1. IDENTIFICATION OF THE MATERIAL AND SUPPLIER

1.1 Product identifier

Product name: PERMATEX 1372W SEALANT 7FO
Synonym(s): NSN: XXXX-00-599-7753
1372W SEALANT 7FO • 80088 - PRODUCT CODE

1.2 Uses and uses advised against

Use(s): SEALANT

1.3 Details of the supplier of the safety data sheet

Supplier name: AUSTRALIAN TIMKEN P/L
Address: 5 Daveyduke Road, Ballarat, Victoria, Australia, 3350
Telephone: (03) 5320 2700
Fax: (03) 5338 1186
Email: sue.rosin@timken.com
Website: http://www.timken.com

1.4 Emergency telephone number(s)

Emergency: (03) 5320 2700

2. HAZARDS IDENTIFICATION

2.1 Classification of the substance or mixture

CLASSIFIED AS HAZARDOUS ACCORDING TO SAFE WORK AUSTRALIA CRITERIA

GHS Classification(s):
- Flammable Liquids: Category 2
- Skin Corrosion/Irritation: Category 2
- Serious Eye Damage / Eye Irritation: Category 2A
- Acute Toxicity: Inhalation: Category 4
- Specific Target Organ Systemic Toxicity (Single Exposure): Category 3

2.2 Label elements

Signal word: DANGER

Pictograms:

Hazard statement(s):
- H225: Highly flammable liquid and vapour.
- H315: Causes skin irritation.
- H319: Causes serious eye irritation.
- H332: Harmful if inhaled.
- H335: May cause respiratory irritation.
- H336: May cause drowsiness or dizziness.

Prevention statement(s):
- P210: Keep away from heat/sparks/open flames/hot surfaces. No smoking.
- P233: Keep container tightly closed.
- P240: Ground/bond container and receiving equipment.
- P241: Use explosion-proof electrical/ventilating/lighting equipment.
- P242: Use only non-sparking tools.
- P243: Take precautionary measures against static discharge.
- P261: Avoid breathing dust/fume/gas/mist/vapours/spray.
- P264: Wash thoroughly after handling.
- P271: Use only outdoors or in a well-ventilated area.
**Product name**: PERMATEX 1372W SEALANT 7FO

**Response statement(s)**
- **P303 + P361 + P353**: IF ON SKIN (or hair): Remove/Take off immediately all contaminated clothing. Rinse skin with water/shower.
- **P304 + P340**: IF INHALED: Remove to fresh air and keep at rest in a position 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 CENTER or doctor/physician if you feel unwell.
- **P321**: Specific treatment is advised - see first aid instructions.
- **P362**: Take off contaminated clothing and wash before re-use.
- **P370 + P378**: In case of fire: Use appropriate media for extinction (applies if water increases risk).

**Storage statement(s)**
- **P403 + P233**: Store in a well-ventilated place. Keep container tightly closed (applies if the substance is volatile so as to generate a hazardous atmosphere).
- **P403 + P235**: Store in a well-ventilated place. Keep cool.
- **P405**: Store locked up.

**Disposal statement(s)**
- **P501**: Dispose of contents/container in accordance with relevant regulations.

### 3. COMPOSITION/ INFORMATION ON INGREDIENTS

#### 3.1 Substances / Mixtures

<table>
<thead>
<tr>
<th>Ingredient</th>
<th>CAS number</th>
<th>EC number</th>
<th>Content</th>
</tr>
</thead>
<tbody>
<tr>
<td>ISOPROPYL ALCOHOL</td>
<td>67-63-0</td>
<td>200-661-7</td>
<td>30-40%</td>
</tr>
<tr>
<td>TALC</td>
<td>14807-96-6</td>
<td>238-877-9</td>
<td>20-30%</td>
</tr>
<tr>
<td>CASTOR OIL</td>
<td>8001-79-4</td>
<td>232-293-8</td>
<td>15-25%</td>
</tr>
<tr>
<td>POLY(2-PROPYL-M-DIOXANE-4,6-DIYLENE)</td>
<td>63148-65-2</td>
<td>613-158-6</td>
<td>10-20%</td>
</tr>
<tr>
<td>GRAPHITE</td>
<td>7782-42-5</td>
<td>231-955-3</td>
<td>&lt;10%</td>
</tr>
</tbody>
</table>

