### SECTION 1 – CHEMICAL PRODUCT AND COMPANY INFORMATION

**DISTRIBUTOR:**
AAR Aerostructures & Interiors  
14201 Myer Lake Circle  
Clearwater, FL 33760  
Phone: (727) 539-8585  
Fax: (727) 539-0316

**PRODUCT IDENTITY:** ATR 525 Part A - Adhesive  
**CHEMICAL NAME:** Epoxy Resin  
**DATE MSDS PREPARED:** November 1, 1999  
**DATE MSDS REVISED:** August 12, 2014

**NORTH AMERICA EMERGENCY TELEPHONE NUMBER:** 800-424-9300 CHEMTREC 24-HOUR LINE

**INTERNATIONAL EMERGENCY TELEPHONE NUMBER:** 1-703-527-3887 CHEMTREC 24-HOUR LINE

**WEBSITE:** [www.aarcorp.com](http://www.aarcorp.com)

### SECTION 2 – COMPOSITION, INFORMATION ON INGREDIENTS

Hazardous Materials Information System (United States)

<table>
<thead>
<tr>
<th>Hazard</th>
<th>Code</th>
</tr>
</thead>
<tbody>
<tr>
<td>Health</td>
<td>2</td>
</tr>
<tr>
<td>Flammability</td>
<td>1</td>
</tr>
<tr>
<td>Physical Hazard</td>
<td>0</td>
</tr>
</tbody>
</table>

**Hazard Codes:**  
*:Chronic Hazard 0=Minimal Hazard, 1=Slight Hazard, 2=Moderate Hazard, 3=Serious Hazard, 4=Severe Hazard

**HAZARDOUS INGREDIENTS**

<table>
<thead>
<tr>
<th>Chemical Name</th>
<th>CAS Number</th>
<th>Weight %</th>
<th>OSHA PEL</th>
<th>ACGIH TLV</th>
<th>SKIN</th>
</tr>
</thead>
<tbody>
<tr>
<td>Epoxy resin</td>
<td>Proprietary</td>
<td>95.0%</td>
<td>N E</td>
<td>N E</td>
<td>N. E</td>
</tr>
</tbody>
</table>

N.A. – Not Applicable, N.E. – Not Established, SKIN – Skin Designation

### SECTION 3 – HAZARDS IDENTIFICATION

**HEALTH HAZARDS (ACUTE AND CHRONIC):**
**EMERGENCY OVERVIEW:** Opaque paste with slight odor, May cause skin and eye irritation, May cause allergic skin reaction, May cause respiratory tract irritation.

**Effects of Overexposure - INHALATION:** May cause respiratory tract irritation.

**Effects of Overexposure - EYE CONTACT:** May cause irritation.

**Effects of Overexposure - SKIN CONTACT:** May cause skin irritation. May cause skin sensitization. May cause dermatitis.

**Effects of Overexposure - INGESTION:** Harmful if swallowed. Ingestion is not an expected route of entry in industrial or commercial uses.

**Effects of Overexposure – CHRONIC HAZARDS:** Chronic skin contact may cause dermatitis.

**PRIMARY ROUTE(S) OF EXPOSURE:** Skin contact, Inhalation, Ingestion, Eye Contact
### SECTION 4 – FIRST AID MEASURES

| INHALATION: | Move person to fresh air. Restore and support continued breathing, if breathing is difficult, give oxygen. Get immediate medical attention. |
| EYE CONTACT: | Flush eyes immediately with large amount of water for at least 15 minutes holding eyelids open while flushing. Get prompt medical attention. |
| SKIN CONTACT: | Flush contaminated skin with large amounts of water while removing contaminated clothing. Wash affected skin areas with soap and water. Get medical attention if symptoms occur. |
| INGESTION: | If swallowed, do not induce vomiting. Give victim one or two glasses of water or milk. Call a physician or poison control center immediately for further instructions. Never give anything by mouth to an unconscious person. |

