

MATERIAL SAFETY DATA SHEET

BONDLINE ADHESIVES, INC. MATERIAL SAFETY DATA SHEET
500 N. WOODS AVENUE PAGE 1
EVANSVILLE, IN 47712 812-423-4651 PRODUCT: PS-500 PART B CATALYST
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1. CHEMICAL PRODUCT & MANUFACTURER

PRODUCT NAME: PS-500 PART "B" CATALYST (DOW PAPI 2027 MDI)
CHEMICAL FAMILY: HYDROCARBON

MANUFACTURER/DISTRIBUTOR: TELEPHONE:
DOW CHEMICAL 517-636-4400
24 HOUR EMERGENCY: 800-633-8253

2. COMPOSITION & PRODUCT INFORMATION ON HAZARDOUS INGREDIENTS ACGIH

	WT%	CAS#	TLV-8 HR/TWA
METHYLENE BISPHENYL ISOCYANATE	45	000101-68-8	.005 PPM
POLYMETHYLENE POLYPHENYL ISOCYANATE	100	009016-87-9	.005 PPM

3. HAZARDS IDENTIFICATION

HMIS CODE: HEALTH FLAMMABILITY REACTIVITY NOT AVAILABLE
NFPA CODE: HEALTH 3 FLAMMABILITY 1 REACTIVITY 1

POTENTIAL HEALTH EFFECTS

EYE CONTACT: MAY CAUSE MODERATE EYE IRRITATION; SLIGHT TEMPORARY CORNEAL INJURY.

SKIN CONTACT: PROLONGED OR REPEATED EXPOSURE MAY CAUSE IRRITATION. SKIN CONTACT MAY RESULT IN SKIN OR RESPIRATORY SENSITIZATION BUT IS NOT EXPECTED TO RESULT IN ABSORPTION OF AMOUNTS SUFFICIENT TO CAUSE OTHER ADVERSE EFFECTS. MAY STAIN SKIN.

SKIN ABSORPTION : SEE ABOVE

INGESTION: NO HAZARDS ANTICIPATED FROM SWALLOWING SMALL AMOUNTS INCIDENTAL TO NORMAL HANDLING OPERATIONS.

INHALATION: AT ROOM TEMPERATURE, VAPORS ARE MINIMAL DUE TO LOW VAPOR PRESSURE. OPERATIONS WHICH HEAT, SPRAY, OR MECHANICALLY DISPERSE THE PRODUCT MAY GENERATE SUFFICIENT EXPOSURE TO CAUSE IRRITATION TO UPPER RESPIRATORY TRACT AND LUNGS. MAY CAUSE RESPIRATORY SENSITIZATION IS SUSCEPTIBLE INDIVIDUALS. MDI CONCENTRATION BELOW THE EXPOSURE GUIDELINES MAY CAUSE ALLERGIC RESPIRATORY REACTIONS IN SENSITIZED INDIVIDUALS. SYMPTOMS MAY INCLUDE COUGHING, DIFFICULTY BREATHING AND CHEST TIGHTNESS. EFFECTS MAY BE DELAYED. IMPAIRED LUNG FUNCTION HAS BEEN ASSOCIATED WITH OVEREXPOSURE TO ISOCYANATES.

CARCINOGEN: NO

TARGET ORGANS: KIDNEY, LIVER

4. FIRST AID MEASURES

INHALATION: REMOVE TO FRESH AIR IF NOT BREATHING GIVE CPR. IF BREATHING IS DIFFICULT OXYGEN SHOULD BE ADMINISTERED BY QUALIFIED PERSONNEL. CALL A PHYSICIAN OR TRANSPORT TO A MEDICAL FACILITY.

EYE CONTACT: FLUSH WITH WATER FOR 15 MINUTES. CONSULT PHYSICIAN.

SKIN CONTACT WASH WITH SOAP AND WATER. (WARM WATER IF AVAILABLE)

INGESTION: DO NOT INDUCE VOMITING. CALL PHYSICIAN AT ONCE.

