

Material Safety Data Sheet

SECTION 1. CHEMICAL PRODUCT AND COMPANY INFORMATION

Page 1 of 6

MANUFACTURER:

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ISSUED: November 28, 2001

Transportation Emergency
Chemtrec: 800-424-9300

TRADE NAME:

BondPak 2071 Adhesive Epoxy

SECTION 2. COMPOSITION/INFORMATION ON INGREDIENTS

<u>SUBSTANCE DESCRIPTION</u>	<u>CAS#</u>	<u>PERCENT</u>
METHYL ETHYL KETONE	78-93-3	55 - 65
TETRAHYDROFURAN	109-99-9	10 - 20
PHENOXY RESIN	25068-38-6	10 - 20
PHENOXY RESIN	5026-74-4	5 - 10
1-METHYL-2-PYRROLIDINONE	872-50-4	1 - 5
TOLUENE	108-88-3	< 0.2

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 ETHYL KETONE
1-METHYL-2-PYRROLIDINONE
TOLUENE

SECTION 3. PHYSICAL DATA

BOILING POINT:	151 F THF
VAPOR PRESSURE:	145 mmHg @ 68F
VAPOR DENSITY:	2.50 Air=1
EVAPORATION RATE:	> 2.00 Ether=1
SOLUBILITY IN WATER:	Slight
SPECIFIC GRAVITY:	0.890 Water=1
PERCENT VOLATILE:	ca. 79.00 % by wt
pH:	N/D
VISCOSITY:	45 - 90 centipoise
MELTING POINT:	N/D

APPEARANCE AND ODOR:

Light yellow to amber liquid -- ketone odor

Material Safety Data Sheet

BondPak 2071 Adhesive Page 2 of 6

SECTION 4. FIRE AND EXPLOSION HAZARD DATA

FLASH POINT: 6 F TOC THF
FLAMMABLE LIMITS - LEL: 2% by vol
FLAMMABLE LIMITS - UEL: 11.8% by vol
AUTOIGNITION TEMPERATURE: N/D

EXTINGUISHING MEDIA:

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:

Closed containers exposed to heat from fire may build pressure and explode. 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: 0

UNUSUAL REACTION HAZARD: none

SECTION 5. REACTIVITY DATA

STABILITY: Stable

INCOMPATIBILITY - MATERIALS/CONDITIONS TO AVOID:

Strong Oxidizing Agents.

HAZARDOUS POLYMERIZATION: Hazardous polymerization will not occur.

HAZARDOUS DECOMPOSITION PRODUCTS:

Carbon Monoxide and Carbon Dioxide, Oxides of Nitrogen, Hydrogen Cyanide, Aldehydes, Ketones, Hydrocarbons.

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. Cover with absorbent material. Collect using non-sparking tools. Place in a U.S. DOT-approved container.

RECOMMENDED DISPOSAL:

Incinerate in a permitted hazardous waste incinerator in the presence of a combustible material. Dispose of waste product in a facility permitted to accept chemical waste.

Material Safety Data Sheet

BondPak 2071 Adhesive Page 3 of 6

ENVIRONMENTAL DATA:

Not determined.

REGULATORY INFORMATION:

Volatile Organic Compounds: 710 gms/liter South Coast Air Quality Mgmt Dist Method Rule 443.1, calculated. VOC Less H₂O & Exempt Solvents: 710 gms/liter South Coast Air Quality Mgmt Dist Method Rule 443.1, calculated. Since regulations vary, consult applicable regulations or authorities before disposal. U.S. EPA Hazardous Waste Number = D001 (Ignitable)

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:

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:

Remove person to fresh air. If not breathing, give artificial respiration. If breathing is difficult, get immediate medical attention.

IF SWALLOWED:

If swallowed, call a physician immediately. Only induce vomiting at the instruction of a physician. Never give anything by mouth to an unconscious person.

SECTION 8. PRECAUTIONARY INFORMATION

EYE PROTECTION:

Avoid eye contact with vapor, spray, or mist. Wear vented goggles. 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: polyethylene/ethylene vinyl alcohol, polytetrafluoroethylene (Teflon).

RECOMMENDED VENTILATION:

Use with functioning spray booth or local exhaust. Use in a well-ventilated area. Provide sufficient ventilation to maintain emissions below recommended exposure limits. If exhaust ventilation is not adequate, use appropriate respiratory protection.

Material Safety Data Sheet

RESPIRATORY PROTECTION:

Avoid breathing of vapors, mists or spray. Select one of the following NIOSH approved respirators based on airborne concentration of contaminants and in accordance with OSHA regulations: Half-mask organic vapor respirator with dust/mist prefilter.

PREVENTION OF ACCIDENTAL INGESTION:

Do not ingest.

RECOMMENDED STORAGE:

Keep container closed when not in use. Keep out of the reach of children.

FIRE AND EXPLOSION AVOIDANCE:

Keep container tightly closed. Flammable liquid and vapor. Keep away from heat, sparks, open flame, and other sources of ignition. Ground containers securely when transferring contents. Wear low static or properly grounded shoes. Avoid static discharge.

<u>INGREDIENT</u>	<u>EXPOSURE LIMITS</u>					<u>SKIN*</u>
	<u>VALUE</u>	<u>UNIT</u>	<u>TYPE</u>	<u>AUTH</u>		
METHYL ETHYL KETONE	200	PPM	TWA	OSHA		
METHYL ETHYL KETONE	300	PPM	STEL	OSHA		
METHYL ETHYL KETONE	200	PPM	TWA	ACGIH		
METHYL ETHYL KETONE	300	PPM	STEL	ACGIH		
TETRAHYDROFURAN	75	PPM	STEL	CMRG		
TETRAHYDROFURAN	25	PPM	TWA	CMRG		
TETRAHYDROFURAN	200	PPM	TWA	ACGIH		
TETRAHYDROFURAN	250	PPM	STEL	ACGIH		
TETRAHYDROFURAN	200	PPM	TWA	OSHA		
TETRAHYDROFURAN	250	PPM	STEL	OSHA		
PHENOXY RESIN	NONE	NONE	NONE	NONE		
PHENOXY RESIN	NONE	NONE	NONE	NONE		
1-METHYL-2-PYRROLIDINONE	10	PPM	TWA	AIHA		Y
TOLUENE	50	PPM	TWA	ACGIH		Y
TOLUENE	100	PPM	TWA	OSHAV		
	OSHA VACATED PEL					
TOLUENE	150	PPM	STEL	OSHAV		
	OSHA VACATED PEL					
TOLUENE	200	PPM	TWA	OSHA		
TOLUENE	300	PPM	CEIL	OSHA		
TOLUENE	75	PPM	STEL	CMRG		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
- AIHA: American Industrial Hygiene Assoc. Workplace Environmental Exposure Level Guideline
- CMRG: Chemical Manufacturer Recommended Exposure Guidelines

Material Safety Data Sheet

BondPak 2071 Adhesive Page 5 of 6

- 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:

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

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:

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.

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.

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.

Ingestion may cause:

Central Nervous System Depression: signs/symptoms can include headache, dizziness, drowsiness, muscular weakness, incoordination, slowed reaction time, fatigue, blurred vision, slurred speech, giddiness, tremors and convulsions. Aspiration Pneumonitis: signs/symptoms can include coughing, difficulty breathing, wheezing, coughing up blood and pneumonia, which can be fatal.

REPRODUCTIVE/DEVELOPMENTAL TOXINS:

WARNING: Contains a chemical which can cause birth defects. (108-88-3)

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

Material Safety Data Sheet

BondPak 2071 Adhesive Page 6 of 6

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