

MATERIAL SAFETY DATA SHEET

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**SECTION 1 - MATERIAL IDENTIFICATION**  
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PRODUCT NAME                    AIRTHANEX PET-85A POLYURETHANE INTERMEDIATE  
                                  \*AIRTHANE is a registered trademark of Air  
                                  Products and Chemicals, Inc.

PRODUCT CODE                    PET85A

MSDS REVISION NUMBER         4

MANUFACTURER                   Air Products and Chemicals, Inc. 7201  
                                  Hamilton Blvd., Allentown, PA 18195-1501

TELEPHONE NUMBER              800-345-3148

EMERGENCY TELEPHONE NUMBER(S)  
                                  800-523-9374 (Continental U.S.)  
                                  610-481-7711 (Outside Continental U.S.)

DATE PREPARED                   MARCH 1997

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EMERGENCY OVERVIEW

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HMS HEALTH RATING         1                    FLAMMABILITY         1                    REACTIVITY         1  
PHYSICAL FORM               Viscous liquid

COLOR                            Straw yellow

ODOR                              Odorless

HAZARDS                          Mild eye irritant. Mild skin irritant.

EXTINGUISHING MEDIA        Ignition will give rise to a Class B fire. In  
                                  case of large fire use: Alcohol Foam. In case of  
                                  small fire use: Carbon Dioxide (CO2), Dry  
                                  Chemical, Dry sand or limestone.

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C.A.S. CHEMICAL NAME         POLYMER WITH TDI AND PTMEG

SYNONYMS                         None

CHEMICAL FAMILY                Polyurethane

EMPIRICAL FORMULA             No Data

INTENDED USE                    Cast Elastomer

REVISION NOTES                 Updated health hazard data

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**SECTION 2 - INGREDIENTS**  
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# % CAS Number and Chemical Name  
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1. 100.00 9069-50-5 POLYMER WITH TDI AND PTMEG

OSHA (ACGIH) EXPOSURE LIMITS

	TWA		STEL	CEILING		
	ppm	mg/m <sup>3</sup>	ppm	mg/m <sup>3</sup>	ppm	mg/m <sup>3</sup>
1. OSHA	N/E	N/E	N/E	N/E	N/E	N/E
ACGIH	N/E	N/E	N/E	N/E	N/E	N/E

N/E = Not Established.

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**SECTION 3 - HEALTH HAZARDS**  
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ROUTES OF EXPOSURE

Eye Contact  
Skin Contact  
Ingestion

EXPOSURE STANDARDS

See Section 2 for exposure standards on ingredients. Maintain air contaminant concentrations in the workplace at the lowest feasible levels.

HEALTH HAZARDS

Mild eye irritant.  
Mild skin irritant.

TARGET ORGANS

None known

SIGNS AND SYMPTOMS OF EXPOSURE (Acute effects)

Contact with eyes causes mild irritation and discomfort. Contact with skin causes mild irritation and discomfort. Inhalation of mists may cause irritation in the respiratory tract.

SIGNS AND SYMPTOMS OF EXPOSURE (Possible Longer Term Effects)

No known effects

MEDICAL CONDITIONS GENERALLY AGGRAVATED BY EXPOSURE

None known

CARCINOGENS UNDER OSHA, ACGIH, NTP, IARC, OTHER

This product contains no carcinogens in concentrations of 0.1 percent or greater.

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Mild eye irritant.  
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None known

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No known effects

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None known

**CARCINOGENS UNDER OSHA, ACGIH, NTP, IARC, OTHER**

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**CONTAINMENT TECHNIQUES (Removal of ignition sources, diking etc)**  
Shut off or remove all ignition sources.

**CLEAN-UP PROCEDURES**

If recovery is not feasible, admix with dry soil, sand or non-reactive absorbent (sodium bisulfate) and place in a container or dumpster pending disposal. Transfer to containers by suction, preparatory for later disposal. Place in metal containers for recovery or disposal. Clean-up personnel must be equipped with self contained breathing apparatus and butyl rubber protective clothing. For large spills, recover spilled material with a vacuum truck. Prepare a decontamination solution of 0.2-5% liquid detergent and 3-8% concentrated ammonium hydroxide in water. Treat spill area with decontamination solution, using about 10 parts of the solution for each part of the spill and allow it to react for at least 10 minutes for trace amounts and 48 hours for large spills. Neutralize the waste. Carbon dioxide will evolve, leaving insoluble polyureas.

**OTHER EMERGENCY ADVICE**

Wear protective clothing, boots, gloves, and eye protection.

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**SECTION 7 - HANDLING AND STORAGE**

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**STORAGE**

Keep away from: oxidizers, moisture.

**HANDLING**

Avoid contact with skin or eyes. When handling, do not eat, drink, or smoke.

**OTHER PRECAUTIONS**

Emergency showers and eye wash stations should be readily accessible. Adhere to work practice rules established by government regulations (e.g. OSHA).

