1. IDENTIFICATION OF THE MATERIAL AND SUPPLIER

1.1 Product identifier

Product name: METALSET A-4 PART A
Synonym(s):
- NSN: XXXX-66-109-1435
- A-4 PART A METALSET • PART A METALSET A-4 • SMOOTH-ON METALSET A-4 PART A

1.2 Uses and uses advised against

Use(s):
- ADHESIVE • 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):
- Skin Corrosion/Irritation: Category 2
- Skin Sensitization: Category 1
- Serious Eye Damage / Eye Irritation: Category 2A

2.2 Label elements

Signal word: WARNING
Pictograms:

Hazard statement(s):
- H315: Causes skin irritation.
- H317: May cause an allergic skin reaction.
- H319: Causes serious eye irritation.

Prevention statement(s):
- P261: Avoid breathing dust/fume/gas/mist/vapours/spray.
- P264: Wash thoroughly after handling.
- 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.
- P305 + P351 + P338: IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
- P321: Specific treatment is advised - see first aid instructions.
- P333 + P313: If skin irritation or rash occurs: Get medical advice/attention.
- P362: Take off contaminated clothing and wash before re-use.

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>EPOXY RESIN-OXIRANE, BISPHENOL HOMOPOLYMER</td>
<td>25085-99-8</td>
<td>607-537-5</td>
<td>50-55%</td>
</tr>
<tr>
<td>ALUMINIUM POWDER (PYROPHORIC)</td>
<td>7429-90-5</td>
<td>231-072-3</td>
<td>20-25%</td>
</tr>
<tr>
<td>SODIUM ALUMINOSILICATE</td>
<td>1344-00-9</td>
<td>215-684-8</td>
<td>15-20%</td>
</tr>
<tr>
<td>DIMETHYL SILOXANE, WITH SILICONE</td>
<td>67762-90-7</td>
<td>None</td>
<td>2-5%</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, 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
Irritating to the eyes and skin. May cause sensitisation by skin contact.

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
Combustible. May evolve toxic gases (carbon/ nitrogen oxides, 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. Eliminate all sources of ignition.

6.4 Reference to other sections
Product name: METALSET A-4 PART A

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 tightly sealed 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. Check regularly for leaks or spills. Large storage areas should be bunded and have appropriate fire protection and ventilation systems.

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>STEL ppm</th>
<th>TWA mg/m³</th>
<th>STEL mg/m³</th>
</tr>
</thead>
<tbody>
<tr>
<td>Aluminium (metal dust)</td>
<td>SWA (AUS)</td>
<td>--</td>
<td>10</td>
<td>--</td>
<td>--</td>
</tr>
<tr>
<td>Aluminium (welding fumes) (as Al)</td>
<td>SWA (AUS)</td>
<td>--</td>
<td>5</td>
<td>--</td>
<td>--</td>
</tr>
<tr>
<td>Aluminium, alkyls (NOC+) (as Al)</td>
<td>SWA (AUS)</td>
<td>--</td>
<td>2</td>
<td>--</td>
<td>--</td>
</tr>
<tr>
<td>Aluminium, pyro powders (as Al)</td>
<td>SWA (AUS)</td>
<td>--</td>
<td>5</td>
<td>--</td>
<td>--</td>
</tr>
<tr>
<td>Aluminium, soluble salts (as Al)</td>
<td>SWA (AUS)</td>
<td>--</td>
<td>2</td>
<td>--</td>
<td>--</td>
</tr>
</tbody>
</table>

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 splash-proof goggles.

Hand: Wear viton (R) or nitrile gloves.

Body: Wear coveralls. If spraying, with prolonged use, or if in confined areas, wear impervious coveralls.

