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MATERIAL SAFETY DATA SHEET:

Por-A-Kast TA Curative

* Also referred to as a Product Safety Information Sheet NE = Not Established NA = Not Applicable This Material Safety Data Sheet (MSDS) meets the requirements of the federal OSHA Hazard Communication Standard (29 CFR 1910.1200).

I. IDENTIFICATION

MANUFACTURER'S NAME: Synair Corporation
 ADDRESS: P.O. Box 5269, Chattanooga, Tennessee 37406-0269
 EMERGENCY PHONE NUMBER: (423) 698-8801
 TRANSPORTATION EMERGENCY PHONE NUMBER: CHEM TREC 1-800-424-9300
 PRODUCT/TRADE NAME: Por-A-Kast TA
 GENERIC NAME & SYNONYMS: Polyurethane
 CHEMICAL FAMILY: Hydroxyl Terminated Polyether Polyol
 COMPONENT: Curative - Side A

II. HAZARDOUS INGREDIENTS

V-4097

MATERIAL	%	OSHA PEL	ACGIH TLV	IARC, NTP, OTHER LISTING
Diethyltoluene Diamine (CAS No. 68479-48-1)	1-5	NE	NE	No
Organomercury Compound ^(*)	<0.2	0.01 mg/m ³	NA	No

^(*) See Section IX.

- NON HAZARDOUS INGREDIENTS

Polyether Polyol	75-80	NE	NE	No
Polymeric Plasticizer (CAS No. 85-68-7)	10-15	NE	NE	No
Sodium Potassium Alumino Silicate (CAS No. 12736-96-8)	1-3	NE	NE	No
Titanium Dioxide (CAS No. 13463-67-7)	1-3	10 mg/m ³ Total Dust 5 mg/m ³ Respiratory Dust	10 mg/m ³ Total Dust	No

V-4097

III. PHYSICAL DATA

BOILING POINT (°F):	>400°F
SPECIFIC GRAVITY (H ₂ O = 1):	1.06
VAPOR PRESSURE (MMHG.):	NE
PERCENT VOLATILE BY VOLUME (%):	Negligible
VAPOR DENSITY (AIR = 1):	> 1
EVAPORATION RATE (ETHER = 1):	< 1
SOLUBILITY IN WATER:	Slight, < 1%
VOLATILITY @ 75°F:	Very low
APPEARANCE AND ODOR:	Beige viscous liquid, slight odor

IV. FIRE AND EXPLOSION HAZARD DATA

FLASH POINT (METHOD USED): >400°F, C.O.C
 FLAMMABLE LIMITS: Lel.....NE Uel.....NE

EXTINGUISHING MEDIA: Foam, water fog, carbon dioxide or dry chemical extinguishers.

SPECIAL FIRE FIGHTING PROCEDURES: Wear self-contained breathing apparatus to guard against incompletely combusted carbon products.

UNUSUAL FIRE AND EXPLOSION HAZARDS: None known.

V. REACTIVITY DATA

STABILITY: Stable.
 Conditions to Avoid: NA

INCOMPATIBILITY (MATERIALS TO AVOID): Strong oxidizers.

HAZARDOUS DECOMPOSITION OR BYPRODUCTS: Incompletely burned carbon products, carbon monoxide, and carbon dioxide.

HAZARDOUS POLYMERIZATION: Will Not Occur.
 Conditions to Avoid: NA

VI. HEALTH HAZARD DATA

PRIMARY ROUTE(S) OF ENTRY:	Inhalation Yes	Skin Yes	Ingestion Yes
CARCINOGENICITY:	NTP No	IARC No	OSHA No

SIGNS AND SYMPTOMS OF EXPOSURE: Repeated skin contact may cause irritation.

HEALTH HAZARDS (ACUTE AND CHRONIC): Repeated skin contact may produce skin sensitivity. Long term over exposure to high concentrations may affect respiratory function in some individuals. This material contains a mercury catalyst below the reportable level required by OSHA. However, due to the chronic toxicity of organo-mercury compounds, careful handling of this material is required.

EMERGENCY AND FIRST AID PROCEDURES: SKIN CONTACT: Remove contaminated clothes. Wipe affected area with isopropyl alcohol, followed by soap and water. EYE CONTACT: Flush eyes with water for at least 15 minutes and consult a physician. INGESTION: Take 1 to 2 glasses of water and consult a physician. INHALATION: Remove to fresh air. Consult a physician if symptoms persist.