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**SECTION 8 - PERSONAL PROTECTION/EXPOSURE CONTROLS**

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**EYE PROTECTION**

Chemical safety glasses. Full face shield with goggles underneath when molten material is being handled.

**HAND PROTECTION**

Insulated gloves when handling hot material.

**RESPIRATORY PROTECTION**

Not required under normal conditions in a well-ventilated workplace.

**PROTECTIVE CLOTHING**

Long sleeved clothing.

**ENGINEERING CONTROLS**

Maintain air concentrations in work spaces in accord with standards outlined in Sections 2 and 3.

**WORK AND HYGIENIC PRACTICES**

Provide readily accessible eye wash stations and safety showers.

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**SECTION 9 - TYPICAL PHYSICAL AND CHEMICAL PROPERTIES**  
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PHYSICAL FORM	Viscous liquid
COLOR	Straw yellow
ODOR	Odorless
pH	No Data
VAPOR PRESSURE (mm Hg at 21C (70F))	<1.00
VAPOR DENSITY (Air = 1)	No Data
BOILING POINT	>250.00 C (>482.00 F)
MELTING POINT	No Data
SOLUBILITY IN WATER	Reacts slightly with water
SPECIFIC GRAVITY (Water = 1)	1.07
MOLECULAR WEIGHT	No Data

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**SECTION 10 - STABILITY AND REACTIVITY**  
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**CHEMICAL STABILITY**

Stable

**CONDITIONS TO AVOID (if unstable)**

Not applicable

**INCOMPATIBILITY (Materials to Avoid)**

Oxidizing Agents (i.e. perchlorates, nitrates etc.). Sodium or Calcium Hypochlorite. Alcohols. Reaction with peroxides may result in violent decomposition of peroxide possibly creating an explosion. Product reacts slowly with water which results in the liberation of carbon dioxide.

**HAZARDOUS DECOMPOSITION PRODUCTS (from burning, heating, or reaction with other materials).**

Carbon Monoxide in a fire. Carbon Dioxide in a fire. Irritating and toxic fumes at elevated temperatures. nitriles. cyanic acid. isocyanates. cyanogens. amides. carbamates. toxic cyanates.

**HAZARDOUS POLYMERIZATION**

Will not occur

**CONDITIONS TO AVOID (if polymerization may occur)**

Not applicable

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**SECTION 11 - TOXICOLOGICAL PROPERTIES**

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ACUTE ORAL TOXICITY (LD50, RAT)  
>5000.00 mg/kg (No deaths) (Estimate)

ACUTE DERMAL TOXICITY (LD50, RABBIT)  
>5000.00 mg/kg (No deaths) (Estimate)

ACUTE INHALATION TOXICITY (LC50, RAT)  
No Data

OTHER ACUTE EFFECTS  
No Data

IRRITATION EFFECTS DATA  
Irritation data based on estimates.

CHRONIC/SUBCHRONIC DATA  
No delayed, subchronic or chronic test data are known.

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**SECTION 12 - ECOLOGICAL INFORMATION**

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No Data

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**SECTION 13 - DISPOSAL CONSIDERATIONS**

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WASTE DISPOSAL  
Comply with all Federal, State and Local Regulations.

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**SECTION 14 - TRANSPORT INFORMATION**

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DOT NON-BULK SHIPPING NAME	RESIN COMPOUND - Not DOT Regulated
IMO SHIPPING DATA	RESIN COMPOUND - Not IMO Regulated
ICAO/IATA SHIPPING DATA	RESIN COMPOUND - Not IATA Regulated

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**SECTION 15 - REGULATORY INFORMATION**

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US FEDERAL REGULATIONS

TOXIC SUBSTANCES CONTROL ACT (TSCA)-

All components are included in the EPA Toxic Substances Control Act (TSCA) Chemical Substance Inventory.

OSHA Hazard Communication Standard (29CFR1910.1200) hazard class(es)

None

EPA SARA Title III Section 312 (40CFR370) hazard class

None

EPA SARA Title III Section 313 (40CFR372) toxic chemicals above "de minimis" level are

None

#### STATE REGULATIONS

PROPOSITION 65 SUBSTANCES (component(s) known to the State of California to cause cancer and/or reproductive toxicity and subject to warning and discharge requirements under the "Safe Drinking Water and Toxic Enforcement Act of 1986")

2,4-TOLUENEDIISOCYANATE

2,6-TOLUENEDIISOCYANATE

NEW JERSEY TRADE SECRET REGISTRY NUMBER(S)

None

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#### SECTION 16 - INTERNATIONAL REGULATIONS

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##### CANADA

DSL

Included on Inventory.

WHMIS HAZARD CLASSIFICATION

None

WHMIS TRADE SECRET REGISTRY NUMBER(S)

None

WHMIS SYMBOLS

None

##### EUROPEAN ECONOMIC COMMUNITY (EEC)

EINECS MASTER INVENTORY

Included on Inventory.

EEC SPECIAL PHRASES

Contains Isocyanates. See information supplied by the