

# Material Safety Data Sheet

## Polyurethane Dispersion

### 1. Product and company identification

<b>Product name</b>	Polyurethane Dispersion	<b>In case of emergency</b>	1-800-843-6174
<b>Code</b>	R4289	<b>Validation date</b>	11/30/2009.
<b>Material uses</b>	Polyurethane dispersion	<b>Responsible name</b>	Regulatory Affairs Department
<b>Manufacturer</b>	Essential Industries, Inc. P.O. Box 12 Merton, WI 53056-0012 Phone: 262-538-1122		

### 2. Hazards identification

#### Potential acute health effects due to overexposure

<b>Inhalation</b>	No known significant effects or critical hazards.
<b>Ingestion</b>	No known significant effects or critical hazards.
<b>Skin</b>	No known significant effects or critical hazards.
<b>Eyes</b>	No known significant effects or critical hazards.

#### Hazardous Material Information System (U.S.A.)

<b>Health</b>	1	<b>HAZARD RATING</b> 4 = Extreme 3 = High 2 = Moderate 1 = Slight 0 = Insignificant
<b>Flammability</b>	0	
<b>Physical hazards</b>	0	
<b>Personal protection</b>	B	

A = Goggles B = Goggles & Gloves C = Goggles, Gloves & Apron

### 3. Composition/information on ingredients

There are no ingredients present which, within the current knowledge of the supplier and in the concentrations applicable, are classified as hazardous to health or the environment and hence require reporting in this section.

### 4. First aid measures

<b>Eye contact</b>	Check for and remove any contact lenses. Immediately flush eyes with plenty of water for at least 15 minutes, occasionally lifting the upper and lower eyelids. Get medical attention if symptoms occur.
<b>Skin contact</b>	In case of contact, immediately flush skin with plenty of water for at least 15 minutes while removing contaminated clothing and shoes. Wash clothing before reuse. Clean shoes thoroughly before reuse. Get medical attention if symptoms occur.
<b>Inhalation</b>	Move exposed person to fresh air. Loosen tight clothing such as a collar, tie, belt or waistband. Get medical attention if symptoms occur.
<b>Ingestion</b>	Wash out mouth with water. Get medical attention if symptoms occur.
<b>Notes to physician</b>	No specific treatment. Treat symptomatically. Contact poison treatment specialist immediately if large quantities have been ingested or inhaled.

### 5. Fire-fighting measures

<b>Flammability of the product</b>	In a fire or if heated, a pressure increase will occur and the container may burst.
<b>Extinguishing media</b>	
<b>Suitable</b>	Use an extinguishing agent suitable for the surrounding fire.
<b>Special exposure hazards</b>	Promptly isolate the scene by removing all persons from the vicinity of the incident if there is a fire. No action shall be taken involving any personal risk or without suitable training.
<b>Special protective equipment for fire-fighters</b>	Fire-fighters should wear appropriate protective equipment and self-contained breathing apparatus (SCBA) with a full face-piece operated in positive pressure mode.

### 6. Accidental release measures

<b>Personal precautions</b>	No action shall be taken involving any personal risk or without suitable training. Evacuate surrounding areas. Keep unnecessary and unprotected personnel from entering. Do not touch or walk through spilled material. Put on appropriate personal protective equipment (see section 8).
<b>Environmental precautions</b>	Avoid dispersal of spilled material and runoff and contact with soil, waterways, drains and sewers. Inform the relevant authorities if the product has caused environmental pollution (sewers, waterways, soil or air).
<b>Methods for cleaning up</b>	
<b>Small spill</b>	Stop leak if without risk. Move containers from spill area. Dilute with water and mop up if water-soluble. Alternatively, or if water-insoluble, absorb with an inert dry material and place in an appropriate waste disposal container. Dispose of via a licensed waste disposal contractor.
<b>Large spill</b>	Stop leak if without risk. Move containers from spill area. Prevent entry into sewers, water courses, basements or confined areas. Wash spillages into an effluent treatment plant or proceed as follows. Contain and collect spillage with non-combustible, absorbent material e.g. sand, earth, vermiculite or diatomaceous earth and place in container for disposal according to local regulations (see section 13). Dispose of via a licensed waste disposal contractor. Note: see section 1 for emergency contact information and section 13 for waste disposal.

