MATERIAL SAFETY DATA SHEET

Section 1. Identification of the Substance/Preparation and the Company/Undertaking

Product Name: Fanapart High Strength Padding Adhesive

Manufacturer: Appleton Papers Inc.
825 East Wisconsin Avenue
Appleton, WI 54911 USA

Information Phone: 920-991-8875
Emergency Phone: 800-424-9300 (Chemtrec) 1-703-527-3887 for International Calls
E-mail: ehsps@appletonideas.com
Date of Preparation/Revision: January 19, 2011
Product Use: Adhesive used in the production of pads of paper.

Section 2. Hazards Identification

Emergency Overview
Flammable liquid and vapor (FP=111°F). May cause eye and skin irritation. Harmful if inhaled, swallowed or absorbed through the skin. Inhalation of vapors or mist may cause respiratory irritation and central nervous system effects such as headache, dizziness, drowsiness, nausea and unconsciousness. May be fatal or cause blindness if swallowed. Prolonged and/or repeated overexposure may cause visual, kidney and liver damage. Possible birth defect hazard. Contains 2-ethoxyethanol which may cause birth defects and adverse reproductive effects in males. Refer to Section 11 for additional information.

Product Description: Blue to white emulsion with a mild odor.

EU Preparation Classification (1999/45/EC): Flammable R10
Refer to Section 16 for Full Text of EU Classes and R Phrases

Section 3. Composition / Information on Ingredients

<table>
<thead>
<tr>
<th>Component</th>
<th>CAS Number/ EINECS Number.</th>
<th>Amount</th>
<th>EU Classification (67/548/EEC)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Propylene Glycol (1,2-Propanediol)</td>
<td>57-55-6 / 200-338-0</td>
<td>20-30%</td>
<td>Not Applicable</td>
</tr>
<tr>
<td>Acrylic Polymer</td>
<td>Proprietary</td>
<td>10-20%</td>
<td>Not Applicable</td>
</tr>
<tr>
<td>Ethanol</td>
<td>64-17-5 / 200-578-6</td>
<td>5-10%</td>
<td>F, T R11</td>
</tr>
<tr>
<td>Methanol</td>
<td>67-56-1 / 200-659-6</td>
<td>1-2%</td>
<td>R23/24/25, R39/23/24/25, R34/40, R43</td>
</tr>
<tr>
<td>2-Ethoxyethanol (Ethylene Glycol Monoethyl Ether)</td>
<td>110-80-5 / 203-804-1</td>
<td>0.11%</td>
<td>Xn, Repr 2 R10, R20/21/22, R60, R61</td>
</tr>
<tr>
<td>Formaldehyde</td>
<td>50-00-0 / 200-001-8</td>
<td>0.02%</td>
<td>C, T, Carc. 3 R23/24/25, R34, R40, R43</td>
</tr>
<tr>
<td>Water</td>
<td>7732-18-5 / 231-791-2</td>
<td>40-60%</td>
<td>Not Applicable</td>
</tr>
</tbody>
</table>

Refer to Section 16 for Full Text of EU Classes and R Phrases

Section 4. First Aid Measures

Eyes: Remove contact lenses if present. Flush eyes thoroughly with water for at least 15 minutes. If irritation persists, seek medical attention.
Skin: Remove contaminated clothing. Wash skin thoroughly with soap and water. Launder contaminated clothing before reuse. If irritation or rash develops, seek medical attention.

Ingestion: If swallowed, CALL A PHYSICIAN OR POISON CONTROL CENTER FOR MOST CURRENT INFORMATION. If professional advice is not available, DO NOT induce vomiting. Give one or two glasses of water to drink. Never induce vomiting or give diluents to someone who is unconscious, having convulsions, or who cannot swallow.

Inhalation: Move person to fresh air. Seek medical attention if irritation or other symptoms persist.

Section 5. Fire Fighting Measures

Extinguishing Media: Water spray, carbon dioxide, alcohol foam or dry chemical. Use water spray to cool fire exposed containers. Do not use direct water stream – may spread fire.

Unusual Fire and Explosion Hazards: This product is flammable and vapors may form explosive mixtures with air. Vapors are heavier than air and will travel along surfaces to remote ignition sources and flash back. Closed containers may explode if exposed to extreme heat.

Special Fire Fighting Procedures: Wear positive pressure self-contained breathing apparatus and full protective clothing. Do not apply a direct stream of water onto hot, burning liquids; this may cause frothing or violent steam generation.

Hazardous Combustion Products: Exposure of adhesive to fire and heat can create toxic fumes and vapors including carbon dioxide, carbon monoxide, nitrogen oxides, formaldehyde and other aldehydes, acrylic monomers and hydrocarbon residues.

