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™ Adhesion Promoter 111

Product Identification Numbers
70-0064-0398-7

1.2. Recommended use and restrictions on use

Recommended use
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.

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

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 Highly flammable liquid and vapour.
H319 Causes serious eye irritation.
H336 May cause drowsiness or dizziness.

Precautionary statements

Prevention:
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.
P271 Use only outdoors or in a well-ventilated area.
P280B Wear protective gloves and eye/face protection.
P264 Wash thoroughly after handling.

Response:
P304 + P340 IF INHALED: Remove person to fresh air and keep comfortable for breathing.
P303 + P361 + P353 IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water/shower.
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.
P312 Call a POISON CENTRE or doctor/physician if you feel unwell.
P370 + P378G 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
None known.

2.4. Other hazards which do not result in classification
May be harmful if swallowed.

SECTION 3: Composition/information on ingredients

This material is a mixture.

<table>
<thead>
<tr>
<th>Ingredient</th>
<th>CAS Nbr</th>
<th>% by Weight</th>
</tr>
</thead>
<tbody>
<tr>
<td>Propan-2-ol</td>
<td>67-63-0</td>
<td>90 - 99.5</td>
</tr>
</tbody>
</table>

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
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
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**

<table>
<thead>
<tr>
<th>Substance</th>
<th>Condition</th>
</tr>
</thead>
<tbody>
<tr>
<td>Carbon monoxide.</td>
<td>During combustion.</td>
</tr>
<tr>
<td>Carbon dioxide</td>
<td>During combustion.</td>
</tr>
</tbody>
</table>

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.
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 designed for use on solvents, such as alcohols and acetone, that can dissolve in water. An Alcohol Resistant 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 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.

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 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

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.

<table>
<thead>
<tr>
<th>Ingredient</th>
<th>CAS Nbr</th>
<th>Agency</th>
<th>Limit type</th>
<th>Additional comments</th>
</tr>
</thead>
<tbody>
<tr>
<td>Propan-2-ol</td>
<td>67-63-0</td>
<td>Australia OELs</td>
<td>TWA(8 hours):983 mg/m3(400 ppm); STEL(15 minutes):1230 mg/m3(500 ppm)</td>
<td></td>
</tr>
<tr>
<td>Propan-2-ol</td>
<td>67-63-0</td>
<td>ACGIH</td>
<td>TWA:200 ppm; STEL:400 ppm</td>
<td>A4: Not class. as human carcin</td>
</tr>
</tbody>
</table>

ACGIH : American Conference of Governmental Industrial Hygienists
AIHA : American Industrial Hygiene Association
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.
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: Neoprene. 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

<table>
<thead>
<tr>
<th>Property</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Physical state</td>
<td>Liquid.</td>
</tr>
<tr>
<td>Appearance/Odour</td>
<td>mild odour, clear/colourless liquid</td>
</tr>
<tr>
<td>Odour threshold</td>
<td>No data available.</td>
</tr>
<tr>
<td>pH</td>
<td>No data available.</td>
</tr>
<tr>
<td>Melting point/Freezing point</td>
<td>Not applicable.</td>
</tr>
<tr>
<td>Boiling point/Initial boiling point/Boiling range</td>
<td>82.4 ºC</td>
</tr>
</tbody>
</table>
Flash point 11 ºC [Test Method: Closed Cup]
Evaporation rate No data available.
Flammability (solid, gas) Not applicable.
Flammable Limits(LEL) 2 % volume
Flammable Limits(UEL) 12.7 % volume
Vapour pressure 4,399.6 Pa [@ 20 ºC ]
Vapour density 2.1 g/ml
Density 0.789 g/ml
Relative density 0.789 [Ref Std: WATER=1]
Water solubility Complete
Solubility- non-water No data available.
Partition coefficient: n-octanol/water No data available.
Autoignition temperature 425 ºC
Decomposition temperature No data available.
Viscosity No data available.
Molecular weight No data available.
Volatile organic compounds (VOC) 780 g/l [Test Method: calculated SCAQMD rule 443.1]
[Details: low solids less exempts]
Percent volatile 99 % weight [Test Method: Estimated]
VOC less H2O & exempt solvents 98.8 % [Test Method: calculated per CARB title 2]

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
Sparks and/or flames.

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

10.5 Incompatible materials
None known.

10.6 Hazardous decomposition products

<table>
<thead>
<tr>
<th>Substance</th>
<th>Condition</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>None known.</td>
</tr>
</tbody>
</table>

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**
Prolonged or repeated exposure may cause:
- 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**
May be harmful if swallowed.
- 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.

<table>
<thead>
<tr>
<th>Acute Toxicity</th>
<th>Route</th>
<th>Species</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Overall product</td>
<td>Ingestion</td>
<td></td>
<td>No data available; calculated ATE 2,000 - 5,000 mg/kg</td>
</tr>
<tr>
<td>Propan-2-ol</td>
<td>Dermal</td>
<td>Rabbit</td>
<td>LD50 12,870 mg/kg</td>
</tr>
<tr>
<td>Propan-2-ol</td>
<td>Inhalation-Vapour (4 hours)</td>
<td>Rat</td>
<td>LC50 72.6 mg/l</td>
</tr>
<tr>
<td>Propan-2-ol</td>
<td>Ingestion</td>
<td>Rat</td>
<td>LD50 4,710 mg/kg</td>
</tr>
</tbody>
</table>

ATE = acute toxicity estimate

<table>
<thead>
<tr>
<th>Skin Corrosion/Irritation</th>
<th>Species</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Propan-2-ol</td>
<td>Multiple animal species</td>
<td>No significant irritation</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Serious Eye Damage/Irritation</th>
<th>Species</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Propan-2-ol</td>
<td>Rabbit</td>
<td>Severe irritant</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Skin Sensitisation</th>
<th>Species</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Propan-2-ol</td>
<td>Guinea pig</td>
<td>Not sensitizing</td>
</tr>
</tbody>
</table>

