SIMONTON
WINDOWS®

5300 Briscoe Road
Parkersburg, WV 26105
October 2, 2015

Ms. Beverly McKeone, Program Manager
New Source Review Permitting
Department of Environmental Protection
Division of Air Quality – Permitting Section
601 57th Street, S.E
Charleston, WV 25304

Re: Permit Determination Request
SimEx Inc., Waverly WV
Plant ID No. 073-00021

Dear Ms. McKeone:

With this letter, Simonton Windows is requesting a determination from WVDEP of whether a permit application/modification is required for installation and operation of additional equipment at our SimEx facility in Waverly, West Virginia. While we believe a permit application/modification is not required under WV 45CSR13-2.17 as the increase in emissions is less than the specified thresholds, we are requesting DAQ review the attached information and provide a written determination/response.

Background

The SimEx facility in Waverly manufactures vinyl plastic window frame material and foam boards. The window frame material and foam boards are produced in bulk sections and are subsequently shipped offsite to other Simonton Windows manufacturing facilities at various locations throughout the US where completed window units are manufactured. SimEx currently operates under WVDEP permit R13-2357F.

New Equipment

The purpose of the proposed equipment is to further process a small quantity of foam boards (produced by existing foam molding operations at SimEx) to trim and, occasionally for a further limited quantity, route/mill a notch for production of a seamless corner foam product.

The new equipment additions consist of three main items: 1) a router/milling machine, 2) a corner fold machine, and 3) an orbital wrapper/packing machine. The router/milling machine will be served by a dust collector to capture foam particles produced by the routing/milling operation. The corner fold machine includes an electric warming and glue application step as well as a step for folding the notched foam board into a seamless corner. Additional details are provided in the attached information.

Summary

As detailed in the attachments, the uncontrolled increase in emissions is less than the thresholds specified in WV 45CSR13-2.17 for changes that require a permit application/modification. Please review the attached information and provide a written determination/response at your earliest convenience.

Thank you for your assistance in this matter. If you have questions, please contact me at 304.420.9156 (office) or 304.488.3053 (mobile).

Sincerely,

Ron Cross
EHS Director

Enclosure: DEP Permit Determination Form with Attachments

WEST VIRGINIA
DEPARTMENT OF ENVIRONMENTAL PROTECTION
DIVISION OF AIR QUALITY
601 57th Street, SE

PERMIT DETERMINATION FORM (PDF)

FOR AGENCY USE ONLY: PLANT I.D. # _____
PDF # _____ PERMIT WRITER _____

1. NAME OF APPLICANT (AS REGISTERED WITH THE WV SECRETARY OF STATE'S OFFICE):
Simonton Building Products

2. NAME OF FACILITY (IF DIFFERENT FROM ABOVE):
SimEx, Inc.

3. NORTH AMERICAN INDUSTRY CLASSIFICATION SYSTEM (**NAICS**) CODE:
326199

4A. MAILING ADDRESS:
181 Pleasants Industrial Center
St. Marys, West Virginia 26170

4B. PHYSICAL ADDRESS:
181 Pleasants Industrial Center
St. Marys, West Virginia 26170

5A. DIRECTIONS TO FACILITY (PLEASE PROVIDE **MAP** AS **ATTACHMENT A**): ***From the south, head north on US 77, take exit 179, then turn right onto Emerson Avenue exit (WV 2N). Travel ~ 6.5 miles. Facility entrance will be on the left. After turning left, travel ~800 feet, stay right at the Y and park. Enter through doors near flag pole and sign.***

5B. NEAREST ROAD:
State Route 2 North

5C. NEAREST CITY OR TOWN:
Waverly

5D. COUNTY:
Pleasants

5E. UTM NORTHING (KM):
4354.2051

5F. UTM EASTING (KM):
468.5443

5G. UTM ZONE:
17

6A. INDIVIDUAL TO CONTACT IF MORE INFORMATION IS REQUIRED:
Ron Cross

6B. TITLE:
EHS - Director

6C. TELEPHONE:
304.420.9156

6D. FAX:
304.420.9836

6E. E-MAIL:
Ron.cross@simonton.com

7A. DAQ PLANT I.D. NO. (FOR AN EXISTING FACILITY ONLY):
_0_ _7_ _3_ - _0_ _0_ _0_ _2_ _1_

7B. PLEASE LIST ALL CURRENT 45CSR13, 45CSR14, 45CSR19 AND/OR TITLE V (45CSR30) PERMIT NUMBERS ASSOCIATED WITH **THIS** PROCESS (FOR AN EXISTING FACILITY ONLY):
R13-2357F

7C. IS THIS PDF BEING SUBMITTED AS THE RESULT OF AN ENFORCEMENT ACTION? IF YES, PLEASE LIST:
No

8A. TYPE OF EMISSION SOURCE (CHECK ONE):
☒ **NEW SOURCE** ☐ **ADMINISTRATIVE UPDATE**
☐ **MODIFICATION** ☐ **OTHER** (PLEASE EXPLAIN IN 11B)

8B. IF ADMINISTRATIVE UPDATE, DOES DAQ HAVE THE APPLICANT'S CONSENT TO UPDATE THE EXISTING PERMIT WITH THE INFORMATION CONTAINED HEREIN?
☒ **YES** ☐ **NO**

9. IS *DEMOLITION* OR PHYSICAL *RENOVATION* AT AN EXISTING FACILITY INVOLVED? ☐ **YES** ☒ **NO**

10A. DATE OF ANTICIPATED INSTALLATION OR CHANGE:
12/2015

10B. DATE OF ANTICIPATED START-UP:
1/2016

11A. PLEASE PROVIDE A **DETAILED PROCESS FLOW DIAGRAM** SHOWING EACH PROPOSED OR MODIFIED PROCESS EMISSION POINT AS **ATTACHMENT B.** ***Please see attached Attachment B.***

11B. PLEASE PROVIDE A **DETAILED PROCESS DESCRIPTION** AS **ATTACHMENT C.** ***Please see attached Attachment C.***

12. PLEASE PROVIDE **MATERIAL SAFETY DATA SHEETS (MSDS)** FOR ALL MATERIALS PROCESSED, USED OR PRODUCED AS **ATTACHMENT** D. FOR CHEMICAL PROCESSES, PLEASE PROVIDE A MSDS FOR EACH COMPOUND EMITTED TO AIR. ***Please see attached Attachment D.***

13A. **REGULATED AIR POLLUTANT EMISSIONS:**

⇒ **FOR A NEW FACILITY,** PLEASE PROVIDE PLANT WIDE EMISSIONS BASED ON THE POTENTIAL TO EMIT (PTE) FOR THE FOLLOWING AIR POLLUTANTS INCLUDING ALL PROCESSES.

⇒ **FOR AN EXISTING FACILITY,** PLEASE PROVIDE THE PROPOSED CHANGE IN EMISSIONS BASED ON THE PTE OF ALL PROCESS CHANGES FOR THE FOLLOWING AIR POLLUTANTS.

PTE FOR A GIVEN POLLUTANT IS TYPICALLY BEFORE AIR POLLUTION CONTROL DEVICES AND IS COLLECTED BASED ON THE MAXIMUM DESIGN CAPACITY OF PROCESS EQUIPMENT.