### 4. FIRST AID MEASURES

#### 4.1 Description of first aid measures

**Eye**: If in eyes, hold eyelids apart and flush continuously with running water. Continue flushing until advised to stop by a Poisons Information Centre, a doctor, or for at least 15 minutes.

**Inhalation**: If inhaled, remove from contaminated area. Apply artificial respiration if not breathing.

**Skin**: If skin or hair contact occurs, remove contaminated clothing and flush skin and hair with running water. Continue flushing with water until advised to stop by a Poisons Information Centre or a doctor.

**Ingestion**: For advice, contact a Poison Information Centre on 13 11 26 (Australia Wide) or a doctor (at once). If swallowed, do not induce vomiting.

**First aid facilities**: Eye wash facilities should be provided.

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

No information provided.

#### 4.3 Immediate medical attention and special treatment needed

Treat symptomatically.
5. FIREFIGHTING MEASURES

5.1 Extinguishing media
Dry agent, carbon dioxide or foam. Prevent contamination of drains and waterways.

5.2 Special hazards arising from the substance or mixture
Highly flammable. May evolve toxic gases (carbon oxides, hydrocarbons) when heated to decomposition. Vapour may form explosive mixtures with air. Eliminate all ignition sources including cigarettes, open flames, spark producing switches/tools, pilot lights, heaters, naked lights, mobile phones, etc. when handling. May evolve nitrogen oxides and sulphur oxides when heated to decomposition.

5.3 Advice for firefighters
Evacuate area and contact emergency services. Toxic gases may be evolved in a fire situation. Remain upwind and notify those downwind of hazard. Wear full protective equipment including Self Contained Breathing Apparatus (SCBA) when combating fire. Use waterfog to cool intact containers and nearby storage areas.

5.4 Hazchem code
●3YE

- Alcohol resistant foam is the preferred firefighting medium
- Foam
- Y Self Contained Breathing apparatus and protective gloves.
- E Evacuation of people in the vicinity of the incident should be considered.

6. ACCIDENTAL RELEASE MEASURES

6.1 Personal precautions, protective equipment and emergency procedures
Wear Personal Protective Equipment (PPE) as detailed in section 8 of the SDS.

6.2 Environmental precautions
Prevent product from entering drains and waterways.

6.3 Methods of cleaning up
If spilt, collect and reuse where possible. Contain spillage, then cover / absorb spill with non-combustible absorbent material (vermiculite, sand, or similar), collect and place in suitable containers for disposal.

6.4 Reference to other sections
See Sections 8 and 13 for exposure controls and disposal.

7. HANDLING AND STORAGE

7.1 Precautions for safe handling
Before use carefully read the product label. Use of safe work practices are recommended to avoid eye or skin contact and inhalation. Observe good personal hygiene, including washing hands before eating. Prohibit eating, drinking and smoking in contaminated areas.

7.2 Conditions for safe storage, including any incompatibilities
Store in a cool, dry, well ventilated area, removed from incompatible substances, heat or ignition sources and foodstuffs. Ensure containers are adequately labelled, protected from physical damage and sealed when not in use.

