

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 2352 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 6

MANUFACTURER:

BondPro Corporation
650 Brakke Drive
Hudson, WI 54016
Phone: 715-386-6206
Fax: 715-386-1462
USSUED: August 9, 2001

Transportation Emergency
Chemtrec: 800-424-9300

TRADE NAME:

BondPak 2352 Adhesive Part A Gray Epoxy

SECTION 2. COMPOSITION/INFORMATION ON INGREDIENTS

SUBSTANCE DESCRIPTION	PERCENT	CAS#
Aliphatic Polymer Diamine	40.0 - 60.0	Trade Secret
Kaolin	30.0 - 60.0	1332-58-7
Carbon Black	0.01 - 0.08	1333-86-4

The components of this product are in compliance with the chemical with the chemical notification requirements of TSCA. All applicable chemical ingredients in this material are listed on the European Inventory of Existing Chemical Substances (EINECS), or are exempt polymers whose monomers are listed on EINECS.

SECTION 3. PHYSICAL DATA

BOILING POINT:	N/A
VAPOR DENSITY:	N/A
VAPOR PRESSURE:	N/A
EVAPORATION RATE:	N/A
SOLUBILITY IN WATER:	nil
SPECIFIC GRAVITY:	1.260 Water=1
PERCENT VOLATILE:	0.00% by wt @ room temperature
pH:	N/D
VISCOSITY:	ca. 40000-80000 centipoise
MELTING POINT	N/D

APPEARANCE & ODOR:

Paste, amber, pungent odor.

SECTION 4. FIRE AND EXPLOSION HAZARD DATA

Flash Point	N/A
Flammable Limits - LEL	N/A
Flammable Limits - UEL	N/A
Autoignition Temperature:	N/D

BondPak 2352 Adhesive Part A Page 2 of 6

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:

None known

NFPA HAZARD CLASSIFICATION

HEALTH: 2 FIRE: 0 REACTIVITY: 1 UNUSUAL REACTION HAZARD: NONE

SECTION 5. REACTIVITY DATA

STABILITY: StableINCOMPATIBILITY - MATERIALS/CONDITIONS TO AVOID:

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 if intense heat and smoke.

HAZARDOUS POLYMERIZATION: Hazardous polymerization will not occur.

HAZARDOUS DECOMPOSITION PRODUCTS:

Carbon Monoxide and Carbon Dioxide, Oxides of Nitrogen, 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. Cover with absorbent material. Collect spilled material. Place in a U.S. DOT-approved container.

RECOMMENDED DISPOSAL:

Cure product according to product instructions. Incinerate uncured waste in an industrial or commercial incinerator. Dispose of completely cured (or polymerized) material in a sanitary landfill.

ENVIRONMENTAL DATA:

Not determined.

REGULATORY INFORMATION:

Volatile Organic Compounds: 43 gms/liter tested per EPA method 24A.

Volatile Organic Compounds: 12 gms/liter tested per EPA method 24A mixed with part B

VOC Less H₂O & Exempt Solvents: 43 gms/liter tested per EPA method 24A.

BondPak 2352 Adhesive Part A Page 3 of 6

Since regulations vary, consult applicable regulations or authorities before disposal. U.S. EPA Hazardous Waste Number = None (Not U.S. EPA Hazardous).

EPCRA HAZARD CLASS:

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

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 wash skin with soap and large amounts of water. Remove contaminated clothing. If signs/symptoms occur, call a physician. Wash contaminated clothing before reuse and dispose of contaminated shoes.

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: polyethylene/ethylene vinyl alcohol.

RECOMMENDED VENTILATION:

Provide appropriate local exhaust for grinding, cutting, or sanding cured material. Curing ovens must be exhausted to outdoors or to a suitable emission control device. Use in a well-ventilated area. If exhaust ventilation is not adequate, use appropriate respiratory protection.

RESPIRATORY PROTECTION:

Avoid 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.

BondPak 2352 Adhesive Part A Page 4 of 6

PREVENTION OF ACCIDENTAL INGESTION:

Do not eat, drink or smoke when using this product. Wash exposed areas thoroughly with soap and water. Do not ingest.