POLLUTANT	**HOURLY PTE** (LB/HR)	**YEARLY PTE** (TON/YR) (HOURLY PTE MULTIPLIED BY 8760 HR/YR)
PM	*0.03*	*0.13*
PM_{10}	*0.03*	*0.13*
VOCs	*0.03*	*0.11*
CO	*0*	*0*
NO_x	*0*	*0*
SO_2	*0*	*0*
Pb	*0*	*0*
HAPs (AGGREGATE AMOUNT)	*0.36*	*1.57*
TAPs (INDIVIDUALLY)*	*0*	*0*
OTHER (INDIVIDUALLY)*		

* ATTACH ADDITIONAL PAGES AS NEEDED

13B. PLEASE PROVIDE ALL **SUPPORTING CALCULATIONS** AS **ATTACHMENT E.**

CALCULATE AN HOURLY AND YEARLY PTE OF EACH PROCESS EMISSION POINT (SHOWN IN YOUR DETAILED PROCESS FLOW DIAGRAM) FOR ALL AIR POLLUTANTS LISTED ABOVE INCLUDING INDIVIDUAL HAP'S (LISTED IN SECTION 112[b] OF THE 1990 CAAA), TAP'S (LISTED IN 45CSR27), AND OTHER AIR POLLUTANTS (E.G. POLLUTANTS LISTED IN TABLE 45-13A OF 45CSR13, MINERAL ACIDS PER 45CSR7, ETC.).

14. **CERTIFICATION OF DATA**

I, DAVID ROBINSON, ATTEST THAT ALL THE REPRESENTATIONS CONTAINED IN THIS APPLICATION, OR APPENDED HERETO, ARE TRUE, ACCURATE, AND COMPLETE TO THE BEST OF MY KNOWLEDGE BASED ON INFORMATION AND BELIEF AFTER REASONABLE INQUIRY, AND THAT I AM A ***RESPONSIBLE OFFICIAL**** (*PRESIDENT, VICE PRESIDENT, SECRETARY OR TREASURER, GENERAL PARTNER OR SOLE PROPRIETOR*) OF THE APPLICANT.

SIGNATURE OF RESPONSIBLE OFFICIAL: David Robinson

TITLE: PLANT MANAGER

DATE: 10/1/15

** THE DEFINITION OF THE PHRASE '***RESPONSIBLE OFFICIAL***' CAN BE FOUND AT 45CSR13, SECTION 2.23.

NOTE: PLEASE CHECK ENCLOSED ATTACHMENTS

☒ **ATTACHMENT A** ☒ **ATTACHMENT B** ☒ **ATTACHMENT C** ☒ **ATTACHMENT D** ☒ **ATTACHMENT E**

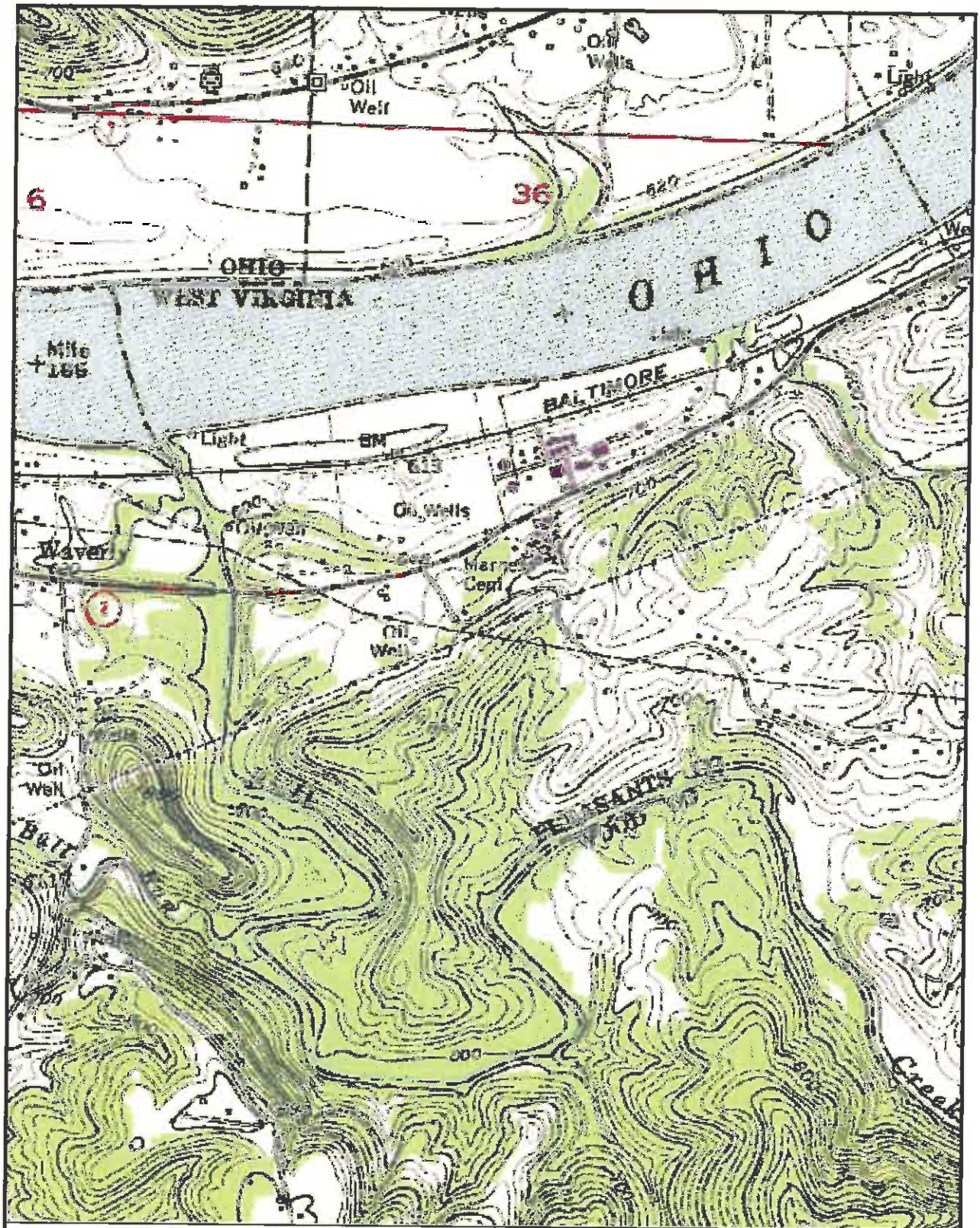
RECORDS ON ALL CHANGES ARE REQUIRED TO BE KEPT AND MAINTAINED ON-SITE FOR TWO (2) YEARS.

