



**Willamette Valley Company**  
 586 McKinley Street  
 PO Box 2280  
 Eugene OR 97402  
 ☎ 541.484.9621  
 FAX 541.343.6376

# Material Safety Data Sheet

60

U-100-B SYNTHETIC PATCH/ DRUMS

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PRODUCT NAME: U-100-B SYNTHETIC PATCH/ DRUMS  
 PRODUCT CODE: 100921115

HMIS CODES: H F R P  
 3\*1 1 H

## SECTION 1 - MANUFACTURER IDENTIFICATION

MANUFACTURER'S NAME: WILLAMETTE VALLEY COMPANY  
 ADDRESS : P.O. BOX 2280  
 EUGENE, OR 97402

EMERGENCY PHONE : (800) 535-5053  
 INFORMATION PHONE: (541) 484-9621

DATE REVISED : 4/24/00  
 NAME OF PREPARER: Regulatory Compliance

## SECTION 2 - HAZARDOUS INGREDIENTS/SARA III INFORMATION

REPORTABLE COMPONENTS	CAS NUMBER	VAPOR PRESSURE mm Hg @ TEMP	WEIGHT PERCENT
* Diisocyanate Chemical Compound OSHA PEL: 0.02 ppm (MDI) ACGIH TLV: 0.005 ppm (MDI) OTHER: 0.051 mg/m3	PROPRIETARY	.00018 68	90
* Mixed Isomers of MDI	26447-40-5		10

\* Indicates toxic chemical(s) subject to the reporting requirements of section 313 of Title III and of 40 CFR 372.

## SECTION 3 - PHYSICAL/CHEMICAL CHARACTERISTICS

BOILING RANGE: > 400 DEG F  
 VAPOR DENSITY: Heavier than air.  
 EVAPORATION RATE: Slower than ether.  
 APPEARANCE AND ODOR: Amber liquid; faint musty odor.

SPECIFIC GRAVITY (H2O=1): 1.23  
 MATERIAL VOC: 0.00 lb/gal  
 SOLUBILITY IN WATER: Water reacts.

VOC calculations are based on the federal EPA definition of volatile organic compound under the Clean Air Act. State and local air quality authorities may have more stringent regulation.

## SECTION 4 - FIRE AND EXPLOSION HAZARD DATA

FLASH POINT: 390 DEG F  
 FLAMMABLE LIMITS IN AIR BY VOLUME- LOWER: N/A  
 METHOD USED: PMCC  
 UPPER: N/A

EXTINGUISHING MEDIA: Foam, CO2, Dry Chemical, Water Fog

### SPECIAL FIREFIGHTING PROCEDURES

Full emergency equipment with self-contained breathing apparatus and full protective clothing should be worn by firefighters. During a fire, isocyanate vapors and other irritating, toxic gases may be generated.



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### UNUSUAL FIRE AND EXPLOSION HAZARDS

Avoid water contamination in closed containers or confined areas (CO<sub>2</sub> evolved). CO<sub>2</sub> gas evolved can cause sealed containers to expand and possibly rupture. At temperatures greater than 400 F (204 C), isocyanates can polymerize and decompose which can cause pressure build-up in closed containers. Use cold water to cool fire exposed containers.

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### SECTION 5 - REACTIVITY DATA

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#### STABILITY: Stable CONDITIONS TO AVOID

Reaction with moisture may form CO<sub>2</sub>. Resulting pressure build-up may cause container rupture. Avoid high temperatures. Avoid freezing.

#### INCOMPATIBILITY (MATERIALS TO AVOID)

Water, alcohols, amines, strong bases. Will cause some corrosion to copper alloys and aluminum. The reaction with water is very slow under 122 DEG F but is accelerated at higher temperatures.

#### HAZARDOUS DECOMPOSITION OR BYPRODUCTS

By high heat and fire: Carbon monoxide, oxides of nitrogen, traces of HCN, MDI vapors or aerosols.

#### HAZARDOUS POLYMERIZATION: May occur.

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### SECTION 6 - HEALTH HAZARD DATA

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#### INHALATION HEALTH RISKS AND SYMPTOMS OF EXPOSURE

Can irritate mucous membrane/respiratory tract causing runny nose, sore throat, chest discomfort, shortness of breath and reduced lung function. Chemical or hypersensitive pneumonitis with flu-like symptoms has also been reported.

#### SKIN AND EYE CONTACT HEALTH RISKS AND SYMPTOMS OF EXPOSURE

SKIN: Irritation such as reddening, swelling, rash, scaling or blistering. Cured material is difficult to remove.

EYES: Liquid, aerosols or vapors are irritating and can cause tearing, reddening and swelling.

#### SKIN ABSORPTION HEALTH RISKS AND SYMPTOMS OF EXPOSURE

Isocyanates react with skin protein and moisture. Prolonged contact can cause reddening, swelling, rash, scaling or blistering, and in some cases, skin sensitization.

#### INGESTION HEALTH RISKS AND SYMPTOMS OF EXPOSURE

Can result in irritation of the gastrointestinal tract. Symptoms can include sore throat, abdominal pain, nausea, vomiting and diarrhea.