### SECTION 5 – FIRE FIGHTING MEASURES

| FLASH POINT: (METHOD USED) | 201°F, 93°C (Seta Flash Closed Cup) |
| LOWER EXPLOSIVE LIMIT(%): | Not applicable |
| UPPER EXPLOSIVE LIMIT(%): | Not applicable |
| AUTOIGNITION TEMPERATURE: | N.D. |
| UNUSUAL FIRE OR EXPLOSION HAZARDS: | Keep containers tightly closed. Closed containers may rupture when exposed to extreme heat. Use water spray to keep fire exposed containers cool. During a fire, irritating and/or toxic gases and particulate may be generated by thermal decomposition or combustion. |
| EXTINGUISHING MEDIA: | Carbon Dioxide, Dry Chemical, Foam, Water Fog. |
| SPECIAL FIRE FIGHTING PROCEDURES: | Wear full firefighting protective clothing, including self-contained breathing apparatus (SCBA). If water is used, fog nozzles are preferable. |

### SECTION 6 – ACCIDENTAL RELEASE MEASURES

**STEPS TO BE TAKEN IN CASE MATERIAL IS RELEASED OR SPILLED:**
Avoid breathing vapors. Notify appropriate authorities if necessary. Avoid contact. Use appropriate respiratory protection for large spills or spills in confined area. Keep non-essential personnel away from spill area. Scoop spilled material into an appropriate container for proper disposal. (If necessary, use inert absorbent material to aid in containing the spill).

### SECTION 7 – HANDLING AND STORAGE

| HANDLING: | Keep closure tight and container upright to prevent leakage. Avoid skin and eye contact. Wash thoroughly after handling. Do not handle until all safety precautions have been read and understood. Empty containers should not be re-used. Use with adequate ventilation. |
| STORAGE: | Store only in well-ventilated areas. Keep container closed when not in use. |
SECTION 8 – EXPOSURE CONTROLS / PERSONAL PROTECTION

ENGINEERING CONTROLS: Sufficient ventilation in pattern and volume should be provided in order to maintain air contaminant levels below recommended exposure limits.

RESPIRATORY PROTECTION: Use a NIOSH approved air-purifying organic vapor respirator if occupational limits are exceeded. For emergencies, use in confined space(s), or other conditions where exposure limits may be greatly exceeded, use an approved air-supplied respirator. Observe OSHA regulations (29CFR 1910.134) for respirator use.

SKIN PROTECTION: Use neoprene, nitrile or rubber gloves to prevent skin contact.

EYE PROTECTION: Use safety eyewear including safety glasses with side shields and chemical goggles where splashing may occur.

OTHER PROTECTIVE EQUIPMENT: Use disposable or impervious clothing if work-clothing contamination is likely. Remove and wash contaminated clothing before reuse.

HYGIENIC PRACTICES: Wash hands before eating, smoking or using toilet facility. Food or beverages should not be consumed anywhere this product is handled or stored. Wash thoroughly after handling.

SECTION 9 – PHYSICAL AND CHEMICAL PROPERTIES

<table>
<thead>
<tr>
<th>APPEARANCE:</th>
<th>Opaque</th>
<th>BOILING RANGE:</th>
<th>212°F - 212°F</th>
</tr>
</thead>
<tbody>
<tr>
<td>PHYSICAL STATE:</td>
<td>Paste</td>
<td>VAPOR PRESSURE:</td>
<td>N.D.</td>
</tr>
<tr>
<td>ODOR:</td>
<td>Slight</td>
<td>VAPOR DENSITY:</td>
<td>Heavier than Air.</td>
</tr>
<tr>
<td>ODOR THRESHOLD:</td>
<td>N.D.</td>
<td>EVAPORATION RATE:</td>
<td>N.A.</td>
</tr>
<tr>
<td>FREEZE POINT:</td>
<td>N.D.</td>
<td>DENSITY, LB/GL:</td>
<td>9.818 lb/gal</td>
</tr>
<tr>
<td>SOLUBILITY IN H2O:</td>
<td>Insoluble</td>
<td>VOLATILE BY WEIGHT:</td>
<td>0.02%</td>
</tr>
<tr>
<td>pH:</td>
<td>N.A.</td>
<td>VOLATILE BY VOLUME:</td>
<td>0.03%</td>
</tr>
<tr>
<td>COEFFICIENT OF WATER/OIL DISTRIBUTION:</td>
<td>N.D.</td>
<td>VOLATILE ORGANIC COMPOUNDS (Calculated):</td>
<td>0.00 lbs/gal, 0 g/l</td>
</tr>
</tbody>
</table>