THE PERMIT DETERMINATION FORM WITH THE INSTRUCTIONS CAN BE FOUND ON DAQ'S PERMITTING SECTION WEB SITE

www.dep.wv.gov/daq

Attachment A

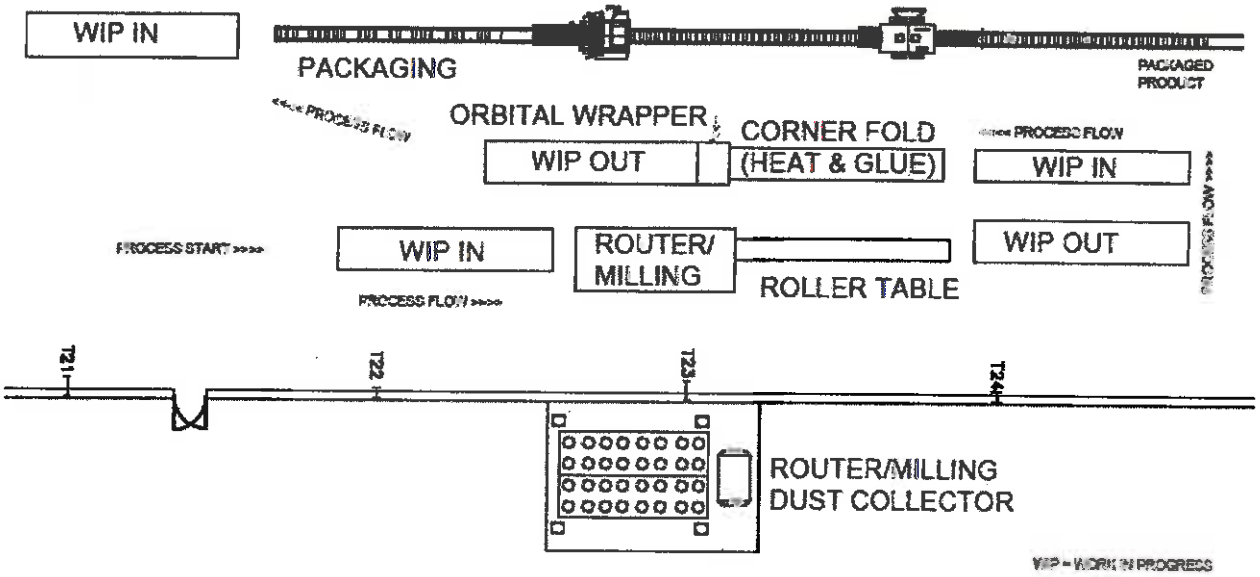
Location Map



USGS 7.5" Quad Willow Island, WV-Ohio			**SimEx Inc.** **St Marys, West Virginia**	
Date:9-2015	Drawn By: ST	File: N/A	Layout: N/A	Attachment A

Attachment B

Process Flow Diagram


WIP IN
PACKAGING
PACKAGED PRODUCT
ORBITAL WRAPPER
CORNER FOLD
(HEAT & GLUE)
WIP OUT
WIP IN
PROCESS START >>>>
WIP IN
ROUTER/ MILLING
ROLLER TABLE
WIP OUT
PROCESS FLOW >>>>
T21
T22
T23
T24
ROUTER/MILLING
DUST COLLECTOR

Attachment C

Process Description

Process Description

Trim board is extruded on our two foam extruders identified as Emission Units EX-31 and EX-32 in our current permit. Approximately ten percent (10%) of this trim board may be subjected to an additional process of creating "corners". Foam board corners are an "L" shape seamless design that is used at 90° angles on a house exterior that is being retrofitted with siding. There are three pieces of equipment associated with the corner manufacturing process: 1) a router/milling machine, 2) a corner fold machine, and 3) an orbital wrapper. The following describes the process occurring at each machine:

1. Router/Milling Machine

   The full width of a foam board is placed on the entry conveyor. As the foam board enters the machine, a "V" notch is routed/milled lengthwise in the center of the board. The machine is fully enclosed with negative pressure exhaust dust capturing all particulate matter and carrying it to the dust collector, which is located outside. The milled foam board is then placed on the corner fold machine feed table.

   Maximum potential uncontrolled Particulate Matter emissions are calculated at 0.03 lb/hr and 0.013 tpy.

2. Corner Fold Machine

   The two part adhesive is applied to the "V" notch by using a hand-held applicator. (The applicator is connected by hoses to closed containers of the adhesive components. The components mix at the applicator tip as material is dispensed.) The foam board is then folding at the "V" notch to create the corner. The corner is subsequently heated with an electric radiant heater to approximately 250°F for a minute or two to allow the glue to soften and disperse in the corner joint. After the heat step, the corner proceeds on a roller table into the orbital wrapper.

   Maximum potential Volatile Organic Content (VOC) emissions for the adhesive are calculated at 0.03 lb/hr and 0.11 tpy while the maximum potential Hazardous Air Pollutant (HAP) methyl methacrylate monomer emissions are calculated at 0.36 lb/hr and 1.57 tpy.

3. Orbital Wrapper

   The orbital wrapper rotates around the corner applying plastic stretch wrap to hold the corner at the desired 90° right angle while the glue cures. Following this process, the corner is then placed in a staging area awaiting packaging for shipping and loading into a trailer for transportation to the customer. There are no criteria pollutants associated with this machine or the subsequent packaging.

Attachment D

MSDS for Glue

24-Hour Emergency Phone: INFOTRAC (800) 535-5035

Bond & Fill, LLC

250 Cape Highway • East Taunton, MA 02718
Phone: (508) 822-4615 • Fax: (508) 822-4612
E-mail: info@bondfill.com • Website: www.bondfill.com

MATERIAL SAFETY DATA SHEET

Item Description: Bond&Fill Structural Adhesive / Filler – Fast Cure

Item Part Numbers: 160200, 160600, 400200, 810200, 810225, 810230, 810500

Components: **Bond & Fill Activator** **(See Pages 1 – 6)**
Bond & Fill Adhesive Resin **(See Pages 6 – 13)**

Revision Date: **January 1, 2010**

Component #1

I. **Product Name:** Bond & Fill Activator

Chemical Name	CAS#	Mix Proportion (by weight)
Methyl Methacrylate Monomer	82-62-6	60-100%
Trade Secret	n/a	5-10%
3,5-Diethyl-1,2-dihydro-1-phenyl-2-propylpyridine	34562-31-7	1-5%
Non-hazardous Ingredients	n/a	10-30%

II. **Composition / Information on Ingredients:**

III. **Hazard Information**

HMIS Overview	
Health Hazard	2*
Fire Hazard	3
Reactivity	2
Personal Protection	☒

* - Denotes Chronic Health Effects

Emergency Overview: WARNING! Flammable, Harmful, Skin Sensitizer, Irritant.

Route of Exposure: Eyes, Skin, Inhalation, Ingestion.

Potential Health Effects:

Eyes: Can cause moderate irritation, burning sensation, tearing, redness, and swelling. Overexposure may cause lacrimation, conjunctivitis, corneal damage and permanent injury.

Skin: Can cause skin irritation; itching, redness, rashes, hives, burning, and swelling. Allergic reactions are possible. Item may cause skin sensitization, an allergic reaction, which becomes evident on re-exposure to this material.

Inhalation: Respiratory tract irritant. High concentration may cause dizziness, headache, and anesthetic effects. Item may cause respiratory sensitization with asthma-like symptoms in susceptible individuals.

Ingestion: Causes irritation, a burning sensation of the mouth, throat and gastrointestinal tract and abdominal pain.

Chronic Health Effects: Prolonged skin contact may lead to burning associated with severe reddening, swelling, and possible tissue destruction.

Signs/Symptoms: Overexposure can cause headaches, dizziness, nausea, and vomiting.

Target Organs: Eyes. Skin. Respiratory system. Digestive system. Liver. Kidney. Olfactory Function.

Aggravation of Pre-Existing Conditions: Individuals with pre-existing skin disorders, asthma, allergies or known sensitization may be more susceptible to the effects of this product.