NOTE TO PHYSICIAN: MAY CAUSE RESPIRATORY SENSITIZATION. RESPIRATORY SYMPTOMS, INCLUDING PULMONARY EDEMA, MAY BE DELAYED. PERSONS RECEIVING SIGNIFICANT EXPOSURE SHOULD BE OBSERVED FOR 48 HRS FOR SIGNS OF RESPIRATORY DISTRESS. NO SPECIFIC ANTIDOTE. SUPPORTIVE CARE WITH TREATMENT BASED ON JUDGMENT OF THE PHYSICIAN IN RESPONSE TO REACTIONS OF THE PATIENT.

PRIMARY ROUTES OF ENTRY: INHALATION, SKIN

5. FIRE FIGHTING MEASURES FLASHPOINT, GREATER THAN 400F

GENERAL HAZARD: PRODUCT REACTS WITH WATER. REACTION MAY PRODUCE HEAT AND/OR GASES. VIOLENT STEAM GENERATION OR ERUPTION MAY OCCUR UPON APPLICATION OF DIRECT WATER STREAM TO HOT LIQUIDS. DENSE SMOKE IS PRODUCED.

FIRE FIGHTING INSTRUCTIONS KEEP PEOPLE AWAY. STAY UPWIND; KEEP OUT OF LOW AREAS WHERE GASES (FUMES) CAN ACCUMULATE. CONTAIN FIRE WATER RUN-OFF IF POSSIBLE.

FIRE FIGHTING EQUIPMENT: NFPA CLASS B EXTINGUISHERS (CO₂, FOAM) DRY CHEMICAL AND SELF CONTAINED BREATHING APPARATUS. CONSIDER FIGHTING FIRE FROM A REMOTE LOCATION.

COMBUSTION PRODUCTS: SMOKE, NORMAL COMBUSTION PRODUCTS, HYDROGEN CYANIDE.

6. ACCIDENTAL RELEASE MEASURES

LAND SPILL: VENTILATE AREA AND REMOVE MATERIAL WITH ABSORBENTS. KEEP UPWIND OF SPILL. USE APPROPRIATE SAFETY EQUIPMENT.

WATER SPILL: USE ABSORBENT BOOMS TO DIKE AREA AND MINIMIZE AREA OF CONTAMINATION.

7. STORAGE AND HANDLING:

STORAGE TEMPERATURE: AMBIENT

STORAGE PRESSURE: ATMOSPHERIC

GENERAL: USE ONLY WITH ADEQUATE VENTILATION. DO NOT EAT DRINK OR SMOKE IN WORKING AREA. FOR INDUSTRIAL USE ONLY. KEEP OUT OF THE REACH OF CHILDREN. READ PRODUCT LABEL AND OBSERVE ALL PRECAUTIONS BEFORE USE.

8. EXPOSURE CONTROL/PERSONAL PROTECTION

ENGINEERING CONTROLS: LOCAL EXHAUST: PREFERABLE
MECHANICAL EXHAUST: ACCEPTABLE

PERSONAL PROTECTION: OSHA PEL: .02 PPM

RESPIRATORY PROTECTION: VENTILATE TO KEEP VAPORS BELOW TLV. NIOSH APPROVED RESPIRATORS FOR AREAS OF CONCENTRATED VAPORS.

EYES: SPLASH GOGGLES FOR LIQUID PRODUCTS

GLOVES: YES

9. PHYSICAL AND CHEMICAL PROPERTIES

SPECIFIC GRAVITY: 1.24
DENSITY:(IN LBS): 10.34
VAPOR DENSITY: 8.5 (AIR=1)
EVAPORATION RATE (nBuAc=1): N/A
SOLUBILITY IN WATER: INSOLUBLE
BOILING RANGE (F): 410F
PHYSICAL STATE: LIQUID
% VOLATILE BY VOLUME: N/A
EXPLOSIVE/FLAMMABLE LIMITS: (LEL): N/A (UEL): N/A
FLASHPOINT : GREATER 400F
VAPOR PRESSURE AT 20C (MM OF HG): <1 x 10(-5)
VOLATILE ORGANIC COMPOUNDS (VOC) CONTENT: N/A g/liter

APPEARANCE AND ODOR: BROWN LIQUID WITH MUSTY ODOR.

10. STABILITY AND REACTIVITY

GENERAL: THIS PRODUCT IS STABLE UNDER RECOMMENDED STORAGE CONDITIONS.
AVOID TEMPS ABOVE 105F AND BELOW 75F. AVOID MOISTURE. PRODUCT
CAN DECOMPOSE AT ELEVATED TEMPERATURES.

