

Safety Data Sheet

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This Safety Data Sheet has been prepared in accordance with the New Zealand Hazardous Substances and New Organisms Act 1996 (HSNO) and as amended

SECTION 1: Identification

1.1. Product identifier

AvagardTM(Chlorhexidine Gluconate 1% Solution and Ethyl Alcohol 61% w/w) Surgical and Healthcare Personnel Hand Antiseptic with Moisturizers 9200, 9200C and 9216

Product identification numbers

70-2007-1856-0 70-2007-1865-1 70-2007-4587-8 70-2007-6212-1

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

Identified uses

Hand Cleanser

1.3. Details of the supplier of the substance or mixture

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

2.1. Classification of the substance or mixture

Classified as hazardous according to the New Zealand Hazardous Substances (Minimum Degrees of Hazard) Regulations 2001.

Classified as a Dangerous Good according to; NZS 5433:2012 Transport of Dangerous Goods on Land, UN, IMDG and IATA.

HSNO classification

3.1B Flammable liquid

6.4A Irritating to the eye

6.5B Skin sensitiser

9.1C Aquatic toxicity

2.2. Label elements

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SIGNAL WORD

DANGER!

Symbols:

Flame |Exclamation mark |

Pictograms





HAZARD STATEMENTS:

H225 Highly flammable liquid and vapour.

H320 Causes eye irritation.

H317 May cause an allergic skin reaction.

H402 Harmful to aquatic life.

H412 Harmful to aquatic life with long lasting effects.

PRECAUTIONARY STATEMENTS

General:

P101 If medical advice is needed, have product container or label at hand.

P102 Keep out of reach of children.

P103 Read label before use.

Prevention:

P104 Read Safety Data Sheet before use.

P210 Keep away from heat/sparks/open flames/hot surfaces. - No smoking.

P240 Ground/bond container and receiving equipment.

P242 Use only non-sparking tools.

P243 Take precautionary measures against static discharge.

P233 Keep container tightly closed.

P241 Use explosion-proof electrical/ventilating/lighting/equipment.

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

P272 Contaminated work clothing should not be allowed out of the workplace.

P273 Avoid release to the environment.

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.

P337 + P313 If eye irritation persists: Get medical advice/attention.
P333 + P313 If skin irritation or rash occurs: Get medical advice/attention.

P363 Wash contaminated clothing before reuse.

P370 In case of fire:

P378L Use a carbon dioxide or dry chemical extinguisher for extinction.

Storage:

P403 + P235 Store in a well-ventilated place. Keep cool.

Disposal:

P501 Dispose of contents/container in accordance with applicable

local/regional/national/international regulations.

2.3. Other hazards

May cause drowsiness or dizziness.

SECTION 3: Composition/information on ingredients

Ingredient	CAS Nbr	% by Wt
Ethanol	64-17-5	55 - 65
Water	7732-18-5	20 - 35
Docosyl alcohol	661-19-8	< 2
C18-unsatd. fatty acids	103213-20-3	< 2
Squalane	111-01-3	< 2
Glycols, polyethylene, monodocosyl ether	26636-40-8	< 2
Ethylene glycol polymer	25322-68-3	< 2
D-gluconic acid, compound with N,N"-bis(4-chlorophenyl)-3,12-diimino-	18472-51-0	0.15 - 0.3
2,4,11,13-tetraazatetradecanediamidine (2:1)		

SECTION 4: First aid measures

4.1. Description of first aid measures

Eve contact

Flush with large amounts of water. Remove contact lenses if easy to do. Continue rinsing. If signs/symptoms persist, 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.

Skin contact

No need for first aid is anticipated.

Inhalation

Remove person to fresh air. If you feel unwell, 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

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. Extinguishing media

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

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

Substance

Condition

Carbon monoxide. Carbon dioxide.

During combustion. During combustion.

5.3. Advice 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.

5.4. Hazchem code: 2YE

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. 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 designed for use on solvents, such as alcohols and acetone, that can dissolve in water. An AR-AFFF type foam is recommended. 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 toxic, corrosivity or flammability 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 detergent and water. Seal the container. Dispose of collected material as soon as possible.