IV. First Aid Measures

Eye Contact: Immediately flush eyes with plenty of water for at least 15 to 20 minutes. Ensure adequate flushing of the eyes by separating the eyelids with fingers. Get immediate medical attention.

Skin Contact: Immediately wash skin with plenty of soap and water for 15 to 20 minutes, while removing contaminated clothing and shoes. Get medical attention if irritation develops or persists.

Inhalation: If inhaled, remove to fresh air. If not breathing, give artificial respiration or give oxygen by trained personnel. Seek immediate medical attention.

Ingestion: If swallowed, do NOT induce vomiting. Call a physician or poison control center immediately. Never give anything by mouth to an unconscious person.

Other First Aid: Due to possible aspiration into the lungs, DO NOT induce vomiting if ingested. Provide a glass of water to dilute the material in the stomach. If vomiting occurs naturally, have the person lean forward to reduce the risk of aspiration.

V. Fire Fighting Measures

Flammable Properties: Flammable. Fine mists explosive below flash point.

Flash Point: 50°F (10°C)

Flash Point Method: Tag closed cup (TCC)

Auto Ignition Temperature: Not determined.

Lower Flammable/Explosive Limit: 2.1%

Upper Flammable/Explosive Limit: 12.5%

Fire Fighting Instructions: Evacuate area of unprotected personnel. Use cold water spray to cool fire exposed containers to minimize risk of rupture. Do not enter confined fire space without full protective gear. If possible, contain fire run-off water.

Extinguishing Media: Use carbon dioxide (CO_2) or dry chemical when fighting fires involving this material.

Unsuitable Media: Water may cause frothing.

Protective Equipment: As in any fire, wear Self-Contained Breathing Apparatus (SCBA), MSHA/NIOSH (approved or equivalent) and full protective gear.

Unusual Fire Hazards: Sealed containers at elevated temperatures may rupture explosively and spread fire due to polymerization.

VI. Accidental Release Measures

Spill Cleanup Measures: Absorb spill with inert material (i.e. - dry sand or earth), then place in a chemical waste container. Provide ventilation. Collect spill with a non-sparking tool. Place into a suitable container for disposal. Clean up spills immediately observing precautions in the protective equipment section. After removal, flush spill area with soap and water to remove trace residue. Flammable, eliminate ignition sources. Vapors can form an ignitable mixture with air. Vapors can flow along surfaces to distant ignition sources and flash-back. Ventilate area. Use proper personal protective equipment as listed in section 8.

Personnel Precautions: Evacuate area and keep unnecessary and unprotected personnel from entering the spill area.

Environmental Precautions: Avoid runoff into storm sewers, ditches, and waterways.

Other Precautions: Pump or shovel to storage/salvage vessels. Add inhibitor to prevent polymerization.

VII. Handling and Storage

Handling: Use with adequate ventilation. Avoid breathing vapor, aerosol or mist. Material will accumulate static charges which may cause an electrical spark (ignition source). Use proper grounding procedures. Do not reuse containers without proper cleaning or reconditioning.

Storage: Store in a cool, dry, well ventilated area away from sources of heat, combustible materials, direct sunlight, and incompatible substances. Keep container tightly closed when not in use.

Special Handling Procedures: Provide appropriate ventilation/respiratory protection against decomposition products (see Section 10) during welding/flame cutting operations and to protect against dust during sanding/grinding of cured product. Hazardous liquid or vapor residue may remain in emptied container. Do not reuse, heat, burn, pressurize, cut, weld, braze, solder, drill, grind, expose to sparks, flame, or ignition sources of empty containers without proper commercial cleaning or reconditioning.

Hygiene Practices: Wash thoroughly after handling.

VIII. Exposure Control / Personal Protection

Engineering Controls: Use appropriate engineering control such as process enclosures, local exhaust ventilation, or other engineering controls to control airborne levels below recommended exposure limits. Good general ventilation should be sufficient to control airborne levels. Where such systems are not effective wear suitable personal protective equipment, which performs satisfactorily and meets OSHA or other recognized standards. Consult with local procedures for selection, training, inspection and maintenance of the personal protective equipment.

Eye/Face Protection: Wear appropriate protective glasses or splash goggles as described by 29 CFR 1910.133, OSHA eye and face protection regulation, or the European standard EN 166.

Skin Protection Description: Wear appropriate protective gloves and other protective apparel to prevent skin contact. Consult manufacturer's data for permeability data.

Respiratory Protection: A NIOSH approved air-purifying respirator with an organic vapor cartridge or canister may be permissible under certain circumstances where airborne concentrations are expected to exceed exposure limits. Protection provided by air purifying respirators is limited. Use a positive pressure air supplied respirator if there is any potential for an uncontrolled release, exposure levels are not known, or any other circumstances where air purifying respirators may not provide adequate protection.

Other Protective: Facilities storing or utilizing this material should be equipped with an eyewash and a deluge shower safety station.

Exposure Guidelines

Methyl Methacrylate Monomer:

Guideline ACGIH: 50 ppm

Guideline ACGIH: 50 ppm
Sensitizer.: Sen

TLV-STEL: 100 ppm
TLV-TWA: 50 ppm

Guideline OSHA: 100 ppm
PEL-TWA: 100 ppm

Notes : Only established PEL and TLV values for the ingredients are listed.

IX. Physical and Chemical Properties

Physical State Appearance: Paste.

Odor: Fragrant.

Boiling Point: 213°F (100.5°C)

Melting Point: Not determined.

Specific Gravity: 0.96

Solubility: Not determined.

Vapor Density: 3.5 (air = 1)

Vapor Pressure: 28 mmHg @68°F

Percent Volatile: Not determined.

Evaporation Rate: 3 (butyl acetate = 1)

pH: 4.5-5.5 @ 5 Percent Solution

Molecular Formula: Mixture

Molecular Weight: Mixture

Flash Point: 50°F (10°C)

Flash Point Method: Tag closed cup (TCC)

Auto Ignition Temperature: Not determined.

VOC Content: <50 g/L mixed

Percent Solids by Weight Not determined.

X. Stability and Reactivity

Chemical Stability: Unstable.

Hazardous Polymerization: Polymerization may occur under certain conditions.

Conditions to Avoid: Extreme heat, sparks, and open flame. Incompatible materials, oxidizers and oxidizing conditions. Oxygen-free atmospheres or inert gas blanketing. Freezing conditions. Material can soften paint and rubber.

Incompatible Materials: Oxidizing agents (i.e.- peroxides, nitrates), reducing agents, acids, bases, azo-compounds, catalytic metals (i.e.- copper, iron), halogens. Free radical initiators. Oxygen scavengers.

