Section 1 - Product and Company Identification

Material Name: CertaSpray PK A
Product Code: CT-10151-1
Product Description: Liquid
Product Use: CertaSpray PK spray foam is a two component spray foam with a non-ozone depleting blowing agent. When the CertaSpray PK A is mixed with the CertaSpray PK B under pressure in a 1:1 volumetric ratio, it expands into a high density closed-cell foam.

Manufacturer: CertainTeed Corporation
750 E. Swedesford Road
P.O. Box 860
Valley Forge, PA 19482-0105
United States
www.certainteed.com
CertainTeed - EHS@saint-gobain.com

Telephone
General: 610-341-7000
Emergency: 800-527-3887

Preparation Date: 1/13/2010
Last Revision Date: 12/10/2010

Key to abbreviations
‡ = HMIS is a registered trademark of the American Coatings Association

Section 2 - Hazards Identification

Emergency Overview

DANGER
Contains gas under pressure; may explode if heated. Toxic if inhaled. May cause respiratory irritation. May cause allergy or asthma symptoms or breathing difficulties if inhaled. Causes skin irritation. May cause an allergic skin reaction. Causes serious eye irritation.

Prevention
Avoid breathing dust, fume, gas, mist, vapours and/or spray. Do not eat, drink or smoke when using this product. In case of inadequate ventilation wear respiratory protection. Keep container tightly closed. Use only outdoors or in a well-ventilated area. Wear protective gloves, clothing, and eye/face protection. Wash thoroughly after handling. Contaminated work clothing should not be allowed out of the workplace.

Response
IF INHALED: If breathing is difficult, remove victim to fresh air and keep at rest in a position comfortable for breathing. If experiencing respiratory symptoms: Call a POISON CENTER or doctor/physician. IF ON SKIN: Wash with plenty of soap and water. If skin irritation or rash occurs: Get medical advice/attention. Remove/Take off immediately all contaminated clothing. Wash contaminated clothing before reuse. IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. If eye irritation persists: Get medical advice/attention. IF SWALLOWED: Immediately call a POISON CENTER or doctor/physician.
Storage/Disposal: Protect from sunlight. Store in a well-ventilated place. Keep container tightly closed. Store locked up. Dispose of content and/or container in accordance with local, regional, national, and/or international regulations.

Physical Form: Liquid
Color: Amber
Odor: Slightly musty.
Flash Point: 198.89 C (390.002 F)
OSHA: Compressed Gas, Highly Toxic, Irritant
WHMIS: Class A - Compressed Gas, Class D - Poisonous and Infectious Materials - Division 2 - Subdivision A, Class D - Poisonous and Infectious Materials - Division 2 - Subdivision B, Class D - Poisonous and Infectious Materials - Division 1 - Subdivision A

EU: None
GHS: Gasses Under Pressure - Compressed Gas, Specific Target Organ Toxicity Single Exposure - Category 3, Skin Corrosion/Irritation - Category 2, Serious Eye Damage, Eye Irritation - Category 2A, Respiratory Sensitizer - Category 1, Skin Sensitizer - Category 1, Acute Toxicity - Category 3

Route Of Entry: Inhalation, Skin, Eye
Target Organs: Skin/Dermal, Lungs
Medical Conditions: Pre-existing skin and respiratory conditions may be aggravated by exposure.

Potential Health Effects

Inhalation
Acute (Immediate): May cause irritation. High vapor concentrations of tetrafluoroethane cause symptoms progressing from giddiness, weakness, dizziness and nausea to unconsciousness.
Chronic (Delayed): A hyper-active response to even minimal concentrations of diisocyanates may develop in sensitized persons. The onset of the respiratory symptoms may be delayed for several hours after exposure. Repeated and prolonged exposure may cause sensitization.

Skin
Acute (Immediate): May cause irritation.
Chronic (Delayed): Repeated and prolonged exposure may cause sensitization.

Eye
Acute (Immediate): May cause irritation.
Chronic (Delayed): No data available.

Ingestion
Acute (Immediate): May cause irritation.
Chronic (Delayed): No data available.

Mutagenic Effects: Mutagenic effects not expected.
Carcinogenic Effects: No carcinogenic effects expected.
Reproductive Effects
- No reproductive effects expected.

Potential Environmental Effects
- No information available for product.

See Section 12 for Ecological Information.