VII. PRECAUTIONS FOR SAFE HANDLING AND USE

STEPS TO BE TAKEN IN CASE MATERIAL IS RELEASED OR SPILLED: Mop, wipe or soak with an absorbent material. Large spills should be scooped into containers for removal.

WASTE DISPOSAL METHOD: Refer to federal, state and local environmental control regulations. Incinerate or bury in a licensed facility. Containers may be disposed of or reclaimed in a routine manner.

PRECAUTIONS TO BE TAKEN IN HANDLING AND STORAGE: Store in a cool, dry place, protected from heat and moisture contamination.

VIII. CONTROL MEASURES

RESPIRATORY PROTECTION (SPECIFY TYPE): None needed at normal temperatures.

VENTILATION: Local Exhaust: Use in a ventilated area.
Mechanical (General): Recommended

PROTECTIVE GLOVES: Chemically resistant gloves.

EYE PROTECTION: Use safety glasses or chemical goggle.

OTHER PROTECTIVE CLOTHING OR EQUIPMENT: Apron or suitable clothing to prevent skin contact.

WORK HYGIENIC PRACTICES: Wash thoroughly after handling.

IX. REGULATORY INFORMATION

SARA 313 INFORMATION: This product contains the following substances subject to the reporting requirements of Section 313 of Title III of the Superfund Amendments and Reauthorization Act of 1986 and 40 CFR Part 372:

<u>CHEMICAL NAME</u>	<u>CAS NUMBER</u>	<u>CONCENTRATION</u>
Organomercury Compound	-----	<0.2%

Prepared by Ahmed Zurkiya

Date: January 22, 1997

MATERIAL SAFETY DATA SHEET***Por-A-Kast TA Prepolymer**

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I. IDENTIFICATION

MANUFACTURER'S NAME:	Synair Corporation
ADDRESS:	P.O. Box 5269, Chattanooga, Tennessee 37406-0269
EMERGENCY PHONE NUMBER:	(423) 698-8801
TRANSPORTATION EMERGENCY PHONE NUMBER:	CHEMTREC 1-800-424-9300
PRODUCT/TRADE NAME:	Por-A-Kast TA
GENERIC NAME & SYNONYMS:	Polyurethane
CHEMICAL FAMILY:	Isocyanate Terminated Prepolymer
COMPONENT:	Prepolymer - Side B

II. HAZARDOUS INGREDIENTS

<u>MATERIAL</u>	<u>%</u>	<u>OSHA PEL</u>	<u>ACGIH TLV</u>	<u>IARC, NTP, OTHER LISTING</u>
Diphenylmethane Diisocyanate (MDI) ^(a) (CAS No. 26447-40-5)	45-55	0.02 ppm	0.005 ppm	No
Diphenylmethane Diisocyanate (Homopolymer) (CAS No. 039310-05-9)	10-20	NE	NE	NE
Isocyanate Terminated Prepolymer	25-35	NE	NE	NE

^(a) Contains Methylene Bisphenyl Isocyanate (MBI) CAS 101-68-8. See Section IX.

III. PHYSICAL DATA

BOILING POINT (°F):	>500°F
SPECIFIC GRAVITY (H ₂ O = 1):	1.18 at 77°F
VAPOR PRESSURE (MMHG.):	NE
PERCENT VOLATILE BY VOLUME (%):	Negligible
VAPOR DENSITY (AIR = 1):	NE
EVAPORATION RATE (CH ₂ Cl ₂):	Very low
SOLUBILITY IN WATER:	Reacts slowly with water to liberate CO ₂ gas
VOLATILITY @ 75°F:	Very low
APPEARANCE AND ODOR:	Straw to light yellow liquid; slightly musty odor

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IV. FIRE AND EXPLOSION HAZARD DATA

FLASH POINT (METHOD USED): >275°F. C.O.C

FLAMMABLE LIMITS: Lel.....NE Uel.....NE

EXTINGUISHING MEDIA: Foam, carbon dioxide, dry chemical, halon 1211. If water is used, it should be in very large quantity.

SPECIAL FIRE FIGHTING PROCEDURES: Firefighters must wear a full face positive pressure self-contained breathing apparatus and protective clothing. Use cold water to cool fire exposed containers.

UNUSUAL FIRE AND EXPLOSION HAZARDS: Contamination of isocyanates with water releases carbon dioxide and may result in a dangerous pressure in closed containers. Do not reseal contaminated containers. Downwind personnel must be evacuated. Use cold water to cool fire exposed containers.