Section 6. Accidental Release Measures

Eliminate all sources of ignition and ventilate area. Evacuate unprotected individuals from the spill area. Wear appropriate protective clothing and equipment (See Section 8 for specific recommendations). Contain and collect spill with inert materials such as commercial absorbent, sand or earth. Place into sealed drums for proper disposal. CAUTION: Spilled material may be slippery. Avoid contamination of water supplies and environmental releases. Report spills as required to authorities.

Refer to Section 13 for disposal information.

Section 7. Handling and Storage

Handling: Avoid breathing vapors, mists and aerosols. Use only with adequate ventilation. Avoid contact with the eyes, skin and clothing. Wear impervious gloves, safety glasses or goggles and appropriate protective clothing when handling this material. Wash thoroughly after handling. Do not eat, drink or smoke in the work area. Keep containers closed when not in use. Keep product away from heat, sparks, flames and all other sources of ignition. Do not permit smoking in use or storage areas. Use with non-sparking tools and explosion proof equipment where required. Electrically bond and ground metal containers for transfer.

Do not cut, drill, grind or weld on or near containers, even empty containers. Empty containers retain product residues that can be hazardous. Follow all MSDS precautions when handling empty containers.

Storage: Store in accordance with regulations for the storage of flammable and combustible liquids. Store in a dry, well ventilated area away from heat, direct sunlight and all sources of ignition. Store away from oxidizers and other incompatible materials. Do not use aluminum equipment for transfer or storage. Do not freeze. Store between 34°F and 120°F.

Section 8. Exposure Controls / Personal Protection

Exposure Limits:

<table>
<thead>
<tr>
<th>Component</th>
<th>Exposure Limit</th>
<th>Source</th>
</tr>
</thead>
<tbody>
<tr>
<td>Propylene Glycol</td>
<td>10 mg/m3 TWA</td>
<td>AIHA WEEL</td>
</tr>
<tr>
<td>Acrylic Polymer</td>
<td>None Established</td>
<td>Not Applicable</td>
</tr>
</tbody>
</table>
Ethanol | 1000 ppm TWA | ACGIH/OSHA, UK OEL, DFG MAK
| 500 ppm TWA |
Methanol | 200 ppm TWA | OSHA, ACGIH, DFG MAK, UK OEL
| 250 ppm STEL skin |
| 200 ppm TWA skin |
| 5 ppm TWA skin |
| 2 ppm TWA skin |
2-Ethoxyethanol | 200 ppm TWA skin | OSHA, UK OEL, ACGIH, DFG MAK
| 10 ppm TWA skin |
| 5 ppm TWA skin |
| 2 ppm TWA skin |
Formaldehyde | 0.75 ppm TWA; 2 ppm STEL | OSHA, UK OEL, ACGIH, DFG MAK
| 2 ppm TWA/STEL |
| 0.3 ppm Ceiling |

**Engineering Controls:** Use with adequate local exhaust ventilation to maintain exposures below the occupational exposure limits. Use explosion proof equipment where required.

**Respiratory Protection:** If the exposure limits are exceeded a NIOSH approved respirator appropriate for the form and concentration of the contaminants should be used. A full-facepiece air-purifying respirator with formaldehyde cartridges can be used for concentrations up to 7.5 ppm (10 x PEL). Supplied air respirators may be required for higher exposures. Refer to OSHA 1910.1048 (the Formaldehyde Standard) for additional information and requirements for a cartridge change schedule. An air-purifying respirator with organic vapor cartridges can be used if the exposure limit for ethanol, methanol or 2-ethoxyethanol is exceeded. Protection provided by air-purifying respirators is limited. Use a positive pressure, air-supplied respirator if there is any potential for uncontrolled release, exposure levels are not known or any other circumstances where air-purifying respirators may not provide adequate protection. Selection and use of respiratory equipment must be in accordance with OSHA 1910.134 and good industrial hygiene practice.

**Eye Protection:** Safety glasses or goggles recommended unless a full-facepiece respirator is worn.

**Skin Protection:** Impervious gloves such as butyl rubber recommended. Gloves of other chemically resistant material may not provide adequate protection. Refer to your safety equipment supplier for assistance in selection impervious protective clothing. Wear protective clothing as required to avoid skin contact when handling.

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**Section 9. Physical and Chemical Properties**

**Appearance and Odor:** Blue to white emulsion with a mild odor.

**Solubility in Water:** Complete

**pH:** 3.37

**Boiling Point:** Not Available

**Melting Point:** Not Available

**Specific Gravity:** 1.0224 @ 25°C

**Vapor Density:** Greater than 1

**Evaporation Rate:** Not Available

**Vapor Pressure:** 96 mm Hg @ 20°C (methanol)

**Partition Coefficient:** Not Available

**Autoignition Temperature:** Not Available

**Flash Point:** 111°F (43.8°C) TCC

**Explosive Limits:** LEL: 2.35-3.3%  UEL: 12.5-19%

**Sustained Combustibility:** This product did not sustain combustion when tested in accordance with the United Nations/Department of Transportation criteria.