XI. Toxicological Information

Methyl Methacrylate Monomer:

RTECS Number: OZ5075000

Eye: Eye - Rabbit Standard Draize Test.: 150 mg

Skin:
Intraperitoneal. - Guinea pig LD50: 1890 mg/kg [Behavioral – Somnolence (general depressed activity)]
Subcutaneous - Guinea pig LD50: 5954 mg/kg [Behavioral – Somnolence (general depressed activity)]
Oral - Rat LD50: 7872 mg/kg [Behavioral - Muscle weakness Behavioral - Coma Lungs, Thorax, or Respiration - Respiratory depression]

Intraperitoneal. - Rat LD50: 1328 mg/kg [Details of toxic effects not reported other than lethal dose value.]
Subcutaneous - Rat LD50: 7088 mg/kg [Behavioral - Somnolence (general depressed activity)]
Oral - Mouse LD50: 3625 mg/kg [Details of toxic effects not reported other than lethal dose value.]
Intraperitoneal. - Mouse LD50: 945 mg/kg [Behavioral - Somnolence (general depressed activity)]
Subcutaneous - Mouse LD50: 5954 mg/kg [Behavioral - Somnolence (general depressed activity)]
Oral - Rabbit LD50: 8700 mg/kg [Details of toxic effects not reported otherthan lethal dose value.]
Administration onto the skin - Rabbit LD50: >5 gm/kg [Skin and Appendages - Dermatitis, other (After systemic exposure)]
Oral - Guinea pig LD50: 5954 mg/kg [Behavioral - Somnolence (general depressed activity) Behavioral - Ataxia Gastrointestinal - Changes in structure or function of salivary glands]
Administration onto the skin - Rabbit Open irritation test: 10 gm

Inhalation:
Inhalation. - Rat LC50: 78000 mg/m3/4H [Details of toxic effects not reported other than lethal dose value.]

Inhalation. - Mouse LC50: 18500 mg/m3/2H [Details of toxic effects not reported other than lethal dose value.]

Ingestion:
Oral - Rat LD50: 7872 mg/kg [Behavioral - Muscle weakness Behavioral - Coma Lungs, Thorax, or Respiration - Respiratory depression]
Oral - Mouse LD50: 3625 mg/kg [Details of toxic effects not reported other than lethal dose value.]

XII. Ecological Information

Eco-toxicity: No eco-toxicity data was found for the product.

Environmental Fate: No environmental information found for this product.

XIII. Disposal Considerations

Waste Disposal: Consult with the US EPA Guidelines listed in 40 CFR Part 261.3 for the classifications of hazardous waste prior to disposal. Furthermore, consult with your state and local waste requirements or guidelines, if applicable, to ensure compliance. Arrange disposal in accordance to the EPA and/or state and local guidelines.

RCRA Number: D001

Important Disposal Information: DANGER! Rags, steel wool and waste soaked with this product may spontaneously catch fire if improperly discarded or stored. To avoid a spontaneous combustion fire, immediately after use, place rags, steel wool or waste in a sealed, water-filled, metal container.

XIV. Transport Considerations

DOT Shipping Name: Adhesives

DOT UN Number: 1133

DOT Hazard Class: 3

DOT Packing Group: II

DOT Exemption: ORM-D Small quantity exemption

International Air Transportation (IATA) Exceptions: Consumer Commodity, class 9, ID 8000, less than 500ml

XV. Regulatory Information

Methyl Methacrylate Monomer:

TSCA Inventory Status: Listed

SARA: EPCRA - 40 CFR Part 372 - (SARA Title III) Section 313 Listed Chemical.

New Jersey: Listed: NJ Hazardous List; Substance Number: 1277

Massachusetts: Listed: Massachusetts Oil and Hazardous List

Pennsylvania: Listed

Canada DSL: Listed

3,5-Diethyl-1,2-dihydro-1-phenyl-2-propylpyridine:

TSCA Inventory Status: Listed

Canada DSL: Listed

Canadian Regulations. WHMIS Hazard Class(es): B2; D2B.

All components of this product are on the Canadian Domestic Substances List.

XV. Additional Information

HMIS Fire Hazard: 3

HMIS Health Hazard: 2*

HMIS Reactivity: 2

HMIS Personal Protection: X

MSDS Revision Date: 01/01/2010

MSDS Author: Bond & Fill. LLC

Disclaimer: This Health and Safety Information is correct to the best of our knowledge and belief at the date of its publication but we cannot accept liability for any loss, injury or damage which may result from its use. The information given in the Data Sheet is designed only as a guidance for safe handling, storage and the use of the substance. It is not a specification nor does it guarantee any specific properties. All chemicals should be handled only by competent personnel, within a controlled environment.

Component 2

I. **Product Name:** Bond & Fill Adhesive Resin

II. Composition / Information on Ingredients:

Chemical Name	CAS#	Mix Proportion (by weight)
Methacrylic Acid	79-41-4	5-10%
Diispdecyl phthalate	26761-40-0	5-10%
Methyl Methacrylate Monomer	80-62-6	30-60%
2,6-Di-tertiary-butyl-para-cresol	128-37-0	1-5%
Chlorosulfonated polyethylene	63037-39-8	10-30%
Trade Secret	n/a	10-30%
Titanium dioxide	13463-67-7	10-30%

III. Hazard Information

HMIS Overview	
Health Hazard	2*
Fire Hazard	3
Reactivity	2
Personal Protection	☒

* - Denotes Chronic Health Effects

Emergency Overview: WARNING! Flammable, Harmful, Skin Sensitizer, Irritant.

Route of Exposure: Eyes. Skin, Inhalation, Ingestion.

Potential Health Effects:

Eyes: Can cause moderate irritation, burning sensation, tearing, redness, and swelling. Overexposure may cause lacrimation, conjunctivitis, corneal damage and permanent injury.

Skin: Can cause skin irritation; itching, redness, rashes, hives, burning, and swelling. Allergic reactions are possible. Item may cause skin sensitization, an allergic reaction, which becomes evident on re-exposure to this material.

Inhalation: Respiratory tract irritant. High concentration may cause dizziness, headache, and anesthetic effects. Item may cause respiratory sensitization with asthma-like symptoms in susceptible individuals.

Ingestion: Causes irritation, a burning sensation of the mouth, throat and gastrointestinal tract and abdominal pain.

Chronic Health Effects: Prolonged skin contact may lead to burning associated with severe reddening, swelling, and possible tissue destruction.

Signs/Symptoms: Overexposure can cause headaches, dizziness, nausea, and vomiting.

Target Organs: Eyes, Skin, Respiratory system, Digestive system, Liver, Kidney, Olfactory Function.

Aggravation of Pre-Existing Conditions: Individuals with pre-existing skin disorders, asthma, allergies or known sensitization may be more susceptible to the effects of this product.

IV. First Aid Measures

Eye Contact: Immediately flush eyes with plenty of water for at least 15 to 20 minutes. Ensure adequate flushing of the eyes by separating the eyelids with fingers. Get immediate medical attention.

Skin Contact: Immediately wash skin with plenty of soap and water for 15 to 20 minutes, while removing contaminated clothing and shoes. Get medical attention if irritation develops or persists.

Inhalation: If inhaled, remove to fresh air. If not breathing, give artificial respiration or give oxygen by trained personnel. Seek immediate medical attention.

Ingestion: If swallowed, do NOT induce vomiting. Call a physician or poison control center immediately. Never give anything by mouth to an unconscious person.

Other First Aid: Due to possible aspiration into the lungs, DO NOT induce vomiting if ingested. Provide a glass of water to dilute the material in the stomach. If vomiting occurs naturally, have the person lean forward to reduce the risk of aspiration.

V. Fire Fighting Measures

Flammable Properties: Flammable. Fine mists explosive below flash point.

