

# Material Safety Data Sheet

## 1. IDENTIFICATION OF THE SUBSTANCE/PREPARATION AND OF THE COMPANY/UNDERTAKING

ROBERTS R1509 Solid Wood & Bamboo Flooring Adhesive  
Product Code: R1509

MANUFACTURER: Roberts Consolidated Industries, Inc.  
Address : 300 Cross Plains Blvd.  
Dalton, GA 30722

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EFFECTIVE DATE: 04/01/2011  
Issued by: M. King

Use of the substance/preparation:  
Adhesive

## 2. COMPOSITION/INFORMATION ON INGREDIENTS

	<u>Wt%</u>	<u>CAS</u>	<u>R Phrases</u>
Polypropylene glycol	16-21%	25322-69-4	
Diundecyl Phthalate	0-9%	3648-20-2	
Calcium Carbonate	63-68%	1317-65-3	
*Polymeric Diphenylmethane Diisocyanate	0-10%	9016-87-9	20-36/37/38-42

## 3. HAZARDS IDENTIFICATION

Warning! May cause eye, skin and respiratory tract irritation. Harmful if inhaled. May cause allergic respiratory reaction. May cause allergic skin reaction.

## 4. FIRST-AID MEASURES

### Inhalation

Move victim to fresh air, seek medical attention. Asthmatic-type symptoms may develop immediately or up to several hours later. Consult physician if this occurs.

### Skin Contact

Wash with soap and water.

### Eye Contact

Flush with copious amounts of water for at least 15 minutes. Consult physician or ophthalmologist for follow-up.

### Ingestion

Do not induce vomiting. Wash mouth with water. Consult physician.

### Note to Physician

Eyes: Stain for evidence of corneal injury. If cornea is burned, instill antibiotic steroid preparation frequently. Workplace vapors have produced reversible corneal epithelial edema impairing vision. Skin: This compound is a known skin sensitizer. Treat symptomatically as for contact dermatitis or thermal burns. If burned, treat as thermal burn. Ingestion: Treat symptomatically. MDI has a very low oral toxicity. There is no specific antidote. Inducing vomiting is contraindicated because of the irritating nature of this compound. Respiratory: This compound is a known pulmonary sensitizer. Treatment is essentially symptomatic. An individual having a skin or pulmonary sensitization reaction to this material should be removed from exposure to any isocyanate.

## 5. FIRE-FIGHTING MEASURES

### Extinguishing Media

Dry chemical, carbon dioxide, foam, water spray for large fires.

### Hazardous Combustion Products

Carbon dioxide, carbon monoxide, oxides of nitrogen, traces of hydrogen cyanide, isocyanate monomer vapors.

### Protection of Firefighters

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

### Specific Fire or Explosion Hazards

At temperatures greater than 400°F isocyanates can polymerize and decompose which can cause pressure buildup in closed containers. Explosive rupture is possible. Therefore, use cold water to cool fire exposed containers.

## 6. ACCIDENTAL RELEASE MEASURES

Personal Precautions - Wear full protection gear. (See Section 8.)

Environmental Precautions - Do not allow product to get into drains, soil, or surface water.

Methods of Cleaning Up - Evacuate and ventilate spill area; dike spill to prevent entry into water system. Wear full protective equipment. Absorb with inert material. Spill can be neutralized with the following solution (90% water, 8% ammonia, 2% detergent). Add about 10 parts of neutralizer per part of isocyanate. Scoop into disposal containers. Do not seal waste containers as CO<sub>2</sub> evolution can cause pressure buildup and container rupture.

## 7. HANDLING AND STORAGE

Store in tightly closed containers to prevent moisture contamination. Care should be taken to avoid contact with skin and eyes. Do not breathe aerosols or vapors. Keep away from food and drink.

## 8. EXPOSURE CONTROLS/PERSONAL PROTECTION

Exposure Guidelines - 0.005 ppm TWA ACGIH; 0.02 ppm Ceiling OSHA

Engineering Controls - Local exhaust should be used to keep airborne levels below TWA.

### Personal Protective Equipment

- Respiratory Protection  
When TWA is exceeded, a self-contained breathing apparatus or supplied air respirator should be used.
- Skin Protection  
Permeation resistant gloves (butyl rubber, nitrile rubber, pvc or polyvinyl alcohol).
- Eye/Face Protection  
Glasses with side shields, chemical splash goggles and/or face shield.