SECTION 7: Handling and storage

Refer to Section 15 - HSNO controls for more information

7.1. Precautions for safe handling

Avoid eye contact. Keep out of reach of children. Keep away from heat/sparks/open flames/hot surfaces. - No smoking. Use only non-sparking tools. Use explosion-proof electrical/ventilating/lighting/equipment. Avoid breathing dust/fume/gas/mist/vapours/spray. Do not eat, drink or smoke when using this product. Wash thoroughly after handling. Contaminated work clothing should not be allowed out of the workplace. Avoid release to the environment. Wash contaminated clothing before reuse. Avoid contact with oxidising agents (eg. chlorine, chromic acid etc.) Vapours may travel long distances along the ground or floor to an ignition source and flash back.

7.2. Conditions for safe storage including any incompatibilities

Store in a well-ventilated place. Keep cool. Keep container tightly closed. Store away from acids. Store away from oxidising agents.

7.3. Approved handler test certificate

Class 3, when present in quantities greater than 250 L (when in containers greater than 5 L) or 500 L (when in containers up to and including 5 L)

SECTION 8: Exposure controls/personal protection

8.1 Control parameters

Occupational exposure limits

 Ingredient
 CAS Nbr
 Agency
 Limit type
 Additional comments

 Ethanol
 64-17-5
 New Zealand
 TWA(8 hours):1880

thanol 64-17-5 New Zealand TWA(8 hours):1880 WES mg/m3(1000 ppm)

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

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. Use explosion-proof ventilation equipment.

8.2.2. Personal protective equipment (PPE)

Eye/face protection

None required.

Skin/hand protection

Skin protection is not required.

Respiratory protection

None required.

SECTION 9: Physical and chemical properties

9.1. Information on basic physical and chemical properties

Physical state Liquid.

Appearance/Odour White viscous liquid with slight alcohol odour.

оН 6

Boiling point/boiling range 77.8 °C

Melting point Not applicable.

Flammability (solid, gas) Flammable Liquid: Category 2.

Explosive propertiesNot classified **Oxidising properties**Not classified

Flash point 21 °C [Test Method:Closed Cup] [Details:**(69.8 degrees F)**]

Autoignition temperature 799 °C

Flammable Limits(LEL)

3.28 % volume
Flammable Limits(UEL)

19 % volume

Vapour pressure186158.4 Pa [@ 55 °C]Relative density0.83 [Ref Std: WATER=1]

Water solubility Moderate

Partition coefficient: n-octanol/waterNo data available.Evaporation rate1.4 [Ref Std:BUOAC=1]Vapour density1.6 [Ref Std:AIR=1]

Viscosity 50 - 250 Pa-s [@ 23 °C]

Density0.83 g/mlVolatile organic compounds (VOC)496 g/lPercent volatile90 % weightVOC less H2O & exempt solvents630 g/l

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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.

Sparks and/or flames.

10.5 Incompatible materials

Strong oxidising agents. Strong oxidising agents.

10.6 Hazardous decomposition products

Substance

Condition

None known.

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:

Eye contact

Moderate eye irritation: Signs/symptoms may include redness, swelling, pain, tearing, and blurred or hazy vision.

Skin contact

Allergic skin reaction (non-photo induced): Signs/symptoms may include redness, swelling, blistering, and itching.

Inhalation

Respiratory tract irritation: Signs/symptoms may include cough, sneezing, nasal discharge, headache, hoarseness, and nose and throat pain. May cause target organ effects after inhalation.

Ingestion

Gastrointestinal irritation: Signs/symptoms may include abdominal pain, stomach upset, nausea, vomiting and diarrhoea. May cause target organ effects after ingestion.

Target Organ Effects:

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

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

Acute Toxicity

Name	Route	Species	Value
Overall product	Ingestion		No test data available; calculated ATE
			>5,000 mg/kg
Ethanol	Dermal	Rabbit	LD50 > 15,800 mg/kg
Ethanol	Inhalation-Vapor (4	Rat	LC50 125 mg/l
	hours)		_
Ethanol	Ingestion	Rat	LD50 17,800 mg/kg
Glycols, polyethylene, monodocosyl			No data available
ether			
Ethylene glycol polymer	Dermal	Rabbit	LD50 > 20,000 mg/kg
Ethylene glycol polymer	Ingestion	Rat	LD50 30,000 mg/kg
Docosyl alcohol			No data available
C18-unsatd. fatty acids			No data available
Squalane			No data available
D-gluconic acid, compound with			No data available
N,N"-bis(4-chlorophenyl)-3,12-			
diimino-2,4,11,13-			
tetraazatetradecanediamidine (2:1)			