INCOMPATIBLE MATERIALS AND CONDITIONS TO AVOID: AVOID CONTACT WITH
METALS (ALUMINUM,BRASS,COPPER,ZINC,GALVANIZED. REACTION WITH WATER
WILL GENERATE CARBOND DIOXIDE WHICH WILL CAUSE PRESSURE BUILDUP IN
CLOSED SYSTEMS. AVOID CONTACT WITH ACIDS,ALCOHOLS,AMINES, AMMONIA,
BASES, METAL COMPOUNDS,MOIST AIR, STRONG OXIDIZERS, WATER. AVOID UNIN-
TENDED CONTACT WITH POLYOLS.

HAZARDOUS DECOMPOSITION PRODUCTS: DEPEND UPON TEMPERATURE, AIR SUPPLY
AND THE PRESENCE OF OTHER MATERIALS.

HAZARDOUS POLYMERIZATION: CAN OCCUR. POLYMERIZATION CAN BE CATALYZED
BY: STRONG BASES AND WATER. CAN REACT WITH ITSELF AT TEMPS ABOVE 320F.

11. TOXICOLOGICAL INFORMATION:

NOT IDENTIFIED AS A CARCINOGEN BY NTP, IARC OR OSHA

12. ECOLOGICAL INFORMATION

REFERNCE MSDS FOR DOW PAPI 2027 POLYMERIC MDI

13. DISPOSAL CONSIDERATIONS

THIS MATERIAL IS CONSIDERED A HAZARDOUS WASTE FOR DISPOSAL PUR-
POSES. SEE 40CFR PART 261.7 FOR FURTHER INFORMATION CONCERNING
THE DISPOSITION OF EMPTY CONTAINERS. HAZARDOUS WASTES MAY NOT
BE LANDFILLED! REFER TO 40CFR PART 261 SUBPART C FOR DEFINITIONS
OF HAZARDOUS WASTE.

14. TRANSPORTATION INFORMATION

CALL DOW CHEMICAL

15. REGULATORY INFORMATION

OSHA STATUS: HAZARDOUS

CERCLA REPORTABLE QUANTITY: RQ 5000 42-45% CONCENTRATION IN CATALYST.

SARA TITLE III:

SECTION 302: EXTREMELY HAZARDOUS SUBSTANCES: NONE

SECTION 311/312: 311-YES 312-YES

SECTION 313: YES

RCRA STATUS: IF DISCARDED IN ITS PURCHASED FORM, THIS PRODUCT IS A RCRA HAZARDOUS WASTE. IT IS THE RESPONSIBILITY OF THE PRODUCT USER TO DETERMINE AT THE TIME OF DISPOSAL, WHETHER A MATERIAL CONTAINING THE PRODUCT OR RESIDUE OF THE PRODUCT REMAINS CLASSIFIED A HAZARDOUS WASTE AS PER 40 CFR 261, SUBPART C. STATE OR LOCAL REGULATIONS MAY ALSO APPLY IF THEY DIFFER FROM THE FEDERAL REGULATION.

16. OTHER INFORMATION: FOR ADDITIONAL OR DETAILED INFORMATION REFERENCE
DOW CHEMICAL MSDS FOR: PAPI (R) 2027 POLYMERIC MDI

APPROVAL DATE: 06-12-97

SUPERSEDES DATE: 11/90

REASON FOR REVISION: NEW FORMAT

MSDS FORMAT: PS-500 PART B CATALYST BASED ON MDI MSDS

THE INFORMATION HEREIN IS PRESENTED IN GOOD FAITH AND BELIEVED TO BE CORRECT AS OF THE DATE HEREOF. INFORMATION IS BASED UPON SUPPLIER-ISSUED MATERIAL SAFETY SHEETS AND MAY BE SUBJECT TO ERROR. IF APPRISED OF CHANGES, UPDATED MSDS WILL BE PROMPTLY ISSUED. USERS MUST MAKE DETERMINATION REGARDING THE SUITABILITY OF THE PRODUCT FOR THEIR OWN PURPOSES PRIOR TO USE.

READ PRODUCT LABEL CAREFULLY BEFORE USE AND FOLLOW ALL PRECAUTIONS.