## 9. PHYSICAL AND CHEMICAL PROPERTIES

Appearance	Liquid
Color	Tan
Odor	Slightly musty odor
Specific Gravity	1.5333
Vapor Pressure	<0.00001 mm Hg @ 25°C for MDI
Flash point	200°C PMCC (ASTM D-93)
Coating V.O.C.: 0 g/l	
V.O.C. by weight: 0.00% (Method 310)	
Solubility in water: Not determined.	

## 10. STABILITY AND REACTIVITY

Chemical Stability	Stable
Conditions to Avoid	Excessive heat.
Materials to Avoid	Water, amines, strong bases, and alcohols.

Hazardous Polymerization  may occur  will not occur Through contact with moisture, other materials which react with isocyanates, or temperatures above 400°F may cause polymerization.

## 11. TOXICOLOGICAL INFORMATION

### Acute toxicity

- Ingestion LD50 > 10,000 mg/kg (Rat)
- Skin Contact LD50 > 6200 mg/kg (Rabbit)
- Inhalation LC50 4 hour LC50 for polymeric MDI in rats ranges from 370 – 490 mg/m<sup>3</sup>.

### Irritation

Isocyanates react with skin protein and moisture and can cause irritation. Prolonged contact can result in skin sensitization. Vapors can cause burning in eyes and if left untreated, can cause corneal damage.

### Sensitization

MDI has been shown to cause dermal and respiratory sensitization.

### Carcinogenicity

NOEL 0.2 mg/m<sup>3</sup> in rats exposed to polymeric MDI for 6 hours per day, 5 days per week for one or two years.

## 12. ECOLOGICAL INFORMATION

Mobility and Bioaccumulation Potential  
Not determined.

Degradation  
Not determined.

### Aquatic Toxicity

LC50 – 24 hour (static): Greater than 500 mg/liter for Daphnia magna, Limaea stagnalis, and Zebra fish for polymeric MDI.

### 13. DISPOSAL CONSIDERATIONS

#### Disposal

Incinerate or bury in landfill in accordance with federal, state and local regulations. Incineration is the preferred method of disposal.

#### Wastes or Residues

Same as above.

#### Contaminated Packaging

Empty containers must be handled with care due to product residue. Decontaminate containers prior to disposal. Empty decontaminated containers should be crushed to prevent reuse. **DO NOT HEAT OR CUT EMPTY CONTAINER WITH ELECTRIC OR GAS TORCH.** (See Fire Fighting Measures and Stability & Reactivity). Gases may be highly toxic.

### 14. TRANSPORT INFORMATION

#### Road:

D.O.T. PROPER SHIPPING NAME (49CFR172.101 - 102): ADHESIVE.

D.O.T. HAZARD CLASSIFICATION (49CFR172.101-102):

PRIMARY: NONE SECONDARY: NONE

D.O.T. LABELS REQUIRED (49CFR172.101-102): NONE

D.O.T. PLACKARDS REQUIRED (49CFR172.504): NONE

BILL OF LADING DESCRIPTION: ADHESIVE, NOS UN/NA CODE: N/A

FREIGHT CLASS: 60; LIQUID, NOI, NMFC 156240

#### Sea:

Proper shipping name: **Non-Regulated**

Sea – IMO/IMDG Class: N/A UN Nr: N/A Label: N/A

Packing Group: N/A

Marine Pollutant: N/A EMS: N/A

#### Air

Proper shipping name: **Non-Regulated**

Air – ICAO/IATA Class: N/A UN Nr: N/A Label : N/A

Sub Class: N/A

Packing Group: N/A Pack Instr. Passenger: N/A

Pack Instr. Cargo: N/A

Remarks:

## 15. REGULATORY INFORMATION

### EC Classification and User Label Information

Hazard Symbol: Xn

Risk Phrases:

20 Harmful by inhalation.  
36/37/38 Irritating to eyes, respiratory system and skin.  
42 May cause sensitization by inhalation.

Safety Phrases:

26 In case of contact with eyes, rinse immediately with plenty of water and seek medical advice.  
51 Use only in well-ventilated areas.  
23 Do not breathe fumes/vapors/or spray.

Chemical name:

Diphenylmethane Diisocyanate, isomers and homologues.

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

\*Chemical Name: Polymeric Diphenylmethane Diisocyanate – 9016-87-9 - 7%

Remarks:

An immediate health hazard

A delayed health hazard

## 16. OTHER INFORMATION

R20 Harmful by inhalation.  
R36/37/38 Irritating to eyes, respiratory system and skin.  
R42 May cause sensitization by inhalation.

HMIS – H = 2, F = 1, R = 0 (\* CHRONIC)

### **In regard to Hydroxy-Terminated Polybutadiene (HTPB) Containing Materials only:**

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