Flash Point: 50°F (10°C)

Flash Point Method: Tag closed cup (TCC)

Auto Ignition Temperature: 789° F

Lower Flammable/Explosive Limit: 1.7%

Upper Flammable/Explosive Limit: 12.5%

Fire Fighting Instructions: Evacuate area of unprotected personnel. Use cold water spray to cool fire exposed containers to minimize risk of rupture. Do not enter confined fire space without full protective gear. If possible, contain fire run-off water.

Extinguishing Media: Use carbon dioxide (CO2) or dry chemical when fighting fires involving this material.

Unsuitable Media: Water may cause frothing.

Protective Equipment: As in any fire, wear Self-Contained Breathing Apparatus (SCBA), MSHA/NIOSH (approved or equivalent) and full protective gear.

Unusual Fire Hazards: Sealed containers at elevated temperatures may rupture explosively and spread fire due to polymerization.

VI. Accidental Release Measures

Spill Cleanup Measures: Absorb spill with inert material (i.e. - dry sand or earth), then place in a chemical waste container. Provide ventilation. Collect spill with a non-sparking tool. Place into a suitable container for disposal. Clean up spills immediately observing precautions in the protective equipment section. After removal, flush spill area with soap and water to remove trace residue. Flammable, eliminate ignition sources. Vapors can form an ignitable mixture with air. Vapors can flow along surfaces to distant ignition sources and flash-back. Ventilate area. Use proper personal protective equipment as listed in section 8.

Personnel Precautions: Evacuate area and keep unnecessary and unprotected personnel from entering the spill area.

Environmental Precautions: Avoid runoff into storm sewers, ditches, and waterways.

Other Precautions: Pump or shovel to storage/salvage vessels. Add inhibitor to prevent polymerization.

VII. Handling and Storage

Handling: Use with adequate ventilation. Avoid breathing vapor, aerosol or mist. Material will accumulate static charges which may cause an electrical spark (ignition source). Use proper grounding procedures. Do not reuse containers without proper cleaning or reconditioning.

Storage: Store in a cool, dry, well ventilated area away from sources of heat, combustible materials, direct sunlight, and incompatible substances. Keep container tightly closed when not in use.

Special Handling Procedures: Provide appropriate ventilation/respiratory protection against decomposition products (see Section 10) during welding/flame cutting operations and to protect against dust during sanding/grinding of cured product. Hazardous liquid or vapor residue may remain in emptied container. Do not reuse, heat, burn, pressurize, cut, weld, braze, solder, drill, grind, expose to sparks, flame, or ignition sources of empty containers without proper commercial cleaning or reconditioning.

Hygiene Practices: Wash thoroughly after handling.

VIII. Exposure Control / Personal Protection

Engineering Controls: Use appropriate engineering control such as process enclosures, local exhaust ventilation, or other engineering controls to control airborne levels below recommended exposure limits. Good general ventilation should be sufficient to control airborne levels. Where such systems are not effective wear suitable personal protective equipment, which performs satisfactorily and meets OSHA or

other recognized standards. Consult with local procedures for selection, training, inspection and maintenance of the personal protective equipment.

Eye/Face Protection: Wear appropriate protective glasses or splash goggles as described by 29 CFR 1910.133, OSHA eye and face protection regulation, or the European standard EN 166.

Skin Protection Description: Wear appropriate protective gloves and other protective apparel to prevent skin contact. Consult manufacturer's data for permeability data.

Respiratory Protection: A NIOSH approved air-purifying respirator with an organic vapor cartridge or canister may be permissible under certain circumstances where airborne concentrations are expected to exceed exposure limits. Protection provided by air purifying respirators is limited. Use a positive pressure air supplied respirator if there is any potential for an uncontrolled release, exposure levels are not known, or any other circumstances where air purifying respirators may not provide adequate protection.

Other Protective: Facilities storing or utilizing this material should be equipped with an eyewash and a deluge shower safety station.

Exposure Guidelines

Methacrylic acid:
Guideline ACGIH: 20 ppm
TLV-TWA: 20 ppm

Methyl Methacrylate Monomer:
Guideline ACGIH: 50 ppm
Sensitizer.: Sen
TLV-STEL: 100 ppm
TLV-TWA: 50 ppm

Guideline OSHA: 100 ppm
PEL-TWA: 100 ppm

2,6-Di-tertiary-butyl-para-cresol:
Guideline ACGIH: 2 mg/m3
TLV-TWA: 2 mg/m3 Inhalable vapor fraction (IVF)

Titanium dioxide:
Guideline ACGIH: 10 mg/m3
TLV-TWA: 10 mg/m3

Notes: Only established PEL and TLV values for the ingredients are listed.

IX. Physical and Chemical Properties

Physical State Appearance: Paste.

Odor: Strong Acrid

Boiling Point: >200°F (93.3°C)

Melting Point: Not determined

Specific Gravity: Not determined

Solubility: Not determined

Vapor Density: 3.5 (air = 1)

Vapor Pressure: 28 mmHg @68°F

Percent Volatile: Not determined

Evaporation Rate: 3 (butyl acetate = 1)

pH: Not determined

Molecular Formula: Mixture

Molecular Weight: Mixture

Flash Point: 50°F (10°C)

Flash Point Method: Tag closed cup (TCC)

Auto Ignition Temperature: 789°F

VOC Content: <50 g/L mixed

Percent Solids by Weight: Not determined

X. Stability and Reactivity

Chemical Stability: Unstable.

Hazardous Polymerization: Polymerization may occur under certain conditions.

Conditions to Avoid: Extreme heat, sparks, and open flame. Incompatible materials, oxidizers and oxidizing conditions. Oxygen-free atmospheres or inert gas blanketing. Freezing conditions. Material can soften paint and rubber.

Incompatible Materials: Oxidizing agents (i.e.- peroxides, nitrates), reducing agents, acids, bases, azo-compounds, catalytic metals (i.e.- copper, iron), halogens. Free radical initiators. Oxygen scavengers.

XI. Toxicological Information

Methacrylic acid:

RTECS Number: OZ2975000

Skin:
Unreported - Rat LD50: 1600 mg/kg [Details of toxic effects not reported other than lethal dose value.]
Oral - Mouse LD50: 1250 mg/kg [Details of toxic effects not reported other than lethal dose value.]
Intraperitoneal. - Mouse LD50: 48 mg/kg [Details of toxic effects not reported other than lethal dose value.]
Unreported - Mouse LD50: 1250 mg/kg [Details of toxic effects not reportedother than lethal dose value.]
Oral - Rabbit LD50: 1200 mg/kg [Details of toxic effects not reported other than lethal dose value.]
Administration onto the skin - Rabbit LD50: 500 mg/kg [Details of toxic effects not reported other than lethal dose value.]
Administration onto the skin - Guinea pig LD50: 1 gm/kg [Details of toxic effects not reported other than lethal dose value.]
Oral - Rat LD50: 1060 mg/kg [Details of toxic effects not reported other than lethal dose value.]

Ingestion:
Oral - Mouse LD50: 1250 mg/kg [Details of toxic effects not reported other than lethal dose value.]
Oral - Rat LD50: 1060 mg/kg [Details of toxic effects not reported other than lethal dose value.]

Diisodecyl phthalate:

RTECS Number: TI1270000

Skin:
Oral - Rat LD50: 64 gm/kg [Details of toxic effects not reported other than lethal dose value.]
Administration onto the skin - Rabbit LD50: >3160 mg/kg [Details of toxic effects not reported other than lethal dose value.]

