Distributed by

Rainbow Technology Corp.

Tel: 1.800.637.6047 / 205.733.0333 RTC Product #79516, 79541, 79543



MATERIAL SAFETY DATA SHEET

PRODUCT: Q-Tel 2032 Polyol

Prepared: 26 April 2010 Supersedes: 31 May 2007

SECTION 1: PRODUCT AND COMPANY IDENTIFICATION

Q-Tel 2032 Polyol **Product Name:**

Chemical Family: Polyurethane Polyols **Duct Sealing Foam Product Use:**

Manufacturer: Chemque, Inc.

266 Humberline Drive

Rexdale, ON

M9W 5X1 CANADA

(416) 679-5676 **Telephone Number:**

CANUTEC Collect: + 1 (613) 996-6666 (24-hour hotline) In Emergency Only:

+ 1 (613) 992-4624 Information:

SECTION 2: HAZARDOUS INGREDIENT INFORMATION

CONTAINS NO HAZARDOUS INGREDIENTS

SECTION 3: HAZARDS IDENTIFICATION

Emergency Overview: Clear, amber liquid.

Slightly sweet odour.

Eyes - Not expected to cause irritation. Potential Health Effects:

> Skin - Not expected to cause irritation. <u>Inhalation</u> – Not expected to cause irritation. Ingestion - Not expected to be a hazard.

Chronic Effects - None known.

SECTION 4: FIRST AID MEASURES

Flush eyes with water for 15 minutes. If irritation persists, consult a physician. Eyes:

Wash thoroughly with soap and water. Remove and wash clothing before re-use. Skin:

Move to fresh air; no adverse effects likely. Inhalation: Ingestion: Induce vomiting, drink water; call a physician.

SECTION 5: FIRE FIGHTING MEASURES

Flammable Properties: No unusual fire or explosion hazards. CO₂, water spray, foam, dry chemical. **Extinguishing Media:**

Hazardous

Combustion Products:

Protection of Fire

Self contained breathing apparatus and full protective clothing should be worn

Fighters: by fire fighters.



MATERIAL SAFETY DATA SHEET

PRODUCT: Q-Tel 2032 Polyol

Prepared: 26 April 2010 Supersedes: 31 May 2007

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. Cover spill with absorbent material. Remove for disposal. **Methods for Containment:**

Methods for Clean-Up: Wash affected area thoroughly with soap and water.

SECTION 7: HANDLING AND STORAGE

Avoid contact with eyes, skin, and clothing. **General Warning to Prevent**

Wash thoroughly after handling. Exposure:

Store in tightly-sealed containers in a cool, dry, well-ventilated area. **General Storage**

Unit Ingredient **Exposure Limit**

SECTION 8: EXPOSURE CONTROLS AND PERSONAL PROTECTION

CONTAINS NO HAZARDOUS INGREDIENTS

Engineering Controls: Use local exhaust ventilation to keep vapour concentrations low.

Personal Protective Eyes: Safety glasses or goggles; face shield if risk of splashing is present. Skin: Rubber or plastic gloves; chemical apron if risk of splashing is present. **Equipment:**

Inhalation: None required.

Other: Safety shower, eye bath.

SECTION 9: PHYSICAL AND CHEMICAL PROPERTIES

Clear amber, low-viscosity liquid Appearance:

Mild, slightly sweet odour Odour:

N/E Melting Point (°C): **Boiling Point (°C):** N/E

Flash Point: 185°C (Cleveland Open Cup)

N/E **Evaporation Rate: Upper/Lower Flammable**

Limits:

Information:

N/E

Vapour Pressure @ 25°C: N/E Vapour Density: N/E **Specific Gravity:** 1.06

Solubility: Partially soluble

VOC content: N/E



MATERIAL SAFETY DATA SHEET

PRODUCT: Q-Tel 2032 Polyol

Prepared: 26 April 2010 Supersedes: 31 May 2007

SECTION 10: STABILITY AND REACTIVITY

Chemical Stability: Stable
Conditions to Avoid: None

Incompatible Materials: Strong oxidizers, acids, alkalines and metals, amines
Hazardous Decomposition Products: Carbon dioxide and carbon monoxide on combustion

Possibility of Hazardous Reactions: Will not occur

SECTION 11: TOXICOLOGICAL INFORMATION

Acute Dose Toxicity: N/A

Repeated Dose Toxicity: None known.

Sensitization: Not a known sensitizer.

