**Section 1 - IDENTIFICATION**

**Product Identifier**

**Product Name:** Fan-Apart Adhesive

**Synonyms**
- Edge Padding Adhesive; Padding Compound; NEO-1

**Recommended Use**
- Fan-Apart Adhesive for Carbonless Paper.

**Restrictions on Use**
- None known.

**SDS ID:** 3100-015NA

**Manufacturer Information**

P. H. Glatfelter Company
Phone: 740-772-3111
Printing and Carbonless Papers Division
232 East 8th Street
Chillicothe, Ohio 45601
Emergency #: 800-424-9300 CHEMTREC®

**General Comments**

NOTE: Emergency telephone numbers are to be used only in the event of chemical emergencies involving a spill, leak, fire, exposure, or accident involving chemicals. All non-emergency questions should be directed to customer service.

**Section 2 - HAZARD(S) IDENTIFICATION**

**Classification in accordance with 29 CFR 1910.1200.**
- Carcinogenicity, Category 2
- Toxic to reproduction, Category 2
- Specific Target Organ Toxicity - Repeated Exposure, Category 1 (liver)
- Specific Target Organ Toxicity - Repeated Exposure, Category 2 (central nervous system)
- Hazardous to the aquatic environment - acute hazard, Category 3

**GHS LABEL ELEMENTS**

**Symbol(s)**

**Signal Word**
- DANGER

**Hazard Statement(s)**
- Suspected of causing cancer
- Suspected of damaging fertility or the unborn child
Causes damage to liver through prolonged or repeated exposure.
May cause damage to central nervous system through prolonged or repeated exposure.
Harmful to aquatic life

Precautionary Statement(s)

Prevention
Obtain special instructions before use. Do not handle until all safety precautions have been read and understood.
Do not breathe vapor or mist. Do not eat, drink, or smoke when using this product. Wear protective
gloves/clothing and eye/face protection. Wash thoroughly after handling. Avoid release to the environment.

Response
IF exposed or concerned: Get medical advice/attention.

Storage
Store locked up.

Disposal
Dispose in accordance with all applicable regulations.

Section 3 - COMPOSITION / INFORMATION ON INGREDIENTS

<table>
<thead>
<tr>
<th>CAS</th>
<th>Component</th>
<th>Percent</th>
</tr>
</thead>
<tbody>
<tr>
<td>7732-18-5</td>
<td>Water</td>
<td>55-65</td>
</tr>
<tr>
<td>Not Available</td>
<td>Additives</td>
<td>30-35</td>
</tr>
<tr>
<td>57-55-6</td>
<td>1,2-Propylene glycol</td>
<td>15-20</td>
</tr>
<tr>
<td>64-17-5</td>
<td>Ethyl alcohol</td>
<td>1-10</td>
</tr>
</tbody>
</table>

This material is a controlled product under Canadian WHMIS regulations.

Section 4 - FIRST-AID MEASURES

Description of Necessary Measures

Inhalation
If exposed to excessive levels of vapors or mists, remove to fresh air and get medical attention if other symptoms
develop.

Skin Contact
Wash skin with soap and flush thoroughly with plenty of water. Obtain medical attention if irritation develops, or
other symptoms occur. Wash clothing before reuse.

Eye Contact
First check the victim for contact lenses and remove if present. Immediately flush eyes with plenty of water or
normal saline for at least 15 minutes while holding eyelids open. If symptoms such as redness or irritation develop
or persist, get immediate medical attention. Do not put any medication in the victim's eyes unless instructed by a
physician.

Ingestion
If swallowed, do NOT induce vomiting. Call a physician or poison control center immediately. Never give anything
by mouth to an unconscious person. If the victim is unconscious, keep airway open and lay the victim on his or
her side with the head lower than the body.

Most Important Symptoms/Effects

Acute
May cause respiratory tract irritation and/or eye irritation.
Delayed
Suspected of causing cancer. Suspected of damaging fertility or the unborn child. Causes damage to liver through prolonged or repeated exposure. May cause damage to central nervous system through prolonged or repeated exposure.

Indication of Immediate Medical Attention and Special Treatment Needed, If Needed
Treat symptomatically and supportively.

**Section 5 - FIRE-FIGHTING MEASURES***

Suitable Extinguishing Media
For fires involving this product, use an extinguisher which is appropriate for combustibles and surrounding classes of fires. Use carbon dioxide, dry chemical, alcohol foam, or waterspray when fighting fires involving this material.

Unsuitable Extinguishing Media
Water may be ineffective as an extinguishing agent, but water should be used to keep fire-exposed containers cool to prevent build-up and possible autoignition or explosion when exposed to extreme heat.

