1. IDENTIFICATION OF THE MATERIAL AND SUPPLIER

1.1 Product identifier
Product name           PR-1428 A-2, PART A
Synonym(s)             PR-1428 A-2, PART A, MFG: PRC DESOTO/PPG AEROSPACE

1.2 Uses and uses advised against
Use(s)                 AIRCRAFT SEALANT • SEALANT • TWO COMPONENT PACK

1.3 Details of the supplier of the safety data sheet
Supplier name          AEROSPACE COMPOSITES
Address                Suite 203434 St Kilda Road, VIC, Australia, 3004
Telephone              (03) 9866 8641
Fax                    (03) 9867 1886
Email                  aerospacecomp@bigpond.com
Website                http://www.aerospacecomposites.com.au

1.4 Emergency telephone number(s)
Emergency              13 11 26 (Poisons Information Centre)

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
                        Serious Eye Damage / Eye Irritation: Category 2A
                        Acute Toxicity: Inhalation: Category 4
                        Aquatic Toxicity (Acute): Category 2
                        Aquatic Toxicity (Chronic): Category 2

2.2 Label elements
Signal word            WARNING
Pictograms             

Hazard statement(s)
H302                   Harmful if swallowed.
H319                   Causes serious eye irritation.
H332                   Harmful if inhaled.
H401                   Toxic to aquatic life.
H411                   Toxic to aquatic life with long lasting effects.

Prevention statement(s)
P261                    Avoid breathing 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.
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)
P301 + P312             IF SWALLOWED: Call a POISON CENTER or doctor/physician if you feel unwell.
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.
P330                    Rinse mouth.
Product name: PR-1428 A-2, PART A

P337 + P313: If eye irritation persists: Get medical advice/attention.
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>DIPHENYLGUANIDINE</td>
<td>102-06-7</td>
<td>203-002-1</td>
<td>&lt;5%</td>
</tr>
<tr>
<td>HYDROGENATED TERPHENYLS</td>
<td>81788-32-7</td>
<td>262-967-7</td>
<td>30-60%</td>
</tr>
<tr>
<td>CARBON BLACK</td>
<td>1333-86-4</td>
<td>215-609-9</td>
<td>&lt;5%</td>
</tr>
<tr>
<td>DIPENTAMETHYLENETHIURAM TETRASULPHIDE</td>
<td>120-54-7</td>
<td>204-406-0</td>
<td>&lt;5%</td>
</tr>
<tr>
<td>TALC</td>
<td>14807-96-6</td>
<td>238-877-9</td>
<td>&lt;5%</td>
</tr>
<tr>
<td>TERPHENYL</td>
<td>26140-60-3</td>
<td>247-477-3</td>
<td>&lt;5%</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 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.

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
None allocated

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.

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>Carbon black</td>
<td>SWA (AUS)</td>
<td>--</td>
<td>3</td>
<td>--</td>
<td>--</td>
</tr>
<tr>
<td>Hydrogenated terphenyls</td>
<td>SWA (AUS)</td>
<td>0.5</td>
<td>4.9</td>
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<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>--</td>
</tr>
<tr>
<td>Talc (no asbestos fibres)</td>
<td>SWA (AUS)</td>
<td>--</td>
<td>2.5</td>
<td>--</td>
<td>--</td>
</tr>
<tr>
<td>Terphenyls</td>
<td>SWA (AUS)</td>
<td>0.5</td>
<td>4.7</td>
<td>--</td>
<td>--</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

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

- **Appearance**: BLACK PASTE
- **Odour**: SLIGHT ODOR
- **Odour Threshold**: NOT AVAILABLE
- **Melting Point**: NOT AVAILABLE
- **pH**: NOT AVAILABLE
- **Boiling Point**: NOT AVAILABLE
- **Flash Point**: > 60.5°C
- **Evaporation Rate**: NOT AVAILABLE
- **Flammability**: CLASS C1 COMBUSTIBLE
- **Upper Explosion Limit**: NOT RELEVANT
- **Lower Explosion Limit**: NOT RELEVANT
- **Evaporation Rate**: NOT AVAILAIBLE
- **Flammability**: NOT AVAILABLE
- **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**: 1.76

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 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.