(See Section 16 for abbreviation legend)

SECTION 10 – STABILITY AND REACTIVITY

STABILITY: Product is stable under normal storage conditions.

CONDITIONS TO AVOID: High temperatures.

INCOMPATIBILITY (MATERIALS TO AVOID): Amines, acids, water, hydroxyl, or active hydrogen compounds.

HAZARDOUS DECOMPOSITION PRODUCTS: Carbon monoxide, carbon dioxide, aldehydes.

HAZARDOUS POLYMERIZATION: Hazardous polymerization will not occur under normal conditions.

SECTION 11 – TOXICOLOGICAL INFORMATION

Product LD50 (Oral) No Data
(Dermal) No Data
Product LC50 No Data
### SECTION 12 – ECOLOGICAL INFORMATION

**ECOLOGICAL INFORMATION:** No information.

### SECTION 13 – DISPOSAL CONSIDERATION

**DISPOSAL METHOD:** Disposal should be done in accordance with Federal (40CFR Part 261), state and local environment control regulations. If waste is determined to be hazardous, use licensed hazardous waste transporter and disposal facility.

### SECTION 14 – TRANSPORT INFORMATION

**Land/Air/Sea/Rail:**
This product is NOT REGULATED. For the most accurate shipping information, refer to your transportation/compliance department regarding changes in package size, mode of shipping or other regulatory descriptors.

### SECTION 15 – REGULATORY INFORMATION

**U.S. Federal Regulations As Follows:**
This product is considered hazardous as defined by OSHA Hazard Communication Standard (29 CFR 1910.1200)

**SARA Section 313**
This product contains the following substances subject to the reporting requirements of Section 313 of Title III of the Superfund Amendment and Reauthorization Act of 1986 and 40 CFR Part 372

NONE

**Toxic Substances Control Act**

- **Inventory Status**
  The chemical substances in this product are on the TSCA Section 8 Inventory.

- **Export Notification**
  This product contains the following chemical substances subject to the reporting requirements of TSCA 12(B) if exported from the United States:

NONE

### SECTION 16 – OTHER INFORMATION

**REASON FOR REVISION:** Clarified Section 14 applicability.

**LEGEND:**

<table>
<thead>
<tr>
<th>Abbreviation</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>N.A.</td>
<td>Not Applicable</td>
</tr>
<tr>
<td>N.E.</td>
<td>Not Established</td>
</tr>
<tr>
<td>N.D.</td>
<td>Not Determined</td>
</tr>
</tbody>
</table>

The information contained in this Material Safety Data Sheet is believed to be accurate at the time of preparation, and is given without warranty, expressed or implied. AAR Precision Systems assumes no responsibility for use of or reliance upon these data.
SECTION 1 – CHEMICAL PRODUCT AND COMPANY INFORMATION

DISTRIBUTOR: AAR Aerostructures & Interiors
AAR Aerostructures & Interiors
14201 Myer Lake Circle
Clearwater, FL 33760
Phone: (727) 539-8585
Fax: (727) 539-0316

