



## MATERIAL SAFETY DATA SHEET

**PRODUCT:** Q-Seal 290S (Grey or Black)

Prepared: 28 July, 2008  
Supersedes: 9 March, 2006

### SECTION 1: PRODUCT AND COMPANY IDENTIFICATION

**Product:** Q-Seal 290S (grey/black)  
**Chemical Family:** Polyurethane prepolymer  
**Product Use:** Loop detector sealant  
**Responsible Party:** Chemque, Inc.  
266 Humberline Drive  
Rexdale, ON M9W 5X1  
**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:** Thick liquid, grey or black.  
Sweet odour.  
May cause eye, skin and/or respiratory tract irritation.  
Potential skin/respiratory sensitizer.  
Combustible.

**Potential Health Effects:** Eyes –Irritant.  
Skin – Irritant. Prolonged exposure may cause dermatitis and possible sensitization.  
Inhalation – Can cause nausea, headaches, and possible respiratory tract sensitization.  
Ingestion – Harmful if swallowed. Causes irritation to the gastrointestinal tract.  
Chronic Effects – Prolonged or repeated inhalation of isocyanate vapours can cause lung damage. Heating of the product may release additional vapours.

### SECTION 3: HAZARDOUS INGREDIENT INFORMATION

Ingredient	% (W/W)	CAS Number
Styrene	0.5 – 1.5	100-42-5
Diphenylmethane-4,4-diisocyanate	0.1 – 1.0	101-68-8
Di-(2-ethylhexyl) phthalate	1 – 5	117-81-7
Polymeric diphenylmethane diisocyanate	3 – 7	9016-87-9
Benzenesulfonyl isocyanate,4-methyl	0.1-1	4083-64-1
1-Methoxy-2-propanol acetate	10-30	108-65-6

### SECTION 4: FIRST AID MEASURES

**Eyes:** Flush eyes with water for 15 minutes. If irritation occurs, consult a physician.  
**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. Administer oxygen if necessary. Seek medical attention.  
**Ingestion:** Do not induce vomiting. Give water or milk. Consult a physician.



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### SECTION 5: FIRE FIGHTING MEASURES

<b>Flammable Properties:</b>	Product is combustible. Isolate from excessive heat, electrical equipment, sparks, open flame and all ignition sources. Closed containers adjacent to heat sources could explode due to build-up of pressure.
<b>Extinguishing Media:</b>	CO <sub>2</sub> , foam, dry chemical
<b>Protection of Fire Fighters:</b>	Self contained breathing apparatus and full protective clothing should be worn by fire fighters.

### SECTION 6: ACCIDENTAL RELEASE MEASURES

<b>Personal Precautions:</b>	Use personal protective equipment as recommended in Section 8.
<b>Environmental Precautions:</b>	Uncured product is hazardous waste. Do not empty into drains or discharge into the soil/subsoil.
<b>Methods for Containment:</b>	Cover spill with loose absorbent material. Place in open containers and treat with dilute ammonium hydroxide for 24 hours. Allow volatiles to evaporate.
<b>Methods for Clean-Up:</b>	Remove cured material for disposal.

### SECTION 7: HANDLING AND STORAGE

<b>General Warning to Prevent Exposure:</b>	Do not breathe fumes or vapours. Avoid contact with eyes, skin, and clothing. Wash thoroughly after handling.
<b>General Storage Information:</b>	Store away from heat and ignition sources. Store in tightly-sealed containers in a cool, dry area, away from moisture. Inspect containers regularly to ensure that product is not gassing.

### SECTION 8: EXPOSURE CONTROLS AND PERSONAL PROTECTION



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Ingredient	Exposure Limit	Unit
Styrene	50 (TWA-CAD ON OEL)	ppm
Diphenylmethane-4,4-diisocyanate	0.005 (TLV – TWA)	ppm
Di-(2-ethylhexyl) phthalate	5 (TLV – TWA)	mg/m <sup>3</sup>
Polymeric diphenylmethane diisocyanate	N/E	---
<b>Engineering Controls:</b>	For indoor use, local exhaust ventilation to keep vapour concentrations below TLV.	
<b>Personal Protective Equipment:</b>	<u>Eyes:</u> Safety glasses or goggles; face shield if risk of splashing is present. <u>Skin:</u> Chemical resistant gloves (rubber or plastic). Protective clothing and boots to prevent skin contact. <u>Inhalation:</u> For confined spaces, use a NIOSH-approved organic respirator if TLV is exceeded. For outdoor applications, no respirator is required. <u>Other:</u> Eye wash.	

