

## 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<sup>™</sup> Scotchbond<sup>™</sup> Multi-Purpose Etchant (3007)

**Product Identification Numbers** 70-2010-1609-7

#### 1.2. Recommended use and restrictions on use

## Recommended use

Dental Product, Etchant

**Restrictions on use** For use by dental professionals 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

Corrosive to metal: Category 1. Skin Corrosion/Irritation: Category 1. Serious Eye Damage/Irritation: Category 1.

#### 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 Corrosion |

# Pictograms



| Hazard statements<br>H290           | May be corrosive to metals.  |
|-------------------------------------|--|
| H314                                | Causes severe skin burns and eye damage.   |
| Precautionary statements            |  |
| Prevention:                         |  |
| P234                                | Keep only in original packaging.   |
| P260                                | Do not breathe dust/fume/gas/mist/vapours/spray.                                 |
| P264                                | Wash thoroughly after handling.  |
| P280E                               | Wear protective gloves.  |
| Response:                           |  |
| P301 + P330 + P331                  | IF SWALLOWED: Rinse mouth. Do NOT induce vomiting.                               |
| P303 + P361 + P353                  | IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin |
|                                     | with water or shower.  |
| P304 + P340                         | IF INHALED: Remove person to fresh air and keep comfortable for breathing.       |
| P305 + P351 + P338                  | IF IN EYES: Rinse cautiously with water for several minutes. Remove contact      |
|                                     | lenses, if present and easy to do. Continue rinsing.                             |
| P310                                | Immediately call a POISON CENTRE or doctor/physician.                            |
| P363                                | Wash contaminated clothing before reuse.   |
| P390                                | Absorb spillage to prevent material damage.                                      |
| Storage:                            |  |
| P405                                | Store locked up.   |
| P406                                | Store in a corrosion-resistant container with a resistant inner liner.           |
| Disposal:                           |  |
| P501                                | Dispose of contents/container in accordance with applicable                      |
|                                     | local/regional/national/international regulations.                               |
| 2.3. Other assigned/identified proc | luct hazards   |

- May cause chemical gastrointestinal burns.

## 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.

| Ingredient           | CAS Nbr   | % by Weight |
|----------------------|-----------|-------------|
| Water                | 7732-18-5 | 50 - 60     |
| Orthophosphoric acid | 7664-38-2 | 30 - 40     |
| Poly(vinyl alcohol)  | None      | 5 - 15      |

## **SECTION 4: First aid measures**

#### 4.1. Description of first aid measures

#### Inhalation

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

#### Skin contact

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

#### Eye contact

Immediately flush with large amounts of water for at least 15 minutes. Remove contact lenses if easy to do. Continue rinsing. Immediately get medical attention.

#### If swallowed

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

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

No critical symptoms or effects. See Section 11.1, information on toxicological effects.

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

Not applicable

## **SECTION 5: Fire-fighting measures**

### 5.1. Suitable extinguishing media

Material will not burn. Use a fire fighting agent suitable for the surrounding fire.

#### 5.2. Special hazards arising from the substance or mixture

None inherent in this product.

### Hazardous Decomposition or By-Products

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

### 5.3. Special protective actions for fire-fighters

No special protective actions for fire-fighters are anticipated.

Hazchem Code: 2R

## **SECTION 6: Accidental release measures**

## 6.1. Personal precautions, protective equipment and emergency procedures

Evacuate area. Ventilate the area with fresh air. For large spill, or spills in confined spaces, provide mechanical ventilation to disperse or exhaust vapors, in accordance with good industrial hygiene practice. Refer to other sections of this SDS for

<u>Condition</u> During combustion. During combustion. 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. Collect as much of the spilled material as possible. Place in a metal container approved for use in transportation by appropriate authorities. The container must be lined with polyethylene plastic or contain a plastic drum liner made of polyethylene. Clean up residue with water. Cover, but do not seal for 48 hours. 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

Avoid prolonged or repeated skin contact. Do not breathe dust/fume/gas/mist/vapours/spray. Do not eat, drink or smoke when using this product. Wash thoroughly after handling. Avoid release to the environment. Wash contaminated clothing before reuse. Do not get in eyes. Keep away from reactive metals (eg. Aluminum, zinc etc.) to avoid the formation of hydrogen gas that could create an explosion hazard.

#### 7.2. Conditions for safe storage including any incompatibilities

Keep only in original container. Store in a corrosive resistant container with a resistant inner liner. Store away from strong bases.

