1. IDENTIFICATION OF THE MATERIAL AND SUPPLIER

1.1 Product identifier

Product name: PR 1440 A 2 PART A

Synonym(s):
- BMS 5-125 TYPE II • NSN: 8030-00-723-5343 • NSN: 8030-00-753-4598 • NSN: 8030-00-753-5009 • PR-1440 A-2, PART A (ALT FOR C160)
- PPG INDUSTRIES PR 1440 A 2 PART A • PR 1440 A 2 PART A - PRODUCT CODE

1.2 Uses and uses advised against

Use(s): INDUSTRIAL APPLICATIONS • SEALANT • TWO COMPONENT PACK

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):
- Acute Toxicity: Oral: Category 4
- Skin Sensitisation: Category 1
- Acute Toxicity: Inhalation: Category 4
- Specific Target Organ Systemic Toxicity (Repeated Exposure): Category 2
- Aquatic Toxicity (Chronic): Category 2

2.2 Label elements

Signal word: WARNING

Pictograms:

Hazard statement(s):
- H302: Harmful if swallowed.
- H317: May cause an allergic skin reaction.
- H332: Harmful if inhaled.
- H373: May cause damage to organs through prolonged or repeated exposure.
- H411: Toxic to aquatic life with long lasting effects.

Prevention statement(s):
- P260: Do not breathe dust/fume/gas/mist/vapours/spray.
- P264: Wash thoroughly after handling.
- P270: Do not eat, drink or smoke when using this product.
- P271: Use only outdoors or in a well-ventilated area.
- P272: Contaminated work clothing should not be allowed out of the workplace.
- P273: Avoid release to the environment.
- P280: Wear protective gloves/protective clothing/eye protection/face protection.

Response statement(s)
Product name: PR 1440 A 2 PART A

- P302 + P352: IF ON SKIN: Wash with plenty of soap and water.
- P304 + P340: IF INHALED: Remove to fresh air and keep at rest in a position comfortable for breathing.
- P314: Get medical advice/attention if you feel unwell.
- P321: Specific treatment is advised - see first aid instructions.
- P330: Rinse mouth.
- P333 + P313: If skin irritation or rash occurs: Get medical advice/attention.
- P363: Wash contaminated clothing before reuse.
- P391: Collect spillage.

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>MANGANESE DIOXIDE</td>
<td>1313-13-9</td>
<td>215-202-6</td>
<td>30 - 60%</td>
</tr>
<tr>
<td>NON HAZARDOUS INGREDIENTS</td>
<td>Not Available</td>
<td>Not Available</td>
<td>remainder</td>
</tr>
<tr>
<td>HYDROGENATED TERPHENYLIS</td>
<td>61788-32-7</td>
<td>262-967-7</td>
<td>10 - &lt;30%</td>
</tr>
<tr>
<td>DIPENTAMETHYLENETHIURAM TETRASULPHIDE</td>
<td>120-54-7</td>
<td>204-406-0</td>
<td>1 - &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 (during curing), remove from contaminated area. To protect rescuer, use a Type AB (Organic vapour, Inorganic and acid gas) respirator where an inhalation risk exists. 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. Ingestion is considered unlikely due to product form.

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
Special mixtures of dry chemical. Prevent contamination of drains and waterways.

5.2 Special hazards arising from the substance or mixture
Combustible. May evolve toxic gases (carbon/ manganese oxides and hydrocarbons) when heated to decomposition. May evolve carbon oxides, nitrogen oxides, sulphur oxides and metal 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.
Product name: PR 1440 A 2 PART A

5.4 Hazchem code
- 3Z
  - Alcohol Resistant Foam is the preferred firefighting medium. Else use;
  - Normal Foam (protein based foam that is not alcohol resistant).
  - Wear full fire kit and breathing apparatus. Contain spill and run-off.

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.

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. Store as a Class C1 Combustible Liquid (AS1940). Store removed from direct sunlight. Store above 5°C.

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</th>
<th>STEL</th>
</tr>
</thead>
<tbody>
<tr>
<td>Hydrogenated terphenyls</td>
<td>SWA (AUS)</td>
<td>0.5 ppm</td>
<td>4.9 mg/m³</td>
</tr>
<tr>
<td>Manganese, dust &amp; compounds (as Mn)</td>
<td>SWA (AUS)</td>
<td>-- ppm</td>
<td>-- ppm</td>
</tr>
<tr>
<td>Manganese, fume (as Mn)</td>
<td>SWA (AUS)</td>
<td>-- ppm</td>
<td>1 mg/m³</td>
</tr>
</tbody>
</table>

Biological limits
No biological limit values have been entered for this product.

8.2 Exposure controls

Engineering Controls: Avoid inhalation. Use in well ventilated areas. Where an inhalation risk exists, mechanical extraction ventilation is recommended. Maintain vapour levels below the recommended exposure standard.

PPE
**Product name**

**PR 1440 A 2 PART A**

**Eye/Face**

Wear safety glasses. If sanding dry product, wear dust-proof goggles.

**Hand**

Wear butyl or PVC gloves.

**Body**

Wear coveralls and safety boots. 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.