RECOMMENDED STORAGE:

Store away from heat. Keep out of the reach of children.

FIRE AND EXPLOSION AVOIDANCE:

Keep container tightly closed.

EXPOSURE LIMITS

<u>INGREDIENT</u>	<u>VALUE</u>	<u>UNIT</u>	<u>TYPE</u>	<u>AUTH</u>	<u>SKIN*</u>
Aliphatic Polymer Diamine	NONE	NONE	NONE	NONE	
Kaolin	2	MG/M3	TWA RESPIRABLE	ACGIH	
Kaolin	10	MG/M3	TWA	OSHAV	
	AS DUST		OSHA VACATED	PEL	
Kaolin	15	MG/M3	TWA	OSHA	
	AS TOTAL DUST				
Kaolin	5	MG/M3	TWA RESPIRABLE	OSHA	
Carbon Black	3.5	MG/M3	TWA	ACGIH	
Carbon Black	3.5	MG/M3	TWA	OSHA	
Carbon Black	0.5	MG/M3	TWA	CMRG	

*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
 -CMRG: Chemical Manufacturer Recommended Exposure Guidelines
 -OSHA: Occupational Safety and Health Administration
 -OSHAV: Occupational Safety and Health Administration Vacated PEL.
 Vacated Permissible Exposure Limits (PEL) are enforced as the OSHA PEL in some states. Check with your local regulatory authority.

-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.

BondPak 2352 Adhesive Part A Page 5 of 6

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:

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

Vapors of heated material may cause irritation of the respiratory system.

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

IF SWALLOWED:

Ingestion may cause:

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

OTHER HEALTH HAZARD INFORMATION:

Exposure to this material in normal storage and handling has not been reported to cause significant adverse health effects. However, under normal processing conditions, e.g. grinding or heating, this product may release fumes and vapors of variable composition based on irritation or any of the health effects listed above when the emissions are present at elevated concentrations. Use with appropriate local exhaust ventilation.

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

BondPak 2352 Adhesive Part A Page 6 of 6

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 24, 2001

Transportation Emergency
Chemtrec: 800-424-9300

TRADE NAME:

BondPak 2352 Adhesive Part B Grey epoxy

SECTION 2. COMPOSITION/INFORMATION ON INGREDIENTS

SUBSTANCE DESCRIPTION	PERCENT	CAS#
Epoxy Resin	70.0 - 80.0	25068-38-6
Kaolin	20.0 - 30.0	1332-58-7

The components of this product are in compliance with the chemical notification requirements of TSCA. All applicable chemical ingredients in this material are listed on the European Inventory of Existing Chemical Substances (EINECS), or are exempt polymers whose monomers are listed on EINECS.

SECTION 3. PHYSICAL DATA

BOILING POINT:	N/A
VAPOR DENSITY:	N/A
VAPOR PRESSURE:	N/A
EVAPORATION RATE:	N/A
SOLUBILITY IN WATER:	nil
SPECIFIC GRAVITY:	1.33 Water=1
PERCENT VOLATILE:	0.06% by wt
pH:	N/A
VISCOSITY:	ca. 75000 - 150000 Centipoise
MELTING POINT	N/D

APPEARANCE & ODOR:

Creamy paste, off white, very slight epoxy odor.

SECTION 4. FIRE AND EXPLOSION HAZARD DATA

Flash Point	N/A
Flammable Limits - LEL	N/A
Flammable Limits - UEL	N/A
Autoignition Temperature:	N/D

BondPak 2352 Adhesive Part B Page 2 of 6

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:

None known

NFPA HAZARD CLASSIFICATION

HEALTH: 1 FIRE: 0 REACTIVITY: 1
UNUSUAL REACTION HAZARD: NONE

SECTION 5. REACTIVITY DATA

STABILITY: StableINCOMPATIBILITY - MATERIALS/CONDITIONS TO AVOID:

Strong Acids, Strong Oxidizing Agents. 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 will not occur.HAZARDOUS DECOMPOSITION PRODUCTS:

Carbon Monoxide and Carbon Dioxide, Aldehydes, Ketones, Hydrocarbons, 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. Cover with absorbent material. Collect spilled material. Place in a U.S. DOT-approved container.

