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Product Name: PB200 part B

Penntek Industrial Coatings, 21034 Heron Way, Suite 104, Lakeville, MN 55044

24-hour Emergency Phone: 1-800-535-5053

1. CHEMICAL PRODUCT AND COMPANY IDENTIFICATION

MANUFACTURER'S NAME: PENNTEK INDUSTRIAL COATINGS ADDRESS: 21034 HERON WAY, SUITE 104

LAKEVILLE, MN 55044

EMERGENCY PHONE: 1-800-535-5053 **INFORMATION PHONE:** 952-236-9305

HMIS CODES: H F R P

2. COMPOSITION/INFORMATION ON INGREDIENTS

Component/Exposure Limits	CAS#	% by Wt.
ZEOLITE	1318-02-1	.00
Diphenylmethane 4,4'-diisocyanate	101-68-8	30 -60
Diphenylmethanediisocyanate, isomers and homologues	9016-87-9	13 -30
Isocyanates, reaction product of polyol with methylenediphenyl diisocyanate	Proprietary	13 -30

3. HAZARDS IDENTIFICATION

Potential Health Effects

EYE: Irritating to eyes

MAY CAUSE EYE IRRITATION. DIRECT CONTACT MAY CAUSE STINGING, TEARING AND REDNESS.

SKIN:

WARNING AVOID ALL CONTACT WITH SKIN. PENETRATES SKIN READILY. ANY CONTACE MAY RESULT IN THE ABSORPTION OF POTENTIALLY HARMFUL AMOUNTS WHICH CAN CAUSE DAMAGE TO THE KIDNEYS, LIVER, BLOOD AND/OR BONE MARROW.

REPEATED OR PROLONGED SKIN CONTACT WITH THE SOLVENT CAN RESULT IN DRY, DEFATTED AND CRACKED SKIN CAUSING INCREASED SUSCEPTIBILITY TO INFECTION. IN ADDITION, IRRITATIN (I.E. REDNESS AND SWELLING) THAT MAY DEVELOP INTO DERMATITIS CAN OCCUR FROM SKIN CONTACT. SOLVENTS CAN PENETRATE THE SKIN AND MAY CAUSE EFFECTS SIMILAR TO THOSE IDENTIFIED UNDER ACUTE INHALATION SYMPTOMS.

INGESTION:

MODERATELY TOXIC. MAY CAUSE MOUTH, THROAT, ESOPHAGUS AND STOMACH IRRITATION, NAUSEA, VOMITING AND DIARRHEA. ASPIRATION OF MATERIAL INTO LUNGS CAN CAUSE CHEMICAL PNEUMONITIS WHICH CAN BE FATAL.

INHALATION:

HIGH VAPOR/AEROSOL CONCENTRATIONS (GREATER THAN APPROXIMATELY 1000 PPM) ARE IRRITATING TO THE EYES AND THE RESPIRATORY

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TRACT, MAY CAUSE HEADACHES, DIZZINESS, ANESTHESIA, DROWSINESS, UNCONSCIOUSNESS, AND OTHER CENTRAL NERVOUS SYSTEM EFFECTS, INCLUDING DEATH.

CHRONIC EXPOSURE TO ORGANIC SOLVENTS HAS BEEN ASSOCIATED WITH VARIOUS NEUROTOXIC EFFECTS INCLUDING PERMANENT BRAIN AND NERVOUS SYSTEM DAMAGE. SYMPTOMS INCLUDE LOSS OF MEMORY, LOSS OF INTELLECTUAL ABILITY AND LOSS OF COORDINATION. MAY CAUSE SENSITIZATION BY INHALATION AND SKIN CONTACT. THIS PRODUCT IS A RESPIRATORY IRRITANT AND POTENTIAL RESPIRATORY SENSITISER: REPEATED INHALATION OF VAPOUR OR AEROSOL AT LEVELS ABOVE THE OCCUPATIONAL EXPOSURE LIMIT COULD CAUSE RESPIRATORY SENSITISATION. A HYPER-REACTIVE RESPONSE TO EVEN MINIMAL CONCENTRATIONS OF DIISOCYANATES MAY DEVELOP IN SENSITISED PERSONS. THE ONSET OF THE RESPIRATORY SYMPTOMS MAY BE DELAYED FOR SEVERAL HOURS AFTER EXPOSURE.