### SECTION 9: PHYSICAL AND CHEMICAL PROPERTIES

<b>Appearance:</b>	Thick liquid, grey or black in colour.
<b>Odour:</b>	Sweet.
<b>Melting Point:</b>	N/E
<b>Boiling Point:</b>	N/E
<b>Flash Point:</b>	55 C (131 F) Closed Cup
<b>Evaporation Rate:</b> <small>(Butyl acetate = 1)</small>	N/E
<b>Upper/Lower Flammable Limits:</b>	N/E
<b>Vapour Pressure @ 20°C:</b>	N/E
<b>Vapour Density:</b>	N/E
<b>Specific Gravity:@ 25 C</b>	1.32
<b>Solubility:</b>	Insoluble.
<b>VOC content:</b>	Less than 25%.

### SECTION 10: STABILITY AND REACTIVITY

<b>Chemical Stability:</b>	Stable
<b>Conditions to Avoid:</b>	Excessive heat, moisture.
<b>Incompatible Materials:</b>	Water, strong bases and alcohols, peroxides.
<b>Hazardous Decomposition Products:</b>	Carbon dioxide and carbon monoxide .
<b>Possibility of Hazardous Reactions:</b>	N/E



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### SECTION 11: TOXICOLOGICAL INFORMATION

<b>Acute Dose Toxicity:</b>	Styrene	Oral, LD <sub>50</sub> :	2650 mg/kg (rat)
		Inhalation, LC <sub>50</sub> :	2800 ppm (rat)
	Di-(2-ethylhexyl) phthalate	Dermal, LD <sub>50</sub> :	25000 mg/kg (rabbit)
		Oral, LD <sub>50</sub> :	30600 mg/kg (rat)
	Polymeric diphenylmethane disocyanate	Dermal, LD <sub>50</sub> :	> 5000 mg/kg (rabbit)
		Oral, LD <sub>50</sub> :	> 5000 mg/kg (rat)
		Inhalation, LC <sub>50</sub> :	490 mg/m <sup>3</sup> /4h (rat)
	1-Methoxy-2-propanol acetate	Oral, LD <sub>50</sub> :	8532 mg/kg (rat)
		Dermal, LD <sub>50</sub> :	> 5000 mg/kg (rabbit)
<b>Repeated Dose Toxicity:</b>	N/E		
<b>Sensitization:</b>	May cause sensitization by skin contact or by inhalation.		
<b>Carcinogenicity:</b>	Styrene is classed as an IARC group 2B carcinogen. Di(2-ethylhexyl) phthalate is classed as a group 3 carcinogen.		
<b>Neurological Effects:</b>	Chronic exposure to styrene can cause central nervous system depression.		
<b>Genetic Effects:</b>	N/E		
<b>Reproductive Effects:</b>	Styrene has shown reproductive effects in animal studies.		
<b>Developmental Effects:</b>	N/E		
<b>Target Organ Effects:</b>	<u>Lungs</u> – Chronic inhalation can cause respiratory distress/impairments.		

### 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:  
B3 (Combustible Liquid)  
D1A ("Poisonous Material Causing Serious and Toxic Effects") – Very Toxic  
D2A ("Poisonous Material Causing Serious and Toxic Effects") – Very Toxic  
D2B ("Poisonous Material Causing Serious and Toxic Effects") - Toxic



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**US Regulations:**

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*.

This material is classified as hazardous under OSHA regulation 29 CFR 1910.1200.  
SARA Title III: This product contains the following chemicals subject to the reporting requirements of section 313 of the Emergency Planning and Community Right-To-Know Act (EPCRA) of 1986 and 40 CFR 372:  
Styrene, CAS# 100-42-5;  
Diphenylmethane-4,4-diisocyanate, CAS# 101-68-8;  
Di(2-ethylhexyl) phthalate, CAS# 117-81-7;  
Polymeric diphenylmethane diisocyanate, CAS# 9016-87-9.  
All of the components of this material appear on the "Toxic Substances Control Act" (TSCA) inventory.

**SECTION 16: OTHER INFORMATION**

<b>Abbreviations:</b>	N/E	Not established
	TLV	Threshold Limit Value
	TWA	Time-weighted average

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