

MANUFACTURER:

BondPro Corporation
650 Brakke Drive
Hudson, WI 54016
Phone: 715-386-6206
Fax: 715-386-1462
ISSUED: March 10, 2003

Transportation Emergency
Chemtrec: 800-424-9300

TRADE NAME:

BondPak 7102 Adhesive

This product is a kit which contains both the Part A and Part B independently packaged in a duel cartridge syringe. An MSDS for each of these components is included. Please do not separate the component MSDSs from this cover page.

The information in this Material Safety Data Sheet (MSDS) is believed to be correct as of the date issued. BONDPRO CORPORATION MAKES WARRANTIES, EXPRESSED OR IMPLIED, INCLUDING, BUT NOT LIMITED TO, ANY IMPLIED WARRANTY OF MERCHANTABILITY OR FITNESS FOR A PARTICULAR PURPOSE

OR COURSE OF PERFORMANCE OR USAGE OF TRADE. User is responsible for determining whether the BondPro Corporation product is fit for a particular purpose and suitable for user's methods of use or application. Given the variety of factors that can affect the use and application of a BondPro Corporation product, some of which are uniquely within the user's knowledge and control, it is essential that the user evaluate the BondPro Corporation product to determine whether it is fit for a particular purpose and suitable for user's method of use or application.

BondPro Corporation provides information in electronic form as a service to its customers. Due to the remote possibility that electronic transfer may have resulted in errors, omissions or alterations in this information, BondPro Corporation makes no representations as to its completeness or accuracy. In addition, information obtained from a database may not be as current as the information in the MSDS available directly from BondPro Corporation.

SECTION 1. CHEMICAL PRODUCT AND COMPANY INFORMATION

Page 1 of 5

MANUFACTURER:

BondPro Corporation
650 Brakke Drive
Hudson, WI 54016
Phone: 715-386-6206
Fax: 715-386-1462
May 30, 2001

Transportation Emergency
Chemtrec: 800-424-9300

TRADE NAME:

BondPro 7513 Adhesive part A

SECTION 2. COMPOSITION/INFORMATION ON INGREDIENTS

<u>SUBSTANCE DESCRIPTION</u>	<u>CAS#</u>	<u>PERCENT</u>
SYNTHETIC RUBBER OLIGOMER	TradeSecret	40 - 70
POLYFUNCTIONAL AZIRIDINE	64265-57-2	10 - 30
COMPLEXED AMINE/POLYOL BLEND	TradeSecret	1.0 - 5.0
AMORPHOUS SILICA	7631-86-9	1.0 - 5.0

This material is not on EINECS and should be used in Europe only for research purposes in order to establish its properties. The components of this product are in compliance with the chemical notification requirements of TSCA

SECTION 3. PHYSICAL DATA

BOILING POINT:	N/A
VAPOR PRESSURE:	< 0.1 mmHg
VAPOR DENSITY:	N/D
EVAPORATION RATE:	N/D
SOLUBILITY IN WATER:	slight
SPECIFIC GRAVITY:	1.028 g/cc
PERCENT VOLATILE:	7.9 % by wt ASTM D2369 @110 C
pH:	N/A
VISCOSITY:	25000 - 35000 centipoise
MELTING POINT:	N/A

APPEARANCE AND ODOR:
Paste, WHITE, MILD ODOR

SECTION 4. FIRE AND EXPLOSION HAZARD DATA

FLASH POINT:	223 F Setaflash
FLAMMABLE LIMITS - LEL:	N/D
FLAMMABLE LIMITS - UEL:	N/D
AUTOIGNITION TEMPERATURE:	N/D

BondPro 7513 Adhesive part A Page 2 of 5

EXTINGUISHING MEDIA:

Water spray, Carbon dioxide, Dry chemical, Foam

SPECIAL FIRE FIGHTING PROCEDURES:

Wear full protective clothing, including helmet, self-contained, positive pressure or pressure demand breathing apparatus, bunker coat and pants, bands around arms, waist and legs, face mask, and protective covering for exposed areas of the head.