PRODUCT IDENTITY: ATR 525 Part B - Adhesive

CHEMICAL NAME: Polyamide Resin

DATE MSDS PREPARED: April 24, 2000
DATE MSDS REVISED: August 12, 2014

NORTH AMERICA EMERGENCY TELEPHONE NUMBER: 800-424-9300 CHEMTREC 24-HOUR LINE
INTERNATIONAL EMERGENCY TELEPHONE NUMBER: 1-703-527-3887 CHEMTREC 24-HOUR LINE

Website: www.aarcorp.com

SECTION 2 – COMPOSITION, INFORMATION ON INGREDIENTS

Hazardous Materials Information System (United States)

<table>
<thead>
<tr>
<th>Hazard Codes</th>
<th>Health</th>
<th>Flammability</th>
<th>Physical Hazard</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>2*</td>
<td>1</td>
<td>0</td>
</tr>
</tbody>
</table>

Hazard Codes: *=Chronic Hazard 0=Minimal Hazard, 1=Slight Hazard, 2=Moderate Hazard, 3=Serious Hazard, 4=Severe Hazard

HAZARDOUS INGREDIENTS

<table>
<thead>
<tr>
<th>Chemical Name</th>
<th>CAS</th>
<th>Weight %</th>
<th>OSHA PEL</th>
<th>ACGIH TLV</th>
<th>SKIN</th>
</tr>
</thead>
<tbody>
<tr>
<td>Polyamide Resin</td>
<td>Proprietary</td>
<td>55.0%</td>
<td>N.E.</td>
<td>N.E.</td>
<td>N.E.</td>
</tr>
<tr>
<td>Propoxylated Polyethylenepolyamine</td>
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<td>35.0%</td>
<td>N.E.</td>
<td>N.E.</td>
<td>N.E.</td>
</tr>
<tr>
<td>Amine compound</td>
<td>Proprietary</td>
<td>5.0%</td>
<td>N.E.</td>
<td>N.E.</td>
<td>N.E.</td>
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<tr>
<td>Carbon Black</td>
<td>1333-86-4</td>
<td>1.0%</td>
<td>3.5 mg/m³</td>
<td>3.5 mg/m³</td>
<td>N.E.</td>
</tr>
</tbody>
</table>

N.A. – Not Applicable, N.E. – Not Established, SKIN – Skin Designation

SECTION 3 – HAZARDS IDENTIFICATION

HEALTH HAZARDS (ACUTE AND CHRONIC):

EMERGENCY OVERVIEW: Black paste with Ammonia odor, Harmful if swallowed, Harmful if inhaled or absorbed through skin, May cause allergic respiratory reaction, Causes respiratory tract irritation, Causes severe skin and eye irritation.

Effects of Overexposure - INHALATION: Extremely irritating to the respiratory tract. May cause lung damage. Inhalation of vapors from the heated product may cause irritation or sensitization of the nose and throat.

Effects of Overexposure - EYE CONTACT: Extremely irritating to the eyes and may cause severe damage including blindness. Vapors may cause irritation. This material causes moderate to severe eye irritation. Direct contact with the material or exposure to vapors or mists may cause stinging, tearing, redness, and blurred vision.

Effects of Overexposure - SKIN CONTACT: May be absorbed through the skin in harmful amounts. May cause severe skin irritation. May cause skin sensitization. May cause dermatitis.

Effects of Overexposure - INGESTION: Harmful if swallowed. Ingestion is not an expected route of entry in industrial or commercial uses.
MATERIAL SAFETY DATA SHEET

ATR 525 Part B

Effects of Overexposure – CHRONIC HAZARDS: Chronic skin contact may cause dermatitis. IARC has designated Carbon Black as Group 2B – inadequate evidence for carcinogenicity in humans, but sufficient in experimental animals.

PRIMARY ROUTE(S) OF EXPOSURE: Skin contact, Skin absorption, Inhalation, Ingestion, Eye Contact

SECTION 4 – FIRST AID MEASURES

INHALATION: Move person to fresh air. Restore and support continued breathing. If breathing is difficult, give oxygen. Get immediate medical attention.