Carcinogenicity: Not a known carcinogen.

Neurological Effects: N/E
Genetic Effects: N/E
Reproductive Effects: N/E
Developmental Effects: N/E

Target Organ Effects: N/E

SECTION 12: ECOLOGICAL INFORMATION

Biodegradability Not readily biodegradable.

Other Do not flush into surface water or sanitary sewer system.

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



MATERIAL SAFETY DATA SHEET

PRODUCT: Q-Tel 2032 Polyol

Prepared: 26 April 2010 Supersedes: 31 May 2007

SECTION 15: REGULATORY INFORMATION

EU Regulations:

Name of material:

Q-Tel 2032 Polyol

Country of Origin:

Canada

This product has been classified and labelled in accordance with EU directives 67/548/EEC and 1999/45/EC and their adaptations and

annexes.

Canadian Regulations:

This material is not classified as hazardous under the WHMIS

classification system.

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 not classified as hazardous.

All of the components of this material appear on the "Toxic Substances

Control Act" (TSCA) inventory.

SECTION 16: OTHER INFORMATION

Abbreviations:

N/E TLV Not Established

TWA

Threshold Limit Value 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



MATERIAL SAFETY DATA SHEET

PRODUCT: Q-Tel 2032 Isocyanate

Prepared: 26 April 2010 Supersedes: 7 September 2007

SECTION 1: PRODUCT AND COMPANY IDENTIFICATION

Product: Q-Tel 2032 Isocyanate
Chemical Family: Aromatic Isocyanate
Product Use: Duct Sealing Foam

Responsible Party: Chemque, Inc.

266 Humberline Drive

Rexdale, ON M9W 5X1 CANADA

Telephone Number: (416) 679-5676

In Emergency Only: CANUTEC Collect: + 1 (613) 996-6666 (24-hour hotline)

Information: + 1 (613) 992-4624

SECTION 2: HAZARDS IDENTIFICATION

Emergency Overview: Light amber-brown liquid. Slight oour.

Hazardous in case of inhalation and eye and skin contact.

Potential skin and respiratory sensitizer.

Potential Health Effects: Eyes - Irritant.

Skin - Irritant. Prolonged or repeated contact can lead to reddening, drying

and blistering. Sensitizer.

<u>Inhalation</u> – Highly toxic by inhalation of aerosol or mist. Sensitizer. <u>Ingestion</u> – May cause irritation. Aspiration hazard if swallowed.

<u>Chronic Effects</u> – Prolonged or repeated inhalation of isocyanate vapours can cause lung damage. Heating of the product may release additional

vapours.

This product has been classified and labelled in accordance with EU directives 67/548/EEC and

1999/45/EC and their adaptations and annexes.

SECTION 3: HAZARDOUS INGREDIENT INFORMATION SECTION Ingredient % (W/W) CAS Number EC # Risk/Safety Phrases

Polymeric Diphenylmethane 30-60 9016-87-9 Not Listed R:23-36/37/38-42/43 Diisocyanate

4,4'Diphenylmethane diisocyanate 30-60 101-68-8 202-966-0 R20-36/37/38-42/43-48/20

See section 15 for further information on EU classification.



MATERIAL SAFETY DATA SHEET

PRODUCT: Q-Tel 2032 Isocyanate

Prepared: 26 April 2010 Supersedes: 7 September 2007

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 occur, administer oxygen and seek medical

attention.

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

SECTION 5: FIRE FIGHTING MEASURES

Flammable Properties: Reacts slowly with water to produce CO2 which may rupture closed

containers. Reaction accelerates at higher temperatures.

Hazardous Combustion

Products:

CO, CO2, Nitrous Oxide, HCN and hydrocarbons.

Extinguishing Media: CO₂, dry chemical, foam, water spray (fog). Do not use water jet.

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: Clean-up should only be performed by trained personnel.

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% ammonium hydroxide

and 2% detergent.

SECTION 7: HANDLING AND STORAGE

General Warning to Prevent

ent Do

Do not breathe fumes or vapours.

Exposure:

Avoid contact with eyes, skin and clothing.

Wash thoroughly after handling.

General Storage

Store in tightly-sealed containers in a cool, dry area.

Information:

Keep away from moisture.



