

Safety Data Sheet

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This Safety Data Sheet has been prepared in accordance with the Preparation of Safety Data Sheets for Hazardous Chemicals Code of Practice (Safe Work Australia, December 2011)

SECTION 1: Identification

1.1. Product identifier

3M[™] Silane Glass Treatment AP-115

Product Identification Numbers 70-0064-1268-1

1.2. Recommended use and restrictions on use

Recommended use

Adhesion promoter., Glass Adhesion Promoter

For Industrial or Professional use only.

1.3. Supplier's details

Address:	3M Australia - Building A, 1 Rivett Road, North Ryde NSW 2113
Telephone:	136 136
E Mail:	productinfo.au@mmm.com
Website:	www.3m.com.au

1.4. Emergency telephone number EMERGENCY: 1800 097 146 (Australia only)

SECTION 2: Hazard identification

This product is classified as a hazardous chemical according to the Model Work Health and Safety Regulations, 2011, in accordance with applicable State and Territory legislation.

Refer to Section 14 of this Safety Data Sheets for product Dangerous Goods Classification.

2.1. Classification of the substance or mixture

Flammable Liquid: Category 2. Serious Eye Damage/Irritation: Category 2.

2.2. Label elements

The label elements below were prepared in accordance with the Code of Practice on Preparation of Safety Data Sheets for Hazardous Chemicals (Safe Work Australia, December 2011). This information may be different from the actual product

label.

Signal word

Danger

Symbols Flame |Exclamation mark |

Pictograms



Hazard statements H225

H319

Causes serious eye irritation.

Highly flammable liquid and vapour.

Precautionary statements

Prevention:			
P210	Keep away from heat, hot surfaces, sparks, open flames and other ignition sources.		
	No smoking.		
P233	Keep container tightly closed.		
P240	Ground and bond container and receiving equipment.		
P241	Use explosion-proof electrical, ventilating and lighting equipment.		
P242	Use non-sparking tools.		
P243	Take action to prevent static discharges.		
P261	Avoid breathing dust/fume/gas/mist/vapours/spray.		
P264	Wash thoroughly after handling.		
P271	Use only outdoors or in a well-ventilated area.		
Response:			
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.		
P312	Call a POISON CENTRE or doctor/physician if you feel unwell.		
P337 + P313	IF eye irritation persists: Get medical advice/attention.		
P370 + P378	In case of fire: Use a fire fighting agent suitable for flammable liquids such as dry chemical or carbon dioxide to extinguish.		
Storage:			
P403 + P233	Store in a well-ventilated place. Keep container tightly closed.		
P403 + P235	Store in a well-ventilated place. Keep cool.		
P405	Store locked up.		
Disposal:			
P501	Dispose of contents/container in accordance with applicable local/regional/national/international regulations.		

2.3. Other assigned/identified product hazards Repeated exposure may cause skin dryness or cracking.

2.4. Other hazards which do not result in classification

May cause drowsiness or dizziness.

SECTION 3: Composition/information on ingredients

This material is a mixture.

Ingredient	CAS Nbr	% by Weight
Propan-2-ol	67-63-0	80 - 95
Water	7732-18-5	5 - 10
3-(Trimethoxysilyl)propyl glycidyl ether	2530-83-8	< 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

Immediately wash with soap and water. Remove contaminated clothing and wash before reuse. If signs/symptoms develop, 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>	<u>Condition</u>
Carbon monoxide.	During combustion.
Carbon dioxide.	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.

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. 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 vapours 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. 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. 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

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 vapour 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.

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	Australia OELs	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 Australia OELs : Australia. Adopted National Exposure Standards for Atmospheric Contaminants in the Occupational Environment CMRG : Chemical Manufacturer's Recommended Guidelines TWA: Time-Weighted-Average STEL: Short Term Exposure Limit CEIL: Ceiling Sen: Sensitiser Sk: Absorption through the skin may be a significant source of exposure.

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

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.

indirect vented goggles.

Select and use eye protection in accordance with AS/NZS 1336. Eye protection should comply with the performance specifications of AS/NZS 1337.

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.

Select and use gloves according to AS/NZ 2161.

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

For questions about suitability for a specific application, consult with your respirator manufacturer. Select and use respirators according to AS/NZS 1715. Respirators should comply with AS/NZS 1716 performance specifications. For information about respirators, call 3M on 1800 024 464.

