1. IDENTIFICATION OF THE MATERIAL AND SUPPLIER

1.1 Product identifier
Product name: PR 1005L
Synonym(s):
NSN: 8030-66-116-0147
1005LXXXIK005PL - PRODUCT CODE • ADHESION PROMOTOR • PR 1005L • PR1005L

1.2 Uses and uses advised against
Use(s):
ADHESION PROMOTION • AIRCRAFT SEALANT • SEALANT

1.3 Details of the supplier of the safety data sheet
Supplier name: PPG INDUSTRIES AUSTRALIA PTY. LTD. (ASC - AUSTRALIA)
Address: 23 Ovata Drive, Tullamarine, VIC, Australia, 3043
Telephone: (03) 9335 1557
Fax: (03) 9335 3490
Email: contact.aust@ppg.com
Website: http://www.ppg.com/coatings/aerospace/

1.4 Emergency telephone number(s)
Emergency: 1800 807 001

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
- Germ Cell Mutagenicity: Category 2

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.
- H341: Suspected of causing genetic defects.

Prevention statement(s):
- P201: Obtain special instructions before use.
- P202: Do not handle until all safety precautions have been read and understood.
- 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.
**CHEMALERT REPORT**

**Full Report**

**Product name**

PR 1005L

**P271**

Use only outdoors or in a well-ventilated area.

**P280**

Wear protective gloves/protective clothing/eye protection/face protection.

**P281**

Use personal protective equipment as required.

**Response statement(s)**

P302 + P352

IF ON SKIN: Wash with plenty of soap and water.

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.

P308 + P313

IF exposed or concerned: Get medical advice/attention.

P312

Call a POISON CENTER or doctor/physician if you feel unwell.

P321

Specific treatment is advised - see first aid instructions.

P332 + P313

If skin irritation occurs: Get medical advice/attention.

P337 + P313

If eye irritation persists: Get medical advice/attention.

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 + 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.

2.3 Other Hazards

No information provided.

### 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>METHYL ETHYL KETONE (MEK)</td>
<td>78-93-3</td>
<td>201-159-0</td>
<td>30-60%</td>
</tr>
<tr>
<td>ISOPROPYL ALCOHOL</td>
<td>67-63-0</td>
<td>200-661-7</td>
<td>10-30%</td>
</tr>
<tr>
<td>METHYL ISOBUTYL KETONE</td>
<td>108-10-1</td>
<td>203-550-1</td>
<td>10-30%</td>
</tr>
<tr>
<td>PHENOL</td>
<td>108-95-2</td>
<td>203-632-7</td>
<td>&lt;10%</td>
</tr>
<tr>
<td>3-(TRIMETHOXYSILYL)-1-PROPANETHIOL</td>
<td>4420-74-0</td>
<td>224-588-5</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. To protect rescuer, use a Type A (Organic vapour) respirator or an Air-line respirator (in poorly ventilated areas). 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 and safety shower should be available.

#### 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 (phenols, 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, heaters, naked lights, pilot lights, etc when handling. Earth containers when dispensing fluids. May evolve formaldehyde 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
- Alcohol resistant foam is the preferred firefighting medium
- Foam
- Self Contained Breathing apparatus and protective gloves.
- 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. Clear area of all unprotected personnel. Ventilate area where possible. Contact emergency services where appropriate.

6.2 Environmental precautions
Prevent product from entering drains and waterways.

6.3 Methods of cleaning up
Contain spillage, then cover / absorb spill with non-combustible absorbent material (vermiculite, sand, or similar), collect and place in suitable containers for disposal. Eliminate all sources of ignition.

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, preferably flammables store, removed from direct sunlight, incompatible substances, heat or ignition sources and foodstuffs. Ensure containers are adequately labelled, protected from physical damage and sealed when not in use. Large storage areas should have appropriate ventilation and fire protection systems.

7.3 Specific end use(s)
No information provided.

8. EXPOSURE CONTROLS/ PERSONAL PROTECTION

8.1 Control parameters

<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>Isopropyl alcohol</td>
<td>SWA (AUS)</td>
<td>400</td>
<td>983</td>
<td>500</td>
<td>1230</td>
</tr>
<tr>
<td>Methyl ethyl ketone (MEK)</td>
<td>SWA (AUS)</td>
<td>150</td>
<td>445</td>
<td>300</td>
<td>890</td>
</tr>
</tbody>
</table>
Product name: PR 1005L