Special Hazards Arising from the Chemical
Product will not sustain combustion if ignition source is removed, per ASTM D-4206 testing

Hazardous Combustion Products
Combustion: Hazardous decomposition products include black smoke and toxic fumes of carbon dioxide and carbon monoxide

Special Protective Equipment and Precautions for Firefighters
Wear full protective fire fighting gear including self contained breathing apparatus (SCBA) for protection against possible exposure.

Fire Fighting Measures
Keep unnecessary people away, isolate hazard area and deny entry. Move container from fire area if it can be done without risk. Cool containers with water spray until well after the fire is out. Do not scatter spilled material with extinguishing agent. Dike for later disposal. Avoid inhalation of material or combustion by-products. Stay upwind and keep out of low areas.

**Section 6 - ACCIDENTAL RELEASE MEASURES***

Personal Precautions, Protective Equipment and Emergency Procedures
Wear personal protective clothing and equipment, see Section 8. Avoid release to the environment. Keep unnecessary people away, isolate hazard area and deny entry. Ventilate closed spaces before entering.

Methods and Materials for Containment and Cleaning Up
Stop leak if possible without personal risk. Absorb with sand or other non-combustible material. Collect spilled material in appropriate container for disposal. Large spills: Dike for later disposal.

**Section 7 - HANDLING AND STORAGE***

Precautions for Safe Handling
Obtain special instructions before use. Do not handle until all safety precautions have been read and understood. Do not breathe vapor or mist. Use in a well-ventilated area. Do not eat, drink, or smoke when using this product. Avoid prolonged or repeated contact with skin or eyes. Wear protective gloves/clothing and eye/face protection. Wash thoroughly after handling. Avoid release to the environment.

Conditions for Safe Storage, including any Incompatibilities
Keep containers closed when not in use. Store in a cool, dry, well-ventilated area away from incompatible materials (see Section 10). Avoid freezing or high temperatures that degrade adhesive quality. Store locked up.
**Section 8 - EXPOSURE CONTROLS / PERSONAL PROTECTION**

**Exposure Limits**

Neither the American Conference of Governmental Industrial Hygienists or the provinces of Canada have developed exposure limits for this product. However, the following exposure guidelines exist for product ingredients.

**Component Exposure Limits**

Ethyl alcohol (64-17-5)

- **ACGIH:** 1000 ppm STEL
- **OSHA:** 1000 ppm TWA; 1900 mg/m³ TWA
- **NIOSH:** 1000 ppm TWA; 1900 mg/m³ TWA
- **Mexico:** 1000 ppm TWA LMPE-PPT; 1900 mg/m³ TWA LMPE-PPT

**Appropriate Engineering Controls**

No special ventilation requirements. Good room ventilation should be sufficient to control airborne levels. If operations generate vapor or mist, use adequate general or local ventilation to keep airborne concentrations below exposure limits.

**Individual Protection Measures, such as Personal Protective Equipment**

**Eyes/Face Protection**

Recommend use of safety glasses with side shields or goggles.

**Skin Protection**

Depending on the operation, a labcoat, apron or other impermeable clothing may be appropriate. If adhesive contacts clothing, remove contaminated clothing and launder before reuse. (Dried latex is not easily removed from fabric. Immediate laundering is recommended before latex dries).

**Glove Recommendations**

Recommend the use of nitrile or rubber gloves to prevent skin contact. Customer is responsible for determining suitability of gloves for the work environment and other solvents or chemicals that the employee may normally be exposed to. Replace gloves at first signs of deterioration (hardening, cracking, softening or swelling).

**Respiratory Protection**

Respiratory protection not normally required. If airborne contaminant levels may exceed recommended exposure limits, NIOSH approved respiratory protection appropriate for employee exposure levels is recommended.

**Section 9 - PHYSICAL AND CHEMICAL PROPERTIES**

- **Physical State:** Liquid
- **Color:** milky white
- **Odor:** odorless
- **pH:** 5.5-7.8
- **Boiling Point:** 98 °C (208 °F)
- **Flash Point:** >97.8 °C (>208 °F) (Pensky-Martens Closed Cup)
- **OSHA Flammability Class:** Not Classified
- **UEL:** Not available
- **Vapor Density (air = 1):** Not available
- **Specific Gravity (water = 1):** >1
- **Log KOW:** Not available
- **Viscosity:** Not available
- **Rate of Burning:** Not available
- **Sens Mech Impact:** Not available
- **Appearance:** milky white liquid
- **Physical Form:** liquid
- **Odor Threshold:** Not available
- **Melting Point:** Not available
- **Decomposition:** Not available
- **Evaporation Rate:** Not available
- **OSHA Flammability Class:** Not Classified
- **LEL:** Not available
- **Vapor Pressure:** Not available
- **Density:** Not available
- **Water Solubility:** dispersible
- **Auto Ignition:** Not available
- **Volatility:** 80-90 %
- **Sens Static Discharge:** Not available
Other Property Information
No additional information is available.