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**9. PHYSICAL AND CHEMICAL PROPERTIES**

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

<table>
<thead>
<tr>
<th>Property</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Appearance</strong></td>
<td>BLACK LIQUID</td>
</tr>
<tr>
<td><strong>Odour</strong></td>
<td>SLIGHT ODOUR</td>
</tr>
<tr>
<td><strong>Odour Threshold</strong></td>
<td>NOT AVAILABLE</td>
</tr>
<tr>
<td><strong>pH</strong></td>
<td>NOT AVAILABLE</td>
</tr>
<tr>
<td><strong>Melting Point</strong></td>
<td>NOT AVAILABLE</td>
</tr>
<tr>
<td><strong>Boiling Point</strong></td>
<td>360°C</td>
</tr>
<tr>
<td><strong>Flash Point</strong></td>
<td>&gt; 93°C</td>
</tr>
<tr>
<td><strong>Evaporation Rate</strong></td>
<td>NOT AVAILABLE</td>
</tr>
<tr>
<td><strong>Flammability</strong></td>
<td>CLASS C1 COMBUSTIBLE</td>
</tr>
<tr>
<td><strong>Upper Explosion Limit</strong></td>
<td>NOT AVAILABLE</td>
</tr>
<tr>
<td><strong>Lower Explosion Limit</strong></td>
<td>NOT AVAILABLE</td>
</tr>
<tr>
<td><strong>Vapour Pressure</strong></td>
<td>NOT AVAILABLE</td>
</tr>
<tr>
<td><strong>Vapour Density</strong></td>
<td>NOT AVAILABLE</td>
</tr>
<tr>
<td><strong>Solubility (water)</strong></td>
<td>INSOLUBLE</td>
</tr>
<tr>
<td><strong>Partition Coefficient</strong></td>
<td>NOT AVAILABLE</td>
</tr>
<tr>
<td><strong>Autoignition Temperature</strong></td>
<td>NOT AVAILABLE</td>
</tr>
<tr>
<td><strong>Decomposition Temperature</strong></td>
<td>NOT AVAILABLE</td>
</tr>
<tr>
<td><strong>Viscosity</strong></td>
<td>NOT AVAILABLE</td>
</tr>
<tr>
<td><strong>Explosive Properties</strong></td>
<td>NOT AVAILABLE</td>
</tr>
<tr>
<td><strong>Oxidising Properties</strong></td>
<td>NOT AVAILABLE</td>
</tr>
<tr>
<td><strong>Specific Gravity</strong></td>
<td>1.88</td>
</tr>
</tbody>
</table>

**9.2 Other information**

No information provided.

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This report was compiled based on the SDS dated 06 Feb 2016
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 will not 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) and combustible materials. Incompatible with alkalis (e.g. sodium hydroxide).

10.6 Hazardous decomposition products
May evolve toxic gases (carbon/manganese oxides and hydrocarbons) when heated to decomposition. May evolve carbon oxides, nitrogen oxides, sulphur oxides and metal oxides when heated to decomposition.

11. TOXICOLOGICAL INFORMATION

11.1 Information on toxicological effects
Health Hazard Summary
No information provided.

MANGANESE DIOXIDE (1313-13-9)
- LD50 (Ingestion): > 3478 mg/kg (rat)
- LD50 (Subcutaneous): 422 mg/kg (mouse)
- LDLo (Intratracheal): 50 mg/kg (rat)
- LDLo (Intravenous): 45 mg/kg (rabbit)
- TCLo (Inhalation): 49 mg/m³/7 hours (1-18 day pregnant mouse)

HYDROGENATED TERPHENYLS (61788-32-7)
- LD50 (Ingestion): 12.5 g/kg (mouse)
12. ECOLOGICAL INFORMATION

12.1 Toxicity
Toxic 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
Manganese may exist in the environment as the more soluble (2+) form and/or the less soluble (3+) form. In acidic waters, high levels of dissolved manganese may occur. Occurs naturally (0.085% of earth's crust).

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

Land Transport (ADG) | Sea Transport (IMDG/IMO) | Air Transport (IATA/ICAO)
--- | --- | ---
14.1 UN number | 3082 | 3082 | 3082
14.2 UN proper shipping name | ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S.
14.3 Transport hazard classes
| DG Class | 9 | 9 | 9
| Subsidiary risk(s) | None Allocated | - | -
14.4 Packing group | III | III | III
14.5 Environmental hazards | None Allocated
14.6 Special precautions for user
| Hazchem Code | •3Z
| EMS | F-A, S-F

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
Product name  PR 1440 A 2 PART A

Classifications  N - Dangerous for the environment
Xi - Irritant
Xn - Harmful

Risk phrases
R20/22: Harmful by inhalation and if swallowed.
R43: May cause sensitisation by skin contact.
R48/20/21/22: Harmful: danger of serious damage to health by prolonged exposure through inhalation, in contact with skin and if swallowed.
R51/53: Toxic to aquatic organisms, may cause long term adverse effects in the aquatic environment.

Safety phrases
S24: Avoid contact with skin.
S37: Wear suitable gloves.
S61: Avoid release to the environment. Refer to special instructions/safety data sheets.

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
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.

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
pH  relates to hydrogen ion concentration using a scale of 0 (high acidic) to 14 (highly alkaline).
CHEMALERT REPORT

Full Report

Product name

PR 1440 A 2 PART A

ppm  Parts Per Million
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 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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Last Reviewed: 03 Jun 2016
Date Printed: 06 Oct 2016
Based on SDS dated: 06 Feb 2016

End of Report