1) D-gluconic acid, compound with N,N"-bis(4- chlorophenyl)- 3,12-diimino- 2,4,11,13- tetraazatetradecane diamidine (2:1) D-gluconic acid, compound with N,N"-bis(4- chlorophenyl)- 3,12-diimino- 2,4,11,13- tetraazatetradecane diamidine (2:1) D-gluconic acid, compound with N,N"-bis(4- chlorophenyl)- 3,12-diimino- 2,4,11,13- tetraazatetradecane diamidine (2:1) D-gluconic acid, la472-51-0 Green algae Experimental 72 hours NOEC 0.007 mg/l	chlorophenyl)-						
tetraazatetradecane diamidine (2:1) D-gluconic acid, compound with N,N"-bis(4-chlorophenyl)-3,12-diimino-2,4,11,13-tetraazatetradecane diamidine (2:1) D-gluconic acid, compound with N,N"-bis(4-chlorophenyl)-3,12-diimino-2,4,11,13-tetraazatetradecane diamidine (2:1) D-gluconic acid, compound with N,N"-bis(4-chlorophenyl)-3,12-diimino-2,4,11,13-tetraazatetradecane diamidine (2:1) D-gluconic acid, l8472-51-0 Green algae Experimental 72 hours NOEC 0.007 mg/l							
diamidine (2:1) D-gluconic acid, compound with N,N"-bis(4-chlorophenyl)-3,12-diimino-2,4,11,13-tetraazatetradecane diamidine (2:1) D-gluconic acid, compound with N,N"-bis(4-chlorophenyl)-3,12-diimino-2,4,11,13-tetraazatetradecane diamidine (2:1) D-gluconic acid, compound with N,N"-bis(4-chlorophenyl)-3,12-diimino-2,4,11,13-tetraazatetradecane diamidine (2:1) D-gluconic acid, la472-51-0 Green algae Experimental 72 hours NOEC 0.007 mg/l	, , ,						
D-gluconic acid, compound with N,N"-bis(4-chlorophenyl)-3,12-diimino-2,4,11,13-tetraazatetradecane diamidine (2:1) D-gluconic acid, compound with N,N"-bis(4-chlorophenyl)-3,12-diimino-1,13,12-diimino-1,14,11,13-tetraazatetradecane diamidine (2:1) D-gluconic acid, compound with N,N"-bis(4-chlorophenyl)-3,12-diimino-1,13,12-diimino-1,14,11,13-tetraazatetradecane diamidine (2:1) D-gluconic acid, 18472-51-0 Green algae Experimental 72 hours NOEC 0.007 mg/l							
compound with N,N"-bis(4-chlorophenyl)- 3,12-diimino- 2,4,11,13- tetraazatetradecane diamidine (2:1) D-gluconic acid, compound with N,N"-bis(4-chlorophenyl)- 3,12-diimino- 2,4,11,13- tetraazatetradecane diamidine (2:1) D-gluconic acid, 18472-51-0 Green algae Experimental 72 hours NOEC 0.007 mg/l							
N,N"-bis(4- chlorophenyl)- 3,12-diimino- 2,4,11,13- tetraazatetradecane diamidine (2:1) D-gluconic acid, compound with N,N"-bis(4- chlorophenyl)- 3,12-diimino- 2,4,11,13- tetraazatetradecane diamidine (2:1) D-gluconic acid, 18472-51-0 Green algae Experimental P6 hours LC50 2.08 mg/l D-gluconic acid, 18472-51-0 Green algae Experimental 72 hours NOEC 0.007 mg/l		18472-51-0	Water flea	Experimental	48 hours	EC50	0.087 mg/l
chlorophenyl)- 3,12-diimino- 2,4,11,13- tetraazatetradecane diamidine (2:1) D-gluconic acid, compound with N,N"-bis(4- chlorophenyl)- 3,12-diimino- 2,4,11,13- tetraazatetradecane diamidine (2:1) D-gluconic acid, compound with N,N"-bis(4- chlorophenyl)- 3,12-diimino- 2,4,11,13- tetraazatetradecane diamidine (2:1) D-gluconic acid,							
3,12-diimino- 2,4,11,13- tetraazatetradecane diamidine (2:1) D-gluconic acid, compound with N,N"-bis(4- chlorophenyl)- 3,12-diimino- 2,4,11,13- tetraazatetradecane diamidine (2:1) D-gluconic acid, 18472-51-0 Green algae Experimental 96 hours LC50 2.08 mg/l 2.08 mg/l NOEC 0.007 mg/l							
2,4,11,13- tetraazatetradecane diamidine (2:1) D-gluconic acid, compound with N,N"-bis(4- chlorophenyl)- 3,12-diimino- 2,4,11,13- tetraazatetradecane diamidine (2:1) D-gluconic acid, 18472-51-0 Green algae Experimental 96 hours LC50 2.08 mg/l 2.08 mg/l D-gluconic acid, 18472-51-0 Green algae Experimental 72 hours NOEC 0.007 mg/l							
tetraazatetradecane diamidine (2:1) D-gluconic acid, compound with N,N"-bis(4-chlorophenyl)-3,12-diimino-2,4,11,13-tetraazatetradecane diamidine (2:1) D-gluconic acid, 18472-51-0 Green algae Experimental 72 hours NOEC 0.007 mg/l	/						
diamidine (2:1) D-gluconic acid, compound with N,N"-bis(4-chlorophenyl)-3,12-diimino-2,4,11,13-tetraazatetradecane diamidine (2:1) D-gluconic acid, 18472-51-0 Green algae Experimental 72 hours NOEC 0.007 mg/l							
D-gluconic acid, compound with N,N"-bis(4-chlorophenyl)-3,12-diimino-2,4,11,13-tetraazatetradecane diamidine (2:1) D-gluconic acid, 18472-51-0 Zebra Fish Experimental 96 hours LC50 2.08 mg/l							
compound with N,N"-bis(4-chlorophenyl)-3,12-diimino-2,4,11,13-tetraazatetradecane diamidine (2:1) D-gluconic acid, 18472-51-0 Green algae Experimental 72 hours NOEC 0.007 mg/l		19472 51 0	Zohro Eigh	Evnorimental	06 hours	I C50	2.09 mg/l
N,N"-bis(4- chlorophenyl)- 3,12-diimino- 2,4,11,13- tetraazatetradecane diamidine (2:1) D-gluconic acid, 18472-51-0 Green algae Experimental 72 hours NOEC 0.007 mg/l		104/2-31-0	Zeora Fish	Experimental	90 Hours	LC30	2.08 Hig/1
chlorophenyl)- 3,12-diimino- 2,4,11,13- tetraazatetradecane diamidine (2:1) D-gluconic acid, 18472-51-0 Green algae Experimental 72 hours NOEC 0.007 mg/l							
3,12-diimino- 2,4,11,13- tetraazatetradecane diamidine (2:1) D-gluconic acid, 18472-51-0 Green algae Experimental 72 hours NOEC 0.007 mg/l							
2,4,11,13- tetraazatetradecane diamidine (2:1) D-gluconic acid, 18472-51-0 Green algae Experimental 72 hours NOEC 0.007 mg/l				1	1	1	
tetraazatetradecane diamidine (2:1) D-gluconic acid, 18472-51-0 Green algae Experimental 72 hours NOEC 0.007 mg/l							
diamidine (2:1) D-gluconic acid, 18472-51-0 Green algae Experimental 72 hours NOEC 0.007 mg/l							
D-gluconic acid, 18472-51-0 Green algae Experimental 72 hours NOEC 0.007 mg/l				1	1	1	
		18472-51-0	Green algae	Experimental	72 hours	NOEC	0.007 mg/l