OVEREXPOSURE TO VAPOR, DUST OR MIST MAY AGGRAVATE EXISTING RESPIRATORY CONDITIONS, SUCH AS ASTHMA, BRONCHITIS, AND INFLAMMATORY OR FIBROTIC RESPIRATORY DISEASE.

MEDICAL CONDITIONS GENERALLY AGGRAVATED BY EXPOSURE

CHRONIC (CANCER) INFORMATION:

INFORMATION NOT AVAILABLE

TERATOLOGY (BIRTH DEFECT) INFORMATION:

INFORMATION NOT AVAILABLE

REPRODUCTION INFORMATION:

INFORMATION NOT AVAILABLE

CARCINOGENICITY: NTP CARCINOGEN: NO

IARC MONOGRAPHS: NO

OSHA REGULATED: NO

4. FIRST AID MEASURES

EYES: IN CASE OF CONTACT, IMMEDIATELY FLUSH EYES WITH PLENTY OF WATER FOR AT LEAST 15 MINUTES. FLUSH IMMEDIATELY WITH PLENTY OF WATER FOR AT LEAST 15 MINUTES. IF IRRITATION PERSISTS, GET MEDICAL ATTENTION.

SKIN: After contact with skin, wash immediately with plenty of warm soapy water. Get medical attention if irritation develops. Wash clothing before reuse. Clean shoes thoroughly before reuse. An MDI study has demonstrated that a polyglycol-based skin cleanser or corn oil may be more effective than soap and water.

INGESTION: Wash out mouth with water. Move exposed person to fresh air. Do not induce vomiting unless directed to do so by medical personnel. Get medical attention if symptoms occur. Never give anything by mouth to an unconscious person.

IF SWALLOWED, GIVE 2 GLASSES OF WATER TO DRINK. NEVER GIVE ANYTHING BY MOUTH TO AN UNCONSCIOUS PERSON. SEE A PHYSICIAN.

INHALATION: If inhaled, remove to fresh air. If not breathing, give artificial respiration. Get medical attention immediately. Treatment is symptomatic for primary irritation or bronchospasm. If breathing is laboured, oxygen should be administered by qualified personnel.

RESCUERS SHOULD PUT ON APPROPRIATE PROTECTIVE GEAR. REMOVE FROM AREA OF EXPORSURE.

NOTE TO PHYSICIANS: Symptomatic and supportive therapy as needed. Following severe exposure medical follow-up should be monitored for at least 48 hours.

5. FIRE FIGHTING MEASURES

SAFETY MATERIAL DATA SHEET

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FLAMMABLE PROPERTIES: FLASH POINT : CLOSED CUP: >100°C (>212°F). OPEN CUP: 230°C (446°F)

FLASH POINT: 79F Method: TCC

INFORMATION NOT AVAILABLE

FLAMMABLE LIMITS: NOT EXPLOSIVE.

Lower flammable limit: 1.0 Upper flammable limit: 6.6

AUTOIGNITION TEMPERATURE:

INFORMATION NOT AVAILABLE

HAZARDOUS COMBUSTION PRODUCTS: COMBUSTION PRODUCTS MAY INCLUDE: CARBON OXIDES (CO, CO2) NITROGEN OXIDES INFORMATION NOT AVAILABLE

EXTINGUISHING MEDIA: SUITABLE : USE AN EXTINGUISHING AGENT SUITABLE FOR THE SURROUNDING FIRE. FOAM, CARBON DIOXIDE, DRY CHEMICAL, WATER FOG

FIREFIGHTING INSTRUCTIONS:

THE USE OF SELF-CONTAINED BREATHING APPARATUS IS RECOMMENDED FOR FIRE FIGHTERS. WATER SPRAY MAY BE USED FOR COOLING CONTAINERS TO PREVENT POSSIBLE PRESSURE BUILD-UP AND AUTOIGNITION OR EXPLOSION WHEN EXPOSED TO EXTREME HEAT. AVOID SPREADING BURNING LIQUID WITH WATER USED FOR COOLING.

UNUSUAL FIRE AND EXPLOSION HAZARDS:

VAPORS MAY CAUSE FLASH FIRE. KEEP CONTAINERS TIGHTLY CLOSED AND ISOLATE FROM HEAT, ELECTRICAL EQUIPMENT, SPARKS AND FLAME. NEVER USE WELDING OR CUTTING TORCH ON OR NEAR DRUM (EVEN EMPTY) BECAUSE PRODUCT (EVEN JUST RESIDUE) CAN IGNITE EXPLOSIVELY.