**Section 10 - STABILITY AND REACTIVITY**

Reactivity
No reactivity hazard is expected.

Chemical Stability
Product is stable under normal conditions of use. However, it may decompose at elevated temperatures.

Possibility of Hazardous Reactions
Hazardous polymerization has not been reported to occur under normal temperatures and pressures.

Conditions to Avoid
Avoid heat, high temperatures, pressure, mechanical shock, incompatibles or other conditions that might result in a hazardous situation.

Incompatible Materials
Incompatible materials include acids, bases, combustible materials, halocarbons, metals, metal salts, oxidizing materials, reducing agents, halogens, metal oxides, peroxides, ammonia, and acid anhydrides.

Hazardous Decomposition
Combustion: Hazardous decomposition products include black smoke and toxic fumes of carbon dioxide and carbon monoxide.

**Section 11 - TOXICOLOGICAL INFORMATION**

Acute Toxicity
>5 g/kg oral-rat LD50
>2 mg/kg dermal-rat LD50

Component Analysis - LD50/LC50
The components of this material have been reviewed in various sources and the following selected endpoints are published:

- **1,2-Propylene glycol (57-55-6)**
  - Dermal LD50 Rabbit 20800 mg/kg; Oral LD50 Rat 20000 mg/kg
- **Ethyl alcohol (64-17-5)**
  - Inhalation LC50 Rat 124.7 mg/L 4 h

Information on Likely Routes of Exposure

**Inhalation**
nausea, headache, irritation, difficulty breathing, drowsiness, dizziness, loss of coordination, fatigue, tremors, cancer, reproductive effects

**Ingestion**
alergic reactions, skin disorders, vomiting, stomach pain, headache, drowsiness, dizziness, loss of coordination, unconsciousness, changes in body temperature, changes in blood pressure, nausea, difficulty breathing, irregular heartbeat, disorientation, difficulty speaking, mood swings, visual disturbances, dilated pupils, convulsions, coma, diarrhea, loss of appetite, weight loss, pain in extremities, tremors, heart damage, kidney damage, liver damage, brain damage, central nervous system damage

**Skin Contact**
irritation, allergic reactions, nausea, headache, drowsiness, dizziness, loss of coordination

**Eye Contact**
irritation, eye damage

**Immediate Effects**
May cause respiratory tract irritation and eye irritation.
Delayed Effects
Suspected of causing cancer. Suspected of damaging fertility or the unborn child. Causes damage to liver through prolonged or repeated exposure. May cause damage to central nervous system through prolonged or repeated exposure.

Medical Conditions Aggravated by Exposure
Exposure may aggravate pre-existing skin, liver, and kidney disorders.

Irritation/Corrosivity Data
Primary Skin Irritation Score: 0.17 (rabbit, maximum)
Primary Skin Irritation Index: 0.04
Based on test results this product would not be considered a dermal irritant.

Respiratory Sensitization
No data available.

Dermal Sensitization
Based on a dermal sensitization study, this product was not found to be a dermal sensitizer.

Germ Cell Mutagenicity
No information available for the product.

Carcinogenicity
Component Carcinogenicity
Ethyl alcohol (64-17-5)
- ACGIH: A3 - Confirmed Animal Carcinogen with Unknown Relevance to Humans
- IARC: Monograph 100E [2012] (in alcoholic beverages); Monograph 96 [2010] (in alcoholic beverages)
  (Group 1 (carcinogenic to humans))
- DFG: Category 5 (low carcinogenic potency)
- OSHA: Present

Reproductive Toxicity
Available data characterizes components of this product as reproductive hazards.

Specific Target Organ Toxicity - Single Exposure
No target organs identified.

Specific Target Organ Toxicity - Repeated Exposure
Liver, central nervous system

Aspiration Hazard
No data available.

Additional Data
No additional information is available.

* * *Section 12 - ECOLOGICAL INFORMATION* * *

Ecotoxicity
Harmful to aquatic life.

Component Analysis - Aquatic Toxicity
1,2-Propylene glycol (57-55-6)
- Fish: 96 Hr LC50 Oncorhynchus mykiss: 51600 mg/L [static]; 96 Hr LC50 Oncorhynchus mykiss: 41 - 47 ml/L [static]; 96 Hr LC50 Pimephales promelas: 51400 mg/L [static]; 96 Hr LC50 Pimephales promelas: 710 mg/L
- Algae: 96 Hr EC50 Pseudokirchneriella subcapitata: 19000 mg/L
- Invertebrate: 48 Hr EC50 Daphnia magna: >1000 mg/L [Static]
Ethyl alcohol (64-17-5)  
Fish: 96 Hr LC50 Oncorhynchus mykiss: 12.0 - 16.0 mL/L [static]; 96 Hr LC50 Pimephales promelas: >100 mg/L [static]; 96 Hr LC50 Pimephales promelas: 13400 - 15100 mg/L [flow-through]  
Invertebrate: 48 Hr LC50 Daphnia magna: 9268 - 14221 mg/L; 48 Hr EC50 Daphnia magna: 2 mg/L [Static]  

Persistence and Degradability  
No information available for the product.  