## **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 |
|----------------------|-----------|----------------|------------------------------------|---------------------|
| Orthophosphoric acid | 7664-38-2 | ACGIH          | TWA: 1 mg/m <sup>3</sup> ; STEL: 3 |                     |
|                      |           |                | mg/m <sup>3</sup>                  |                     |
| Orthophosphoric acid | 7664-38-2 | Australia OELs | TWA(8 hours):1                     |                     |
|                      |           |                | mg/m3;STEL(15 minutes):3           |                     |
|                      |           |                | mg/m3                              |                     |

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 in a well-ventilated area.

### 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:

Safety glasses with side shields.

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**

See Section 7.1 for additional information on skin protection.

### **Respiratory protection**

None required.

## **SECTION 9: Physical and chemical properties**

#### 9.1. Information on basic physical and chemical properties

| Information on basic physical and chemical property |  |
|---|--|
| Physical state                                      | Liquid.                                      |
| Specific Physical Form:                             | Liquid.                                      |
|   |  |
| Colour  | Blue   |
| Odour   | Slight Odour, Characteristic Odour           |
| Odour threshold                                     | No data available.                           |
| рН  | Approximately 1                              |
| Melting point/Freezing point                        | Not applicable.                              |
| Boiling point/Initial boiling point/Boiling range   | Not applicable.                              |
| Flash point   | No flash point                               |
| Evaporation rate                                    | No data available.                           |
| Flammability (solid, gas)                           | Not applicable.                              |
| Flammable Limits(LEL)                               | No data available.                           |
| Flammable Limits(UEL)                               | No data available.                           |
| Vapour pressure                                     | <=110,316.1 Pa                               |
| Vapor Density and/or Relative Vapor Density         | No data available.                           |
| Density   | Approximately 1.2 g/ml                       |
| Relative density                                    | Approximately 1.2 [ <i>Ref Std</i> :WATER=1] |
| Water solubility                                    | Complete                                     |
| 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                       | 300 - 800 mPa-s                              |
| Volatile organic compounds (VOC)                    | No data available.                           |
| Percent volatile                                    | No data available.                           |
| VOC less H2O & exempt solvents                      | No data available.                           |
| 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

None known.

#### 10.4. Possibility of hazardous reactions

Hazardous polymerisation will not occur.

## 10.5 Incompatible materials

Strong bases.

## 10.6 Hazardous decomposition products

Substance 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.

#### Skin contact

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

#### Eye contact

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

#### Ingestion

May be harmful if swallowed.

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

#### **Toxicological Data**

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

#### Acute Toxicity

| Name            | Route     | Species | Value                                    |
|-----------------|-----------|---------|--|
| Overall product | Dermal    |         | No data available; calculated ATE >5,000 |
|                 |           |         | mg/kg                                    |
| Overall product | Ingestion |         | No data available; calculated ATE2,000 - |
| -               | -         |         | 5,000 mg/kg                              |

| Orthophosphoric acid | Dermal               | Rabbit | LD50 2,740 mg/kg    |
|----------------------|----------------------|--------|---------------------|
| Orthophosphoric acid | Ingestion            | Rat    | LD50 1,530 mg/kg    |
| Poly(vinyl alcohol)  | Dermal               | Rat    | LD50 > 1,000 mg/kg  |
| Poly(vinyl alcohol)  | Inhalation-Dust/Mist | Rat    | LC50 > 5 mg/l       |
|                      | (4 hours)            |        |                     |
| Poly(vinyl alcohol)  | Ingestion            | Rat    | LD50 > 20,000 mg/kg |

ATE = acute toxicity estimate

## **Skin Corrosion/Irritation**

| Name                 | Species | Value     |
|----------------------|---------|-----------|
| Orthophosphoric acid | Rabbit  | Corrosive |

### Serious Eye Damage/Irritation

| Name                 | Species                 | Value     |
|----------------------|-------------------------|-----------|
| Orthophosphoric acid | official classification | Corrosive |

### **Skin Sensitisation**

| Name                 | Species | Value          |
|----------------------|---------|----------------|
| Orthophosphoric acid | Human   | 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         |
|----------------------|----------|---------------|
| Orthophosphoric acid | In Vitro | Not mutagenic |