6. ACCIDENTAL RELEASE MEASURES

SMALL SPILL:

REMOVE ALL SOURCES OF IGNITION (FLAMES, HOT SURFACES, AND ELECTRICAL, STATIC, OR FRICTIONAL SPARKS). AVOID BREATHING VAPORS. VENTILATE AREA. CONTAIN AND REMOVE WITH VERMICULITE OR OTHER INERT MATERIAL. PLACE IN A CONTAINER FOR CHEMICAL WASTE. IF LARGE SPILL, FLUSH SPILL AREA WITH WATER SPRAY AND PREVENT RUNOFF FROM ENTERING DRAINS, SEWERS, OR STREAMS.

LARGE SPILL:

IMMEDIATELY CONTACT EMERGENCY PERSONNEL. EVACUATE THE AREA. KEEP UPWIND TO AVOID INHALATION OF VAPOURS. CLEAN-UP SHOULD ONLY BE PERFORMED BY TRAINED PERSONNEL. PEOPLE DEALING WITH MAJOR SPILLAGES SHOULD WEAR FULL PROTECTIVE CLOTHING INCLUDING RESPIRATORY PROTECTION. USE SUITABLE PROTECTIVE EQUIPMENT (SECTION 8). 1PREVENT RUNOFF FROM ENTERING DRAINS, SEWERS, OR STREAMS.

7. HANDLING AND STORAGE

HANDLING: PUT ON APPROPRIATE PERSONAL PROTECTIVE EQUIPMENT (SEE SECTION 8). EATING, DRINKING AND SMOKING SHOULD BE PROHIBITED IN AREAS WHERE THIS MATERIAL IS HANDLED, STORED AND PROCESSED. WORKERS SHOULD WASH HANDS AND FACE BEFORE EATING, DRINKING AND SMOKING. DO NOT INGEST. AVOID CONTACT WITH EYES, SKIN AND CLOTHING. AVOID BREATHING VAPOR OR MIST. KEEP IN THE ORIGINAL CONTAINER OR AN APPROVED ALTERNATIVE MADE FROM A COMPATIBLE MATERIAL, KEPT TIGHTLY CLOSED WHEN NOT IN USE. EMPTY CONTAINERS RETAIN PRODUCT RESIDUE AND CAN BE HAZARDOUS. DO NOT REUSE CONTAINER.

KEEP CONTAINER IN A COOL, WELL-VENTILATED AREA. KEEP CONTAINER TIGHTLY CLOSED. KEEP AWAY FROM MOISTURE. DUE TO REACTION STORAGE: WITH WATER PRODUCING CO2-GAS, A HAZARDOUS BUILD-UP OF PRESSURE COULD RESULT IF CONTAMINATED CONTAINERS ARE RE-SEALED. DO NOT RESEAL CONTAMINATED CONTAINERS. UNCONTAMINATED CONTAINERS, FREE OF MOISTURE, MAY BE RESEALED ONLY AFTER PLACING

UNDER A NITROGEN BLANKET. DO NOT STORE IN CONTAINERS MADE OF COPPER, COPPER ALLOYS OR GALVANIZED SURFACES.

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FROM HEAT, SPARKS AND FLAME. KEEP CONTAINERS CLOSED WHEN NOT IN USE AND UPRIGHT TO PREVENT LEAKAGE.

OTHER PRECAUTIONS:

AVOID CONTACT WITH SKIN OR EYES. WASH THOROUGHLY AFTER HANDLING.

HOT ORGANIC CHEMICAL VAPORS OR MISTS ARE SUSCEPTIBLE TO SUDDEN SPONTANEOUS COMBUSTION WHEN MIXED WITH AIR. IGNITION MAY OCCUR AT TEMPERATURES BELOW THOSE PUBLISHED IN THE LITERATURE AS "AUTOIGNITION" OR "IGNITION" TEMPERATURES. IGNITION

TEMPERATURES DECREASE WITH INCREASING VAPOR VOLUME AND VAPOR/AIR CONTACT TIME, AND ARE INFLUENCED BY PRESSURE CHANGES. REACTS SLOWLY WITH WATER TO PRODUCE CARBON DIOXIDE WHICH MAY RUPTURE CLOSED CONTAINERS.

