1. IDENTIFICATION OF THE MATERIAL AND SUPPLIER

1.1 Product identifier

Product name: PR 1428 A 1/2 PART B
Synonym(s):
- NSN: XXXX-00-291-8380
- 4756A - PRODUCT CODE • PPG PR-1428 A-1/2 PART B • PR 1428 A 1/2 PART B • PR 1428 A-1/2 PART B

1.2 Uses and uses advised against

Use(s):
- COATING • PAINT • PAINTING

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
- Toxic to Reproduction: Category 2
- Aquatic Toxicity (Chronic): Category 3

2.2 Label elements

Signal word: DANGER

Pictograms:
- Highly flammable liquid and vapour.
- Suspected of damaging fertility or the unborn child.
- Harmful to aquatic life with long lasting effects.

Hazard statement(s):
- H225: Highly flammable liquid and vapour.
- H361: Suspected of damaging fertility or the unborn child.
- H412: Harmful to aquatic life with long lasting effects.

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.
- P273: Avoid release to the environment. This statement does not apply where this is the intended use.
- P280: Wear protective gloves/protective clothing/eye protection/face protection.

Response statement(s):
- P303 + P361 + P353: IF ON SKIN (or hair): Remove/Take off immediately all contaminated clothing. Rinse skin with water/shower.
- P308 + P313: IF exposed or concerned: Get medical advice/attention.
- P370 + P378: In case of fire: Use appropriate media for extinction (applies if water increases risk).
Product name: PR 1428 A 1/2 PART B

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>THIRAM</td>
<td>137-26-8</td>
<td>205-286-2</td>
<td>&lt;10%</td>
</tr>
<tr>
<td>TOLUENE</td>
<td>108-88-3</td>
<td>203-625-9</td>
<td>&lt;10%</td>
</tr>
<tr>
<td>POLYSULPHIDE POLYMER</td>
<td>68611-50-7</td>
<td>614-671-8</td>
<td>&gt;60%</td>
</tr>
<tr>
<td>BARIUM LITHOL RED</td>
<td>1103-38-4</td>
<td>214-160-6</td>
<td>&lt;10%</td>
</tr>
<tr>
<td>CALCIUM CARBONATE</td>
<td>471-34-1</td>
<td>207-439-9</td>
<td>&lt;10%</td>
</tr>
<tr>
<td>TITANIUM DIOXIDE</td>
<td>13463-67-7</td>
<td>236-675-5</td>
<td>&lt;10%</td>
</tr>
<tr>
<td>NON HAZARDOUS INGREDIENTS</td>
<td>Not Available</td>
<td>Not Available</td>
<td>remainder</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 an Air-line respirator or Self Contained Breathing Apparatus (SCBA). Be aware of possible explosive atmospheres. Apply artificial respiration if not breathing. Give oxygen if available.

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 are recommended.

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/sulphur oxides, sulphides, 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, 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
Product name: PR 1428 A 1/2 PART B

- 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, 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>Calcium carbonate (Limestone, Marble, Whiting)</td>
<td>SWA (AUS)</td>
<td>--</td>
<td>10</td>
<td>--</td>
<td>--</td>
</tr>
<tr>
<td>Thiram</td>
<td>SWA (AUS)</td>
<td>--</td>
<td>1</td>
<td>--</td>
<td>--</td>
</tr>
<tr>
<td>Titanium dioxide (a)</td>
<td>SWA (AUS)</td>
<td>--</td>
<td>10</td>
<td>--</td>
<td>--</td>
</tr>
<tr>
<td>Toluene</td>
<td>SWA (AUS)</td>
<td>50</td>
<td>191</td>
<td>150</td>
<td>574</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>TOLUENE</td>
<td>ACGIH BEI</td>
<td>o-Cresol in urine</td>
<td>End of shift</td>
<td>0.02 mg/L</td>
</tr>
<tr>
<td></td>
<td>ACGIH BEI</td>
<td>Toluene in urine</td>
<td>End of shift</td>
<td>0.03 mg/L</td>
</tr>
<tr>
<td></td>
<td>ACGIH BEI</td>
<td>Toluene in blood</td>
<td>Prior to last shift of workweek</td>
<td>0.02 mg/L</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
**Product name**  
PR 1428 A 1/2 PART B

**Eye/Face**  
Wear splash-proof goggles.

**Hand**  
Wear PVA or viton (R) gloves.

**Body**  
Wear a PVC apron and coveralls. If spraying, with prolonged use, or if in confined areas, wear impervious coveralls.

**Respiratory**  
Wear a Type AB (Organic and Inorganic gases/vapours) respirator. If sanding dry product, wear a Class P1 (Particulate) respirator. If spraying, with prolonged use, or if in confined areas, wear an Air-line respirator. Where the boiling point is < 65°C, use an AX filter type.

