SECTION 1: IDENTIFICATION

1.1. Product Identifier
Product Form: Proprietary Acrylic Blend
Product Name: xpressSTEP – Sheet Vinyl; Spray Flooring Adhesive

1.2. Intended Use of the Product
Use of the substance/mixture: Adhesive

1.3. Name, Address, and Telephone of the Responsible Party
Mannington Mills, Inc.
P.O. Box 30 – Route 45
75 Mannington Mills Road
Salem, New Jersey 08079 U.S.A.
General Information: (856) 935-3000

1.4. Emergency Telephone Numbers
Product/Medical Emergency Phone Number (24 Hours): (866) 359-5602
Transport Emergency:
Within the U.S. - CHEMTREC: (800) 424-9300
Outside the U.S. – CHEMTREC: +1-703-527-3887

SECTION 2: HAZARDS IDENTIFICATION

2.1. Classification of the Substance or Mixture
Classification (GHS-US)
Gases under pressure – Dissolved gas
Carcinogenicity 2

2.2. Label Elements
GHS-US Labeling
Hazard Pictograms (GHS-US):

   ! [GHS04]
   ! [GHS08]

Signal Word (GHS-US): Warning
Hazard Statements (GHS-US):
Contains gas under pressure; may explode if heated. Suspected of causing cancer.
Precautionary Statements (GHS-US):
Obtain special instructions before use. Do not handle until all safety precautions have been read and understood. Wear protective gloves/protective clothing/eye protection/face protection. If exposed or concerned: Get medical advice/attention. Store locked up. Protect from sunlight. Store in a well-ventilated place. Dispose of contents and container in accordance with all local, regional, national and international regulations.

2.3. Other Hazards
No additional information available

2.4. Unknown Acute Toxicity (GHS-US)
56 % of the mixture consists of ingredient(s) of unknown acute toxicity.
SECTION 3: COMPOSITION/INFORMATION ON INGREDIENTS

3.1. Substance
Not applicable

3.2. Mixture

<table>
<thead>
<tr>
<th>Name</th>
<th>Product Identifier (CAS No)</th>
<th>%</th>
<th>Classification (GHS-US)</th>
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<tbody>
<tr>
<td>1,1-Difluoroethane</td>
<td>75-37-6</td>
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<td>0.1 – 1</td>
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<td></td>
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* The exact percentage (concentration) of composition has been withheld as a trade secret in accordance with paragraph (i) of §1910.1200. Full text of H-phrases: see section 16

SECTION 4: FIRST AID MEASURES

4.1. Description of First Aid Measures

First-aid Measures General:

First-aid Measures After Inhalation: If inhaled, remove to fresh air. If not breathing, give artificial respiration. If breathing is difficult, give oxygen.

First-aid Measures After Skin Contact: In case of contact, immediately flush skin with plenty of water. Remove contaminated clothing and shoes. Wash clothing before reuse. Call a physician if irritation develops and persists.

First-aid Measures After Eye Contact: In case of contact, immediately flush eyes with plenty of water. Remove contact lenses, if worn. If irritation persists, get medical attention.

First-aid Measures After Ingestion: If swallowed, do NOT induce vomiting unless directed to do so by medical personnel. Never give anything by mouth to an unconscious person. Get medical advice/attention if you feel unwell.

4.2. Most important symptoms and effects, both acute and delayed

Symptoms/Injuries:

Symptoms/Injuries After Inhalation: May cause respiratory tract irritation.

Symptoms/Injuries After Skin Contact: May cause skin irritation. Symptoms may include redness, drying, defatting and cracking of the skin.

Symptoms/Injuries After Eye Contact: May cause eye irritation. Symptoms may include discomfort or pain, excess blinking and tear production, with possible redness and swelling.

Symptoms/Injuries After Ingestion: Not a normal route of exposure.

Chronic Symptoms:

4.3. Indication of Any Immediate Medical Attention and Special Treatment Needed

Symptoms may not appear immediately. In case of accident or if you feel unwell, seek medical advice immediately (show the label or SDS where possible).

SECTION 5: FIRE-FIGHTING MEASURES

5.1. Extinguishing Media

Suitable Extinguishing Media: Powder, water spray, foam, carbon dioxide.

Unsuitable Extinguishing Media: None known.

5.2. Special Hazards Arising From the Substance or Mixture

Fire Hazard: Products of combustion may include, and are not limited to: oxides of carbon

5.3. Advice for Firefighters

Firefighting Instructions: Cool closed containers exposed to fire with water.