Respiratory: Where an inhalation risk exists, wear a Type A (Organic vapour) 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>GREY PASTE</td>
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<tr>
<td>Odour</td>
<td>MILD ODOUR</td>
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<tr>
<td>Odour Threshold</td>
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</tr>
<tr>
<td>pH</td>
<td>NOT AVAILABLE</td>
</tr>
<tr>
<td>Melting Point</td>
<td>NOT AVAILABLE</td>
</tr>
<tr>
<td>Boiling Point</td>
<td>NOT AVAILABLE</td>
</tr>
<tr>
<td>Flash Point</td>
<td>&gt; 200°C</td>
</tr>
<tr>
<td>Evaporation Rate</td>
<td>NOT AVAILABLE</td>
</tr>
<tr>
<td>Flammability</td>
<td>CLASS C2 COMBUSTIBLE</td>
</tr>
</tbody>
</table>
Product name | METALSET A-4 PART A
--- | ---
Upper Explosion Limit | NOT RELEVANT
Lower Explosion Limit | NOT RELEVANT
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 | 1.44

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
Hazardous 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
May evolve toxic gases (carbon/nitrogen oxides, hydrocarbons) when heated to decomposition.

11. TOXICOLOGICAL INFORMATION

11.1 Information on toxicological effects

**Health hazard summary**
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. May cause sensitisation by skin contact. Due to the product form (paste), the potential for an inhalation hazard is reduced. The cured product is considered non toxic.

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

**Inhalation**
Irritant. Over exposure to vapours may result in irritation of the nose and throat, with coughing. May cause sensitisation by inhalation. Due to product form, an inhalation hazard is not anticipated with normal use.

**Skin**
Irritant. Contact may result in irritation, redness, rash and dermatitis. May cause sensitisation by skin contact.

**Ingestion**
May be harmful. Ingestion may result in gastrointestinal irritation, nausea, vomiting, abdominal pain and diarrhoea.

**Toxicity data**
- EPOXY RESIN-OXIRANE, BISPHENOL HOMOPOLYMER (25085-99-8)
  - LD50 (Ingestion): 2-19 g/kg (rat)
  - LD50 (Skin): 20,000 mg/kg
- SODIUM ALUMINOSILICATE (1344-00-9)
  - LD50 (Ingestion): 27 g/kg (rat)
  - TDLo (Ingestion): 240 g/kg/28 weeks-continuous (rat)
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
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

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

<table>
<thead>
<tr>
<th>LAND TRANSPORT</th>
<th>SEA TRANSPORT</th>
<th>AIR TRANSPORT</th>
</tr>
</thead>
<tbody>
<tr>
<td>(ADG)</td>
<td>(IMDG/IMO)</td>
<td>(IATA/ICAO)</td>
</tr>
<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>
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<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>
<td>None Allocated</td>
<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></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>HAZCHEM CODE</th>
</tr>
</thead>
<tbody>
<tr>
<td>None Allocated</td>
</tr>
</tbody>
</table>

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

Risk phrases
R36/38: Irritating to eyes and skin.
R43: May cause sensitisation by skin contact.

Safety phrases
S28: After contact with skin, wash immediately with plenty of water.
S37/39: Wear suitable gloves and eye/face protection.
S61: Avoid release to the environment. Refer to special instructions/safety data sheets.
### CHEMALERT REPORT

**Product name**  
METALSET A-4 PART A

**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 METALSET A-4 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.

**EPOXY RESINS:** Epoxy resins may contain low concentrations of glycidal ethers and/or epichlorohydrin, which are potential sensitising agents, both skin and respiratory. Epichlorohydrin is classified as probably carcinogenic to humans (IARC Group 2A).

**EPOXY - PHENOXY RESINS AND POLYURETHANES:** Where spray painting with two or more component epoxy resins or polyurethane paints is undertaken, an employee shall wear a full face air-line respirator, full length chemically resistant coveralls and gloves. Further, if an individual is to enter an enclosed booth where a vapour or gas curing process is occurring, an air-line respirator is required. Once cured, these resins are considered non toxic.

**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
Product name: METALSET A-4 PART A

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 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