EYE CONTACT: Flush eyes immediately with large amount of water for at least 15 minutes holding eyelids open while flushing. Get prompt medical attention.

SKIN CONTACT: Flush contaminated skin with large amounts of water while removing contaminated clothing. Wash affected skin areas with soap and water. Get medical attention if symptoms occur.

INGESTION: If swallowed, do not induce vomiting. Give victim one or two glasses of water or milk. Call a physician or poison control center immediately for further instructions. Never give anything by mouth to an unconscious person.

SECTION 5 – FIRE FIGHTING MEASURES

FLASH POINT: (METHOD USED) 201°F, 93°C (Seta Flash Closed Cup)

LOWER EXPLOSIVE LIMIT (%): 1.1% (V)

UPPER EXPLOSIVE LIMIT (%): 6.4% (V)

AUTOIGNITION TEMPERATURE: N.D.

UNUSUAL FIRE OR EXPLOSION HAZARDS: Keep containers tightly closed. Closed containers may rupture when exposed to extreme heat. Use water spray to keep fire-exposed containers cool. During a fire, irritating and/or toxic gases and particulate may be generated by thermal decomposition or combustion.

EXTINGUISHING MEDIA: Carbon Dioxide, Dry Chemical, Foam, Water Fog.

SPECIAL FIRE FIGHTING PROCEDURES: Wear full firefighting protective clothing, including self-contained breathing apparatus (SCBA). If water is used, fog nozzles are preferable.

SECTION 6 – ACCIDENTAL RELEASE MEASURES

STEPS TO BE TAKEN IN CASE MATERIAL IS RELEASED OR SPILLED:
Keep non-essential personnel a safe distance away from spill area. Avoid breathing vapors. Use self-contained breathing equipment. Notify appropriate authorities if necessary. Avoid contact. Before attempting cleanup, refer to hazard caution information in other sections of this MSDS form. Scoop spilled material into an appropriate container for proper disposal. (If necessary, use inert absorbent material to aid in containing the spill).
SECTION 7 – HANDLING AND STORAGE

HANDLING: Keep closure tight and container upright to prevent leakage. Avoid skin and eye contact. Wash thoroughly after handling. Avoid breathing of vapor or spray mists. Do not handle until all safety precautions have been read and understood. Empty containers should not be re-used. Use with adequate ventilation.

STORAGE: Store only in well-ventilated areas. Keep container closed when not in use.

SECTION 8 – EXPOSURE CONTROLS / PERSONAL PROTECTION

ENGINEERING CONTROLS: Sufficient ventilation in pattern and volume should be provided in order to maintain air contaminant levels below recommended exposure limits.

RESPIRATORY PROTECTION: Use a NIOSH approved air-purifying organic vapor respirator if occupational limits are exceeded. For emergencies, use in confined space(s), or other conditions where exposure limits may be greatly exceeded, use an approved air-supplied respirator. Observe OSHA regulations (29CFR 1910.134) for respirator use.

SKIN PROTECTION: Use neoprene, nitrile or rubber gloves to prevent skin contact.

EYE PROTECTION: Use safety eyewear including safety glasses with side shields and chemical goggles where splashing may occur.

OTHER PROTECTIVE EQUIPMENT: Remove and wash contaminated clothing before reuse.

HYGIENIC PRACTICES: Wash hands before eating, smoking or using toilet facility. Food or beverages should not be consumed anywhere this product is handled or stored. Wash thoroughly after handling.

