

MATERIAL SAFETY DATA SHEET

MANUFACTURER: APPLIED TECHNOLOGIES, INC.
P.O. BOX 18476, FAIRFIELD, OH 45018
EMERGENCY TELEPHONE 1-800-424-9300

SECTION I - PRODUCT IDENTIFICATION

PRODUCT NAME: APPLIED TECHNOLOGIES PEEL-PASTE, PART A
CHEMICAL FAMILY: URETHANE PREPOLYMERS
DATE: JULY 1, 2008

SECTION II - HAZARDOUS INGREDIENTS AND OTHER COMPONENTS

<u>INGREDIENT</u>	<u>% BY WEIGHT</u>	<u>TLV</u>	<u>PEL</u>	<u>CAS #</u>
Diphenylmethane 4,4' diisocyanate, MDI	25-30	.005ppm.	.02ppm	101-68-8

Other ingredients not precisely identified are proprietary or non hazardous as defined in 29 CFR 1910.1200.

SECTION III - PHYSICAL DATA

Boiling Point: >400°F	SP GR: 1.1
VP: N/D @ 20C	% Volatile: Negligible
VD: N/D	Appearance: White paste
Solubility in water: Minimal	Odor: Mild
Evaporation Rate: N/D	PH: N/D

N/D = Not Determined

SECTION IV - FIRE AND EXPLOSION HAZARD DATA

Flash Point: >230°F(SETAFLASH CC)

Auto Ignition Temperature: N/D

Limits of Flammability: LEL – N/D UEL – N/D

Extinguishing Media: Carbon dioxide, foam, dry chemical, and water fog.

Special Fire & Unusual Hazards: Self-contained respirator equipment and full protective clothing are required when smoke and fumes are generated. If water is used, use very large quantities. A very vigorous reaction may take place between water and the hot product. Water contamination will produce gas (carbon dioxide). Do not reseal contaminated containers as pressure buildup may rupture them.

SECTION V – HEALTH HAZARD DATA

Primary Route(s) of Entry: Dermal

Skin Contact: Prolonged or repeated exposure may cause skin irritation and redness. Skin sensitization or allergic reaction (contact dermatitis) may occur in some individuals.

Inhalation: No known health information on inhalation of vapors. Vapors and aerosols probably affect respiratory tract. MDI can induce respiratory irritation with asthma-like symptoms. These symptoms may be immediate or delayed up to several hours after exposure. There are reports that long-term exposure may result in decreased lung function.

PART A (CONT'D)

Ingestion: Probable oral toxicity, LD(50) (rat), >10g/kg. Irritation of the mouth, pharynx, esophagus and stomach can develop upon ingestion.

Eyes: Following contact irritation will take place.

Other Effects of Overexposure: In a recently completed study, groups of rats were exposed for 6 hours/day, 5 days/week for a lifetime to atmospheres of respirable polymeric MDI aerosol. Tumor incidence, both benign and malignant, and the number of animals with tumors were not different from controls. There were no lung tumors at 1 mg/m³ and no effects at .2 mg/m³. However, at the top level only of 6 mg/m³ there was a significant incidence of a benign tumor of the lung (adenoma) and one malignant tumor (adenocarcinoma). The increased incidence for lung tumors is associated with the prolonged respiratory irritation and the concurrent accumulation of yellow material in the lung that was observed throughout the study.

SECTION VI – REACTIVITY DATA

Stability: This product must be mixed with another component or water (moisture) to react. Excessive heat, fumes, and foam generation can occur if improperly handled. Not sensitive to mechanical impact.

Incompatibility: Strong acids, strong bases. Amines, mercaptans, polyols, water and metal compounds may initiate possible hazardous reactions.

Hazardous Decomposition Products: Carbon monoxide and dioxide, nitrogen oxides, ammonia. Trace amounts of hydrogen cyanide.

Hazardous Polymerization: May occur if product is not handled per instruction.

SECTION VII - SPILL OR LEAK PROCEDURES

Wear skin, eye and respiratory protection during cleanup. All operations should be performed by personnel familiar with the hazards of the chemicals used. Soak up material with absorbent and shovel into waste container. Cover, but do not seal waste container and remove from work area. Make decontamination solution of .5% liquid detergent and 5% ammonium hydroxide or 7% sodium carbonate in water. Treat spill area with decontamination solution, using about 10 parts for each part of spilled material and allow to react for 10 minutes. Carbon dioxide will form, leaving insoluble polymer material. Wash residue into sewer, observing local regulation of discharging insoluble polymer materials.

SECTION VIII - SPECIAL PROTECTION INFORMATION

General: No ACGIH or OSHA PEL have been assigned to this material. Minimize exposure as a good hygiene practice. For MDI, the TLV is .005 ppm/8 hour TWA and PEL is .02 ppm, ceiling. NIOSH recommends .005 ppm TWA and .02 ppm STEL. These control limits do not apply to previously sensitized individuals or persons with existing chronic respiratory disease. Sensitized individuals should be removed from any further exposure.

Ventilation: Ventilation is recommended to keep vapors under TLV.

Personal Protection: Use eye protection (chemical-light goggles). Selection of specific items such as gloves, boots, and apron will depend on the operation. Butyl or neoprene rubber garments have good resistance to permeation by MDI. Clothing constructed of polyethylene, latex rubber or PVC has limited resistance to permeation by MDI. Wash contaminated clothing before reuse.

Respiratory Protection: When material is sprayed or heated and airborne concentrations exceed or are expected to exceed the TLV, use MSHA/NIOSH approved positive pressure supplied air respirator with full face piece or an air supplied hood. For emergencies, use a positive pressure self-contained breathing apparatus. Cartridge type air-purifying respirators are not approved against isocyanates.