7.3 Specific end use(s)
No information provided.

8. EXPOSURE CONTROLS/ PERSONAL PROTECTION

8.1 Control parameters
Exposure standards

<table>
<thead>
<tr>
<th>Substance</th>
<th>Reference</th>
<th>TWA ppm</th>
<th>TWA mg/m³</th>
<th>STEL ppm</th>
<th>STEL mg/m³</th>
</tr>
</thead>
<tbody>
<tr>
<td>Graphite (all forms except fibres)</td>
<td>SWA (AUS)</td>
<td>--</td>
<td>3</td>
<td>--</td>
<td>--</td>
</tr>
<tr>
<td>Isopropyl alcohol</td>
<td>SWA (AUS)</td>
<td>400</td>
<td>983</td>
<td>500</td>
<td>1230</td>
</tr>
<tr>
<td>Talc (no asbestos fibres)</td>
<td>SWA (AUS)</td>
<td>--</td>
<td>2.5</td>
<td>--</td>
<td>--</td>
</tr>
</tbody>
</table>

Reviewed: 24 Oct 2011
Printed: 11 Mar 2015
Product name: PERMATEX 1372W SEALANT 7FO

### Biological limits

<table>
<thead>
<tr>
<th>Ingredient</th>
<th>Reference</th>
<th>Determinant</th>
<th>Sampling time</th>
<th>BEI</th>
</tr>
</thead>
<tbody>
<tr>
<td>ISOPROPYL ALCOHOL</td>
<td>ACGIH BEI</td>
<td>Acetone in urine</td>
<td>End of shift at end of workweek</td>
<td>40 mg/L</td>
</tr>
</tbody>
</table>

#### 8.2 Exposure controls

**Engineering Controls**
Avoid inhalation. Use in well ventilated areas. Flammable/explosive vapours may accumulate in poorly ventilated areas. Vapours are heavier than air and may travel some distance to an ignition source and flash back. Maintain vapour levels below the recommended exposure standard.

**PPE**

- **Eye/face:** Wear splash-proof goggles.
- **Hand:** Wear PVC or rubber gloves.
- **Body:** When using large quantities or where heavy contamination is likely, wear coveralls.
- **Respiratory:** Where an inhalation risk exists, wear a Type A (Organic vapour) respirator.

### 9. PHYSICAL AND CHEMICAL PROPERTIES

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

<table>
<thead>
<tr>
<th>Property</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Appearance</td>
<td>BLACK PASTE</td>
</tr>
<tr>
<td>Odour</td>
<td>ALCOHOL ODOUR</td>
</tr>
<tr>
<td>Odour Threshold</td>
<td>NOT AVAILABLE</td>
</tr>
<tr>
<td>pH</td>
<td>NOT AVAILABLE</td>
</tr>
<tr>
<td>Melting Point</td>
<td>NOT AVAILABLE</td>
</tr>
<tr>
<td>Boiling Point</td>
<td>82°C</td>
</tr>
<tr>
<td>Flash Point</td>
<td>16°C</td>
</tr>
<tr>
<td>Evaporation Rate</td>
<td>7.7 (Ether = 1)</td>
</tr>
<tr>
<td>Flammability</td>
<td>HIGHLY FLAMMABLE</td>
</tr>
<tr>
<td>Upper Explosion Limit</td>
<td>12.7 %</td>
</tr>
<tr>
<td>Lower Explosion Limit</td>
<td>2.3 %</td>
</tr>
<tr>
<td>Vapour Pressure</td>
<td>NOT AVAILABLE</td>
</tr>
<tr>
<td>Vapour Density</td>
<td>2.03 (Air = 1)</td>
</tr>
<tr>
<td>Solubility (water)</td>
<td>SLIGHTLY SOLUBLE</td>
</tr>
<tr>
<td>Partition Coefficient</td>
<td>NOT AVAILABLE</td>
</tr>
<tr>
<td>Autoignition Temperature</td>
<td>NOT AVAILABLE</td>
</tr>
<tr>
<td>Decomposition Temperature</td>
<td>NOT AVAILABLE</td>
</tr>
<tr>
<td>Viscosity</td>
<td>NOT AVAILABLE</td>
</tr>
<tr>
<td>Explosive Properties</td>
<td>NOT AVAILABLE</td>
</tr>
<tr>
<td>Oxidising Properties</td>
<td>NOT AVAILABLE</td>
</tr>
<tr>
<td>Specific Gravity</td>
<td>1.1</td>
</tr>
</tbody>
</table>