UNUSUAL FIRE AND EXPLOSION HAZARDS:

Not determined.

NFPA HAZARD CODES: HEALTH: 2 FIRE: 2 REACTIVITY: 0UNUSUAL REACTION HAZARD: noneOSHA FIRE HAZARD CLASS: Class II Combustible Liquid

SECTION 5. REACTIVITY DATA

STABILITY: StableINCOMPATIBILITY - MATERIALS/CONDITIONS TO AVOID:

Strong Acids, Heat.

HAZARDOUS POLYMERIZATION: Hazardous polymerization will not occur.HAZARDOUS DECOMPOSITION PRODUCTS:

Carbon Monoxide and Carbon Dioxide, Oxides of Nitrogen, Aldehydes, Amine Compounds, Toxic Vapors, Gases or Particulates.

SECTION 6. ENVIRONMENTAL INFORMATION

SPILL RESPONSE:

Refer to other sections of this MSDS for information regarding physical and health hazards, respiratory protection, ventilation, and personal protective equipment. Extinguish all ignition sources. Contain spill. Cover with inorganic absorbent material. Cover with water. Collect spilled material. Clean up residue. Place in a closed container. Cloth or paper contaminated with adhesive should be disposed of in a metal container, covered with water and container sealed.

RECOMMENDED DISPOSAL:

Incinerate in an industrial or commercial facility. Do not dispose of in a sanitary landfill.

ENVIRONMENTAL DATA:

Not applicable.

REGULATORY INFORMATION:

Volatile Organic Compounds: 81 gms/liter South Coast Air Quality Mgmt Dist Method.

BondPro 7513 Adhesive part A Page 3 of 5

VOC Less H₂O & Exempt Solvents: 81 gms/liter South Coast Air Quality Mgmt Dist Method.

Since regulations vary, consult applicable regulations or authorities before disposal. In the event of an uncontrolled release of this material, the user should determine if the release qualifies as a reportable quantity.

When components B & A are mixed at a 10:1 ratio, the specific gravity of the mixture is 1.006 . The VOC content (less water and exempt solvent) for the mixture is 218 g/l

EPCRA HAZARD CLASS:

FIRE HAZARD: Yes PRESSURE: No REACTIVITY: No ACUTE: Yes CHRONIC: No

SECTION 7. SUGGESTED FIRST AID

EYE CONTACT:

Immediately flush eyes with large amounts of water for at least 15 minutes. Get immediate medical attention.

SKIN CONTACT:

Immediately flush skin with large amounts of water. Remove contaminated clothing. If irritation persists, call a physician. Wash contaminated clothing before reuse.

INHALATION:

If signs/symptoms occur, remove person to fresh air. If signs/symptoms continue, call a physician.

IF SWALLOWED:

Do not induce vomiting. Drink two glasses of water. Call a physician.

SECTION 8. PRECAUTIONARY INFORMATION

EYE PROTECTION:

Avoid eye contact. Wear safety glasses with side shields.

SKIN PROTECTION:

Avoid skin contact. Wear appropriate gloves when handling this material. A pair of gloves made from the following material(s) are recommended: butyl rubber, nitrile rubber, polyethylene, polyvinyl alcohol.

RECOMMENDED VENTILATION:

Do not use in a confined area or areas with little or no air movement. Provide appropriate local exhaust when product is heated. Use in a well-ventilated area. If exhaust ventilation is not adequate, use appropriate respiratory protection.

RESPIRATORY PROTECTION:

Avoid breathing of vapors. half-mask organic vapor respirator, full-face organic vapor respirator.

PREVENTION OF ACCIDENTAL INGESTION:

Wash hands after handling and before eating. Do not ingest.

BondPro 7513 Adhesive part A Page 4 of 5

RECOMMENDED STORAGE:

Store away from acids. Store away from heat. Keep container dry.

FIRE AND EXPLOSION AVOIDANCE:

Keep container tightly closed. Keep away from heat, sparks, open flame, and other sources of ignition. Combustible liquid and vapor.