**9. PHYSICAL AND CHEMICAL PROPERTIES**

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

- **Appearance**: RED LIQUID
- **Odour**: SLIGHT ODOR
- **Odour Threshold**: NOT AVAILABLE
- **pH**: NOT AVAILABLE
- **Melting Point**: NOT AVAILABLE
- **Boiling Point**: > 37.78°C
- **Flash Point**: 22.22°C (cc)
- **Evaporation Rate**: NOT AVAILABLE
- **Flammability**: HIGHLY FLAMMABLE
- **Upper Explosion Limit**: NOT AVAILABLE
- **Lower Explosion Limit**: 1.3 %
- **Vapour Pressure**: NOT AVAILABLE
- **Vapour Density**: NOT AVAILABLE
- **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**: 1.39

**9.2 Other information**

- **% 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), alkalis (e.g. sodium hydroxide), heat and ignition sources.

**10.6 Hazardous decomposition products**
11. TOXICOLOGICAL INFORMATION

11.1 Information on toxicological effects

Health hazard summary
Harmful - irritant. 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. Over exposure to organic solvents may result in liver, kidney and CNS damage. When applied using a cartridge gun the risk of over exposure is reduced.

Eye
Irritant. Contact may result in irritation, lacrimation, pain and redness. May result in burns with prolonged contact.

Inhalation
Harmful - irritant. Over exposure may result in irritation of the nose and throat, coughing, nausea and headache. High level exposure may result in dizziness, drowsiness, breathing difficulties and unconsciousness. Chronic exposure to some solvents may result in liver, kidney and central nervous system (CNS) damage.

Skin
Irritant. Contact may result in drying and defatting of the skin, rash and dermatitis. May be absorbed through skin with harmful effects.

Ingestion
Harmful. Ingestion may result in nausea, vomiting, abdominal pain, dizziness, fatigue and diarrhoea. Ingestion of large quantities may result in liver and kidney damage, and unconsciousness. Aspiration or inhalation may cause chemical pneumonitis and pulmonary oedema.

Toxicity data
THIRAM (137-26-8)
- LC50 (Inhalation): 500 mg/m³/4 hours (rat)
- LD50 (Ingestion): 210 mg/kg (rabbit)
- LD50 (Intraperitoneal): 70 mg/kg (mouse)
- LD50 (Subcutaneous): 646 mg/kg (rat)
- LDLo (Ingestion): 230 mg/kg (cat)
- LDLo (Skin): 1000 mg/kg (rabbit)
- TCLo (Inhalation): 0.03 mg/m³/5 years intermittently (human)
- TDLo (Ingestion): 108 mg/kg/1 year (rat)

TOLUENE (108-88-3)
- LC50 (Inhalation): 400 ppm/24 hours (mouse)
- LCLo (Inhalation): 1600 ppm (guinea pig)
- LD50 (Ingestion): 636 mg/kg (rat)
- LD50 (Skin): 14100 µL/kg (rabbit)
- LDLo (Ingestion): 50 mg/kg (human)
- CALCULUM CARBONATE (471-34-1)
- LD50 (Ingestion): 6450 mg/kg (rat)

12. ECOLOGICAL INFORMATION

12.1 Toxicity
Harmful to aquatic organisms, may cause long-term adverse effects in the aquatic environment.

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.
13. DISPOSAL CONSIDERATIONS

13.1 Waste treatment methods

Waste disposal: Mix components together (small amounts), absorb with sand, vermiculite or similar and dispose of to an approved landfill site. Ensure protective equipment is worn when mixing. Do not seal containers/tins until reaction is complete. Contact the manufacturer/supplier for additional information (if required). Prevent contamination of drains and waterways as 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>1133</td>
<td>1133</td>
<td>1133</td>
</tr>
</tbody>
</table>

14.1 UN number: 1133
14.2 UN proper shipping name: ADHESIVES containing flammable liquid
14.3 Transport hazard classes:
DG Class: 3
Subsidiary risk(s): None Allocated
14.4 Packing group:
Packing group II
14.5 Environmental hazards:
None Allocated
14.6 Special precautions for user:
Hazchem Code: 3YE
EMS: F-E, S-D

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
- N - Dangerous for the environment
- Repr. - Reproductive toxin

Risk phrases:
- R11: Highly flammable.
- R52/53: Harmful to aquatic organisms, may cause long-term adverse effects in the aquatic environment.
- R63: Possible risk of harm to the unborn child.

Safety phrases:
- S36/37: Wear suitable protective clothing and gloves.

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: This product is used in conjunction with PR 1428 A 1/2 PART A. Please refer to the appropriate SDS before use.
Product name: PR 1428 A 1/2 PART B

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.

WELDING - SANDING - CUTTING DRIED OR CURED PRODUCT: If sanding, cutting or welding dried or cured product, adverse health effects may be avoided by the use of appropriate engineering controls and/or personal protective equipment. If welding, wear a Class P2 (Metal fume) respirator and depending on the nature of the surface being welded, additional protection (e.g. for organic vapours/acid gas) may also be required. A Class P1 (Particulate) respirator is recommended if dust is generated.

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.

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)
Product name: PR 1428 A 1/2 PART B

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 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

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End of Report