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.

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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

Ingredient	CAS number	EC number	Content
METHYL ETHYL KETONE (MEK)	78-93-3	201-159-0	30-60%
ISOPROPYL ALCOHOL	67-63-0	200-661-7	10-30%
METHYL ISOBUTYL KETONE	108-10-1	203-550-1	10-30%
PHENOL	108-95-2	203-632-7	<10%
3-(TRIMETHOXYSILYL)-1-PROPANETHIOL	4420-74-0	224-588-5	<10%

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

●3YE

●	Alcohol resistant foam is the preferred firefighting medium
3	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. 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

Exposure standards

Substance	Reference	TWA		STEL	
		ppm	mg/m³	ppm	mg/m³
Isopropyl alcohol	SWA (AUS)	400	983	500	1230
Methyl ethyl ketone (MEK)	SWA (AUS)	150	445	300	890

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Substance	Reference	TWA		STEL	
		ppm	mg/m³	ppm	mg/m³
Methyl isobutyl ketone	SWA (AUS)	50	205	75	307
Phenol	SWA (AUS)	1	4	--	--

Biological limits

Ingredient	Reference	Determinant	Sampling time	BEI
ISOPROPYL ALCOHOL	ACGIH BEI	Acetone in urine	End of shift at end of workweek	40 mg/L
METHYL ETHYL KETONE (MEK)	ACGIH BEI	MEK in urine	End of shift	2 mg/L
METHYL ISOBUTYL KETONE	ACGIH BEI	MIBK in urine	End of shift	1 mg/L
PHENOL	ACGIH BEI	Total phenol in urine (with hydrolysis)	End of shift	250 mg/g creatinine

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

Eye/Face Wear splash-proof goggles.

Hand Wear butyl or neoprene gloves.

Body Wear coveralls.

Respiratory 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.

9. PHYSICAL AND CHEMICAL PROPERTIES

9.1 Information on basic physical and chemical properties

Appearance	RED LIQUID
Odour	SLIGHT ODOUR
Odour Threshold	NOT AVAILABLE
pH	NOT AVAILABLE
Melting Point	NOT AVAILABLE
Boiling Point	79.44°C to 181.67°C
Flash Point	-5°C (cc)
Evaporation Rate	NOT AVAILABLE
Flammability	HIGHLY FLAMMABLE
Upper Explosion Limit	NOT AVAILABLE
Lower Explosion Limit	1.2 %
Vapour Pressure	NOT AVAILABLE
Vapour Density	> 2 (Air =1)
Solubility (water)	INSOLUBLE
Partition Coefficient	NOT AVAILABLE
Autoignition Temperature	NOT AVAILABLE
Decomposition Temperature	NOT AVAILABLE
Viscosity	NOT AVAILABLE
Explosive Properties	NOT AVAILABLE
Oxidising Properties	NOT AVAILABLE
Specific Gravity	0.85

9.2 Other information

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% Volatiles NOT AVAILABLE

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)

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LDLo (Ingestion): 10 mg/kg (infant)
LDLo (Intraperitoneal): 300 mg/kg (guinea pig)
LDLo (Intravenous): 180 mg/kg (rabbit)
LDLo (Subcutaneous): 75 mg/kg (frog)
TDLo (Skin): 16 g/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

	Land Transport (ADG)	Sea Transport (IMDG/IMO)	Air Transport (IATA/ICAO)
14.1 UN number	1866	1866	1866
14.2 UN proper shipping name		RESIN SOLUTION, flammable	

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14.3 Transport hazard classes			
DG Class	3	3	3
Subsidiary risk(s)	None Allocated	-	-
14.4 Packing group	II	II	II
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)**
All components are listed on AICS, or are exempt.

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.

Abbreviations

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

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

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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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End of Report