

## SAFETY DATA SHEET

### SECTION 1 - PRODUCT IDENTIFICATION

**PRODUCT NAME:** MRA1585 Moisture Retarding Adhesive (RM12E4813)  
**PRODUCT USE:** Dual Purpose Polyurethane Wood Flooring Adhesive and Moisture Retarder  
**DISTRIBUTOR:** Nydree Flooring, LLC  
**FOR CHEMICAL EMERGENCY ONLY** (Spill, Leak, Fire, Exposure or Accident call *CHEMTREC* at 1.800.424.9300 – USA or Outside, 1.703.527.3887 – Canada.  
**FOR ALL OTHER INQUIRES ABOUT THIS PRODUCT, Call Nydree at 800.682.5698.**

### SECTION 2 – HAZARD IDENTIFICATION

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

**Pictogram(s)**



**Signal Word:** Warning

**Hazard Statements:**

Irritating to eyes and skin.  
 May cause respiratory tract irritation with symptoms of coughing, sore throat and runny nose.  
 May cause irritation with symptoms of reddening and itching.  
 May cause sensitization by skin contact.

**Precautionary Statements:**

Wear protective gloves: >8 hours (breakthrough time): butyl rubber, nitrile rubber. 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

Ingredient	CAS Number	Weight Percent
Calcium Carbonate	1317-65-3	60-62
Polypropylene Glycol	25322-69-4	18-19
Diundecyl Phthalate	3648-20-2	18-19
Methylene Diphenyl Isocyanate, MDI mixed isomers (<1% unreacted)	101-68-8 & 26447-40-5	6-7
1,3-Butadiene, homopolymer, hydroxyl-terminated**	69102-90-5	2-3
Hydrophobic Silica	67762-90-7	0.4-0.6
Hexadecanoic	57-10-3	<0.3
Octadecanoic	57-11-4	<0.3

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

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## SECTION 4 – FIRST AID MEASURES

**EYES:** In case of contact, immediately flush eyes with plenty of water for at least 15 minutes. Contact physician and/or ophthalmologist. **SKIN:** Wash exposed area with industrial soap or non-toxic grease remover. If irritation or rash develops, avoid further contact, call a physician. **INHALATION:** Remove to fresh air and seek medical attention. Asthmatic-type symptoms may develop immediately or up to several hours later. If symptoms continue, seek medical attention. **INGESTION:** Contact a physician or emergency medical facility immediately. Do not induce vomiting unless instructed to do so by medical personnel. Wash mouth with water. Never give anything by mouth to a victim who is unconscious or is having convulsions. **NOTES 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:* A component of this product is a known skin sensitizer. Treat symptomatically as for contact dermatitis or thermal burn. *Respiratory:* A component of this product is also a known pulmonary sensitizer. Treatment is symptomatic. Persons with hypersensitivities to this material should be removed from exposure to any isocyanate. *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.

## SECTION 5 – FIRE-FIGHTING MEASURES

**EXTINGUISHING MEDIA:** Carbon dioxide, foam, or dry chemical. Use water spray (fog) on large fires. **HAZARDOUS DECOMPOSITION PRODUCTS:** If product is burned carbon monoxide, carbon dioxide, low molecular weight hydrocarbons, oxides of nitrogen, trace levels of hydrogen cyanide, isocyanate-containing compounds and other unknown products may be produced. **SPECIAL FIRE FIGHTING PROCEDURES:** Firefighters should wear self-contained, positive-pressure breathing apparatus, due to thermal decomposition of products which could include isocyanate vapors and other highly toxic gases. Wear NFPA compliant structural fire fighting protective equipment, helmet, hood, boots and gloves. **UNUSUAL FIRE AND EXPLOSION HAZARD:** Temperatures above 400°F may cause explosive rupture of closed containers. MDI vapors and other irritating toxic gases may be produced in a fire. Use cold water to cool fire exposed containers.

## SECTION 6 – ACCIDENTAL RELEASE MEASURES

See Section 8 for protection information. Stop discharge if safe to do so. Stop material from contaminating soil or from entering sewers or water streams using dikes. Isolate and ventilate spill area. Absorb with inert material. Scrape material into containers for proper disposal according to federal, state, and local regulations. Remove container to a safe place, cover loosely and allow to stand for 24 to 48 hours letting evolved carbon dioxide escape. Collect and contain for disposal.

## SECTION 7 – HANDLING AND STORAGE

**HANDLING:** Avoid contact with skin, eyes and clothing. Wash thoroughly after handling, especially before eating, drinking, smoking, and using restroom facilities. Use this product with adequate ventilation. **STORAGE:** Store in a cool, dry, well-ventilated area away from heat, and direct sunlight. Water contamination should be avoided. Store at 60-80 °F or 15-30 °C. Keep containers closed.