Bioaccumulation  
No information available for the product.  

Mobility  
No information available for the product.  

Other Toxicity  
No data available.  

**Section 13 - DISPOSAL CONSIDERATIONS**  
Disposal Methods  
Dispose of waste material according to Local, State, Federal, and Provincial Environmental Regulations.  
Disposal of Contaminated Packaging  
Empty containers may contain product residue. Dispose in accordance with all applicable regulations.  
Component Waste Numbers  
No EPA Waste Numbers are applicable for this product's components.  

**Section 14 - TRANSPORT INFORMATION**  
US DOT Information  
Not a regulated hazardous material.  
TDG Information  
Not a regulated dangerous material.  
IATA Information  
Not a regulated hazardous material.  
IMDG Information  
Not a regulated dangerous material.  

**Section 15 - REGULATORY INFORMATION**  
U.S. Federal Regulations  
None of this product's components are listed under SARA Section 302/304 (40 CFR 355 Appendix A), SARA Section 313 (40 CFR 372.65), CERCLA (40 CFR 302.4), TSCA 12(b), or require an OSHA process safety plan.  

SARA 311/312  
Acute Health: No  
Chronic Health: Yes  
Fire: No  
Pressure: No  
Reactive: No
U.S. State Regulations

The following components appear on one or more of the following state hazardous substances lists:

<table>
<thead>
<tr>
<th>Component</th>
<th>CAS #</th>
<th>CA</th>
<th>MA</th>
<th>MN</th>
<th>NJ</th>
<th>PA</th>
</tr>
</thead>
<tbody>
<tr>
<td>1,2-Propylene glycol</td>
<td>57-55-6</td>
<td>No</td>
<td>No</td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
</tr>
<tr>
<td>Ethyl alcohol</td>
<td>64-17-5</td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
</tr>
</tbody>
</table>

The following statement(s) are provided under the California Safe Drinking Water and Toxic Enforcement Act of 1986 (Proposition 65):

WARNING! This product contains a chemical known to the state of California to cause cancer.
WARNING! This product contains a chemical known to the state of California to cause reproductive/developmental effects.

Canadian Regulations

Canadian WHMIS Classification of Substances

D2A, D2B.

Component Analysis - WHMIS IDL

The following components are identified under the Canadian Hazardous Products Act Ingredient Disclosure List.

1,2-Propylene glycol (57-55-6)
Minimum Concentration: 1 %

Ethyl alcohol (64-17-5)
Minimum Concentration: 0.1 %

Chemical Inventory Listings

Component Analysis - Inventory

<table>
<thead>
<tr>
<th>Component</th>
<th>CAS #</th>
<th>US</th>
<th>CA</th>
<th>EU</th>
<th>AU</th>
<th>PH</th>
<th>JP</th>
<th>KR</th>
<th>CN</th>
<th>NZ</th>
</tr>
</thead>
<tbody>
<tr>
<td>Water</td>
<td>7732-18-5</td>
<td>Yes</td>
<td>DSL</td>
<td>EIN</td>
<td>Yes</td>
<td>Yes</td>
<td>No</td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
</tr>
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<tr>
<td>Ethyl alcohol</td>
<td>64-17-5</td>
<td>Yes</td>
<td>DSL</td>
<td>EIN</td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
</tr>
</tbody>
</table>

* * *Section 16 - OTHER INFORMATION* * *

Summary of Changes

Updated: 2/3/2014

NFPA Ratings:

Health: 1
Fire: 1
Reactivity: 0

HMIS Ratings:

Health: 1*
Fire: 1
Reactivity: 0

Hazard Scale: 0 = Minimal 1 = Slight 2 = Moderate 3 = Serious 4 = Severe  * = Chronic hazard

Hazard Ratings

The hazard ratings included in this MSDS have been developed based on NFPA and HMIS criteria as well as professional judgment. A hazard rating has not been developed by NFPA for this product. This information is intended solely for the use of individuals trained in these hazard rating systems.
Safety Data Sheet

Product Identifier Fan-Apart Adhesive

Key / Legend

Preparation and Revision Information
Prepared by P.H. Glatfelter (Glatfelter), Printing and Carbonless Papers Division, Product Stewardship Center, 232 East 8th Street, Chillicothe, OH 45601.

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End of Sheet 3100-015NA