10.6 Hazardous decomposition products

May evolve toxic gases (carbon/ manganese oxides and hydrocarbons) when heated to decomposition.
### 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. Chronic over exposure to manganese at high levels may result in manganese poisoning (manganism), a progressively disabling brain disease, which in its latter stages resembles Parkinsons disease. Symptoms may include lack of appetite, fatigue and changes in speech, balance and personality. Carbon black is classified as possibly carcinogenic to humans (IARC Group 2B). However, the risk is reduced due to the low concentration and the form of the product, i.e. paste.

**Eye**

Irritant. Contact may result in irritation, lacrimation, pain and redness.

**Inhalation**

Harmful - irritant. Over exposure may result in mucous membrane irritation of the respiratory tract. Chronic exposure may result in manganese poisoning, a disabling, usually progressive disorder of the central nervous system with symptoms resembling Parkinsonism.

**Skin**

Irritant. Contact may result in irritation.

**Ingestion**

Harmful. Ingestion may result in gastrointestinal irritation, possible burns to the mouth and throat, nausea, vomiting, abdominal pain and diarrhoea.

#### Toxicity data

**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)

**DIPHENYLGUANIDINE (102-06-7)**

- LD50 (Ingestion): 375 mg/kg (rat)
- LDLo (Intravenous): 25 mg/kg (dog)
- LDLo (Subcutaneous): 200 mg/kg (guinea pig)

**HYDROGENATED TERPHENYLS (61788-32-7)**

- LD50 (Ingestion): 12.5 g/kg (mouse)

**TALC (14807-96-6)**

- TCLo (Inhalation): 18 mg/m³/6 hour/2 year-intermittent (rat)

**TERPHENYL (26140-60-3)**

- LD50 (Ingestion): 13200 mg/kg (mouse)
- LDLo (Ingestion): > 500 mg/kg (rat)

### 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.
Product name: PR-1428 A-2, PART A

Legislation: Dispose of in accordance with relevant local legislation.

14. TRANSPORT INFORMATION

NOT CLASSIFIED AS A DANGEROUS GOOD BY THE CRITERIA OF THE ADG CODE, IMDG OR IATA

<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>14.1 UN number</td>
<td>None Allocated</td>
<td>None Allocated</td>
</tr>
<tr>
<td>14.2 UN proper shipping name</td>
<td>None Allocated</td>
<td>None Allocated</td>
</tr>
<tr>
<td>14.3 Transport hazard classes</td>
<td>None Allocated</td>
<td>None Allocated</td>
</tr>
<tr>
<td>DG Class</td>
<td>None Allocated</td>
<td>None Allocated</td>
</tr>
<tr>
<td>Subsidiary risk(s)</td>
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<td>None Allocated</td>
</tr>
<tr>
<td>14.4 Packing group</td>
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<td>None Allocated</td>
</tr>
<tr>
<td>14.5 Environmental hazards</td>
<td>None Allocated</td>
<td>None Allocated</td>
</tr>
<tr>
<td>14.6 Special precautions for user</td>
<td>None Allocated</td>
<td>None Allocated</td>
</tr>
</tbody>
</table>

Hazchem Code: None Allocated

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: N - Dangerous for the environment, Xi - Irritant, Xn - Harmful

Risk phrases:
- R20/22: Harmful by inhalation and if swallowed.
- R36: Irritating to eyes.
- R51/53: Toxic to aquatic organisms, may cause long term adverse effects in the aquatic environment.

Safety phrases:
- S2: Keep out of reach of children.
- S25: Avoid contact with eyes.
- S26: In case of contact with eyes, rinse immediately with plenty of water and seek medical advice.
- S36: Wear suitable protective clothing.
- S40: To clean the floor and all objects contaminated by this material use [appropriate material to be specified by the manufacturer].
- S46: If swallowed, contact a doctor or Poisons Information Centre immediately and show container or label.

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-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.
Product name: PR-1428 A-2, PART A

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
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
Product name: PR-1428 A-2, PART A

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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Based on SDS dated: 01 Mar 2013

End of Report