



## MATERIAL SAFETY DATA SHEET

PRODUCT: 253-1100 Part B

Prepared: 22 March 2011  
Supersedes: N/A

### SECTION 1: PRODUCT AND COMPANY IDENTIFICATION

**Product:** 253-1100 Part B  
**Chemical Family:** Aromatic isocyanate  
**Product Use:** Fence Post Composite Backfill  
**Responsible Party:** Chemque, Inc.  
266 Humberline Drive  
Rexdale, ON  
M9W 5X1 CANADA  
**Telephone Number:** (416) 679-5676  
**In Emergency Only:** CANUTEC Collect: (613) 996-6666 (24-hour hotline)  
Information: (613) 992-4624

### SECTION 2: HAZARDS IDENTIFICATION

**Emergency Overview:** Dark amber liquid.  
Slight, aromatic odour.  
May be toxic by inhalation.  
Harmful if swallowed.  
May cause eye, skin, and/or respiratory tract irritation.  
Potential skin, respiratory sensitizer.

**Potential Health Effects:** Eyes – Irritant. May cause redness.  
Skin – Irritant. Prolonged or repeated contact can lead to reddening, drying and blistering. Sensitizer.  
Inhalation – Irritant. Sensitizer. Highly toxic by inhalation of isocyanate vapours. May cause breathlessness, chest discomfort and reduced pulmonary function.  
Ingestion – Irritant. May cause adverse health effects.  
Chronic Effects – Prolonged or repeated inhalation of isocyanate vapours can cause lung damage. Heating of the product can release additional vapours. This product should not be used without adequate ventilation.

### SECTION 3: HAZARDOUS INGREDIENT INFORMATION

Ingredient	% (W/W)	CAS Number
Polymeric diphenylmethane diisocyanate	30-60	9016-87-9
Diphenylmethane-4,4'-diisocyanate	30-60	101-68-8
Methylenediphenyl diisocyanate	5-10	26447-40-5

### SECTION 4: FIRST AID MEASURES

**Eyes:** Flush eyes with water for 15 minutes. Call a physician if irritation occurs.

**Skin:** Remove affected clothing. Wash skin with soap and water immediately. Wash contaminated clothing before re-use. Contact physician if irritation occurs.

**Inhalation:** Move to fresh air. If breathing difficulties occurs, administer oxygen and seek medical attention.



## MATERIAL SAFETY DATA SHEET

PRODUCT: 253-1100 Part B

Prepared: 22 March 2011  
Supersedes: N/A

**Ingestion:** Drink 1-2 cups of milk or water. Do not induce vomiting. Call a physician.

### SECTION 5: FIRE FIGHTING MEASURES

**Flammable Properties:** N/E  
**Extinguishing Media:** CO<sub>2</sub>, dry chemical, foam, water fog. Do not use water jet.  
**Hazardous Combustion Products:** Carbon monoxide, carbon dioxide, nitrous gases.  
**Protection of Fire Fighters:** Self-contained breathing apparatus and full protective clothing should be worn by fire fighters.

### SECTION 6: ACCIDENTAL RELEASE MEASURES

**Personal Precautions:** Use personal protective equipment as recommended in Section 8.  
**Environmental Precautions:** Do not empty into drains or discharge into the soil/subsoil.  
**Methods for Containment:** Cover spill with absorbent material. Place in an open-top container or on a plastic sheet and remove to ventilated area. Remove for disposal.  
**Methods for Clean-Up:** Clean spill area with a solution of 90% water, 8% ammonia and 2% detergent.

### SECTION 7: HANDLING AND STORAGE

**General Warning to Prevent Exposure:** Do not breathe fumes or vapours.  
Avoid contact with eyes, skin and clothing.  
Wash thoroughly after handling.  
**General Storage Information:** Store in tightly-sealed containers in a cool, dry area.  
Keep away from moisture.

### SECTION 8: EXPOSURE CONTROLS AND PERSONAL PROTECTION

Ingredient	Exposure Limit	Unit
Diphenylmethane 4,4'-diisocyanate	0.005 (TLV – TWA)	ppm
Methylenediphenyl diisocyanate	No PEL established	
Polymeric diphenylmethane diisocyanate	0.05 (TLV ACGIH)	mg/m <sup>3</sup>

**Engineering Controls:** Use local exhaust ventilation to keep vapour concentrations below TLV.  
**Personal Protective Equipment:**  
Eyes: Safety glasses or goggles; face shield if risk of splashing is present.  
Skin: Rubber gloves; chemical apron if risk of splashing is present.  
Inhalation: Approved organic respirator if TLV is exceeded.  
Other: Safety shower, eye bath.