SECTION IX - SPECIAL PRECAUTIONS

Precautions to be taken in handling and storage: Causes irritation. May cause allergic skin reaction. Avoid contact with eyes, skin or clothing. Store in cool, dry area in closed cartridges.

Other precautions: Avoid breathing vapors, use with good ventilation. Wash hands thoroughly with soap and water after every use.

Health	Flammability	Reactivity	Personal Protection
2	1	2	C

All statements, technical information and recommendations contained herein are based upon available scientific test or data which we believe to be reliable since we cannot anticipate all conditions under which this information and our products or the products of other manufacturers in combination with our products may be used. Applied Technologies makes no warranties, express or implied, and assumes no responsibility in connection with any use of this information.

MATERIAL SAFETY DATA SHEET

MANUFACTURER: APPLIED TECHNOLOGIES, INC.
P.O. BOX 18476, FAIRFIELD, OH 45018
EMERGENCY TELEPHONE 1-800-424-9300

SECTION I - PRODUCT IDENTIFICATION

PRODUCT NAME: APPLIED TECHNOLOGIES PEEL PASTE, PART B
CHEMICAL FAMILY: AMINE BLEND
DATE: JULY 1, 2008

SECTION II - HAZARDOUS INGREDIENTS AND OTHER COMPONENTS

<u>INGREDIENT</u>	<u>% BY WEIGHT</u>	<u>TLV</u>	<u>STEL</u>	<u>PEL</u>	<u>CAS #</u>
N,N-Dialkyldiphenyl methane	30-35	N/E	N/E	N/E	5285-60-9
Glyceryl-polyoxypropylenetriamine	<5	N/E	N/E	N/E	6485-22-28

N/E = Not Established

Other ingredients are non-hazardous as defined in 29 CFR 1910.1200.

SECTION III - PHYSICAL DATA

Appearance: Paste	Color: Black
Boiling Point: >300°F	VP @ 20°C: <.1mm Hg
VD: Not determined	% Volatile: Negligible
Solubility in water: Negligible	Odor: Ammoniacal
Evaporation Rate: N/D	pH: Basic
SP GR: 1.0	

N/D = Not Determined

SECTION IV - FIRE AND EXPLOSION HAZARD DATA

Flash Point: >200°F (PMCC)
Flammable Limits: Unknown
Extinguishing Media: Carbon dioxide, foam, dry chemical and water fog.
Unusual Fire and Unusual Hazards: Self-contained respirator equipment and full protective clothing are required when smoke and fumes are generated. Fire may produce irritating and poisonous fumes such as carbon monoxide and nitrous oxides. Electrical grounding is not recommended.

SECTION V - HEALTH HAZARD DATA

Primary Route(s) of Entry: Dermal, inhalation
Skin Contact: Short single exposure may cause moderate irritation to mild burn. Prolonged or repeated exposure may cause a severe burn. May result in an allergic reaction. Skin sensitizer. Draize skin score for 24 hour contact, 2.8.
Inhalation: Due to low vapor pressure of this product, fumes will be minimal below 90°F. At higher temperatures, fumes will be irritating.
Ingestion: Slightly toxic by ingestion. CAS 5285-60-9 ORAL LD (50), 1.4 g/kg (rat).
Eyes: Contact can cause severe burns, irritation, redness, tearing or blurred vision.

SECTION VI – REACTIVITY DATA

Stability: Stable. This product must be mixed with another component to react. Not sensitive to mechanical impact.

Incompatibility: Strong oxidizing agents, acids, epoxy resins, isocyanates, and organic peroxides may result in violent reaction.

Hazardous Decomposition Products: Carbon monoxide and dioxide, nitrogen oxides, aldehydes and various hydrocarbons from incomplete combustion.

Hazardous Polymerization: Will not occur unless product is mixed with epoxy resins, isocyanates or urethane prepolymers.

SECTION VII - SPILL OR LEAK PROCEDURES

Ventilate area. Wear appropriate protective gear. Contain leak/spill. Salvage. Clean up residue with absorbent material. Wash down area with water and diluted acetic acid.

SECTION VIII - SPECIAL PROTECTION INFORMATION

Ventilation: Ventilation is recommended. Air movement must be designed to insure turnover at all locations in work area to avoid the build-up of heavy vapors.

Personal Protection: Use chemical goggles and face shield if splashing is anticipated. Wear gloves. Selection of other specific items will depend on the operation. Wear respirator protection whenever airborne concentration exceed TLV ceiling or TWA. Use NIOSH approved respirators for listed hazard. Confined spaces, rooms or tanks are areas where concern for TLVs is especially important. Reference OSHA Regulation CFR 29 1910.134 for recommended respiratory protection.

SECTION IX - SPECIAL PRECAUTIONS

Precautions to be taken in handling and storage: Causes irritation. May cause allergic skin reaction. Avoid contact with eyes, skin or clothing. Store in cool, dry area in closed cartridges.

Other precautions: Avoid breathing vapors, use with good ventilation. Wash hands thoroughly with soap and water after every use.

HMIS Classification:

Health	Flammability	Reactivity	Personal Protection
3	1	1	C

All statements, technical information and recommendations contained herein are based upon available scientific test or data which we believe to be reliable since we cannot anticipate all conditions under which this information and our products or the products of other manufacturers in combination with our products may be used. Applied Technologies makes no warranties, express or implied, and assumes no responsibility in connection with any use of this information.