EXPOSURE CONTROLS/PERSONAL PROTECTION

ENGINEERING CONTROLS:

USE LOCAL EXHAUST VENTILATION WIH A MINIMUM CAPTURE VELOCITY OF 100 FT/MIN. (0.5 M/SEC.) AT THE POINT OF VAPOR EVOLUTION. REFER TO THE CURRENT EDITION OF INDUSTRIAL VENTILATION: A MANUAL OF RECOMMENDED PRACTICE PUBLISHED BY THE AMERICAN CONFERENCE OF GOVERNMENTAL INDUSTRIAL HYGIENISTS FRO INFORMATION ON THE DESIGN, INSTALLATION, USE, AND MAINTENANCE OF EXHAUST SYSTEMS.

RESPIRATORY PROTECTION:

DO NOT BREATHE VAPORS. WHEN CONCENTRATIONS EXCEED THE ESTABLISHED EXPOSURE LIMITS, WEAR AN APPROPRIATE, PROPERLY FITTED RESPIRATOR (NIOSH/MSHA APPROVED) UNTIL VAPORS ARE EXHAUSTED. FOLLOW RESPIRATOR MUNUFACTURER'S DIRECTIONS FOR RESPIRATOR USE. OBSERVE OSHA STANDARD 29CFR 1910.134.

VENTILATION:

PROVIDE GENERAL CLEAN AIR DILUTION OR LOCAL EXHAUST VENTILATION IN VOLUME AND PATTERN TO KEEP THE AIR CONTAMINANT CONCENTRATION BELOW THE LOWER EXPLOSION LIMIT AND BELOW CURRENT APPLICABLE EXPOSURE LIMITS. REFER TO OSHA STANDARD 1910.94.

SKIN PROTECTION:

USE SOLVENT IMPERMEABLE GLOVES TO AVOID CONTACT WITH PRODUCT.

EYE PROTECTION:

DO NOT GET IN EYES. USE SAFETY EYEWEAR WITH SPLASH GUARDS OR SIDE SHIELDS, CHEMICAL GOGGLES, FACE SHIELDS.

OTHER PROTECTIVE CLOTHING OR EQUIPMENT

AVOID CONTACT WITH SKIN. USE PROTECTIVE CLOTHING. PREVENT CONTACT WITH CONTAMINATED CLOTHING. WASH CONTAMINATED CLOTHING, INCLUDING SHOES, BEFORE REUSE.

WORK/HYGIENIC PRACTICES

WASH AT THE END OF EACH WORKSHIFT AND BEFORE EATING, SMOKING, OR USING THE TOILET. USE APPROPRIATE HAND AND SKIN LOTIONS TO PROTECT THE SKIN.

9. PHYSICAL AND CHEMICAL PROPERTIES

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BOILING POINT: 278-290F

MELTING POINT: INFORMATION NOT AVAILABLE

VAPOR DENSITY: HEAVIER THAN AIR SOLUBILITY IN WATER: INSOLUBLE

SPECIFIC GRAVITY: .89

EVAPORATION RATE: SLOWER THAN BUTYL ACETATE

pH: INFORMATION NOT AVAILABLE

VAPOR PRESSURE: INFORMATION NOT AVAILABLE

ODOR: ORGANIC SOLVENT

APPEARANCE: INFORMATION NOT AVAILABLE

10. STABILITY AND REACTIVITY

CHEMICAL STABILITY (CONDITIONS TO AVOID):

STABLE

INCOMPATIBILITY:

STRONG ACIDS AND STRONG OXIDIZING AGENTS.

CONDITIONS TO AVOID:

ELEVATED TEMPERATURES

SOURCES OF IGNITION

HAZARDOUS DECOMPOSITION PRODUCTS:

THERMAL DECOMPOSITION OR COMBUSTION CAN PRODUCE FUMES CONTAINING ORGANIC ACIDS, CARBON DIOXIDE AND CARBON MONOXIDE.

HAZARDOUS POLYMERIZATION: WILL NOT OCCUR.

11. TOXICOLOGICAL INFORMATION

EYE:

INFORMATION NOT AVAILABLE

SKIN:

INFORMATION NOT AVAILABLE

INGESTION:

INFORMATION NOT AVAILABLE

INHALATION:

INFORMATION NOT AVAILABLE

SUBCHRONIC: INFORMATION NOT AVAILABLE

CHRONIC/CARCINOGENICITY: INFORMATION NOT AVAILABLE

TERATOLOGY: INFORMATION NOT AVAILABLE

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REPRODUCTION: INFORMATION NOT AVAILABLE

MUTAGENICITY: INFORMATION NOT AVAILABLE

12. ECOLOGICAL INFORMATION

ECOTOXICOLOGICAL INFORMATION: INFORMATION NOT AVAILABLE

CHEMICAL FATE INFORMATION:

13. DISPOSAL CONSIDERATIONS

DISPOSE OF IN ACCORDANCE WITH LOCAL, STATE AND FEDERAL REGULATIONS. DO NOT INCINERATE CLOSED CONTAINERS. INCINERATE IN APPROVED FACILITY.