**VOC Content:** 10.04% (102.7 g/L) calculated (refer to Section 15 for further information)

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**Section 10. Stability and Reactivity**

**Stability:** Stable.

**Incompatibility:** Avoid excessive heat and open flames, strong oxidizers, reducing agents, aluminum, acids and bases. May be corrosive to lead and aluminum.

**Hazardous Decomposition Products:** Products of combustion include carbon dioxide, carbon monoxide, oxides of nitrogen, formaldehyde and other aldehydes, acrylic monomers and hydrocarbon residues.

**Hazardous Polymerization:** Will not occur.
Section 11. Toxicological Information

Health Hazards

**Inhalation:** Inhalation of vapors may cause mucous membrane and respiratory irritation and central nervous system depression with symptoms of headache, dizziness, drowsiness, tingling, numbness and shooting pains in the hands and arms, nausea, vomiting, and unconsciousness. High vapor concentrations may cause burning sensation of the nose and throat and watering of the eyes. Severe overexposures may cause respiratory depression, blurred vision, blindness, liver and kidney damage, coma and death.

**Skin Contact:** Repeated or prolonged contact may cause irritation, drying, defatting of the skin and dermatitis. The liquid may be absorbed through the skin causing effects similar to those described under inhalation and ingestion.

**Eye Contact:** May cause irritation. Eye injury is possible.

**Ingestion:** Ingestion may cause mucous membrane and gastrointestinal irritation, visual disturbances and nervous system depression with symptoms of headache, dizziness, nausea, vomiting, weakness, fatigue, leg cramps, restlessness, confusion, drunken behavior, and unconsciousness. Methanol is very slowly eliminated from the body. Ingestion of methanol may cause nervous system effects, blurred vision, changes in color perception, blindness, coma and death.

**Chronic:** Prolonged occupational overexposure may cause effects on vision and damage to the liver and kidneys. Prolonged and repeated overexposure to high concentrations of methanol vapors may have a cumulative effect cause ringing in the ears, insomnia, trembling, unsteady gait, vertigo and clouded or double vision.

**Carcinogenicity:** None of the components present at 0.1% or greater is listed as a potential carcinogen by IARC, NTP or OSHA. This product contains a small amount (0.02%) of formaldehyde which is listed by IARC as a group 1 carcinogen, by NTP as reasonably anticipated to be a human carcinogen, by OSHA as a carcinogen and in the EU as a category 3 carcinogen.

**Mutagenicity:** Methanol, ethanol, 2-ethoxyethanol and formaldehyde have tested positive for mutagenicity in some test systems.

**Reproductive Toxicity:** Methanol has been found to cause adverse reproductive effects and/or birth defects in studies with laboratory animals. Repeated ingestion of ethanol by pregnant mothers has been shown to adversely affect the central nervous system of the fetus, resulting in fetal alcohol syndrome. These effects include mental and physical retardation, disturbances of learning, motor and language deficiencies, behavioral disorders and small head size. 2-Ethoxyethanol has been found to cause birth defects in laboratory animals and adverse reproductive effects such as decreased sperm counts and testicular atrophy in both exposed male workers and laboratory animals.

**Acute Toxicity Values:**
- Propylene Glycol: LD50 oral rat 20-33.7 g/kg, LD50 skin rabbit 20.8 g/kg
- Acrylic Polymer: LD50 oral rat >5 g/kg, LD50 skin rabbit >5 g/kg
- Ethanol: LD50 oral rat 7.060 g/kg, LD50 skin rabbit 20 g/kg, LC50 inhalation rat 20000 ppm/10hr
- Methanol: LD50 oral rat 5.628 g/kg, LD50 skin rabbit 15.8 g/kg, LC50 inhalation rat 64,000 ppm/4 hr
- 2-Ethoxyethanol: LD50 oral rat 2.125 g/kg, LC50 inhalation rat 2000 ppm/7 hr
- Formaldehyde: LD50 oral rat 0.100 g/kg, LC50 inhalation rat 203 mg/m3, LD50 skin rabbit 270 uL/kg

Section 12. Ecological Information

No data is available for the product. The following are acute aquatic toxicity values for the components:
- Methanol: The LC50/96-hour values for fish are over 100 mg/l.
- Ethanol: The LC50/96-hour values for fish are over 100 mg/l.
- 2-Ethoxyethanol: The LC50/96 hour values for fish are over 100 mg/l.
- Acrylic Polymer: The LC50/96 hour values for fish are over 100 mg/l.
The solvents in this product are readily biodegradable. The acrylic polymer is not readily biodegradable but readily absorb onto water treatment sludge and would be eliminated from effluent.

