1. IDENTIFICATION OF THE MATERIAL AND SUPPLIER

1.1 Product identifier
Product name: PR 1440 B 1/2 PART A
Synonym(s): NSN: 8030-00-753-5004 • NSN: 8030-66-060-2493 • NSN: XXXX-00-174-2599 • PR-1440 B-1/2, PART A (ALT FOR C4, ALT FOR C553) • PPG INDUSTRIES PR 1440 B 1/2 PART A • PR 1440 B 1/2 PART A - PRODUCT CODE • PR 1440 B0.5, PART A • PR-1440 B-1/2 PART A

1.2 Uses and uses advised against
Use(s): COATING • INDUSTRIAL APPLICATIONS • PAINT • 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

2.2 Label elements
Signal word: WARNING

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.

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.
P280 Wear protective gloves/protective clothing/eye protection/face protection.

Response statement(s)
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.
Product name: PR 1440 B 1/2 PART A

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.

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 TERPHENYLS</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

Use an extinguishing agent suitable for the surrounding fire.

5.2 Special hazards arising from the substance or mixture

Non flammable. May ignite in contact with incompatible materials. May evolve toxic gases (manganese oxides) when heated to decomposition. May evolve nitrogen oxides, sulphur oxides and metal oxides when heated to decomposition.

5.3 Advice for firefighters

Treat as per requirements for surrounding fires. Evacuate area and contact emergency services. 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. May increase intensity of fire.

5.4 Hazchem code

• 3Z
Product name: PR 1440 B 1/2 PART A

- Alcohol Resistant Foam is the preferred firefighting medium. Else use;
- 3 Normal Foam (protein based foam that is not alcohol resistant).
- Z 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 removed from incompatible substances and foodstuffs. If stored in containers, ensure they 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

<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>Hydrogenated terphenyls</td>
<td>SWA (AUS)</td>
<td>0.5</td>
<td>4.9</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Manganese, dust &amp; compounds (as Mn)</td>
<td>SWA (AUS)</td>
<td>--</td>
<td>1</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Manganese, fume (as Mn)</td>
<td>SWA (AUS)</td>
<td>--</td>
<td>1</td>
<td></td>
<td>3</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 dust / vapour levels below the recommended exposure standard.

PPE
- Eye/Face: Wear safety glasses. If sanding dry product, wear dust-proof goggles.
- Hand: Wear 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.
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 LIQUID</td>
</tr>
<tr>
<td>Odour</td>
<td>SLIGHT ODOUR</td>
</tr>
<tr>
<td>Odour Threshold</td>
<td>NOT AVAILABLE</td>
</tr>
<tr>
<td>Flammability</td>
<td>NON FLAMMABLE</td>
</tr>
<tr>
<td>Flash Point</td>
<td>NOT RELEVANT</td>
</tr>
<tr>
<td>Boiling Point</td>
<td>360°C</td>
</tr>
<tr>
<td>Melting Point</td>
<td>NOT AVAILABLE</td>
</tr>
<tr>
<td>Evaporation Rate</td>
<td>NOT AVAILABLE</td>
</tr>
<tr>
<td>pH</td>
<td>NOT AVAILABLE</td>
</tr>
<tr>
<td>Specific Gravity</td>
<td>1.88</td>
</tr>
<tr>
<td>Solubility (water)</td>
<td>INSOLUBLE</td>
</tr>
<tr>
<td>Vapour Density</td>
<td>NOT AVAILABLE</td>
</tr>
<tr>
<td>Vapour Pressure</td>
<td>NOT AVAILABLE</td>
</tr>
<tr>
<td>Upper Explosion Limit</td>
<td>NOT RELEVANT</td>
</tr>
<tr>
<td>Lower Explosion Limit</td>
<td>NOT RELEVANT</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>
</tbody>
</table>

9.2 Other information

No information provided.

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) and combustible materials. Incompatible with alkalis (e.g. sodium hydroxide).

10.6 Hazardous decomposition products
May evolve toxic gases (manganese oxides) when heated to decomposition. May evolve 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.

No information provided.

No information provided.

No information provided.

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 life with long lasting effects.

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
Product name: PR 1440 B 1/2 PART A

14.1 UN number
- Land Transport (ADG): 3082
- Sea Transport (IMDG/IMO): 3082
- Air Transport (IATA/ICAO): 3082

14.2 UN proper shipping name
- ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S.

14.3 Transport hazard classes
- DG Class: 9
- Subsidiary risk(s): None Allocated

14.4 Packing group
- Land Transport (ADG): III
- Sea Transport (IMDG/IMO): III
- Air Transport (IATA/ICAO): III

14.5 Environmental hazards
- Marine Pollutant

14.6 Special precautions for user
- Hazchem Code: ●3Z
- EMS: F-A, S-F
- Other information: Environmentally Hazardous Substances meeting the descriptions of UN 3077 or UN 3082 are not subject to the Australian Dangerous Goods Code when transported by road or rail in;
  (a) packagings;
  (b) IBCs; or
  (c) any other receptacle not exceeding 500 kg(L).
  - Australian Special Provisions (SP AU01) - ADG Code 7th Ed.
  - Labels Required: MISCELLANEOUS.

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:
  - Xi - Irritant
  - Xn - Harmful
- Risk phrases:
  - R20/22: Harmful by inhalation and if swallowed.
  - R43: May cause sensitisation by skin contact.
  - R48/20: Harmful: danger of serious damage to health by prolonged exposure through inhalation.
- Safety phrases:
  - S24: Avoid contact with skin.
  - S37: Wear suitable gloves.
  - S61: Avoid release to the environment. Refer to special instructions/safety data sheets.

15.2 Chemical safety assessment
- No information provided.

16. OTHER INFORMATION

16.1 Additional information
- This product is used in conjunction with PPG Industries PR 1440 B 1/2 Part B. Please refer to the appropriate SDS before use.
- 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).
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.
PR 1440 B 1/2 PART A

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