#### 9.2 Other information

- **% Volatiles:** 36.7 %
10. STABILITY AND REACTIVITY

10.1 Reactivity
Carefully review all information in sections 10.2 to 10.6.

10.2 Chemical stability
Stable under recommended conditions of storage.

10.3 Possibility of hazardous reactions
Polymerization is not expected to occur.

10.4 Conditions to avoid
Avoid heat, sparks, open flames and other ignition sources.

10.5 Incompatible materials
Incompatible with oxidising agents (e.g. hypochlorites), acids (e.g. nitric acid), heat and ignition sources.

10.6 Hazardous decomposition products
May evolve carbon oxides and hydrocarbons when heated to decomposition.

11. TOXICOLOGICAL INFORMATION

11.1 Information on toxicological effects
Health hazard summary
May be harmful. This product has the potential to cause adverse health effects with over exposure. Use safe work practices to avoid eye or skin contact and inhalation. Due to the low vapour pressure and nature of use, an inhalation hazard is not anticipated with normal use.

Eye
Low to moderate irritant. Contact may result in mild irritation, lacrimation and redness.

Inhalation
Low to moderate irritant. Over exposure may result in irritation of the nose and throat, with coughing. High level exposure may result in dizziness, drowsiness, nausea and headache. Due to product form and nature of use, an inhalation hazard is not anticipated with normal use.

Skin
Low to moderate irritant. Prolonged or repeated contact may result in drying and defatting of the skin, rash and dermatitis.

Ingestion
May be harmful. Ingestion may result in nausea, vomiting, abdominal pain, diarrhoea, dizziness and drowsiness. However, due to product form ingestion is considered unlikely.

Toxicity data
ISOPROPYL ALCOHOL (67-63-0)
LC50 (Inhalation): 16000 ppm/8 hours 16000/8 hours (rat)
LD50 (Ingestion): 3600 mg/kg (mouse)
LD50 (Skin): 12,800 mg/kg (rabbit)
TALC (14807-96-6)
TCLo (Inhalation): 18 mg/m³/6 hour/2 year-intermittent (rat)

12. ECOLOGICAL INFORMATION

12.1 Toxicity
No information provided.

12.2 Persistence and degradability
No information provided.

12.3 Bioaccumulative potential
No information provided.

12.4 Mobility in soil
No information provided.

12.5 Results of PBT and vPvB assessment
No information provided.

12.6 Other adverse effects
No information provided.
Product name: PERMATEX 1372W SEALANT 7FO

13. DISPOSAL CONSIDERATIONS

13.1 Waste treatment methods

Waste disposal
For small amounts, absorb with sand, vermiculite or similar and dispose of to an approved landfill site. Contact the manufacturer/supplier for additional information if disposing of large quantities (if required). Prevent contamination of drains and waterways as aquatic life may be threatened and environmental damage may result.

Legislation
Dispose of in accordance with relevant local legislation.

14. TRANSPORT INFORMATION

CLASSIFIED AS A DANGEROUS GOOD BY THE CRITERIA OF THE ADG CODE

<table>
<thead>
<tr>
<th>Land Transport (ADG)</th>
<th>Sea Transport (IMDG/IMO)</th>
<th>Air Transport (IATA/ICAO)</th>
</tr>
</thead>
<tbody>
<tr>
<td>14.1 UN number</td>
<td>1866</td>
<td>1866</td>
</tr>
<tr>
<td>14.2 UN proper shipping name</td>
<td>RESIN SOLUTION, flammable</td>
<td>RESIN SOLUTION, flammable</td>
</tr>
<tr>
<td>14.3 Transport hazard classes</td>
<td></td>
<td></td>
</tr>
<tr>
<td>DG Class</td>
<td>3</td>
<td>3</td>
</tr>
<tr>
<td>Subsidiary risk(s)</td>
<td>None Allocated</td>
<td>-</td>
</tr>
<tr>
<td>14.4 Packing group</td>
<td>II</td>
<td>II</td>
</tr>
<tr>
<td>14.5 Environmental hazards</td>
<td>None Allocated</td>
<td></td>
</tr>
<tr>
<td>14.6 Special precautions for user</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Hazchem Code</td>
<td>3YE</td>
<td></td>
</tr>
</tbody>
</table>