#### Carcinogenicity

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

### **Reproductive Toxicity**

## **Reproductive and/or Developmental Effects**

| Name                 | Route     | Value                       | Species | Test result | <b>Exposure Duration</b> |
|----------------------|-----------|-----------------------------|---------|-------------|--------------------------|
| Orthophosphoric acid | Ingestion | Not classified for Rat      |         | NOAEL 750   | 2 generation             |
|                      |           | female reproduction mg/kg/e |         | mg/kg/day   |                          |
| Orthophosphoric acid | Ingestion | Not classified for Rat      |         | NOAEL 750   | 2 generation             |
|                      |           | male reproduction           |         | mg/kg/day   |                          |
| Orthophosphoric acid | Ingestion | Not classified for Rat      |         | NOAEL 750   | 2 generation             |
| - *                  | -         | development                 |         | mg/kg/day   | -                        |

## Target Organ(s)

#### Specific Target Organ Toxicity - single exposure

| Name                     | Route      | Target<br>Organ(s)        | Value  | Species | Test result            | Exposure<br>Duration     |
|--------------------------|------------|---------------------------|--|---------|------------------------|--------------------------|
| Orthophospho<br>ric acid | Inhalation | respiratory<br>irritation | Some positive<br>data exist, but the<br>data are not<br>sufficient for<br>classification | Human   | NOAEL Not<br>available | occupational<br>exposure |

## Specific Target Organ Toxicity - repeated exposure

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

### 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 |
|---------------------------------------|------------|-------------|------------------|----------|---------------|-------------|
| Orthophosphori                        | 7664-38-2  | Green algae | Experimental     | 72 hours | EC50          | >100 mg/l   |
| c acid                                |            |             |                  |          |               |             |
| Orthophosphori                        | 7664-38-2  | Water flea  | Experimental     | 48 hours | EC50          | >100 mg/l   |
| c acid                                |            |             |                  |          |               |             |
| Orthophosphori                        | 7664-38-2  | Green algae | Experimental     | 72 hours | NOEC          | 100 mg/l    |
| c acid                                |            |             |                  |          |               | _           |
| Poly(vinyl                            | None       |             | Data not         |          |               | N/A         |
| alcohol)                              |            |             | available or     |          |               |             |
| , , , , , , , , , , , , , , , , , , , |            |             | insufficient for |          |               |             |
|                                       |            |             | classification   |          |               |             |

## 12.2. Persistence and degradability

| Material       | CAS Number | Test type      | Duration | Study Type | Test result | Protocol            |
|----------------|------------|----------------|----------|------------|-------------|---------------------|
| Orthophosphori | 7664-38-2  | Data not       |          |            | N/A         |                     |
| c acid         |            | available-     |          |            |             |                     |
|                |            | insufficient   |          |            |             |                     |
| Poly(vinyl     | None       | Experimental   | 30 days  | BOD        | 0 % weight  | Non-standard method |
| alcohol)       |            | Biodegradation | -        |            | _           |                     |

## **12.3 : Bioaccumulative potential**

| Material       | CAS Number | Test type | Duration | Study Type | Test result | Protocol |
|----------------|------------|-----------|----------|------------|-------------|----------|
| Orthophosphori | 7664-38-2  | Data not  | N/A      | N/A        | N/A         | N/A      |

| c acid                 | available or<br>insufficient for<br>classification             |     |     |     |     |
|------------------------|--|-----|-----|-----|-----|
| Poly(vinyl<br>alcohol) | Data not<br>available or<br>insufficient for<br>classification | N/A | N/A | N/A | N/A |

### 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. If no other disposal options are available, waste product may be placed in a landfill properly designed for industrial waste.

## **SECTION 14: Transport Information**

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

UN No.: UN1805 Proper shipping name: PHOSPHORIC ACID SOLUTION Class/Division: 8 Sub Risk: Not applicable. Packing Group: III

Hazchem Code: 2R IERG: 37

International Air Transport Association (IATA) - Air Transport UN No.: UN1805 Proper shipping name: PHOSPHORIC ACID SOLUTION Class/Division: 8 Sub Risk: Not applicable. Packing Group: III Special Instructions: Dangerous Goods in Excepted Quantities, Class 8

International Maritime Dangerous Goods Code (IMDG)- Marine Transport UN No.: UN1805 Proper shipping name: PHOSPHORIC ACID SOLUTION Class/Division: 8 Sub Risk: Not applicable. Packing Group: III Marine Pollutant: Not applicable. Special Instructions: Forbidden due to internal policy

## **SECTION 15: Regulatory information**

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

### Australian Inventory Status:

This product is regulated by the Therapeutics Goods Administration and is exempt from compliance with the Industrial Chemicals (Notification and Assessment) Act 1989 as amended.

## **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