Protection During Firefighting: Containers may explode when heated. Keep upwind of fire. Wear full fire fighting turn-out gear (full Bunker gear) and respiratory protection (SCBA).

SECTION 6: ACCIDENTAL RELEASE MEASURES

6.1. Personal Precautions, Protective Equipment and Emergency Procedures

General Measures: Use personal protection recommended in Section 8. Isolate the hazard area and deny entry to unnecessary and unprotected personnel. Eliminate sources of ignition. Ruptured cylinders may rocket.
6.2. Methods and Material for Containment and Cleaning Up

For Containment: Contain and/or absorb spill with inert material (e.g. sand, vermiculite), then place in a suitable container. Do not flush to sewer or allow to enter waterways. Use appropriate Personal Protective Equipment (PPE).

Methods for Cleaning Up: Scoop up material and place in a disposal container. Provide ventilation.

6.3. Reference to Other Sections

See section 8 for further information on protective clothing and equipment and section 13 for advice on waste disposal.

SECTION 7: HANDLING AND STORAGE

7.1. Precautions for Safe Handling

Precautions for Safe Handling: Keep away from sources of ignition. - No smoking. Avoid contact with skin and eyes. Avoid breathing vapor or mist. Use only in well-ventilated areas. When using do not eat, drink or smoke. Pressurized container: Do not pierce or burn, even after use.

Hygiene Measures: Launder contaminated clothing before reuse. Wash hands before eating, drinking, or smoking.

7.2. Conditions for Safe Storage, Including Any Incompatibilities

Storage Conditions: Keep locked up and out of reach of children. Store away from direct sunlight or other heat sources. Do not store at temperatures above 49 °C / 120 °F. Keep from freezing. Store in a well ventilated place.

7.3. Specific End Use(s)

Not available.

SECTION 8: EXPOSURE CONTROLS/PERSONAL PROTECTION

8.1. Control Parameters

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<tr>
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<th>USA ACGIH</th>
<th>ACGH TWA (ppm)</th>
<th>Not applicable</th>
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</thead>
<tbody>
<tr>
<td>1,1-Difluoroethane (75-37-6)</td>
<td>USA ACGIH</td>
<td>ACGH STEL (ppm)</td>
<td>Not applicable</td>
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<tr>
<td>Vinyl acetate (108-05-4)</td>
<td>USA ACGIH</td>
<td>ACGH TWA (ppm)</td>
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<tr>
<td></td>
<td>USA ACGIH</td>
<td>ACGH STEL (ppm)</td>
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</table>

8.2. Exposure Controls

Appropriate Engineering Controls: Use ventilation adequate to keep exposures (airborne levels of dust, fume, vapor, etc.) below recommended exposure limits.

Hand Protection: Wear suitable gloves.

Eye Protection: Safety glasses or goggles recommended when using product.

Skin and Body Protection: Wear suitable protective clothing.

Respiratory Protection: In case of insufficient ventilation, wear suitable respiratory equipment. Respirator selection must be based on known or anticipated exposure levels, the hazards of the product and the safe working limits of the selected respirator.

Environmental Exposure Controls: Maintain levels below community environmental protection thresholds.

Other Information: Do not eat, smoke or drink where material is handled, processed or stored. Wash hands carefully before eating or smoking. Handle according to established industrial hygiene and safety practices.

SECTION 9: PHYSICAL AND CHEMICAL PROPERTIES

9.1. Information on Basic Physical and Chemical Properties

Physical State: Gas / Pressurized Liquid.

Appearance: Clear.

Odor: Sweet.

Odor Threshold: No data available.

pH: 5.5 – 7.5

Evaporation Rate: No data available.

Melting Point: No data available.

Freezing Point: No data available.

Boiling Point: No data available.
Flash Point: No data available.
Auto-ignition Temperature: No data available.
Decomposition Temperature: No data available.
Flammability (solid, gas): Not Flammable.
Vapor Pressure: No data available.
Relative Vapor Density at 20 °C: > 1 (Air = 1)
Relative Density: 1.03
Solubility: No data available.
Log Pow: No data available.
Log Kow: No data available.
Viscosity, kinetic: No data available.
Viscosity, dynamic: No data available.
Explosive properties: No data available.
Oxidizing properties: No data available.
Explosive limits: No data available.

9.2. Other Information
No additional information available

SECTION 10: STABILITY AND REACTIVITY

10.1. Reactivity: No dangerous reaction known under conditions of normal use.
10.3. Possibility of Hazardous Reactions: No dangerous reaction known under conditions of normal use.
10.6. Hazardous Decomposition Products: May include, but are not limited to: oxides of carbon.