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

### Germ Cell Mutagenicity

<table>
<thead>
<tr>
<th>Name</th>
<th>Route</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Propan-2-ol</td>
<td>In Vitro</td>
<td>Not mutagenic</td>
</tr>
<tr>
<td>Propan-2-ol</td>
<td>In vivo</td>
<td>Not mutagenic</td>
</tr>
</tbody>
</table>

### Carcinogenicity

<table>
<thead>
<tr>
<th>Name</th>
<th>Route</th>
<th>Species</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Propan-2-ol</td>
<td>Inhalation</td>
<td>Rat</td>
<td>Some positive data exist, but the data are not sufficient for classification</td>
</tr>
</tbody>
</table>

### Reproductive Toxicity

#### Reproductive and/or Developmental Effects

<table>
<thead>
<tr>
<th>Name</th>
<th>Route</th>
<th>Value</th>
<th>Species</th>
<th>Test result</th>
<th>Exposure Duration</th>
</tr>
</thead>
<tbody>
<tr>
<td>Propan-2-ol</td>
<td>Ingestion</td>
<td>Some positive developmental data exist, but the data are not sufficient for classification</td>
<td>Rat</td>
<td>NOAEL 400 mg/kg/day</td>
<td>during organogenesis</td>
</tr>
<tr>
<td>Propan-2-ol</td>
<td>Inhalation</td>
<td>Some positive developmental data exist, but the data are not sufficient for classification</td>
<td>Rat</td>
<td>LOAEL 9 mg/l</td>
<td>during gestation</td>
</tr>
</tbody>
</table>

### Target Organ(s)

#### Specific Target Organ Toxicity - single exposure

<table>
<thead>
<tr>
<th>Name</th>
<th>Route</th>
<th>Target Organ(s)</th>
<th>Value</th>
<th>Species</th>
<th>Test result</th>
<th>Exposure Duration</th>
</tr>
</thead>
<tbody>
<tr>
<td>Propan-2-ol</td>
<td>Inhalation</td>
<td>central nervous system depression</td>
<td>May cause drowsiness or dizziness</td>
<td>Human</td>
<td>NOAEL Not available</td>
<td></td>
</tr>
<tr>
<td>Propan-2-ol</td>
<td>Inhalation</td>
<td>respiratory irritation</td>
<td>Some positive data exist, but the data are not sufficient for classification</td>
<td>Human</td>
<td>NOAEL Not available</td>
<td></td>
</tr>
<tr>
<td>Propan-2-ol</td>
<td>Inhalation</td>
<td>auditory system</td>
<td>Some positive data exist, but the data are not sufficient for classification</td>
<td>Guinea pig</td>
<td>NOAEL 13.4 mg/l</td>
<td>24 hours</td>
</tr>
<tr>
<td>Propan-2-ol</td>
<td>Ingestion</td>
<td>central nervous system depression</td>
<td>May cause drowsiness or dizziness</td>
<td>Human</td>
<td>NOAEL Not available</td>
<td>poisoning and/or abuse</td>
</tr>
</tbody>
</table>

#### Specific Target Organ Toxicity - repeated exposure

<table>
<thead>
<tr>
<th>Name</th>
<th>Route</th>
<th>Target Organ(s)</th>
<th>Value</th>
<th>Species</th>
<th>Test result</th>
<th>Exposure Duration</th>
</tr>
</thead>
<tbody>
<tr>
<td>Propan-2-ol</td>
<td>Inhalation</td>
<td>kidney and/or bladder</td>
<td>Some positive data exist, but the data are not sufficient for classification</td>
<td>Rat</td>
<td>NOAEL 12.3 mg/l</td>
<td>24 months</td>
</tr>
<tr>
<td>Propan-2-ol</td>
<td>Inhalation</td>
<td>nervous system</td>
<td>All data are</td>
<td>Rat</td>
<td>NOAEL 12 mg/l</td>
<td>13 weeks</td>
</tr>
</tbody>
</table>
Propan-2-ol

<table>
<thead>
<tr>
<th>Material</th>
<th>CAS Number</th>
<th>Organism</th>
<th>Type</th>
<th>Exposure</th>
<th>Test endpoint</th>
<th>Test result</th>
</tr>
</thead>
<tbody>
<tr>
<td>Propan-2-ol</td>
<td>67-63-0</td>
<td>Fathead minnow</td>
<td>Experimental</td>
<td>96 hours</td>
<td>LC50</td>
<td>6,120 mg/l</td>
</tr>
<tr>
<td>Propan-2-ol</td>
<td>67-63-0</td>
<td>Crustacea</td>
<td>Experimental</td>
<td>48 hours</td>
<td>EC50</td>
<td>1,400 mg/l</td>
</tr>
<tr>
<td>Propan-2-ol</td>
<td>67-63-0</td>
<td>Algae</td>
<td>Experimental</td>
<td>24 hours</td>
<td>EC50</td>
<td>&gt;1,000 mg/l</td>
</tr>
<tr>
<td>Propan-2-ol</td>
<td>67-63-0</td>
<td>Water flea</td>
<td>Experimental</td>
<td>21 days</td>
<td>NOEC</td>
<td>30 mg/l</td>
</tr>
</tbody>
</table>

12.2. Persistence and degradability

12.3 : Bioaccumulative potential

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 MIXTURE
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 MIXTURE
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 MIXTURE
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 has not been assessed for poisons scheduling as the product is intended for industrial and professional use only.

SECTION 16: Other information
Revision information:
Conversion to GHS format SDS.

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