

SECTION 1: Identification and Company Details

Product Name: R1509 Wood and Bamboo Flooring Adhesive
Product Code: R1509

Manufacturer: Roberts Consolidated Industries, Inc.
Address: 300 Cross Plains Blvd.
Dalton, GA 30721

Emergency Phone: (800) 424-9300 (24-hour Response / CHEMTREC)
Product Information: (706) 277-5294

Recommended Use: Adhesive

SECTION 2: Hazard(s) Identification

OSHA / HCS Status: This material is considered hazardous by the OSHA Hazard Communication Standard (29 CFR 1910.1200)

Classification of the substance or mixture: SKIN CORROSION / IRRITATION – Category 2
SERIOUS EYE DAMAGE / EYE IRRITATION – Category 2
SKIN SENSITIZATION – Category 1
SPECIFIC TARGET ORGAN TOXICITY (SINGLE EXPOSURE) (Respiratory tract irritation) – Category 1

Signal Word: Warning

Hazard Statements: Causes skin irritation.
Causes serious eye irritation.
May cause an allergic skin reaction.
May cause respiratory irritation.
Harmful if inhaled.
May cause allergic skin reaction.

**Hazard Pictograms:**

Precautionary Statements: Wear protective gloves: >8 hours (breakthrough time): butyl rubber, nitrile rubber, neoprene. Wear eye and face protection. Wear protective clothing. Avoid breathing vapor. Avoid release to the environment. Wash hands thoroughly after handling. Collect spillage

SECTION 3: Composition / Information on Ingredients

	<u>Weight %</u>	<u>CAS #</u>
Calcium Carbonate	63-68	1317-65-3
Polypropylene glycol	16-21	25322-69-4
Diundecyl Phthalate	6-9	3648-20-2
Polymeric Diphenylmethane Diisocyanate (<1% unreacted)	6-7	9016-87-9

** Exportation of this product is controlled by the United States Government. See Section 16 of SDS for more details.

SECTION 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.

SECTION 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.

SECTION 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 Clean-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 CO₂ evolution can cause pressure buildup and container rupture.

SECTION 7: Handling and Storage

Store in tightly closed container 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.

SECTION 8: Exposure Control / Personal Protection

Exposure Guidelines: 0.005 ppm TWA ACGIH; 0.02 ppm Ceiling OSHA (MDI)

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.

SECTION 9: Physical and Chemical Properties

Appearance:	Liquid
Vapor Density:	Not determined
Odor:	Slightly musty
Relative Density:	Not determined
Odor Threshold:	Not available
Solubility(ies):	Insoluble in water
pH:	Not available
Partition Coefficient:	n-octanol/water; Not determined
Melting Point:	Not determined
Freezing Point:	Not determined
Auto-ignition Temperature:	Not determined
Flash Point:	> 200° C
Decomposition Temperature:	Not determined
Evaporation Rate:	Not determined
Viscosity:	45,000-60,000 cps 25° @20 rpm
Flammability (Solid/Gas):	Not applicable
Specific Gravity:	1.53333
Upper/Lower Flammability:	Not determined
VOC Content:	0.0 lb/gal
Vapor Pressure:	<0.00001 mm Hg @ 25° C (MDI)
Boiling Point:	260° C (500° F)

SECTION 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 through contact with moisture, other materials which react with isocyanates or temperatures above 400°F may cause polymerization.

SECTION 11: Toxicological Information

Acute Toxicity:	<i>Ingestion</i> – LD50 > 10,000 mg/kg (Rat) <i>Skin Contact</i> – LD50 > 6200 mg/kg (Rabbit) <i>Inhalation</i> – LC50 4 hour LC50 for polymeric MDI in rats ranges from 370 – 490 mg/ m ³
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 ³ in rats exposed to polymeric MDI for 6 hours per day, 5 days per week for one/two years.

SECTION 12: Ecological Information

Mobility and Bioaccumulation Potential

Degradation:	Not determined
Aquatic Toxicity:	Not determined
LC50 – 24 hour (Static):	Greater than 500 mg/liter for Daphnia magna, Limaea stagnalis, and Zebra fish for polymeric MDI.

SECTION 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.

SECTION 14: Transport Information

Road: DOT Proper Shipping Name: **Non-Regulated**
DOT Packing Group: N/A
DOT Label: N/A
UN Number: N/A

Ocean: Proper Shipping Name: **Non-Regulated**
Sea – IMO/IMDG Class: N/A
UN Number: 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 Number: N/A
Label: N/A
Sub Class: N/A
Packing Group: N/A
Pack Instr. Passenger: N/A
Pack Instr. Cargo: N/A

SECTION 15: Regulatory Information

Status on Substance Lists: The concentrations shown in this document are maximum levels (weight %) to be used for regulations.