OTHER PRECAUTIONARY INFORMATION:

Not intended for consumer sale or use.

When equalizing plungers, prior to use, dispense unmixed adhesive onto a clean, solvent-free, non-porous surface such as aluminum foil, glass or a metal can. Do not dispense unmixed adhesive onto paper or cloth towels or rags.

EXPOSURE LIMITS

<u>INGREDIENT</u>	<u>VALUE</u>	<u>UNIT</u>	<u>TYPE</u>	<u>AUTH</u>	<u>SKIN*</u>
SYNTHETIC RUBBER OLIGOMER	NONE	NONE	NONE	NONE	
POLYFUNCTIONAL AZIRIDINE	NONE	NONE	NONE	NONE	
COMPLEXED AMINE/POLYOL BLEND	NONE	NONE	NONE	NONE	
AMORPHOUS SILICA	3	MG/M3	TWA	CMRG	

AS RESPIRABLE DUST

* SKIN NOTATION: Listed substances indicated with 'Y' under SKIN refer to the potential contribution to the overall exposure by the cutaneous route including mucous membrane and eye, either by airborne or, more particularly, by direct contact with the substance. Vehicles can alter skin absorption.

SOURCE OF EXPOSURE LIMIT DATA:

- CMRG: Chemical Manufacturer Recommended Exposure Guidelines
- NONE: None Established

SECTION 9. HEALTH HAZARD DATA
EYE CONTACT:

Chemical Related Eye Burns (chemical corrosivity): signs/symptoms can include cloudy appearance of the cornea, chemical burns, pain, tearing, ulcers, impaired vision or loss of vision.

SKIN CONTACT:

Allergic Skin Reaction: signs/symptoms can include redness, swelling, blistering, and itching.

Severe Skin Irritation (after prolonged or repeated contact): signs/symptoms can include redness, swelling, itching, dryness, cracking, blistering, and pain. May be absorbed through the skin and produce effects similar to those caused by inhalation and/or ingestion.

INHALATION:

Health effects from inhalation are not expected unless product is heated.

BondPro 7513 Adhesive part A Page 5 of 5

Allergic Respiratory Reaction: signs/symptoms can include difficulty breathing, wheezing, tightness of chest, and respiratory failure.
Irritation (upper respiratory): signs/symptoms can include soreness of the nose and throat, coughing and sneezing.

WHILE THE FOLLOWING EFFECTS ARE ASSOCIATED WITH ONE OR MORE OF THE INDIVIDUAL INGREDIENTS IN THIS PRODUCT AND ARE REQUIRED TO BE INCLUDED ON THE MSDS BY THE U.S. OSHA HAZARD COMMUNICATION STANDARD, THEY ARE NOT EXPECTED EFFECTS DURING FORESEEABLE USE OF THIS PRODUCT.

Kidney Effects: signs/symptoms can include reduced urine volume, blood in urine and back pain.

Liver Effects: signs/symptoms can include yellow skin(jaundice) and tenderness of upper abdomen.

IF SWALLOWED:

Illness may occur after a single swallowing of relatively large quantities of this material.

Irritation of Gastrointestinal Tissues: signs/symptoms can include pain, vomiting, abdominal tenderness, nausea, blood in vomitus, and blood in feces.

Liver Effects: signs/symptoms can include yellow skin(jaundice) and tenderness of upper abdomen.

Abbreviations: N/D - Not Determined N/A - Not Applicable CA - Approximately

The information in this Material Safety Data Sheet (MSDS) is believed to be correct as of the date issued. BONDPRO CORPORATION MAKES WARRANTIES, EXPRESSED OR IMPLIED, INCLUDING, BUT NOT LIMITED TO, ANY IMPLIED WARRANTY OF MERCHANTABILITY OR FITNESS FOR A PARTICULAR PURPOSE

OR COURSE OF PERFORMANCE OR USAGE OF TRADE. User is responsible for determining whether the BondPro Corporation product is fit for a particular purpose and suitable for user's methods of use or application. Given the variety of factors that can affect the use and application of a BondPro

Corporation product, some of which are uniquely within the user's knowledge and control, it is essential that the user evaluate the BondPro Corporation product to determine whether it is fit for a particular purpose and suitable for user's method of use or application.