Alcohol Skin Antiseptics (2.0% CHG, 70% Isopropyl Alcohol) (tinted-solid)

N,N"-bis(4-						
chlorophenyl)-						
3,12-diimino-						
2,4,11,13-						
tetraazatetradecane						
diamidine (2:1)						
D-gluconic acid,	18472-51-0	Water flea	Experimental	21 days	NOEC	0.021 mg/l
compound with						
N,N"-bis(4-						
chlorophenyl)-						
3,12-diimino-						
2,4,11,13-						
tetraazatetradecane						
diamidine (2:1)						

12.2. Persistence and degradability

Material	CAS Nbr	Test type	Duration	Study Type	Test result	Protocol
Propan-2-ol	67-63-0	Experimental Biodegradation	14 days	BOD	86 %BOD/ThOD	OECD 301C - MITI test (I)
D-gluconic acid, compound with N,N"-bis(4-chlorophenyl)-3,12-diimino-2,4,11,13-tetraazatetradecane diamidine (2:1)	18472-51-0	Experimental Biodegradation	28 days	Dissolv. Organic Carbon Deplet	71 %removal of DOC	OECD 301A - DOC Die Away Test

12.3: Bioaccumulative potential

Material	CAS Nbr	Test type	Duration	Study Type	Test result	Protocol
Propan-2-ol	67-63-0	Experimental Bioconcentration		Log Kow	0.05	
D-gluconic acid, compound with N,N"-bis(4-chlorophenyl)-3,12-diimino-2,4,11,13-tetraazatetradecane diamidine (2:1)	18472-51-0	Experimental Bioconcentration		Log Kow	-1.81	OECD 107 log Kow shke flsk mtd

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

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

Incinerate in a permitted waste incineration facility. As a disposal alternative, utilize an acceptable permitted waste disposal facility. 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.

SECTION 14: Transport Information

International Regulations

UN No.: None assigned

UN Proper shipping name: None assigned

Transportation Class (IMO): None assigned Transportation Class (IATA): None assigned

Other Dangerous Goods Descriptions (IMO): None assigned Other Dangerous Goods Descriptions (IATA): None assigned

Packing Group: None assigned Marine pollutant: None assigned

SECTION 15: Regulatory information

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

Global inventory status

Contact 3M for more information. The components of this material are in compliance with the provisions of Australia National Industrial Chemical Notification and Assessment Scheme (NICNAS). Certain restrictions may apply. Contact the selling division for additional information. The components of this product are in compliance with the new substance notification requirements of CEPA. This product complies with Measures on Environmental Management of New Chemical Substances. All ingredients are listed on or exempt from on China IECSC inventory.

This product may contain component(s) that are regulated by the following:

Workplace Safety and Health Act & Workplace Safety and Health (General Provisions) Regulations: this product is subject to SDS, labelling, PEL and other requirements in the Act/Regulations.

SECTION 16: Other information

DISCLAIMER: The information on this Safety Data Sheet is based on our experience and is correct to the best of our knowledge at the date of publication, but we do not accept any liability for any loss, damage or injury resulting from its use (except as required by law). The information may not be valid for any use not referred to in this Data Sheet or use of the product in combination with other materials. For these reasons, it is important that customers carry out their own test to satisfy themselves as to the suitability of the product for their own intended applications.

3M Singapore SDSs are available at www.3m.com.sg