14. TRANSPORT INFORMATION (Not meant to be all inclusive)

US DOT HAZARD CLASS: NON HAZARDOUS

15. REGULATORY INFORMATION

(Not meant to be all inclusive - selected regulations represented)

U.S. FEDERAL REGULATIONS:

INFORMATION NOT AVAILABLE

OSHA:

THIS PRODUCT IS CONSIDERED HAZARDOUS UNDER THE OSHA HAZARD COMMUNICATION STANDARD (29CFR 1910.1200).

CERCLA: SARA HAZARD CATEGORY:

THIS MATERIAL IS REGULATED UNDER THE COMPREHENSIVE ENVIRONMENTAL RESPONSE, COMPENSATION AND LIABILITY ACT (CERCLA) AND THE SUPERFUND AMENDMENTS AND REAUTHORIZATION ACT (SARA)TITLE III SECTION 302. THIS MATERIAL IS OR CONTAINS CHEMICAL(S) LISTED IN 40 CFR TABLE 302.4 OR NONDESIGNATED RCRA ICR SUBSTANCE(S). (NONDESIGNATED ICR SUBSTANCES APPLY TO MATERIALS THAT WILL NOT BE REUSED.) RELEASE IN EXCESS OF ITS REPORTABLE QUANTITY MUST BE REPORTED TO THE NATIONAL RESPONSE CENTER (1-800-424-8802) AND TO THE APPROPRIATE STATE AND LOCAL EMERGENCY RESPONSE ORGANIZATIONS.

SECTION 313:

THIS PRODUCT CONTAINS A CHEMICAL WHICH IS LISTED IN SECTION 313 AT OR ABOVE DE MINIMIS CONCENTRATIONS.

Component/Exposure Limits CAS# % by Wt.

*** NO REPORTABLE OUANTITIES OF HAZARDOUS INGREDIENTS ARE PRESENT ***

TOXIC SUBSTANCES CONTROL ACT: INFORMATION NOT AVAILABLE

Component/Exposure Limits CAS# % by Wt.

*** NO REPORTABLE QUANTITIES OF HAZARDOUS INGREDIENTS ARE PRESENT ***

INTERNATIONAL REGULATIONS:

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CANADIAN WHMIS:

INFORMATION NOT AVAILABLE

CANADIAN ENVIRONMENTAL PROTECTION ACT (CEPA): INFORMATION NOT AVAILABLE

EINECS: INFORMATION NOT AVAILABLE

STATE REGULATIONS:

NEW JERSEY

THE FOLLOWING MATERIALS ARE NON-HAZARDOUS, BUT ARE AMONG THE TOP FIVE COMPONENTS IN THIS PRODUCT:

*** NO REPORTABLE QUANTITIES OF HAZARDOUS INGREDIENTS ARE PRESENT ***

Component/Exposure Limits CAS# % by Wt.

PENNSYLVANIA

THE FOLLOWING NON-HAZARDOUS INGREDIENTS ARE PRESENT IN THE PRODUCT AT GREATER THAN 3%:

Component/Exposure Limits CAS# % by Wt.

*** NO REPORTABLE QUANTITIES OF HAZARDOUS INGREDIENTS ARE PRESENT ***

CALIFORNIA

THE CHEMICAL(S) NOTED BELOW AND CONTAINED IN THIS PRODUCT, ARE KNOWN TO THE STATE OF CALIFORNIA TO CAUSE CANCER:

Component/Exposure Limits CAS# % by Wt

*** NO REPORTABLE QUANTITIES OF HAZARDOUS INGREDIENTS ARE PRESENT ***

VOLATILE ORGANIC COMPOUNDS: 0.00 lb/gl

16. OTHER INFORMATION

MSDS Status: INFORMATION NOT AVAILABLE

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The following boilerplate keys do not have matching boilerplate key prefixes in the MSDS Master Format file:

EF01

NP02