BondPro Corporation provides information in electronic form as a service to its customers. Due to the remote possibility that electronic transfer may have resulted in errors, omissions or alterations in this information, BondPro Corporation makes no representations as to its completeness or accuracy. In addition, information obtained from a database may not be as current as the information in the MSDS available directly from BondPro Corporation.

SECTION 1. CHEMICAL PRODUCT AND COMPANY INFORMATION

Page 1 of 6

MANUFACTURER:

BondPro Corporation
650 Brakke Drive
Hudson, WI 54016
Phone: 715-386-6206
Fax: 715-386-1462
ISSUED: May 16, 2001

Transportation Emergency
Chemtrec: 800-424-9300

TRADE NAME:

BondPak 7102 Adhesive part B Acrylic

SECTION 2. COMPOSITION/INFORMATION ON INGREDIENTS

SUBSTANCE DESCRIPTION	CAS#	PERCENT
METHYL METHACRYLATE	80-62-6	40.0 - 60.0
synthetic polymer - Vendor Trade Secret (V.T.S.) ++	TradeSecret	10.0 - 30.0
acrylic polymer - Vendor Trade Secret (V.T.S.) ++	TradeSecret	5.0 - 10.0
METHACRYLIC ACID	79-41-4	5.0 - 10.0

++ Material is a trade secret of our supplier and the CAS number is unknown to 3M.

This product contains the following toxic chemical or chemicals subject to the reporting requirements of Section 313 of Title III of the Emergency Planning and Community Right-To-Know Act of 1986 and 40 CFR Part 372:

METHYL METHACRYLATE

SECTION 3. PHYSICAL DATA

BOILING POINT:	214.00 F
VAPOR PRESSURE: @ 68F	29.0000 mmHg
VAPOR DENSITY:	> 1.00 Air=1
EVAPORATION RATE:	3.0 BuOAc=1
SOLUBILITY IN WATER:	moderate
SPECIFIC GRAVITY:	1.030 Water=1
PERCENT VOLATILE:	30.00 - 60.00 % by wt
pH:	N/A
VISCOSITY:	40000 - 60000 centipoise
MELTING POINT	-54 F

APPEARANCE & ODOR:

Paste, Off-white, pungent acrylic odor

SECTION 4. FIRE AND EXPLOSION HAZARD DATA

FLASH POINT: 51.00 F
FLAMMABLE LIMITS - LEL: 2.00 % by vol
FLAMMABLE LIMITS - UEL: 12.50 % by vol
AUTOIGNITION TEMPERATURE: N/D

EXTINGUISHING MEDIA:

Water, Carbon dioxide, Dry chemical, Foam

SPECIAL FIRE FIGHTING PROCEDURES:

Wear full protective clothing, including helmet, self-contained, positive pressure or pressure demand breathing apparatus, bunker coat and pants, bands around arms, waist and legs, face mask, and protective covering for exposed areas of the head.

UNUSUAL FIRE AND EXPLOSION HAZARDS:

See Hazardous Decomposition section for products of combustion. Vapors may travel long distances along the ground or floor to an ignition source and flash back.

NFPA HAZARD CODES: HEALTH: 2 FIRE: 3 REACTIVITY: 2

UNUSUAL REACTION HAZARD: none

SECTION 5. REACTIVITY DATA

STABILITY: Stable

INCOMPATIBILITY - MATERIALS/CONDITIONS TO AVOID:

Amines, Reducing Agents, Heat, Reactive Metals, Sparks and/or Flames. Heat is generated during cure. Do not cure a mass larger than 50 grams in a confined space to prevent a premature reaction (exotherm) with production of intense heat and smoke.