SECTION 9: Physical and chemical properties

9.1. Information on basic physical and chemical properties

Physical state	Liquid.
Colour	Colourless
Odour	Alcohol

Odour threshold	No data available.	
pH	5 - 6	
Melting point/Freezing point		
	Not applicable.	
Boiling point/Initial boiling point/Boiling range	82.2 °C	
Flash point	11.7 °C [Test Method:Closed Cup]	
Evaporation rate	1.2	
Flammability (solid, gas)	Not applicable.	
Flammable Limits(LEL)	2 %	
Flammable Limits(UEL)	12.5 %	
Vapour pressure	5,732.8 Pa [@ 25 °C]	
Vapor Density and/or Relative Vapor Density 2.07 [Ref Std:AIR=1]		
Density	0.8 g/ml	
Relative density 0.8 [@ 15.6 °C]		
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.	
Viscosity/Kinematic Viscosity	<=3 mPa-s	
Volatile organic compounds (VOC)	732 g/l [Test Method:calculated SCAQMD rule 443.1]	
	[Details:low solids less exempts]	
Percent volatile		
VOC less H2O & exempt solvents		
Molecular weight	No data available.	

Nanoparticles

This material does not contain nanoparticles.

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. Conditions to avoid Heat.

10.4. Possibility of hazardous reactions Hazardous polymerisation will not occur.

10.5 Incompatible materials

Strong oxidising agents.

10.6 Hazardous decomposition products

<u>Substance</u>

None known.

Condition

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

Dermal Defatting Prolonged or repeated exposure may cause: Dermal Defatting: Signs/symptoms may include localized redness, itching, drying and cracking of skin. Dermal Defatting: Signs/symptoms may include localised redness, itching, drying and cracking of skin.

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-Vapour (4	Rat	LC50 72.6 mg/l
_	hours)		
Propan-2-ol	Ingestion	Rat	LD50 4,710 mg/kg
3-(Trimethoxysilyl)propyl glycidyl	Dermal	Rabbit	LD50 4,000 mg/kg
ether			
3-(Trimethoxysilyl)propyl glycidyl	Inhalation-Dust/Mist	Rat	LC50 > 5.3 mg/l
ether	(4 hours)		
3-(Trimethoxysilyl)propyl glycidyl	Ingestion	Rat	LD50 7,010 mg/kg
ether			

ATE = acute toxicity estimate

Skin Corrosion/Irritation

Name	Species	Value

Propan-2-ol	Multiple animal species	No significant irritation
3-(Trimethoxysilyl)propyl glycidyl ether	Rabbit	Mild irritant

Serious Eye Damage/Irritation

Name	Species	Value
Propan-2-ol	Rabbit	Severe irritant
3-(Trimethoxysilyl)propyl glycidyl ether	Rabbit	Corrosive

Skin Sensitisation

Name	Species	Value
Propan-2-ol	Guinea pig	Not classified
3-(Trimethoxysilyl)propyl glycidyl ether	Guinea pig	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
Propan-2-ol	In Vitro	Not mutagenic
Propan-2-ol	In vivo	Not mutagenic
3-(Trimethoxysilyl)propyl glycidyl ether	In vivo	Not mutagenic
3-(Trimethoxysilyl)propyl glycidyl ether	In Vitro	Some positive data exist, but the data are not
		sufficient for classification

Carcinogenicity

Name	Route	Species	Value			
Propan-2-ol	Inhalation	Rat	Some positive data exist, but the data are not sufficient for classification			
3-(Trimethoxysilyl)propyl glycidyl ether	Dermal	Mouse	Not carcinogenic			

Reproductive Toxicity

Reproductive and/or Developmental Effects

Name	Route	Value	Species	Test result	Exposure Duration
Propan-2-ol	Ingestion	Not classified for	Rat	NOAEL 400	during
		development		mg/kg/day	organogenesis
Propan-2-ol	Inhalation	Not classified for	Rat	LOAEL 9	during gestation
		development		mg/l	
3-	Ingestion	Not classified for	Rat	NOAEL	1 generation
(Trimethoxysilyl)pro		female reproduction		1,000	-
pyl glycidyl ether		_		mg/kg/day	
3-	Ingestion	Not classified for	Rat	NOAEL	1 generation
(Trimethoxysilyl)pro		male reproduction		1,000	-
pyl glycidyl ether				mg/kg/day	
3-	Ingestion	Not classified for	Rat	NOAEL	during
(Trimethoxysilyl)pro	-	development		3,000	organogenesis
pyl glycidyl ether				mg/kg/day	

Target Organ(s)

Specific Target Organ Toxicity - single exposure

Name Route Target Value Species Test result Organ(s) Organ(s) <th>Exposure Duration</th>	Exposure Duration
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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

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
3- (Trimethoxysi lyl)propyl glycidyl ether	Ingestion	heart endocrine system bone, teeth, nails, and/or hair hematopoietic system liver immune system nervous system kidney and/or bladder respiratory system	Not classified	Rat	NOAEL 1,000 mg/kg/day	28 days

Aspiration Hazard

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

Exposure Levels

Refer Section 8.1 Control Parameters of this Safety Data Sheet.