## 7 . Handling and storage

- Handling** Put on appropriate personal protective equipment (see section 8). Eating, drinking and smoking should be prohibited in areas where this material is handled, stored and processed. Workers should wash hands and face before eating, drinking and smoking.
- Storage** Store in accordance with local regulations. Store in original container protected from direct sunlight in a dry, cool and well-ventilated area, away from incompatible materials and food and drink. Keep container tightly closed and sealed until ready for use. Containers that have been opened must be carefully resealed and kept upright to prevent leakage. Do not store in unlabeled containers. Use appropriate containment to avoid environmental contamination.

## 8 . Exposure controls/personal protection

- Engineering measures** No special ventilation requirements. Good general ventilation should be sufficient to control worker exposure to airborne contaminants. If this product contains ingredients with exposure limits, use process enclosure, local exhaust ventilation or other engineering controls to keep worker exposure below any recommended statutory limits.
- Hygiene measures** Wash hands, forearms and face thoroughly after handling chemical products, before eating, smoking or using the lavatory and at the end of the working period. Appropriate techniques should be used to remove potentially contaminated clothing. Wash contaminated clothing before reusing. Ensure that eyewash stations and safety showers are close to the workstation location.
- Personal protection**
- Respiratory** None required with adequate ventilation.
- Hands** Chemical-resistant, impervious gloves complying with an approved standard should be worn at all times when handling chemical products if a risk assessment indicates this is necessary.
- Eyes** Safety eyewear complying with an approved standard should be used when a risk assessment indicates it is necessary to avoid exposure to liquid splashes, mists or dusts.
- Skin** Personal protective equipment for the body should be selected based on the task being performed and the risks involved and should be approved by a specialist before handling this product.

## 9 . Physical and chemical properties

<b>Physical state</b>	Liquid	<b>Boiling/condensation point</b>	100°C (212°F)
<b>Color</b>	Light Yellow	<b>Melting/freezing point</b>	0°C (32°F)
<b>Odor</b>	Amine-like	<b>Vapor pressure</b>	<4 kPa (<30 mm Hg)
<b>VOC</b>	<15%	<b>Vapor density</b>	<1 [Air = 1]
<b>pH</b>	7 to 8		
<b>Specific Gravity:</b>	1.05 gm/ml		

## 10 . Stability and reactivity

- Chemical stability** The product is stable.
- Hazardous polymerization** Under normal conditions of storage and use, hazardous polymerization will not occur.
- Conditions to avoid** No specific data.
- Materials to avoid** No specific data.
- Hazardous decomposition products** Under normal conditions of storage and use, hazardous decomposition products should not be produced.
- Hazardous thermal decomposition products** No specific data.

## 11 . Toxicological information

- Acute toxicity**
- Conclusion/Summary** Not available
- Chronic toxicity**
- Conclusion/Summary** Not available
- Potential chronic health effects due to overexposure**
- Carcinogenicity** No known significant effects or critical hazards.
- Mutagenicity** No known significant effects or critical hazards.
- Teratogenicity** No known significant effects or critical hazards.
- Developmental effects** No known significant effects or critical hazards.
- Fertility effects** No known significant effects or critical hazards.

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### 12 . Ecological information

**Environmental effects** No known significant effects or critical hazards.

**Aquatic ecotoxicity**

**Conclusion/Summary** Not available

**Biodegradability**

**Conclusion/Summary** Not available

### 13 . Disposal considerations

**Waste disposal** Disposal of this product, solutions and any by-products should at all times comply with the requirements of environmental protection and waste disposal legislation and any regional local authority requirements.

Disposal should be in accordance with applicable regional, national and local laws and regulations.

Refer to Section 7: HANDLING AND STORAGE and Section 8: EXPOSURE CONTROLS/PERSONAL PROTECTION for additional handling information and protection of employees.

### 14 . Transport information

Regulatory information	UN number	Proper shipping name	Classes	PG*	Label	Additional information
DOT Classification	Not regulated	-	-	-		-
IMDG Class	Not regulated	-	-	-		-
IATA-DGR Class	Not regulated	-	-	-		-

PG\* : Packing group

### 15 . Regulatory information

**HCS Classification** Not regulated

**United States inventory (TSCA 8b)** Not determined.

### 16 . Other information

**Date of issue** 11/30/2009.

**Date of previous issue** 10/9/2009.

**Version** 0.02

 Indicates information that has changed from previously issued version.

**Notice to reader**

To the best of our knowledge, the information contained herein is accurate. However, neither the above-named supplier, nor any of its subsidiaries, assumes any liability whatsoever for the accuracy or completeness of the information contained herein.

Final determination of suitability of any material is the sole responsibility of the user. All materials may present unknown hazards and should be used with caution. Although certain hazards are described herein, we cannot guarantee that these are the only hazards that exist.