V. REACTIVITY DATA

STABILITY: Stable.

Conditions to Avoid: Direct heat and moisture.

INCOMPATIBILITY (MATERIALS TO AVOID): Water, acid, base, alcohols, amines, and other materials which react with isocyanates.

HAZARDOUS DECOMPOSITION OR BYPRODUCTS: High temperature and burning conditions may release isocyanate vapors, carbon dioxide, carbon monoxide, nitrogen oxides and traces of hydrogen cyanide.

HAZARDOUS POLYMERIZATION: May occur.

Conditions to Avoid: Temperatures above 120°F accelerate reaction with water. Polymerization may occur above 400°F.

VI. HEALTH HAZARD DATA

PRIMARY ROUTE(S) OF ENTRY:	Inhalation Yes	Skin Yes	Ingestion Yes
CARCINOGENICITY:	NTP No	IARC No	OSHA No

SIGNS AND SYMPTOMS OF EXPOSURE: HEALTH HAZARDS (ACUTE AND CHRONIC): Inhalation of vapors may cause irritation of the mucous membranes in the respiratory tract, running nose, and sore throat. Contact may cause slight irritation of the skin and eyes (tearing). Repeated or prolonged inhalation of MDI vapors above TLV of 0.02 ppm can cause immediate or delayed respiratory sensitization and asthma-like conditions. However, due to low volatility, high exposures are not anticipated unless material is overheated or sprayed as an aerosol in the air. Prolonged skin contact can cause reddening, swelling or skin sensitization in susceptible individuals. Repeated exposures are not anticipated to cause any additional significant adverse effects.

EMERGENCY AND FIRST AID PROCEDURES: SKIN CONTACT: Remove contaminated clothing. Wipe affected area with isopropyl alcohol, followed by soap and water. EYE CONTACT: Flush eyes with water for at least 15 minutes and consult a physician. INGESTION: Do not induce vomiting. Call a physician. Do not give anything by mouth to an unconscious person. INHALATION: Remove person to fresh air. If not breathing, give mouth-to-mouth resuscitation.

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VII. PRECAUTIONS FOR SAFE HANDLING AND USE

STEPS TO BE TAKEN IN CASE MATERIAL IS RELEASED OR SPILLED: If spill is minor, cover liquid with an absorbent material (sawdust, vermiculite, wet sand). Scoop up and place in open container. Treat with decontamination solution and leave open in a ventilated area for 48 hours. Spill area should be decontaminated with decontamination solution: 90% water, 2% detergent and 8% concentrated ammonia or sodium carbonate.

WASTE DISPOSAL METHOD: Neutralized waste must be disposed of in accordance with federal, state and local environmental control regulations. Incineration is the preferred method.

PRECAUTIONS TO BE TAKEN IN HANDLING AND STORAGE: Store in tightly closed containers at 80-95°F. Do not reseal if water contamination is suspected. Avoid contact with skin and eyes and breathing vapors.

VIII. CONTROL MEASURES

RESPIRATORY PROTECTION (SPECIFY TYPE): None needed at normal temperatures. Self contained breathing apparatus for high concentrations and under emergency conditions.

VENTILATION: Local Exhaust: Provide general and/or local exhaust ventilation to control airborne levels below the exposure guidelines.

PROTECTIVE GLOVES: Impermeable.

EYE PROTECTION: Goggles suitable for liquid handling.

OTHER PROTECTIVE CLOTHING OR EQUIPMENT: Apron or suitable clothing to avoid skin contact.

WORK/HYGIENIC PRACTICES: Wash thoroughly after handling, before eating, smoking, etc.

IX. REGULATORY INFORMATION

SARA 313 INFORMATION: This product contains the following substances subject to the reporting requirements of Section 313 of Title III of the Superfund Amendments and Reauthorization Act of 1986 and 40 CFR Part 372:

<u>CHEMICAL NAME</u>	<u>CAS NUMBER</u>	<u>CONCENTRATION</u>
Methylene Bisphenyl Isocyanate (MBI)	101-68-8	50%

SARA HAZARD CATEGORY: This product has been reviewed according to the EPA "Hazard Categories" promulgated under Sections 311 and 312 of the Superfund Amendment and Reauthorization Act of 1986 (SARA Title III) and is considered, under applicable definitions, to meet the following categories:

An immediate health hazard
A delayed health hazard
A reactive hazard

Prepared by Ahmed Zurkiya

Date: January 22, 1997
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