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PRODUCT: 989 Urethane Adhesive: One Part

MSDS ID: ND3541

ORIG. DATE: 10/20/2008

REV. DATE: 12/23/08

REV. DATE:

PREPARED BY: Chemical Safety

SECTION I -Material Identification and Information H: 2 F: 1 R: 1 PPE:

COMPONENTS	CAS #	PERCENT %	OSHA PEL	ACGIH TLV	OTHER LIMITS RECOMMENDED
Polyurethane polymer	Trade Secret	60-90	n.e.	n.e.	
Polyisocyanate (MDI)	9016-87-9	35-55	0.20 mg/m ³	0.051 mg/m ³	
Butyl Benzyl Phthalate	85-68-7	1-5	n.e.	n.e.	

All ingredients are listed on the TSCA Inventory.

n.a.= not applicable / n.e.=not established

SECTION II -Physical and Chemical Characteristics

BOILING POINT: 368°F

VAPOR DENSITY: n.e. air = 1

VAPOR PRESSURE: 0.00001 mbar at 20°C

MELTING POINT: n.a.

SPECIFIC GRAVITY: 1.09 g/cm³@20°C water = 1

EVAPORATION RATE: n.e.

WATER REACTIVE: Yes

SOLUBILITY IN WATER: Soluble

APPEARANCE AND ODOR: Dark brown liquid with slight odor.

VOC #/US gal. : n.e.

DENSITY OF COATING: n.e.

SECTION III - Fire and Explosion Hazard Data

FLASH POINT: >190°F

AUTOIGNITION TEMPERATURE: n.e.

FLAMMABILITY LIMITS % IN AIR: LEL: n.e. UEL: n.e.

EXTINGUISHER MEDIA: Carbon dioxide, dry powder or foam.

SPECIAL FIREFIGHTING PROCEDURES: Down wind personnel should be evacuated. Fire fighters should wear full-face, self-contained breathing apparatus and impervious protective clothing. Fire fighters should avoid breathing vapors and combustion products.

UNUSUAL FIRE HAZARDS AND CONDITIONS TO AVOID: Do not reseal containers; a chemical reaction generating carbon dioxide gas pressure may occur resulting in rupture of the container. Dense smoke is emitted when product is burned without sufficient oxygen. When using water spray, boil over may occur when product temperature reaches the boiling point of water, and the reaction forming carbon dioxide will accelerate.

MATERIAL SAFETY DATA SHEET

PRODUCT: 989 Urethane Adhesive: One Part

SECTION IV - Reactivity Hazard Data

STABILITY: **stable:** X

unstable:

HAZARDOUS POLYMERIZATION:

may occur: X

will not occur:

CONDITIONS

This product is stable under the recommended handling and storage conditions.

TO AVOID:

INCOMPATIBILITY: Avoid amines and alcohols. Reacts with water forming heat, CO₂ and insoluble urea. CO₂ formation can build enough pressure to rupture closed container.

**HAZARDOUS
DECOMPOSITION
PRODUCTS:**

Isocyanate vapor and mist, carbon dioxide, carbon monoxide, nitrogen oxide and traces of HCN

SECTION V - Health Hazard Data

PRIMARY ROUTES OF ENTRY:

INHALATION:

INGESTION:

SKIN ABSORPTION:

EYE CONTACT: May cause mild eye irritation. Symptoms include stinging, tearing and redness.

FIRST AID: Flush eyes with water for at least 20 minutes while holding eyelids open. Seek medical attention.

**SKIN
CONTACT:**

May cause mild skin irritation. Symptoms include redness and burning. May cause delayed allergic reaction with symptoms including blistering, scaling, or other skin effects.

FIRST AID: Remove contaminated clothing immediately, and wash affected area thoroughly with soap and warm water. Flush skin for at least 15 minutes. Seek medical attention if symptoms develop or persist.

INHALATION: Breathing vapor or mist is possible when material is sprayed.

FIRST AID: Move affected person to fresh air. Seek medical attention.