MATERIAL SAFETY DATA SHEET

PRODUCT: Q-Tel 2032 Isocyanate

Prepared: 26 April 2010 Supersedes: 7 September 2007

SECTION 8: EXPOSURE CONTROLS AND PERSONAL PROTECTION

Unit Ingredient **Exposure Limit** Polymeric Diphenylmethane Diisocyanate 0.005 (ACGIH/TLV) ppm 4,4'Diphenylmethane diisocyanate 0.005 (ACGIH/TLV) ppm

Use local exhaust ventilation to keep vapour concentrations below TLV. **Engineering Controls:**

Eyes: Safety glasses or goggles; face shield if risk of splashing is **Personal Protective**

Equipment: present. Skin: Rubber gloves and protective clothing to prevent skin contact.

Inhalation: Approved organic respirator if TLV is exceeded.

Other: Safety shower, eye bath.

SECTION 9: PHYSICAL AND CHEMICAL PROPERTIES

Amber-brown liquid Appearance: Odour: Slightly musty

N/E **Melting Point:**

Boiling Point: > 300 C (decomposes)

Flash Point: > 203 C (397.4 F) Closed Cup

Evaporation Rate: N/E

Upper/Lower Flammable N/E Limits:

Vapour Pressure @ 25°C: 0.000004 mmHg

Vapour Density: 8.5 Specific Gravity: @ 25 C 1.23 N/E Solubility: **VOC** content: N/E

SECTION 10: STABILITY AND REACTIVITY

Chemical Stability: Stable

Conditions to Avoid: Moisture, excessive heat

Incompatible Materials: Water, strong bases, acids, alcohols, amines. **Hazardous Decomposition** CO, CO2, Nitrous oxides, HCN, hydrocarbons

Products:

Possibility of Hazardous

Possibility of hazardous polymerization if contacted with excessive moisture

or with other materials that react with isocyanates. Reactions:



MATERIAL SAFETY DATA SHEET

PRODUCT: Q-Tel 2032 Isocyanate

Prepared: 26 April 2010 Supersedes: 7 September 2007

SECTION 11: TOXICOLOGICAL INFORMATION

Acute Dose Toxicity: Polymeric diphenylmethane

diisocyanate

Oral LD_{50:}

> 5000 mg/kg (rat)

Dermal LD_{50:} > 5000 mg/kg (rabbit)

Inhalation LC₅₀ 490 mg/m³/4h (rat)

4,4'Diphenylmethane diisocyanate Oral LD_{50:} > 5000 mg/kg (rat)

Dermal LD_{50:} > 5000 mg/kg (rabbit)

Inhalation LC₅₀ 490 mg/m³/4h (rat)

Repeated Dose Toxicity: N/E

Sensitization:

May cause sensitisation by skin contact or by inhalation.

Carcinogenicity:

Not listed as a Carcinogen by ACGIH, IARC, NTP.

Neurological Effects: N/E.

Genetic Effects: N/E

Reproductive Effects:

Reproductive Effects: No adverse effects are anticipated.

Developmental Effects: No adverse effects are anticipated.

Target Organ Effects:

Lungs - chronic inhalation can cause respiratory distress and respiratory

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

TDG NOT REGULATED

DOT NOT REGULATED < 5000 lbs.



MATERIAL SAFETY DATA SHEET

PRODUCT: Q-Tel 2032 Isocyanate

Prepared: 26 April 2010 Supersedes: 7 September 2007

SECTION 15: REGULATORY INFORMATION

EU Regulations:

Name of material:

Q-Tel 2032 Isocyanate

Country of Origin:

Canada

Hazards:

T - Toxic:

R23: Toxic by inhalation

R36/37/38: Irritating to eyes, respiratory system and skin R42/43: May cause sensitisation by inhalation and skin contact

R48/20: Harmful: danger of serious damage to health by prolonged exposure through

nhalation

\$23: Do not breathe gas/fumes/vapour/spray

S36/37/39: Wear suitable protective clothing, gloves and eye/face protection

S38: In case of insufficient ventilation wear suitable respiratory equipment

S45: In case of accident or if you feel unwell seek medical advice immediately (show the label where possible)

This product has been classified and labelled in accordance with EU directives

67/548/EEC and 1999/45/EC and their adaptations and annexes.

Canadian

Regulations:

As per WHMIS, this material is classified:

D1A, D2A, D2B All of the components of this material appear on the "Domestic Substances

List".

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. All of the components of this material appear on the "Toxic Substances Control Act"

(TSCA) inventory.

SECTION 16: OTHER INFORMATION

Abbreviations:

N/E TLV Not established

TWA

Threshold Limit Value 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.