Interactive Effects

Not determined.

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:

Not acutely toxic to aquatic life by GHS criteria.

Chronic aquatic hazard:

Not chronically toxic to aquatic life by GHS criteria.

No product test data available.

Material	CAS Number	Organism	Туре	Exposure	Test endpoint	Test result
Propan-2-ol	67-63-0	Bacteria	Experimental	16 hours	LOEC	1,050 mg/l
Propan-2-ol	67-63-0	Crustacea	Experimental	24 hours	LC50	>10,000 mg/l
Propan-2-ol	67-63-0	Green Algae	Experimental	72 hours	EC50	>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	48 hours	EC50	>1,000 mg/l
Propan-2-ol	67-63-0	Green algae	Experimental	72 hours	NOEC	1,000 mg/l
Propan-2-ol	67-63-0	Water flea	Experimental	21 days	NOEC	100 mg/l
3- (Trimethoxysil yl)propyl glycidyl ether	2530-83-8	Bacteria	Experimental	5 hours	EC10	1,520 mg/l
3- (Trimethoxysil yl)propyl glycidyl ether	2530-83-8	Common Carp	Experimental	96 hours	LC50	55 mg/l
3- (Trimethoxysil yl)propyl glycidyl ether	2530-83-8	Crustecea other	Experimental	48 hours	LC50	324 mg/l
3- (Trimethoxysil yl)propyl glycidyl ether	2530-83-8	Green algae	Experimental	96 hours	EC50	350 mg/l
3- (Trimethoxysil yl)propyl glycidyl ether	2530-83-8	Green Algae	Experimental	96 hours	NOEC	130 mg/l
3- (Trimethoxysil yl)propyl glycidyl ether	2530-83-8	Water flea	Experimental	21 days	NOEC	>=100 mg/l

12.2. Persistence and degradability

Material	CAS Number	Test type	Duration	Study Type	Test result	Protocol
Propan-2-ol	67-63-0	Experimental	14 days	BOD	86 %	OECD 301C - MITI
		Biodegradation			BOD/ThBOD	test (I)
3-	2530-83-8	Experimental		5 5	6.5 hours (t	Non-standard method
(Trimethoxysil yl)propyl glycidyl ether		Hydrolysis		half-life	1/2)	
3- (Trimethoxysil	2530-83-8	Experimental Biodegradation	28 days	Dissolv. Organic	37 % weight	Non-standard method
yl)propyl glycidyl ether				Carbon Deplet		

12.3 : Bioaccumulative potential

Propan-2-ol	67-63-0	Experimental Bioconcentrati on		Log Kow	0.05	Non-standard method
3- (Trimethoxysil	2530-83-8	Data not available or	N/A	N/A	N/A	N/A
yl)propyl glycidyl ether		insufficient for classification				

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.

SECTION 14: Transport Information

Australian Dangerous Goods Code (ADG) - Road/Rail Transport

UN No.: UN1219 Proper shipping name: ISOPROPANOL SOLUTION Class/Division: 3 Sub Risk: Not applicable. Packing Group: II Special Instructions: Limited quantity may apply Hazchem Code: •2YE IERG: 16

International Air Transport Association (IATA) - Air Transport UN No.: UN1219 Proper shipping name: ISOPROPANOL SOLUTION Class/Division: 3 Sub Risk: Not applicable. Packing Group: II

International Maritime Dangerous Goods Code (IMDG)- Marine Transport UN No.: UN1219 Proper shipping name: ISOPROPANOL SOLUTION Class/Division: 3 Sub Risk: Not applicable. Packing Group: II Marine Pollutant: Not applicable. Special Instructions: Limited quantity may apply

SECTION 15: Regulatory information

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

Australian Inventory Status:

The chemical components contained within this product are listed on the Australian Inventory of Chemical Substances and are in compliance with the requirements of the Industrial Chemicals (Notification and Assessment) Act 1989 as amended.

Poison Schedule: This product is intended for Industrial or Professional Use only and therefore is not packaged and labelled in accordance with the requirements of the Standard for the Uniform Scheduling of Medicines and Poisons.

SECTION 16: Other information

Revision information:

Complete document review.

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 Safety 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.

Greenguard ® is a United States based program. The 'Low VOC' reference related to United States Federal and State regulations exemptions for some solvents.

3M Australia SDSs are available at www.3m.com.au