ATE = acute toxicity estimate

Skin Corrosion/Irritation

Name	Species	Value	
Ethanol	Rabbit	No significant irritation	
Glycols, polyethylene, monodocosyl ether		No data available	
Ethylene glycol polymer		Minimal irritation	
Docosyl alcohol		No data available	
C18-unsatd. fatty acids		No data available	
Squalane		No data available	
D-gluconic acid, compound with N,N"-bis(4-		No data available	
chlorophenyl)-3,12-diimino-2,4,11,13-			
tetraazatetradecanediamidine (2:1)			

Serious Eye Damage/Irritation

Name	Species	Value	
Ethanol	Rabbit	Moderate irritant	
Glycols, polyethylene, monodocosyl ether		No data available	
Ethylene glycol polymer		Mild irritant	
Docosyl alcohol		No data available	
C18-unsatd. fatty acids		No data available	
Squalane		No data available	
D-gluconic acid, compound with N,N"-bis(4-		No data available	
chlorophenyl)-3,12-diimino-2,4,11,13-			
tetraazatetradecanediamidine (2:1)			

Skin Sensitisation

**	~ •	** *
Name	Species	I Valua
1 Name	Species	Value

Ethanol	Human	Some positive data exist, but the data are not
		sufficient for classification
Glycols, polyethylene, monodocosyl ether		No data available
Ethylene glycol polymer		No data available
Docosyl alcohol		No data available
C18-unsatd. fatty acids		No data available
Squalane		No data available
D-gluconic acid, compound with N,N"-bis(4-		No data available
chlorophenyl)-3,12-diimino-2,4,11,13-		
tetraazatetradecanediamidine (2:1)		

Respiratory Sensitisation

Name	Species	Value
Ethanol		No data available
Glycols, polyethylene, monodocosyl ether		No data available
Ethylene glycol polymer		No data available
Docosyl alcohol		No data available
C18-unsatd. fatty acids		No data available
Squalane		No data available
D-gluconic acid, compound with N,N"-bis(4-		No data available
chlorophenyl)-3,12-diimino-2,4,11,13-		
tetraazatetradecanediamidine (2:1)		

Germ Cell Mutagenicity

Name	Route	Value
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
Glycols, polyethylene, monodocosyl ether		No data available
Ethylene glycol polymer		No data available
Docosyl alcohol		No data available
C18-unsatd. fatty acids		No data available
Squalane		No data available
D-gluconic acid, compound with N,N"-bis(4-		No data available
chlorophenyl)-3,12-diimino-2,4,11,13-		
tetraazatetradecanediamidine (2:1)		

Carcinogenicity

Name	Route	Species	Value
Ethanol	Ingestion	Multiple animal	Some positive data exist, but the data
		species	are not sufficient for classification
Glycols, polyethylene, monodocosyl			No data available
ether			
Ethylene glycol polymer			No data available
Docosyl alcohol			No data available
C18-unsatd. fatty acids			No data available
Squalane			No data available
D-gluconic acid, compound with			No data available
N,N"-bis(4-chlorophenyl)-3,12-			
diimino-2,4,11,13-			
tetraazatetradecanediamidine (2:1)			

Reproductive Toxicity

Reproductive and/or Developmental Effects

Reproductive and/or Developmental Effects							
Name	Route	Value	Species	Test result	Exposure Duration		
Ethanol	Inhalation	Not toxic to	Rat	NOAEL 38	during gestation		
		development		mg/l			

Ethanol	Ingestion	Some positive developmental data exist, but the data are not sufficient for classification No data available	Rat	NOAEL 5,200 mg/kg/day	premating & during gestation
Glycols, polyethylene, monodocosyl ether		No data avanable			
Ethylene glycol polymer	Not specified.	Some positive reproductive/develop mental data exist, but the data are not sufficient for classification		NOEL N/A	
Docosyl alcohol		No data available			
C18-unsatd. fatty acids		No data available			
Squalane		No data available			
D-gluconic acid, compound with N,N"-bis(4- chlorophenyl)-3,12- diimino-2,4,11,13- tetraazatetradecanedi amidine (2:1)		No data available			

Target Organ(s)