RECOMMENDED DISPOSAL:

Cure product according to product instructions. Incinerate in an industrial or commercial incinerator. Dispose of completely cured (or polymerized) material in a sanitary landfill.

ENVIRONMENTAL DATA:

Not determined.

REGULATORY INFORMATION:

Volatile Organic Compounds: 0.8 gms/liter tested per EPA method 24A.
Volatile Organic Compounds: 12 gms/liter tested per EPA method 24A
MIXED WITH PART A.

BondPak 2352 Adhesive Part B Page 3 of 6

VOC Less H2O & Exempt Solvents: 0.8 gms/liter tested per EPA method 24A.

Since regulations vary, consult applicable regulations or authorities before disposal. U.S. EPA Hazardous Waste Number = None (Not U.S. EPA Hazardous).

EPCRA HAZARD CLASS:

FIRE HAZARD: No 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:

Immediately wash skin with soap and large amounts of water. Remove contaminated clothing. If signs/symptoms occur, call a physician. Wash contaminated clothing before reuse and dispose of contaminated shoes.

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: polyethylene/ethylene vinyl alcohol.

RECOMMENDED VENTILATION:

Provide appropriate local exhaust for grinding, cutting, or sanding cured material. Curing ovens must be exhausted to outdoors or to a suitable emission control device. Use in a well-ventilated area. If exhaust ventilation is not adequate, use appropriate respiratory protection.

RESPIRATORY PROTECTION:

Avoid breathing of vapors created during the cure cycle. Avoid breathing of dust created by cutting, sanding or grinding. Select one of the following NIOSH approved respirators based on airborne

BondPak 2352 Adhesive Part B Page 4 of 6

concentration of contaminants and in accordance with OSHA regulations:
half-mask dust respirator.

PREVENTION OF ACCIDENTAL INGESTION:

Do not eat, drink or smoke when using this product. Wash exposed areas thoroughly with soap and water. Do not ingest.

RECOMMENDED STORAGE:

Store away from heat. Keep out of the reach of children.

FIRE AND EXPLOSION AVOIDANCE:

Keep container tightly closed.

EXPOSURE LIMITS

<u>INGREDIENT</u>	<u>VALUE</u>	<u>UNIT</u>	<u>TYPE</u>	<u>AUTH</u>	<u>SKIN*</u>
Epoxy Resin	NONE	NONE	NONE	NONE	
Kaolin	2	MG/M3 RESPIRABLE	TWA	ACGIH	
Kaolin	10	MG/M3 AS DUST	TWA OSHA VACATED PEL	OSHAV	
Kaolin	15	MG/M3 AS TOTAL DUST	TWA	OSHA	
Kaolin	5	MG/M3 RESPIRABLE	TWA	OSHA	

*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
- OSHAV: Occupational Safety and Health Administration Vacated PEL.
Vacated Permissible Exposure Limits (PEL) are enforced as the OSHA PEL in some states. Check with your local regulatory authority.
- NONE: None Established

SECTION 9. HEALTH HAZARD DATAEYE CONTACT:

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

Vapors from heated material may cause eye irritation.

BondPak 2352 Adhesive Part B Page 5 of 6

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:

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

Vapors of the uncured product may cause irritation of the respiratory system.

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

IF SWALLOWED:

Ingestion may cause:

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

OTHER HEALTH HAZARD INFORMATION:

Exposure to this material in normal storage and handling has not been reported to cause significant adverse health effects. However, under normal processing conditions, e.g. grinding or heating, this product may release fumes and vapors of variable composition based on irritation or any of the health effects listed above when the emissions are present at elevated concentrations. Use with appropriate local exhaust ventilation.

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.

BondPak 2352 Adhesive Part B Page 6 of 6

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.