INGESTION: Swallowing small amounts of this material during its intended use is not likely to cause harmful effects. Ingestion of large amounts may be harmful.

FIRST AID: Seek medical attention immediately. May cause severe gastrointestinal irritation such as nausea, vomiting and diarrhea. Physician, treat symptomatically.

**CHRONIC
EFFECTS:**

Skin or respiratory sensitization.

Carcinogenic: None known.

MATERIAL SAFETY DATA SHEET

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Component	Oral LD50	Dermal LD50	Inhalation LC50
Polyurethane polymer	n.e.	n.e.	n.e.
Polyisocyanate (MDI)	n.e.	n.e.	n.e.
Butyl Benzyl Phthalate	n.e.	n.e.	n.e.

SECTION VI - Control and Protective Measures

RESPIRATORY PROTECTION: Must be used if concentration is above TLV.

PROTECTIVE GLOVES: Use chemical resistant gloves.

EYE PROTECTION: Use chemical goggles or full face shield with safety glasses.

VENTILATION TO BE USED: **LOCAL EXHAUST:** x **MECHANICAL:** **SPECIFIC:**
OTHER (specify): If vapor or mist is generated during processing or use, localized ventilation should be provided to maintain exposure below TLV.

PROTECTIVE CLOTHING AND EQUIPMENT: Wear working clothes and gloves to avoid skin irritation or sensitization.

HYGIENIC WORK PRACTICES: An eyewash station and safety shower should be available in the work area. Contact lenses should not be worn when working with this product. Wash hands before eating, drinking, smoking or using toilet.

SECTION VII - Precautions for Safe Handling and Spill/Leak Procedures

STEPS TO BE TAKEN IF MATERIAL IS SPILLED OR RELEASED:

Wear protective clothing and respiratory protection if necessary to maintain exposure below TLV during spill clean up. Absorb using inert material. Place absorbed material in suitable container for disposal. Residual MDI can be neutralized with a 90% water/5% ammonia/2% detergent solution. (Use 10 parts neutralizer per one part MDI.)

WASTE DISPOSAL METHODS: Dispose of spilled material in accordance with federal, state, and local regulations in permitted hazardous waste management facility. Empty containers should be handled with care due to product residue. Do not heat or cut empty containers with electric or gas torch.

SAFE HANDLING AND STORAGE: Store product in tightly closed containers in a well ventilated area at temperatures below 120°F. Avoid prolonged temperatures in excess of 160°F. Keep away from heat, ignition sources, alcohols, and amines, and other materials that react with diisocyanates.

OTHER PRECAUTIONS AND SPECIAL HAZARDOUS INFORMATION:

Keep out of reach of children.

**RECOMMENDED
NFPA/HMIS
RATING**

HEALTH 2

FLAMMABILITY 1

REACTIVITY 1

**PERSONAL
PROTECTION**

note: ratings may differ according to application, environment, and physical state.

MATERIAL SAFETY DATA SHEET

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NOTES:

No toxicological and ecological information available.

Transportation Information:

From 49CFR172.101

Proper Shipping Name: Non-regulated material.

CERCLA RQ:

Polyisocyanate = 5000 lbs.

SECTION 313 SUPPLIER NOTIFICATION

Detaching this notification from the Material Safety Data Sheet is prohibited by law and any copying or distribution of same requires this attachment be included.

This product contains the following toxic chemicals subject to the reporting requirements of section 313 of the Emergency Planning and Community Right-To-Know Act of 1986 and 40 CFR 372:

<u>CAS #</u>	<u>CHEMICAL NAME</u>	<u>% BY WEIGHT</u>
9016-87-9	Polyisocyanate	45

This product contains the following materials that under California Proposition 65 of the Safe Drinking Water and Toxic Enforcement Act of 1986 are recognized to cause cancer or reproductive toxicity.

<u>Material</u>	<u>CAS #</u>	<u>Concentration %</u>	<u>Cancer Agent</u>	<u>Reproductive Toxin</u>	<u>cancer agent & Reproductive Toxin</u>
None					

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