Ingestion: Oral - Rat LD50: 64 gm/kg [Details of toxic effects not reported other than lethal dose value.]

Methyl Methacrylate Monomer:

RTECS Number: OZ5075000

Eye: Eye - Rabbit Standard Draize Test.: 150 mg

Skin: Intraperitoneal. - Guinea pig LD50: 1890 mg/kg [Behavioral – Somnolence (general depressed activity)]
Subcutaneous - Guinea pig LD50: 5954 mg/kg [Behavioral – Somnolence (general depressed activity)]

Oral - Rat LD50: 7872 mg/kg [Behavioral - Muscle weakness Behavioral - Coma Lungs, Thorax, or Respiration - Respiratory depression]

Intraperitoneal. - Rat LD50: 1328 mg/kg [Details of toxic effects not reported other than lethal dose value.]
Subcutaneous - Rat LD50: 7088 mg/kg [Behavioral - Somnolence (general depressed activity)]
Oral - Mouse LD50: 3625 mg/kg [Details of toxic effects not reported other than lethal dose value.]
Intraperitoneal. - Mouse LD50: 945 mg/kg [Behavioral – Somnolence (general depressed activity)]
Subcutaneous - Mouse LD50: 5954 mg/kg [Behavioral - Somnolence (general depressed activity)]
Oral - Rabbit LD50: 8700 mg/kg [Details of toxic effects not reported other than lethal dose value.]
Administration onto the skin - Rabbit LD50: >5 gm/kg [Skin and Appendages - Dermatitis, other (After systemic exposure)]
Oral - Guinea pig LD50: 5954 mg/kg [Behavioral - Somnolence (general depressed activity) Behavioral - Ataxia Gastrointestinal - Changes in structure or function of salivary glands]
Administration onto the skin - Rabbit Open irritation test: 10 gm

Inhalation:
Inhalation. - Rat LC50: 78000 mg/m3/4H [Details of toxic effects not reported other than lethal dose value.]
Inhalation. - Mouse LC50: 18500 mg/m3/2H [Details of toxic effects not reported other than lethal dose value.]

Ingestion: Oral - Rat LD50: 7872 mg/kg [Behavioral - Muscle weakness Behavioral - Coma Lungs, Thorax, or Respiration - Respiratory depression]
Oral - Mouse LD50: 3625 mg/kg [Details of toxic effects not reported other than lethal dose value.]

2,6-Di-tertiary-butyl-para-cresol:

RTECS Number: GO7875000

Eye: Eye - Rabbit Standard Draize Test.: 100 mg/24H

Skin:
Oral - Mouse LD50: 650 mg/kg [Behavioral - Tremor Lungs, Thorax, or Respiration - Chronic pulmonary edema]
Intraperitoneal. - Mouse LD50: 138 mg/kg [Lungs, Thorax, or Respiration - Chronic pulmonary edema Lungs, Thorax, or Respiration - Other changes Blood - Hemorrhage]
Intravenous. - Mouse LD50: 180 mg/kg [Behavioral - Sleep]
Oral - Guinea pig LD50: 10700 mg/kg [Gastrointestinal - Hyper motility, diarrhea Behavioral - Tremor Lungs, Thorax, or Respiration – Respiratory depression]
Oral - Rabbit LD50: 2100 mg/kg [Details of toxic effects not reported other than lethal dose value.]
Intraperitoneal. - Rat LD50: 8 gm/kg [Details of toxic effects not reported other than lethal dose value.]
Oral - Mouse LD50: 650 mg/kg [Behavioral - Tremor Behavioral – Ataxia Lungs, Thorax, or Respiration - Other changes]
Intraperitoneal. - Mouse LD50: 138 mg/kg [Lungs, Thorax, or Respiration - Acute pulmonary edema Blood - Hemorrhage]
Oral - Rat LD50: 890 mg/kg [Details of toxic effects not reported other than lethal dose value.]
Oral - Mouse LD50: 1040 mg/kg [Details of toxic effects not reported other than lethal dose value.]
Intraperitoneal. - Mouse LD50: 138 mg/kg [Details of toxic effects not reported other than lethal dose value.]
Subcutaneous - Mouse LD50: 650 mg/kg [Details of toxic effects not reported other than lethal dose value.]
Oral - Guinea pig LD50: 10700 mg/kg [Details of toxic effects not reported other than lethal dose value.]

Ingestion:
Oral - Mouse LD50: 650 mg/kg [Behavioral - Tremor Lungs, Thorax, or Respiration - Chronic pulmonary edema]
Oral - Mouse LD50: 650 mg/kg [Behavioral - Tremor Behavioral – Ataxia Lungs, Thorax, or Respiration - Other changes]
Oral - Rat LD50: 890 mg/kg [Details of toxic effects not reported other than lethal dose value.]
Oral - Mouse LD50: 1040 mg/kg [Details of toxic effects not reported other than lethal dose value.]

Titanium dioxide:

RTECS Number: XR2275000

Carcinogenicity: IARC: Group 2B: Possibly carcinogenic to humans.

XII. Ecological Information

Eco-toxicity: No eco-toxicity data was found for the product.

Environmental Fate: No environmental information found for this product.

XIII. Disposal Considerations

Waste Disposal: Consult with the US EPA Guidelines listed in 40 CFR Part 261.3 for the classifications of hazardous waste prior to disposal. Furthermore, consult with your state and local waste requirements or guidelines, if applicable, to ensure compliance. Arrange disposal in accordance to the EPA and/or state and local guidelines.

RCRA Number: D001, D019

Important Disposal Information: DANGER! Rags, steel wool and waste soaked with this product may spontaneously catch fire if improperly discarded or stored. To avoid a spontaneous combustion fire, immediately after use, place rags, steel wool or waste in a sealed, water-filled, metal container.

XIV. Transport Considerations

DOT Shipping Name: Adhesives

DOT UN Number: 1133

DOT Hazard Class: 3

DOT Packing Group: II

DOT Exemption: ORM-D Small quantity exemption

International Air Transportation (IATA) Exceptions: Consumer Commodity, class 9, ID 8000, less than 500ml

XV. Regulatory Information

Methacrylic acid:

TSCA Inventory Status: Listed

Massachussetts: Listed: Massachusetts Oil and Hazardous List

Pennsylvania: Listed

Canada DSL: Listed

Diisodecyl phthalate:

TSCA Inventory Status: Listed

California PROP 65: Listed: developmental

Canada DSL: Listed

Methyl Methacrylate Monomer:

TSCA Inventory Status: Listed

SARA: EPCRA - 40 CFR Part 372 - (SARA Title III) Section 313 Listed Chemical.

New Jersey: Listed: NJ Hazardous List; Substance Number: 1277

Massachussetts: Listed: Massachusetts Oil and Hazardous List

Pennsylvania: Listed

Canada DSL: Listed

2,6-Di-tertiary-butyl-para-cresol:

TSCA Inventory Status: Listed

Massachussetts: Listed

Pennsylvania: Listed

Canada DSL: Listed

Chlorosulfonated polyethylene:

TSCA Inventory Status: Listed

Canada DSL: Listed

Titanium dioxide:

TSCA Inventory Status: Listed

Massachussetts: Listed

Pennsylvania: Listed

Canada DSL: Listed

Canadian Regulations. WHMIS Hazard Class(es): B2; D2B

All components of this product are on the Canadian Domestic Substances List.