HAZARDOUS POLYMERIZATION: Hazardous polymerization may occur.

HAZARDOUS DECOMPOSITION PRODUCTS:

Carbon Monoxide and Carbon Dioxide, Oxides of Nitrogen, Toxic Vapors,

SECTION 6. ENVIRONMENTAL INFORMATION

SPILL RESPONSE:

Refer to other sections of this MSDS for information regarding physical and health hazards, respiratory protection, ventilation, and personal protective equipment. Ventilate area. Extinguish all ignition sources. Collect spilled material. Place in an approved metal container.

BondPak 7102 Adhesive part B Page 3 of 6

RECOMMENDED DISPOSAL:

Incinerate in an industrial or commercial facility in the presence of a combustible material. Dispose of completely cured (or polymerized) material in a sanitary landfill.

ENVIRONMENTAL DATA:

Not determined.

REGULATORY INFORMATION:

Volatile Organic Compounds: 0.00 gms/liter.

VOC Less H₂O & Exempt Solvents: 0.0 gms/liter.

Since regulations vary, consult applicable regulations or authorities before disposal. In the event of an uncontrolled release of this material, the user should determine if the release qualifies as a reportable quantity.

CERCLA/RCRA HAZARDOUS WASTE CODES: U162(METHYL METHACRYLATE).

CERCLA REPORTABLE QUANTITY: 100 POUNDS

EPCRA HAZARD CLASS:

FIRE HAZARD: Yes PRESSURE: No REACTIVITY: No ACUTE: Yes CHRONIC: Yes

SECTION 7. SUGGESTED FIRST AID

EYE CONTACT:

Immediately flush eyes with large amounts of water. Get immediate medical attention.

SKIN CONTACT:

Wash affected area with soap and water.

INHALATION:

If signs/symptoms occur, remove person to fresh air. If signs/symptoms continue, call a physician.

IF SWALLOWED:

Do not induce vomiting. Drink two glasses of water. Call a physician.

SECTION 8. PRECAUTIONARY INFORMATION

EYE PROTECTION:

Avoid eye contact. Wear ventilated goggles. Where safety Glasses with side shields.

SKIN PROTECTION:

Avoid skin contact. Wear appropriate gloves when handling this material. A pair of gloves made from the following material(s) are recommended: butyl rubber, polyvinyl alcohol, fluoroelastomer (Viton).

BondPak 7102 Adhesive part B Page 4 of 6

RECOMMENDED VENTILATION:

Curing ovens must be exhausted to outdoors or to a suitable emission control device. If exhaust ventilation is not adequate, use appropriate respiratory protection. Provide ventilation adequate to control vapor concentrations below recommended exposure limits and/or control spray or mist.

RESPIRATORY PROTECTION:

Avoid breathing of vapors created during the cure cycle. Avoid prolonged breathing of vapors. Avoid breathing of dust created by cutting, sanding or grinding. Select one of the following NIOSH approved respirators based on airborne concentration of contaminants and in accordance with OSHA regulations: half-mask dust respirator, half-mask organic vapor respirator, full-face organic vapor respirator.

PREVENTION OF ACCIDENTAL INGESTION:

Wash hands after handling and before eating. Do not ingest.

RECOMMENDED STORAGE:

Store in a cool place. Store away from acids. Store away from heat. Keep container dry. Keep container in well-ventilated area. Keep out of the reach of children.

FIRE AND EXPLOSION AVOIDANCE:

Keep container tightly closed. Keep container tightly closed. Flammable liquid and vapor. Keep away from heat, sparks, open flame, and other sources of ignition. No smoking while handling this material. Do not heat under confinement.