TSCA: The components of this product are contained on the chemical substance inventory list.

OSHA: This product is a 'Hazardous Chemical' as defined by the OSHA Hazard Communication Standard, 29 CFR 1910.1200

IARC: Not carcinogenic

Federal EPA: Comprehensive Environmental Response, Compensation and Liability Act of 1980 (CERCLA): Requires notification of the national response center of release of quantities of hazardous substances equal to or greater than the reportable quantities (RQ's) in 40 CFR 302.4. Components present in this product at level which could require reporting under the statute are:

Chemical Name	CAS Number	% by Weight	RQ
None	None	None	None

Superfund Amendments and Reauthorization Act of 1986 (SARA) Title III: Sections 301-304 require emergency planning based on Threshold Planning Quantities (TPQs) and release reporting based on

Reportable Quantities (RQ) in 40 CFR 355. Components present in this product at level which could require reporting under this statute are:

Chemical Name	CAS Number	% by Weight	RQ
None	None	None	None

Section 311-312 require products be reviewed and applicable EPA Hazard Definitions be identified and made known.

EPA Hazard Classifications:

Acute Hazard	Chronic Hazard	Fire Hazard	Pressure Hazard	Reactive Hazard
Yes	Yes	No	No	No

Section 313 requires submission of annual reports of release of toxic chemicals that appear in 40 CFR 372 (for SARA 313). This information must be included in all SDSs that are distributed for this material. Components present in this product at level which could require reporting under the statute are:

Chemical Name	CAS Number	% by Weight
Polymeric Diphenylmethane Diisocyanate	9016-87-9	<1% unreacted

Canada DSL: This material is listed or exempted.

Included on Inventory: EUROPE EINECS
AUSTRALIA AICS
JAPAN MIT/ENCS
SOUTH KOREA ECL
CHINA SEPA
PHILPPINES PICC

Canada WHMIS Phrases: Class D2A – respiratory tract sensitizer
Class D2B – eye or skin irritant, skin sensitizer

California Proposition 65: Does not contain any listed chemical to the best of our knowledge.

SECTION 16: Other 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.
HMIS: H = 2, F = 1, R = 0 (* CHRONIC)

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

These products and technical data related to these products are export controlled by the U.S. Government. In case of an international shipment, these products and/or technical data are licensed by the U.S. government for use and/or resale in the countries identified above. Export, re-export, or other diversion, either in their original form or, after being incorporated in an intermediate process into other end-items, is strictly prohibited unless expressly authorized by the cognizant agency of the U.S. Government. When the material is cross-linked (cured) the finished material is not subject to export regulation.

HTPB contains trace amounts of 1,3-butadiene which has been classified as probably carcinogenic to humans by the International Agency for Research on Cancer (IARC). In addition, OSHA has recently issued a substance specific regulation for 1,3-butadiene. 1,3-Butadiene is not expected to present a health hazard if this product is used as supplied at room temperature; however, vapors

generated at elevated processing temperatures may contain very small concentrations of 1,3-butadiene. Industrial hygiene monitoring should be performed to rule out exposure to this substance, and appropriate respiratory protection should be worn during these conditions.

HTPB also contains trace amounts of 4-vinylcyclohexene (VCH). High concentrations of VCH (271-677 part per million) have caused eye and nose irritation, headaches, white blood cell reduction, and impaired carbohydrate metabolism in some workers. Animal tests have shown white blood cell reduction and effects in blood circulation upon repeated inhalation exposures, and kidney toxicity and ovarian effects at an oral dose (repeated exposure) that produced many animal deaths. The National Toxicology Program (NTP) conducted a two-year animal study on the oral effects of VCH which resulted in numerous animal deaths and an increase in ovarian tumors in female mice. It is believed that mice have an increased sensitivity to VCH-induced ovarian effects as demonstrated by their ability to produce a significantly higher rate of an ovotoxic metabolite. IARC lists VCH as possibly carcinogenic to humans. The American Conference of Governmental Industrial Hygienists (ACGIH) classifies VCH as an animal carcinogen, causing cancer in test animals at relatively high doses, and by routes or mechanisms not considered relevant to worker exposure limit (TLV-TWA) of 0.1 ppm for VCH. Vapors generated at elevated processing temperatures may contain concentrations of VCH near the ACGIH TLV. VCH produced no genetic changes in tests using bacterial cells.

The information herein is given in good faith, but no warranty expressed or implied is made. Roberts Consolidated urges users of this product to evaluate its suitability and compliance with local regulations as Roberts Consolidated cannot foresee the final use of the product, nor the final location of usage.