15. REGULATORY INFORMATION

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

Poison schedule
A poison schedule number has not been allocated to this product using the criteria in the Standard for the Uniform Scheduling of Medicines and Poisons (SUSMP).

Classifications
F - Highly flammable
Xi - Irritant
Xn - Harmful

Risk phrases
R11: Highly flammable.
R20: Harmful by inhalation.
R36/37/38: Irritating to eyes, respiratory system and skin.
R67: Vapours may cause drowsiness and dizziness.

Safety phrases
S9: Keep container in a well ventilated place.
S13: Keep away from food, drink and animal feeding stuffs.
S24/25: Avoid contact with skin and eyes.
S26: In case of contact with eyes, rinse immediately with plenty of water and seek medical advice.
S36/37/39: Wear suitable protective clothing, gloves and eye/face protection.
S46: If swallowed, contact a doctor or Poisons Information Centre immediately and show container or label.
S51: Use only in well ventilated areas.
Product name: PERMATEX 1372W SEALANT 7FO

AUSTRALIA: AICS (Australian Inventory of Chemical Substances)
All components are listed on AICS, or are exempt.

15.2 Chemical safety assessment
No information provided.

16. OTHER INFORMATION

Additional information
RESPIRATORS: In general the use of respirators should be limited and engineering controls employed to avoid exposure. If respiratory equipment must be worn ensure correct respirator selection and training is undertaken. Remember that some respirators may be extremely uncomfortable when used for long periods. The use of air powered or air supplied respirators should be considered where prolonged or repeated use is necessary.

HEALTH EFFECTS FROM EXPOSURE:
It should be noted that the effects from exposure to this product will depend on several factors including: frequency and duration of use; quantity used; effectiveness of control measures; protective equipment used and method of application. Given that it is impractical to prepare a ChemAlert report which would encompass all possible scenarios, it is anticipated that users will assess the risks and apply control methods where appropriate.

PERSONAL PROTECTIVE EQUIPMENT GUIDELINES:
The recommendation for protective equipment contained within this report is provided as a guide only. Factors such as method of application, working environment, quantity used, product concentration and the availability of engineering controls should be considered before final selection of personal protective equipment is made.

COLOUR RATING SYSTEM: RMT has assigned all ChemAlert reports a colour rating of Green, Amber or Red for the sole purpose of providing users with a quick and easy means of determining the hazardous nature of a product. Safe handling recommendations are provided in all ChemAlert reports so as to clearly identify how users can control the hazards and thereby reduce the risk (or likelihood) of adverse effects. As a general guideline, a Green colour rating indicates a low hazard, an Amber colour rating indicates a moderate hazard and a Red colour rating indicates a high hazard.

While all due care has been taken by RMT in the preparation of the Colour Rating System, it is intended as a guide only and RMT does not provide any warranty in relation to the accuracy of the Colour Rating System. As far as is lawfully possible, RMT accepts no liability or responsibility whatsoever for the actions or omissions of any person in reliance on the Colour Rating System.