## SECTION 8 – EXPOSURE CONTROLS / PERSONAL PROTECTION

COMPONENT (CAS NUMBER)	TWA (SOURCE)
Methylene Diphenyl Isocyanate, MDI (101-68-8) <1% Unreacted	0.005 ppm TWA (ACGIH)

**VENTILATION:** Use local exhaust or general ventilation to keep vapors to a minimum and below TWA. **RESPIRATORY PROTECTION:** Not normally needed with good ventilation. Avoid breathing vapor and/or mists. **PROTECTIVE CLOTHING:** Wear chemical resistant gloves and clothing to prevent skin contact. **EYE PROTECTION:** Use of safety glasses with side shields or goggles is recommended.

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## SECTION 9 – PHYSICAL AND CHEMICAL PROPERTIES

**SPECIFIC GRAVITY:** 1.5422 (Water = 1)      **FREEZE PROTECTION:** Not necessary, but warm to room temperature prior to using.  
**DENSITY:** 12.85 lbs./gal  
**SOLUBILITY IN WATER:** Insoluble.      **VAPOR PRESSURE:** <0.00001 mm Hg @ 25 °C for MDI  
**VOC CONTENT:** 0.0 lbs./gal      **FLASH POINT:** >392 °F (200 °C)  
**TARGET SOLIDS:** 100%      **VISCOSITY:** 45000-60000 cps 25 °C @ 20 rpm  
**APPEARANCE AND ODOR:** Light tan paste with virtually no odor.

## SECTION 10 – STABILITY AND REACTIVITY

**STABILITY:** This product is stable under normal conditions but will react slightly with water to release some heat and carbon dioxide. The reaction is not violent. **INCOMPATIBILITY:** Avoid water, amines, strong acids and bases and alcohols. **HAZARDOUS POLYMERIZATION:** Can occur at elevated temperatures (>400 °F), with other materials which react with isocyanates, or contact with water.

## SECTION 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/m3.

**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/m3 in rats exposed to polymeric MDI for 6 hours per day, 5 days per week for one or two years.

## SECTION 12 – ECOLOGICAL

**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.

## SECTION 13 – DISPOSAL CONSIDERATIONS

**EMPTY CONTAINERS:** Let product residue completely cure in pail and then dispose of container. Do not reuse empty containers. Crush containers 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.

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

Alternatively, pour onto scrap cardboard in a thin layer and allow adhesive to thoroughly cure, then dispose of cardboard and cured adhesive. Follow instructions above for empty container.

## SECTION 14 – TRANSPORT INFORMATION

**DOT / IATA / IMDG:** This product is not regulated as hazardous goods for ground, air or ocean shipment.

## SECTION 15 – REGULATORY INFORMATION

**STATUS ON SUBSTANCE LISTS:** The concentration shown in this document are maximum levels (weight %) to be used for regulation.

**TOXIC SUBSTANCES CONTROL ACT(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

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### FEDERAL EPA:

COMPREHENSIVE ENVIRONMENTAL RESPONSE, COMPENSATION, and LIABILITY ACT of 1980 (CEFCCLA):

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: **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 the statute are: **NONE**.

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

### EPA HAZARD CLASSIFICATIONS

Acute Hazard: **Yes**.

Chronic Hazard: **Yes**.

Fire Hazard: **No**.

Pressure Hazard: **No**.

Reactive Hazard: **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 a level which could require reporting under the statute are: **NONE**.

Canada DSL This material is listed or exempted.

Include on Inventory

EUROPE	EINECS
AUSTRALIA	AICS
JAPAN	MIT/ENCS
SOUTH KOREA	ECL
CHINA	SEPA
PHILIPINES	PICC

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

**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 - <1% unreacted  
4-Vinylcyclohexene – 100-40-3 - < 0.0022 ppm  
1,3-Butadiene – 106-99-0 - < 0.0000022 ppm

### California Proposition 65:

California Proposition 65 Information: This product contains, or may contain, trace quantities of a substance(s) known to the state of California to cause cancer and/or reproductive toxicity:

4-Vinylcyclohexene and 1,3-Butadiene.

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**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 RATINGS:** Health=2\*, Fire=1, Reactivity=0 \*Chronic (long-term) effects may result from repeated overexposure.

**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, reexport, 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 ppm) 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.

**DATE PREPARED:** 03.18.15

**REPLACES:** 12.04.12

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