<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>Methyl isobutyl ketone</td>
<td>SWA (AUS)</td>
<td>50</td>
<td>205</td>
<td>75</td>
<td>307</td>
</tr>
<tr>
<td>Phenol</td>
<td>SWA (AUS)</td>
<td>1</td>
<td>4</td>
<td>--</td>
<td>--</td>
</tr>
</tbody>
</table>

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>
<tr>
<td>METHYL ETHYL KETONE (MEK)</td>
<td>ACGIH BEI</td>
<td>MEK in urine</td>
<td>End of shift</td>
<td>2 mg/L</td>
</tr>
<tr>
<td>METHYL ISOBUTYL KETONE</td>
<td>ACGIH BEI</td>
<td>MIBK in urine</td>
<td>End of shift</td>
<td>1 mg/L</td>
</tr>
<tr>
<td>PHENOL</td>
<td>ACGIH BEI</td>
<td>Total phenol in urine (with hydrolysis)</td>
<td>End of shift</td>
<td>250 mg/g creatinine</td>
</tr>
</tbody>
</table>

8.2 Exposure controls

Engineering Controls

Avoid inhalation. Use in well ventilated areas. Where an inhalation risk exists, mechanical explosion proof extraction ventilation is recommended. 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

<table>
<thead>
<tr>
<th>Eye/Face</th>
<th>Wear splash-proof goggles.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Hand</td>
<td>Wear butyl or neoprene gloves.</td>
</tr>
<tr>
<td>Body</td>
<td>Wear coveralls.</td>
</tr>
<tr>
<td>Respiratory</td>
<td>Where an inhalation risk exists, wear a Type A (Organic vapour) respirator. If spraying, wear a Type A-Class P1 (Organic gases/vapours and Particulate) respirator.</td>
</tr>
</tbody>
</table>

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>RED LIQUID</td>
</tr>
<tr>
<td>Odour</td>
<td>SLIGHT 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>79.44°C to 181.67°C</td>
</tr>
<tr>
<td>Flash Point</td>
<td>-5°C (cc)</td>
</tr>
<tr>
<td>Evaporation Rate</td>
<td>NOT AVAILABLE</td>
</tr>
<tr>
<td>Flammability</td>
<td>HIGHLY FLAMMABLE</td>
</tr>
<tr>
<td>Upper Explosion Limit</td>
<td>NOT AVAILABLE</td>
</tr>
<tr>
<td>Lower Explosion Limit</td>
<td>1.2 %</td>
</tr>
<tr>
<td>Vapour Pressure</td>
<td>NOT AVAILABLE</td>
</tr>
<tr>
<td>Vapour Density</td>
<td>&gt; 2 (Air =1)</td>
</tr>
<tr>
<td>Solubility (water)</td>
<td>INSOLUBLE</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>0.85</td>
</tr>
</tbody>
</table>

9.2 Other information
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. Incompatible with alkalis (e.g. sodium hydroxide).

10.6 Hazardous decomposition products
May evolve toxic gases (phenols, carbon oxides, hydrocarbons) when heated to decomposition. May evolve formaldehyde when heated to decomposition.

11. TOXICOLOGICAL INFORMATION

11.1 Information on toxicological effects

Health hazard summary
Toxic - corrosive. This product has the potential to cause adverse health effects. Use safe work practices to avoid eye or skin contact and inhalation. Chronic exposure may result in dark urine, skin rashes - discolouration, anaemia, liver, kidney, lung and nerve damage. May increase the risk of peripheral nerve damage when used with certain other solvents (e.g. n-hexane). Possible risk of irreversible effects.

Eye
Corrosive. Contact may result in irritation, lacrimation, pain, redness, corneal burns and possible permanent damage.

Inhalation
Irritant. Over exposure may result in irritation of the nose and throat, coughing, nausea, dizziness and vomiting. High level exposure may result in breathing difficulties and unconsciousness. Chronic exposure may result in liver and kidney damage.

Skin
Corrosive - toxic. Contact may result in irritation, redness, pain, rash, dermatitis and possible burns. May cause discolouration of the skin. May be absorbed through skin with harmful effects.

Ingestion
Toxic - corrosive. Ingestion may result in nausea, vomiting, abdominal pain, diarrhoea, fatigue, dizziness and unconsciousness. Aspiration or inhalation may cause chemical pneumonitis and pulmonary oedema.