SECTION 9 – PHYSICAL AND CHEMICAL PROPERTIES

<table>
<thead>
<tr>
<th>PROPERTY</th>
<th>BLACK</th>
<th>BOILING RANGE:</th>
<th>527°F - 527°F</th>
</tr>
</thead>
<tbody>
<tr>
<td>PHYSICAL STATE</td>
<td>Paste</td>
<td>VAPOR PRESSURE:</td>
<td>N.D.</td>
</tr>
<tr>
<td>ODOR:</td>
<td>Ammonia</td>
<td>VAPOR DENSITY:</td>
<td>Heavier than Air.</td>
</tr>
<tr>
<td>ODOR THRESHOLD</td>
<td>N.D.</td>
<td>EVAPORATION RATE:</td>
<td>Slower than n-butylacetate</td>
</tr>
<tr>
<td>FREEZE POINT</td>
<td>N.D.</td>
<td>DENSITY, LB/GL:</td>
<td>8.6 lb/gal</td>
</tr>
<tr>
<td>SOLUBILITY IN H2O</td>
<td>Insoluble</td>
<td>VOLATILE BY WEIGHT:</td>
<td>0.00%</td>
</tr>
<tr>
<td>pH:</td>
<td>N.A.</td>
<td>VOLATILE BY VOLUME:</td>
<td>0.00%</td>
</tr>
<tr>
<td>COEFFICIENT OF WATER/OIL DISTRIBUTION:</td>
<td>N.D.</td>
<td>VOLATILE ORGANIC COMPOUNDS (Calculated):</td>
<td>0.00 lbs/gal, 0 g/l</td>
</tr>
</tbody>
</table>

(See Section 16 for abbreviation legend)

SECTION 10 – STABILITY AND REACTIVITY

STABILITY: Product is stable under normal storage conditions.

CONDITIONS TO AVOID: High temperatures.

INCOMPATIBILITY (MATERIALS TO AVOID): Strong acids, bases and strong oxidizers

HAZARDOUS DECOMPOSITION PRODUCTS: Carbon monoxide, carbon dioxide, organic or inorganic nitrogen compounds including traces of hydrogen cyanide.

HAZARDOUS POLYMERIZATION: Hazardous polymerization will not occur under normal conditions.
**SECTION 11 – TOXICOLOGICAL INFORMATION**

<table>
<thead>
<tr>
<th>Product LD50 (Oral)</th>
<th>No Data</th>
</tr>
</thead>
<tbody>
<tr>
<td>(Dermal)</td>
<td>No Data</td>
</tr>
</tbody>
</table>

| Product LC50        | No Data |

**SECTION 12 – ECOLOGICAL INFORMATION**

ECOLOGICAL INFORMATION: No information.

**SECTION 13 – DISPOSAL CONSIDERATION**

DISPOSAL METHOD: Disposal should be done in accordance with Federal (40CFR Part 261), state and local environment control regulations. If waste is determined to be hazardous, use licensed hazardous waste transporter and disposal facility.

**SECTION 14 – TRANSPORT INFORMATION**

Land/Air/Sea/Rail:

This product is NOT REGULATED. For the most accurate shipping information, refer to your transportation/compliance department regarding changes in package size, mode of shipping or other regulatory descriptors.

**SECTION 15 – REGULATORY INFORMATION**

U.S. Federal Regulations As Follows:

This product is considered hazardous as defined by OSHA Hazard Communication Standard (29 CFR 1910.1200)

SARA Section 313

This product contains the following substances subject to the reporting requirements of Section 313 of Title III of the Superfund Amendment and Reauthorization Act of 1986 and 40 CFR Part 372

NONE

Toxic Substances Control Act

Inventory Status:

The chemical substances in this product are on the TSCA Section 8 Inventory.

Export Notification

This product contains the following chemical substances subject to the reporting requirements of TSCA 12(B) if exported from the United States:

NONE

**SECTION 16 – OTHER INFORMATION**

REASON FOR REVISION: Clarified Section 14 applicability.

**LEGEND:**

N.A. – Not Applicable

N.E. – Not Established

N.D. – Not Determined

The information contained in this Material Safety Data Sheet is believed to be accurate at the time of preparation, and is given without warranty, expressed or implied. AAR Precision Systems assumes no responsibility for use of or reliance upon these data.