Abbreviations

<table>
<thead>
<tr>
<th>Abbreviation</th>
<th>Definition</th>
</tr>
</thead>
<tbody>
<tr>
<td>ACGIH</td>
<td>American Conference of Governmental Industrial Hygienists</td>
</tr>
<tr>
<td>CAS #</td>
<td>Chemical Abstract Service number - used to uniquely identify chemical compounds</td>
</tr>
<tr>
<td>CNS</td>
<td>Central Nervous System</td>
</tr>
<tr>
<td>EC No.</td>
<td>EC No - European Community Number</td>
</tr>
<tr>
<td>EMS</td>
<td>Emergency Schedules (Emergency Procedures for Ships Carrying Dangerous Goods)</td>
</tr>
<tr>
<td>GHS</td>
<td>Globally Harmonized System</td>
</tr>
<tr>
<td>GTEPG</td>
<td>Group Text Emergency Procedure Guide</td>
</tr>
<tr>
<td>IARC</td>
<td>International Agency for Research on Cancer</td>
</tr>
<tr>
<td>LC50</td>
<td>Lethal Concentration, 50% / Median Lethal Concentration</td>
</tr>
<tr>
<td>LD50</td>
<td>Lethal Dose, 50% / Median Lethal Dose</td>
</tr>
<tr>
<td>mg/m³</td>
<td>Milligrams per Cubic Metre</td>
</tr>
<tr>
<td>OEL</td>
<td>Occupational Exposure Limit</td>
</tr>
<tr>
<td>PEL</td>
<td>Permissible Exposure Limit</td>
</tr>
<tr>
<td>pH</td>
<td>relates to hydrogen ion concentration using a scale of 0 (high acidic) to 14 (highly alkaline).</td>
</tr>
<tr>
<td>ppm</td>
<td>Parts Per Million</td>
</tr>
<tr>
<td>REACH</td>
<td>Regulation on Registration, Evaluation, Authorisation and Restriction of Chemicals</td>
</tr>
<tr>
<td>STEL</td>
<td>Short-Term Exposure Limit</td>
</tr>
<tr>
<td>STOT-RE</td>
<td>Specific target organ toxicity (repeated exposure)</td>
</tr>
<tr>
<td>STOT-SE</td>
<td>Specific target organ toxicity (single exposure)</td>
</tr>
<tr>
<td>SUSMP</td>
<td>Standard for the Uniform Scheduling of Medicines and Poisons</td>
</tr>
<tr>
<td>SWA</td>
<td>Safe Work Australia</td>
</tr>
<tr>
<td>TLV</td>
<td>Threshold Limit Value</td>
</tr>
</tbody>
</table>
Product name: PERMATEX 1372W SEALANT 7FO

Report Status:
This ChemAlert report has been independently compiled by RMT's scientific department utilising the original Safety Data Sheet ('SDS') for the product provided to RMT by the manufacturer. The information is based on the latest chemical and toxicological research and is believed to represent the current state of knowledge as to the appropriate safety and handling precautions for the product at the time of issue. It is an independent collation by RMT of information obtained from the original SDS for this product. Its content has not been authorised or verified by the manufacturer / distributor of the chemical to which it relates.

This ChemAlert report does not constitute the manufacturer's original SDS and is not intended to be a replacement for same. It is provided to subscribers of ChemAlert as a reference tool only, is not all-inclusive and does not represent any guarantee as to the properties of the product. Further clarification regarding any aspect of the product should be obtained directly from the manufacturer.

While RMT has taken all due care to include accurate and up-to-date information in this ChemAlert report, it does not provide any warranty as to accuracy or completeness. As far as lawfully possible, RMT accepts no liability for any loss, injury or damage (including consequential loss) which may be suffered or incurred by any person as a consequence of their reliance on the information contained in this ChemAlert report.

Prepared By:
Risk Management Technologies
5 Ventnor Ave, West Perth
Western Australia 6005
Phone: +61 8 9322 1711
Fax: +61 8 9322 1794
Email: info@rmt.com.au
Web: www.rmt.com.au

Last Reviewed: 24 Oct 2011
Date Printed: 11 Mar 2015
Based on SDS dated: 29 Sep 2011

End of Report