SECTION 11: TOXICOLOGICAL INFORMATION

11.1. Information On Toxicological Effects

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<td>LD50 Oral Rat</td>
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<tr>
<td>LD50 Dermal Rabbit</td>
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</tr>
<tr>
<td>LC50 Inhalation Rat</td>
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<table>
<thead>
<tr>
<th>1,1-Difluoroethane (75-37-6)</th>
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<td>LC50 Inhalation Rat</td>
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<tbody>
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<td>LD50 Oral Rat</td>
</tr>
<tr>
<td>LD50 Dermal Rabbit</td>
</tr>
<tr>
<td>LC50 Inhalation Rat</td>
</tr>
</tbody>
</table>

Skin Corrosion/Irritation: Based on available data, the classification criteria are not met.
Serious Eye Damage/Irritation: Based on available data, the classification criteria are not met.
Respiratory or Skin Sensitization: Based on available data, the classification criteria are not met.
Germ Cell Mutagenicity: Based on available data, the classification criteria are not met.
Carcinogenicity: Suspected of causing cancer.

<table>
<thead>
<tr>
<th>Vinyl acetate (108-05-4)</th>
</tr>
</thead>
<tbody>
<tr>
<td>IARC group</td>
</tr>
</tbody>
</table>

Reproductive toxicity: Based on available data, the classification criteria are not met.
Specific Target Organ Toxicity (Single Exposure): Based on available data, the classification criteria are not met.
Specific Target Organ Toxicity (Repeated Exposure): Based on available data, the classification criteria are not met.
Aspiration Hazard: Based on available data, the classification criteria are not met.
Symptoms/Injuries After Inhalation: May cause respiratory tract irritation.
Symptoms/Injuries After Skin Contact: May cause skin irritation. Symptoms may include redness, drying, defatting and cracking of the skin.

Symptoms/Injuries After Eye Contact: May cause eye irritation. Symptoms may include discomfort or pain, excess blinking and tear production, with possible redness and swelling.

Symptoms/Injuries After Ingestion: Not a normal route of exposure.

SECTION 12: ECOLOGICAL INFORMATION

12.1. Toxicity

Ecology – general: May cause long-term adverse effects in the aquatic environment.

12.2. Persistence and Degradability: Not established

12.3. Bioaccumulative Potential: Not established

12.4. Mobility in Soil: No additional information available.

12.5. Other Adverse Effects

Effect on ozone layer: No additional information available.

Effect on the global warming: No known ecological damage caused by this product.

SECTION 13: DISPOSAL CONSIDERATIONS

13.1. Waste treatment methods

Waste Disposal Recommendations: This material must be disposed of in accordance with all local, state, provincial, and federal regulations. Pressurized container: Do not pierce or burn, even after use.

SECTION 14: TRANSPORT INFORMATION

In Accordance with DOT

14.1. UN Number

UN-No. (DOT) : UN1950

14.2. UN Proper Shipping Name

Proper Shipping Name : Aerosols, non-flammable

Hazard Class : 2.2

Hazard Labels (DOT) :

14.3. Additional Information

Other Information : No supplementary information available.

Packing Group : Do not handle until all safety precautions have been read and understood.

SECTION 15: REGULATORY INFORMATION

15.1. US Federal Regulations

All components of this product are listed, or excluded from listing, on the United States Environmental Protection Agency Toxic Substances Control Act (TSCA) inventory.

Vinyl acetate (108-05-4)

Listed on SARA Section 302 (Specific toxic chemical listings)
Listed on SARA Section 313 (Specific toxic chemical listings)

SARA Section 302 Threshold Planning Quantity (TPQ) : 1000

SARA Section 313 - Emission Reporting : 0.1%

15.2. US State Regulations

xpressSTEP

State or local regulations : This product contains chemicals known to the State of California to cause cancer, birth defects or other reproductive harm.
SECTION 16: OTHER INFORMATION, INCLUDING DATE OF PREPARATION OR LAST REVISION

Revision Date : 02/03/2015
Other Information : This document has been prepared in accordance with the SDS requirements of the OSHA Hazard Communication Standard 29 CFR 1910.1200.

This information is based on our current knowledge and is intended to describe the product for the purposes of health, safety and environmental requirements only. It should not therefore be construed as guaranteeing any specific property of the product.

SDS US (GHS HazCom)