EXPOSURE LIMITS

<u>INGREDIENT</u>	<u>VALUE</u>	<u>UNIT</u>	<u>TYPE</u>	<u>AUTH</u>	<u>SKIN*</u>
METHYL METHACRYLATE	100	PPM	TWA	OSHA	
METHYL METHACRYLATE	50	PPM	TWA	ACGIH	
SENSITIZER					
METHYL METHACRYLATE	100	PPM	STEL	ACGIH	
SENSITIZER					
synthetic polymer - Vendor					
Trade Secret (V.T.S.) ++	NONE	NONE	NONE	NONE	
acrylic polymer - Vendor					
Trade Secret (V.T.S.) ++	NONE	NONE	NONE	NONE	
METHACRYLIC ACID	20	PPM	TWA	ACGIH	
METHACRYLIC ACID	20	PPM	TWA	OSHA	Y

*SKIN NOTATION: Listed substances indicated with 'Y' under SKIN refer to the potential contribution to the overall exposure by the cutaneous route including mucous membrane and eye, either by airborne or, more particularly, by direct contact with the substance. Vehicles can alter skin absorption.

SOURCE OF EXPOSURE LIMIT DATA:

- ACGIH: American Conference of Governmental Industrial Hygienists
- OSHA: Occupational Safety and Health Administration
- NONE: None Established

SECTION 9. HEALTH HAZARD DATA

EYE CONTACT:

Moderate Eye Irritation : signs/symptoms can include redness, swelling, pain, tearing, and hazy vision.

Vapors from heated material may cause eye irritation.

Dust created by cutting, grinding, sanding, or machining may cause eye irritation.

SKIN CONTACT:

Allergic Skin Reaction: signs/symptoms can include redness, swelling, blistering, and itching.

Mild Skin Irritation: signs/symptoms can include redness, swelling, and itching.

INHALATION:

Illness may occur after a single overexposure by inhalation to relatively large quantities of this material.

Nervous System Effects: signs/symptoms can include emotional changes, lack of coordination, tremors and sensory loss.

Central Nervous System Depression: signs/symptoms can include headache, dizziness, drowsiness, incoordination, slowed reaction time, slurred speech, giddiness and unconsciousness.

Irritation (upper respiratory): signs/symptoms can include soreness of the nose and throat, coughing and sneezing.

Vapors of heated material may cause respiratory system irritation.

Dust from cutting, grinding, sanding or machining may cause irritation of the respiratory system.

IF SWALLOWED:

Irritation of Gastrointestinal Tissues: signs/symptoms can include pain, vomiting, abdominal tenderness, nausea, blood in vomitus, and blood in feces.

REPRODUCTIVE/DEVELOPMENTAL TOXINS:

METHACRYLIC ACID (79-41-4) is a suspected reproductive hazard causing birth defects and delayed development to rat embryo's in ex-vivo exposure studies. Correlation to airborne or ingested doses, in regard to typical exposures, are inconclusive.

METHYL METHACRYLATE (80-62-6) is not classifiable as to its potential reproductive effects in humans.

Abbreviations: N/D - Not Determined N/A - Not Applicable CA - Approximately

BondPak 7102 Adhesive part B Page 6 of 6

The information in this Material Safety Data Sheet (MSDS) is believed to be correct as of the date issued. BONDPRO CORPORATION MAKES WARRANTIES, EXPRESSED OR IMPLIED, INCLUDING, BUT NOT LIMITED TO, ANY IMPLIED WARRANTY OF MERCHANTABILITY OR FITNESS FOR A PARTICULAR PURPOSE OR COURSE OF PERFORMANCE OR USAGE OF TRADE. User is responsible for determining whether the BondPro Corporation product is fit for a particular purpose and suitable for user's methods of use or application. Given the variety of factors that can affect the use and application of a BondPro

Corporation product, some of which are uniquely within the user's knowledge and control, it is essential that the user evaluate the BondPro Corporation product to determine whether it is fit for a particular purpose and suitable for user's method of use or application.

BondPro Corporation provides information in electronic form as a service to its customers. Due to the remote possibility that electronic transfer may have resulted in errors, omissions or alterations in this information, BondPro Corporation makes no representations as to its completeness or accuracy. In addition, information obtained from a database may not be as current as the information in the MSDS available directly from BondPro Corporation.