Toxicity data

METHYL ETHYL KETONE (MEK) (78-93-3)
- LC50 (Inhalation): 23500 mg/kg (rat)
- LD50 (Ingestion): 2737 mg/kg (rat)
- LD50 (Intraperitoneal): 607 mg/kg (rat)
- LD50 (Skin): 6480 mg/kg (rabbit)
- TCLo (Inhalation): 100 ppm/5 minutes (Human - eye irritant)

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)

METHYL ISOBUTYL KETONE (108-10-1)
- LC50 (Inhalation): 23300 mg/m³ (rat)
- LCLo (Inhalation): 4000 ppm/4 hours (rat)
- LD50 (Ingestion): 1600 mg/kg (guinea pig)
- LD50 (Intraperitoneal): 268 mg/kg (mouse)
- LD50 (Skin): > 20 mL/kg (rabbit)

PHENOL (108-95-2)
- LC50 (Inhalation): 177 mg/m³ (mouse)
- LD50 (Ingestion): 270 mg/kg (mouse)
- LD50 (Intraperitoneal): 127 mg/kg (rat)
- LD50 (Intravenous): 112 mg/kg (mouse)
- LD50 (Skin): 630 mg/kg (rabbit)
- LD50 (Subcutaneous): 344 mg/kg (mouse)
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
Methyl ethyl ketone (MEK) vapour in the atmosphere will degrade primarily by reaction with photochemically produced hydroxyl radicals. MEK will volatilise from the soil and water surfaces and is highly mobile with in soil. MEK will not bioconcentrate and is rapidly biodegradable.

13. DISPOSAL CONSIDERATIONS

13.1 Waste treatment methods
Waste disposal
Wearing the protective equipment outlined, ensure all ignition sources are extinguished. For small quantities, absorb on paper, sand or similar and evaporate under a fume cupboard or open area. For large volumes, atomise into incinerator (mixing with more flammable solvent if required) or recycle by gravimetric separation, distilling & reusing. Contact the manufacturer/supplier for additional information (if required).

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>1866</td>
<td>1866</td>
<td>1866</td>
</tr>
</tbody>
</table>

14.1 UN number
14.2 UN proper shipping name
RESIN SOLUTION, flammable
Product name: PR 1005L

14.3 Transport hazard classes

| DG Class | 3 | 3 | 3 |
| Subsidiary risk(s) | None Allocated | - | - |

14.4 Packing group

14.5 Environmental hazards

| None Allocated |

14.6 Special precautions for user

- Hazchem Code: ●3YE
- EMS: F-E, S-E

15. REGULATORY INFORMATION

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

Poison schedule: Classified as a Schedule 5 Poison using the criteria in the Standard for the Uniform Scheduling of Medicines and Poisons (SUSMP).

Classifications:
- F - Highly flammable
- Muta. - Mutagen
- Xi - Irritant
- Xn - Harmful

Risk phrases:
- R11: Highly flammable.
- R20: Harmful by inhalation.
- R36/38: Irritating to eyes and skin.
- R68: Possible risks of irreversible effects.

Safety phrases:
- S2: Keep out of reach of children.
- S9: Keep container in a well ventilated place.
- S16: Keep away from sources of ignition - No smoking.
- S26: In case of contact with eyes, rinse immediately with plenty of water and seek medical advice.
- S27: Take off immediately all contaminated clothing.
- S29: Do not empty into drains.
- S44: If you feel unwell, contact a doctor or Poisons Information Centre immediately (show label where possible).
- S53: Avoid exposure - obtain special instructions before use.

Inventory listing(s):
- AUSTRALIA: AICS (Australian Inventory of Chemical Substances)

15.2 Chemical safety assessment

No information provided.

16. OTHER INFORMATION

Additional information:

WORK PRACTICES - SOLVENTS: Organic solvents may present both a health and flammability hazard. It is recommended that engineering controls should be adopted to reduce exposure where practicable (for example, if using indoors, ensure explosion proof extraction ventilation is available). Flammable or combustible liquids with explosive limits have the potential for ignition from static discharge. Refer to AS 1020 (The control of undesirable static electricity) and AS 1940 (The storage and handling of flammable and combustible liquids) for control procedures.

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.

EXPOSURE STANDARDS - TIME WEIGHTED AVERAGES: Exposure standards are established on the premise of an 8 hour work period of normal intensity, under normal climatic conditions and where a 16 hour
break between shifts exists to enable the body to eliminate absorbed contaminants. In the following circumstances, exposure standards must be reduced: Strenuous work conditions; hot, humid climates; high altitude conditions; extended shifts (which increase the exposure period and shorten the period of recuperation).

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.
<table>
<thead>
<tr>
<th>Product name</th>
<th>PR 1005L</th>
</tr>
</thead>
</table>

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.

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Fax: +61 8 9322 1794
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Date Printed: 11 Mar 2015
Based on SDS dated: 11 Jan 2014

End of Report