XV. Additional Information

HMIS Fire Hazard: 3

HMIS Health Hazard: 2*

HMIS Reactivity: 2

HMIS Personal Protection: X

MSDS Revision Date: 01/01/2010

MSDS Author: Bond & Fill. LLC

Disclaimer: This Health and Safety Information is correct to the best of our knowledge and belief at the date of its publication but we cannot accept liability for any loss, injury or damage which may result from its use. The information given in the Data Sheet is designed only as a guide for safe handling, storage and the use of the substance. It is not a specification nor does it guarantee any specific properties. All chemicals should be handled only by competent personnel, within a controlled environment.

Emission Calculations

Emission Source Review

The potential sources of air emissions from the proposed process are:

1) Particulate matter from the milling of the foam trim boards; and
2) VOC and HAP emissions from curing of the glue.

Heat for warming the trim board prior to folding is provided electrically, not by combustion. Therefore, there are no air emissions from the heating step.

The packaging step involves the use of a machine that wraps protective plastic around the foam corner products. There are no air emissions from this step.

Lastly, foam boards that enter this processing operation will be supplied from the current foam extrusion operation. No changes or increase in potential emissions will occur from the foam extrusion operation, raw material receipt and storage operations, or product shipping operations.

Emission calculations are detailed on the following pages.

Emission Calculations for Trim Board Milling

Emission Point - Router/Milling Machine & Dust Collector

Description	Value	Notes/Calculation
Milling Machine Process Rate (lb/hr)	166	Maximum rate of equipment
Milling Machine Process Rate (ton/hr)	0.083	Milling Machine Process Rate (lb/hr) / 2000 lb per ton
Emission Factor (lb/ton)	0.35	Emission factor from AP42, 4th Edition, Table 10.3-1, for Log Sawing, Uncontrolled
Uncontrolled PM Emissions (lb/hr)	0.03	Milling Machine Process Rate (ton/hr) * Emission Factor (lb/ton)
Uncontrolled PM Emissions (lb/day)	0.70	Uncontrolled PM Emissions (lb/hr) * 24 hr per day
Uncontrolled PM Emissions (ton/yr)	0.13	Uncontrolled PM Emissions (lb/hr) / 2000 lb per ton * 8760 hr per year
Uncontrolled PM_{10} Emissions (lb/hr)	0.03	Conservatively Assumed PM_{10}= 100% PM
Uncontrolled PM_{10} Emissions (lb/day)	0.70	Conservatively Assumed PM_{10}= 100% PM
Uncontrolled PM_{10} Emissions (ton/yr)	0.13	Conservatively Assumed PM_{10}= 100% PM
Dust Collector Capture and Control Efficiency	99.0%	Minimum capture and control efficiency for dust collection system
Controlled PM Emissions (lb/hr)	0.00029	Uncontrolled PM Emissions (lb/hr) * (100% - Dust Collector Capture and Control Efficiency)
Controlled PM Emissions (lb/day)	0.00697	Controlled PM Emissions (lb/hr) * 24 hr per day
Controlled PM Emissions (ton/yr)	0.0013	Uncontrolled PM Emissions (ton/yr) * (100% - Dust Collector Capture and Control Efficiency)
Controlled PM_{10} Emissions (lb/hr)	0.00029	Conservatively Assumed PM_{10}= 100% PM
Controlled PM_{10} Emissions (lb/day)	0.00697	Conservatively Assumed PM_{10}= 100% PM
Controlled PM_{10} Emissions (ton/yr)	0.0013	Conservatively Assumed PM_{10}= 100% PM

Emission Calculations for Corner Fold Machine

Emission Point - Glue Curing

Description	Value	Notes/Calculation
Corner Fold Machine Max Process Rate (lb trim board/hr)	166	Assuming 100% of all trim boards milled are processed into corners for PTE. Actual rate is project to be much closer to 10%.
Glue Application Rate (lb glue/lb trim board)	0.003	Based on usage rates for same process at another facility.
Glue VOC Content (lb/gal)	0.42	per MSDS
Glue Specific Gravity	1	Assumed total for Component A + B at 50/50 wt ratio. Component A = 0.96 per MSDS; Component B unavailable.
Glue VOC Content (lb/lb)	0.056	Glue VOC Content (lb/gal) / Glue Specific Gravity / 7.48 lb per gal
Uncontrolled VOC Emissions (lb/hr)	0.025	Corner Fold Machine Max Process Rate (lb trim board/hr) * Glue Application Rate (lb glue/lb trim board) * Glue VOC Content (lb/lb)
Uncontrolled VOC Emissions (lb/day)	0.604	Uncontrolled VOC Emissions (lb/hr) * 24 hr per day
Uncontrolled VOC Emissions (ton/yr)	0.110	Uncontrolled VOC Emissions (lb/hr) / 2000 lb per ton * 8760 hr per year
Max Single HAP Content (%wt)	80%	per MSDS: Methyl Methacrylate Monomer in both Components A and B at 50/50 wt ratio. HAP Content can vary between 45% and 80% by weight for Component Parts A & B total when combined. 80% chosen as worst case for PTE.
Max Total HAP Content (%wt)	80%	per MSDS: Methyl Methacrylate Monomer in both Components A and B at 50/50 wt ratio. HAP Content can vary between 45% and 80% by weight for Component Parts A & B total when combined. 80% chosen as worst case for PTE.
Uncontrolled Single HAP Emissions (lb/hr)	0.36	Corner Fold Machine Process Rate (lb trim board/hr) * Glue Application Rate (lb glue/lb trim board) * Max Single HAP Content (%wt)
Uncontrolled Single HAP Emissions (ton/yr)	1.57	Uncontrolled Single HAP Emissions (lb/hr) / 2000 lb per ton * 8760 hr per year
Uncontrolled Total HAP Emissions (lb/hr)	0.36	Corner Fold Machine Process Rate (lb trim board/hr) * Glue Application Rate (lb glue/lb trim board) * Max Total HAP Content (%wt)
Uncontrolled Total HAP Emissions (ton/yr)	1.57	Uncontrolled Total HAP Emissions (lb/hr) / 2000 lb per ton * 8760 hr per year

Note: None of the 14 WVDEP Toxic Air Pollutants (TAPs) listed in 45CSR27 Table A are present in the glue; therefore, WVDEP TAP emissions are zero for this process

Comparison of Modification Definition Thresholds in 45CSR13-2.17 with Proposed Process PTE

Pollutant	45CSR13-2.17 Modification Threshold	Proposed Process Uncontrolled PTE	45CSR13-2.17 Modification?
VOC	6 lb/hr and 10 tpy	0.03 lb/hr and 0.11 tpy	N
VOC	144 lb/day	0.6 lb/day	N
PM	6 lb/hr and 10 tpy	0.03 lb/hr and 0.13 tpy	N
PM	144 lb/day	0.72 lb/day	N
PM10	6 lb/hr and 10 tpy	0.03 lb/hr and 0.13 tpy	N
PM10	144 lb/day	0.72 lb/day	N
Total HAPs	2 lb/hr	0.36 lb/hr	N
Total HAPs	5 tpy	1.57 tpy	N