**Section 13. Disposal Considerations**

As sold, this product meets the definition of a hazardous waste under RCRA, ignitable characteristic (D001). Dispose in accordance with all local, state and federal regulations. Local regulations may be more stringent than regional and national requirements. It is the responsibility of the waste generator to determine the toxicity and physical characteristics of the material to determine the proper waste identification and disposal in compliance with applicable regulations.

**Section 14. Transport Information**

**Transportation Classification:** Not Regulated for Transportation (49CFR 173.120 (a) (3)), IATA 3.3.1.3, IMDG 2.3.1.3 and ADR 2.2.3.1.1(note 1). This product does not sustain combustion.

**Section 15. Regulatory Information**

**United States Regulations:**

**OSHA Status:** Hazardous – a MSDS is required for this product.

**EPA SARA Regulations:**

SARA 311/312 Hazard Categories:

- **Y** – Fire Hazard
- **N** – Sudden Release of Pressure
- **N** – Reactivity
- **Y** – Acute Health
- **Y** – Chronic Health

SARA 313: This contains the following chemicals above deminimus concentrations subject to the notification or reporting requirements of SARA 313:

<table>
<thead>
<tr>
<th>Chemical</th>
<th>Concentration</th>
<th>SARA 313</th>
</tr>
</thead>
<tbody>
<tr>
<td>Methanol</td>
<td>67-56-1</td>
<td>1-2%</td>
</tr>
<tr>
<td>2-Ethoxyethanol</td>
<td>110-80-5</td>
<td>below deminimus concentration of 1%</td>
</tr>
</tbody>
</table>

**CERCLA Section 103:** The reportable quantity (RQ) for formaldehyde is 100 lbs, for 2-ethoxyethanol is 1000 lbs and methanol is 5000 lbs.

**RCRA Status:** This product, as sold, is regulated under RCRA as a hazardous waste (D001).

**TSCA Status:** All of the components of this product are listed on the EPA TSCA inventory.

**Volatile Organic Carbon Content:** 10.04% (102.7 g/L) The VOC (volatile organic carbon) content has been calculated using the formula that appears in the US EPA and California regulations. This formula excludes all exempt materials (low vapor pressure VOCs) and water.

**California Proposition 65:** This product may contain the following chemicals known to the State of California to cause cancer: formaldehyde, acrylamide, ethyl acrylate, acetaldehyde, propylene oxide. This product contains the following chemical known to the State of California to cause developmental toxicity and male reproductive toxicity: Ethylene Glycol Monoethyl Ether (2-ethoxyethanol).

**International Regulations:**

**Canadian Environmental Protection Act:** All of the ingredients are listed on the Canadian Domestic Substances List.
Canadian WHMIS Classification:

Class D - Division 2 - Subdivision A
(Toxic material causing other chronic effects)
Class B - Division 3     (Combustible Liquid)

This MSDS has been prepared according to the criteria of the Controlled Products Regulation (CPR) and the MSDS contains all of the information required by the CPR.

EINECS Status: All of the components of this product are listed on the European EINECS or ELINCS inventory

EC Labeling:

| R10 Flammable |
| S51 Use only in well ventilated areas. |
| S60 This material and its container must be disposed of as hazardous waste. |

Section 16. Other Information

NFPA RATING (NFPA 704)
FIRE: 1       HEALTH: 2       REACTIVITY: 0

HMIS RATING
FIRE: 1       HEALTH: 2*       REACTIVITY: 0

* Chronic health hazard

EU Classes and Risk Phrases for Reference (See Sections 2 and 3):
C Corrosive
Carc 3 Carcinogen Category 3
F Highly Flammable
Repr 2 Reproductive Toxicity Category 2
T Toxic
Xn Harmful
R10 Flammable
R11 Highly Flammable
R20/21/22 Harmful by inhalation, in contact with skin and if swallowed.
R23/24/25 Toxic by inhalation, in contact with skin and if swallowed.
R34 Causes burns
R39/23/24/25 Toxic: danger of very serious irreversible effects by inhalation, in contact with skin and if swallowed.
R40 Limited evidence of carcinogenic effect
R43 May cause sensitization by skin contact.
R60 May impair fertility
R61 May cause harm to the unborn child.

Effective Date: 01/19/11

Supersedes Date: 04/09/08

Revision to Sections: Section 3 EU Classification for components. Section 8 Exposure Limits. Section 12 Added Degradability.

MSDS Number: API-CRP-002 (formerly FPA-0002)
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