**MATERIAL SAFETY DATA SHEET****PRODUCT:** 253-1100 Part BPrepared: 22 March 2011  
Supersedes: N/A**SECTION 9: PHYSICAL AND CHEMICAL PROPERTIES**

<b>Appearance:</b>	Dark amber liquid
<b>Odour:</b>	Slight aromatic odour
<b>Melting Point:</b>	N/E
<b>Boiling Point:</b>	200 C (392° F) @ 5 mmHg
<b>Flash Point (Method):</b>	220 C (428° F) (Open Cup)
<b>Evaporation Rate:</b>	N/E
<b>Upper/Lower Flammable Limits:</b>	N/E
<b>Vapour Pressure @ 25 C:</b>	0.0001 mmHg
<b>Vapour Density:</b>	N/E
<b>Specific Gravity @ 25 C</b>	1.2 g/ml
<b>Solubility:</b>	Reactive with water
<b>VOC content:</b>	Contains no volatile organic compounds

**SECTION 10: STABILITY AND REACTIVITY**

<b>Chemical Stability:</b>	Stable.
<b>Conditions to Avoid:</b>	Moisture.
<b>Incompatible Materials:</b>	Water, alcohols, acids, amines, alkalines.
<b>Hazardous Decomposition Products:</b>	Carbon monoxide and carbon dioxide on combustion. Possible nitrogen oxides or cyanide-type gas.
<b>Possibility of Hazardous Reactions:</b>	Possibility of hazardous polymerization if contacted with excessive moisture or with other materials that react with isocyanates.

**SECTION 11: TOXICOLOGICAL INFORMATION**

<b>Acute Dose Toxicity:</b>	Polymeric diphenylmethane diisocyanate	Oral, LD <sub>50</sub> :	> 5000 mg/kg (rat)
	Methylenediphenyl diisocyanate	Oral, LD <sub>50</sub> :	15800 mg/kg (rat)
		Dermal LD <sub>50</sub> :	7900 mg/kg (rabbit)
	Diphenylmethane-4,4'-diisocyanate	Oral, LD <sub>50</sub> :	9200 mg/kg (mouse)
<b>Repeated Dose Toxicity:</b>	N/E		
<b>Sensitization:</b>	May cause sensitization by skin contact or by inhalation.		
<b>Carcinogenicity:</b>	N/E		
<b>Neurological Effects:</b>	N/E		
<b>Genetic Effects:</b>	N/E		
<b>Reproductive Effects:</b>	N/E		
<b>Developmental Effects:</b>	N/E		
<b>Target Organ Effects:</b>	Lungs – chronic inhalation can cause respiratory distress and respiratory impairments.		



## MATERIAL SAFETY DATA SHEET

PRODUCT: 253-1100 Part B

Prepared: 22 March 2011  
Supersedes: N/A

### SECTION 12: ECOLOGICAL INFORMATION

**Biodegradability:** Not readily biodegradable.

### SECTION 13: DISPOSAL CONSIDERATIONS

Recover or recycle if possible.  
Dispose of this material in accordance with local, provincial and federal laws and regulations.  
All provided information only applies to the material as supplied to the user. The characteristics outlined may not apply if the material has been used or otherwise contaminated. It is the responsibility of the user to determine the proper waste identification and disposal methods in compliance with applicable regulations.

### SECTION 14: TRANSPORT INFORMATION

NOT REGULATED FOR TRANSPORT

### SECTION 15: REGULATORY INFORMATION

**Canadian Regulations:** As per WHMIS, this material is classified:  
[D2A](#), [D2B](#)  
All of the components of this material appear on the "Domestic Substances List" (DSL).  
This product has been classified in accordance with the hazard criteria of the *Controlled Products Regulations* and the MSDS contains all of the information required in the *Controlled Products Regulations*.

**US Regulations:** This material is classified as hazardous under OSHA regulation 29 CFR 1910.1200.  
SARA Title III.  
All of the components of this material appear on the "Toxic Substances Control Act" (TSCA) inventory.

### SECTION 16: OTHER INFORMATION

Abbreviations:	N/E	Not established
	TLV	Threshold Limit Value
	TWA	Time-Weighted Average

The conditions of your use and application of our products, technical assistance and information (whether verbal, written or by way of production evaluations), including any suggested method of application and recommendations, are beyond our control. Therefore, it is imperative that you test our products, technical assistance and information to determine to your own satisfaction whether they are suitable for your intended uses and applications. This application-specific analysis must at least include testing to determine suitability from a technical as well as health, safety, and environmental standpoint. Such testing has not necessarily been done at Chemque. All technical assistance and information provided with respect to Chemque's products is subject to Chemque's Terms and Conditions, including the limited warranty therein. Chemque's Terms and Conditions appear on the reverse side of Chemque's credit applications and invoices and are available upon your request. Except as expressly provided in the Terms and Conditions, Chemque excludes all express and implied warranties, representations, conditions and objections, whether statutory or otherwise, concerning the quality of the products of Chemque or their fitness for any particular purpose. It is expressly understood and agreed that the customer assumes and hereby expressly releases Chemque from all liability, in tort, contract, or otherwise, incurred in connection with the use of our products, technical assistance and information. Any statement or recommendation not contained herein is unauthorized and shall not bind Chemque. Nothing herein shall be construed as a recommendation to use any product in conflict with patents covering any material or its use. No license is implied or in fact granted under the claims of any patent