#### HEALTH HAZARDS (ACUTE AND CHRONIC)

Isocyanate sensitization can result from repeated overexposures or from a single large dose which will cause a reaction to a later exposure at levels well below the TLV. These symptoms, such as chest tightness, wheezing, cough, shortness of breath or asthma attack, could be immediate or delayed (up to several hours after exposure). Overexposure to isocyanates has also



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been reported to cause lung damage which may be permanent. Sensitization can either be temporary or permanent.

**CARCINOGENICITY:** NTP **CARCINOGEN:** No **IARC MONOGRAPHS:** No **OSHA REGULATED:** No  
Neither MDI nor Polymeric MDI (isocyanates) are listed by the NTP, IARC OR regulated by OSHA as carcinogens.

### **MEDICAL CONDITIONS GENERALLY AGGRAVATED BY EXPOSURE**

Pre-existing skin, eye, or respiratory conditions. (i.e. asthma, bronchitis, emphysema, skin allergies, eczema)

### **EMERGENCY AND FIRST AID PROCEDURES**

**EYES:** Flush with water at least 15 minutes, holding eyelids open. Refer to physician for immediate follow-up. **SKIN:** Wash affected skin with soap and water. Remove contaminated clothing. Launder before reuse. If irritation develops, refer to physician. **INGESTION:** Do not induce vomiting. Give 1- 2 cups milk or water to drink. Consult a physician. **INHALATION:** Move to fresh air to prevent further exposure. Administer oxygen or artificial respiration as needed. Asthma-like symptoms may develop immediately or may be delayed up to several hours. Consult physician should this occur.

## ===== SECTION 7 - PRECAUTIONS FOR SAFE HANDLING AND USE =====

### **STEPS TO BE TAKEN IN CASE MATERIAL IS RELEASED OR SPILLED**

Wear protective gear/respiratory equipment. Evacuate/ventilate spill area. Contain and absorb large spillages onto inert absorbent such as earth or sand. Shovel into open-top drums for further decontamination if necessary. Decontaminate spill area. Neutralize small spills with decontaminant. Allow deactivated material to stand for at least 30 minutes before shoveling into drums. Neutralizing solution: 2% detergent, 8% ammonia in water. Mixing with earth is also effective, but slower to deactivate. Decontaminated containers must remain open for at least 48 hours to allow carbon dioxide gas to escape.

### **WASTE DISPOSAL METHOD**

Dispose of solidified waste in a licensed facility. Incinerate or landfill. Do not discharge into waterways or sewer systems.

### **PRECAUTIONS TO BE TAKEN IN HANDLING AND STORING**

Keep containers closed and store in well ventilated area (60-80 F.). Outage should be filled with dry inert gas to avoid reaction with moisture. Contamination by moisture and basic compounds can cause dangerous pressure buildup in container. \* Monitoring of airborne isocyanates should become part of the overall employee exposure characterization program.

### **OTHER PRECAUTIONS**

Persons with pre-existing, nonspecific bronchial hyperactivity can respond to concentrations below the TLV with similar symptoms of acute inhalation. Medical supervision of all employees who handle or come into contact with isocyanates is recommended. Pre employment and periodic medical examinations with respiratory function tests are suggested.

## ===== SECTION 8 - CONTROL MEASURES =====



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### **RESPIRATORY PROTECTION**

Concentrations greater than the TLV can occur when isocyanate is sprayed, heated or used in a poorly ventilated area. In such cases, or whenever concentrations of isocyanate exceed the TLV or are not known, respiratory protection must be worn. A supplied air respirator (either positive pressure or continuous flow type) is required. In an emergency situation, a self-contained breathing apparatus may be used. Isocyanate has poor warning properties, since the concentration at which isocyanate can be smelled is substantially higher than the maximum exposure limit. Observe OSHA regulations for respirator use (29 CFR 1910.134).

### **VENTILATION**

Local exhaust should be used to maintain levels below the TLV whenever MDI is processed, heated or spray applied. Standard reference sources regarding industrial ventilation (i.e., ACGIH Industrial Ventilation) should be consulted for guidance about adequate ventilation.

### **PROTECTIVE GLOVES**

Chemical Resistant Gloves. (Butyl Rubber, Nitrile Rubber, Neoprene)

### **EYE PROTECTION**

Tight and sealed goggles or face shield and safety glasses. Contact lenses should not be worn.

### **OTHER PROTECTIVE CLOTHING OR EQUIPMENT**

Apron and boots. Protective clothing must be impermeable. Launder daily. Safety shower and eyewash station should be available. Educate and train employees in safe use of product. Keep exposed skin to a minimum with protective clothing.

### **WORK/HYGIENIC PRACTICES**

Wash thoroughly after handling, and before eating, drinking, smoking, or using the toilet facilities.

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## **SECTION 9 - DISCLAIMER**

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To the best of our knowledge, the information provided herein is accurate, obtained from sources believed to be accurate. Since the conditions and methods of use of our product are beyond our control, we disclaim any and all liability arising out of the improper use of this product or the information provided herewith.