Specific Target Organ Toxicity - single exposure

Name	Route	Target	Value	Species	Test result	Exposure
		Organ(s)				Duration
Ethanol	Inhalation	central nervous system depression	May cause drowsiness or dizziness	Human	LOAEL 2.6 mg/l	30 minutes
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	Ingestion	central nervous system depression	May cause drowsiness or dizziness	Multiple animal species	NOAEL not available	
Ethanol	Ingestion	kidney and/or bladder	Some positive data exist, but the data are not sufficient for classification	Dog	NOAEL 3,000 mg/kg	
Glycols, polyethylene, monodocosyl ether			No data available			
Ethylene glycol polymer	Inhalation	respiratory irritation	All data are negative		Irritation Negative	
Docosyl alcohol			No data available			
C18-unsatd. fatty acids			No data available			_
Squalane D-gluconic acid,			No data available No data available			

compound with N,N"-			
bis(4-			
chlorophenyl)			
-3,12-			
diimino-			
2,4,11,13-			
tetraazatetrad			
ecanediamidi			
ne (2:1)			

Specific Target Organ Toxicity - repeated exposure

Name	Route	Target Organ(s)	Value	Species	Test result	Exposure Duration
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	Some positive data exist, but the data are not sufficient for classification	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	Some positive data exist, but the data are not sufficient for classification	Dog	NOAEL 3,000 mg/kg/day	7 days
Glycols, polyethylene, monodocosyl ether			No data available			
Ethylene glycol polymer	Ingestion	kidney and/or bladder	Some positive data exist, but the data are not sufficient for classification		LOEL 1,128 mg/kg/day	
Docosyl alcohol			No data available			
C18-unsatd. fatty acids			No data available			
Squalane D-gluconic acid, compound with N,N"- bis(4- chlorophenyl) -3,12- diimino- 2,4,11,13- tetraazatetrad ecanediamidi ne (2:1)			No data available No data available			

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Aspiration Hazard

Name	Value
Ethanol	Not an aspiration hazard
Glycols, polyethylene, monodocosyl ether	Not an aspiration hazard
Ethylene glycol polymer	Not an aspiration hazard
Docosyl alcohol	Not an aspiration hazard
C18-unsatd. fatty acids	Not an aspiration hazard
Squalane	Not an aspiration hazard
D-gluconic acid, compound with N,N"-bis(4-chlorophenyl)-3,12-diimino-	Not an aspiration hazard
2,4,11,13-tetraazatetradecanediamidine (2:1)	

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.

9.1C Aquatic toxicity

No product test data available. No component test data available.

12.2. Persistence and degradability

No test data available.

12.3: Bioaccumulative potential

No test data available.

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 Waste treatment methods

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

Incinerate in a permitted waste incineration 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.

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: Transportation information

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70-2007-1856-0

NEW ZEALAND LAND TRANSPORT:

UN1170, ETHANOL SOLUTION, 3, II, LIMITED QUANTITY.

IATA:

UN1170, ETHANOL SOLUTION, 3, II.

IMO:

UN1170, ETHANOL SOLUTION, 3, II, LIMITED QUANTITY.

SECTION 15: Regulatory information

HSNO Approval number HSR002552

Group standard name Cosmetic Products Group Standard 2006

HSNO Hazard classification Refer to section 2

NZ Inventory of Chemicals (NZIoC) Status

All applicable chemical ingredients in this material are in compliance with NZIoC listing requirements.

HSNO Controls

Approved handler test certificate Class 3, when present in quantities greater than 250 L (when in containers

greater than 5 L) or 500 L (when in containers up to and including 5 L)

Location and transit Depot certification test 100 L (closed containers greater than 5 L) 250 L (closed containers up to and

including 5 L) 50 L (open containers)

Hazardous atmosphere zone 100 L (closed containers) 25 L (decanting) 5 L (open occasionally) 1 L

(open containers in continuous use)

Fire extinguishers Two required for 250 L

Emergency response plan 100 L (for a HSNO 9.1A substance); or 1,000 L (for all other HSNO 3.1B

substances)

Secondary containment 100 L (for a HSNO 9.1A substance); or 1,000 L (for all other HSNO 3.1B

substances)

Tracking Not required

Warning signage 100 L (for a HSNO 9.1A substance); or 250 L (for all other HSNO 3.1B

substances)

SECTION 16: Other information

Revision information:

No revision information is available.

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3M New Zealand SDS are available at 3M New Zealand Website: http://solutions.3mnz.co.nz

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Avagard TM (Chlorhexidine	e Gluconate 1% Solution a zers 9200, 9200C and 9216	and Ethyl Alcohol 61%	w/w) Surgical and Hea	lthcare Personnel Hand
Antiseptic with Moisturiz	ers 9200, 9200C and 9216)		