### Section 3 - Composition/Information on Ingredients

#### Hazardous Components

<table>
<thead>
<tr>
<th>Chemical Name</th>
<th>CAS</th>
<th>%(weight)</th>
<th>UN;EINECS</th>
<th>LD50/LC50</th>
<th>EU Classification &amp; R Phrases</th>
<th>Other</th>
</tr>
</thead>
<tbody>
<tr>
<td>Isocyanic acid, methylenedi-p-phenylene ester</td>
<td>101-68-8</td>
<td>30% TO 60%</td>
<td>UN9004, 202-966-0</td>
<td>Ingestion/Rat LD50: =9200 mg/kg</td>
<td>Xn; R20 R48/20</td>
<td>NDA</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>Inhalation-Rat LC50: =178 mg/m³</td>
<td>Xi; R36/37/38 Carc.Cat.3; R40 R42/43</td>
<td></td>
</tr>
<tr>
<td>Polymethylene polyphenyl isocyanate</td>
<td>9016-87-9</td>
<td>30% TO 60%</td>
<td>NDA</td>
<td>Ingestion/Rat LD50: =49 g/kg</td>
<td>NDA</td>
<td>NDA</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>Inhalation-Rat LC50: =490 mg/m³/4 Hour(s)</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>Skin-Rabbit LD50: &gt;9400 mg/kg</td>
<td></td>
<td></td>
</tr>
<tr>
<td>1,1,1,2-Tetrafluoroethane</td>
<td>811-97-2</td>
<td>7% TO 13%</td>
<td>UN3159, 212-377-0</td>
<td>Inhalation-Rat LC50: =1500 g/m³/4 Hour(s)</td>
<td></td>
<td>NDA</td>
</tr>
</tbody>
</table>

Under United States Regulations (29 CFR 1900.1200 - Hazard Communication Standard) this product is considered Hazardous. In Canada, the product mentioned above is considered Hazardous under the Workplace Hazardous Materials Information System (WHMIS). According to the Globally Harmonized Standard for Classification and Labeling (GHS) this product is considered Hazardous.

See Section 11 for Toxicological Information.

### Section 4 - First Aid Measures

**Inhalation**
- Remove to fresh air. If breathing is difficult, give oxygen. If not breathing, give artificial respiration. Call a physician or poison control center.

**Skin**
- A study has demonstrated that a polyglycol-based skin cleanser or corn oil may be more effective than soap or water. Rinse skin immediately with plenty of water for 15-20 minutes. Take off contaminated clothing. Wash contaminated clothing before reuse. Call a physician or poison control center.

**Eye**
- Flush eyes with water for at least 15 minutes while holding eyelids open. If easy to do, remove contact lenses, if worn. Call a physician or poison control center.

**Ingestion**
- If swallowed, rinse mouth with water (only if the person is conscious) Move exposed person to fresh air. Do not induce vomiting unless directed to do so by medical personnel. Do not give anything by mouth to an unconscious person.

**Notes to Physician**
- Adrenalin and similar sympathomimetic drugs should be avoided following exposure as cardiac arrhythmia may result with possible subsequent cardiac arrest. Symptomatic treatment and supportive therapy as indicated. Following severe exposure the patient should be kept under medical review for at least 48 hours as delayed pulmonary edema may develop.

See Section 2 for Potential Health Effects.

### Section 5 - Fire Fighting Measures
Extinguishing Media
- LARGE FIRES: Water spray, fog or alcohol-resistant foam.
- SMALL FIRES: Dry chemical, CO2, water spray or regular foam.

Unsuitable Extinguishing Media
- None known.

Firefighting Procedures
- LARGE FIRES: Move containers from fire area if you can do it without risk.
- LARGE FIRES: Dike fire control water for later disposal; do not scatter the material.
- LARGE FIRES: Do not get water inside containers.
- FIRES INVOLVING TANKS: Fight fire from maximum distance or use unmanned hose holders or monitor nozzles.
- FIRES INVOLVING TANKS: Cool containers with flooding quantities of water until well after fire is out.
- FIRES INVOLVING TANKS OR CAR/TRAILER LOADS: Withdraw immediately in case of rising sound from venting safety devices or discoloration of tank.
- FIRES INVOLVING TANKS: ALWAYS stay away from tanks engulfed in fire.
- FIRES INVOLVING TANKS OR CAR/TRAILER LOADS: For massive fire, use unmanned hose holders or monitor nozzles; if this is impossible, withdraw from area and let fire burn.

Unusual Fire and Explosion Hazards
- Due to reaction with water producing CO2-gas, a hazardous build-up of pressure could result if contaminated containers are re-sealed. Containers may burst if overheated.

Hazardous Combustion Products
- Combustion products may include: carbon oxides (CO, CO2) nitrogen oxides (NO, NO2 etc.) hydrocarbons and HCN.

Protection of Firefighters
- Firefighters should wear appropriate protective equipment and self-contained breathing apparatus (SCBA) with a full face piece operated in positive pressure mode.

Flash Point
- 198.89 °C (390.002 F) CC (Closed Cup)

Autoignition Temperature
- > 600 °C (> 1112 F)

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Section 6 - Accidental Release Measures

Personal Precautions
- Evacuate surrounding areas. Do not touch or walk through spilled material. Do not breathe vapor or mist. Ventilate enclosed areas. Wear appropriate respirator when ventilation is inadequate. Put on appropriate personal protective equipment.

Emergency Procedures
- Eliminate all ignition sources. Stop leak if you can do it without risk. As an immediate precautionary measure, isolate spill or leak area for at least 50 meters (150 feet) in all directions.

Environmental Precautions
- Prevent entry into waterways, sewers, basements or confined areas.

Containment/Clean-up Measures
- Stop leak if you can do it without risk.
- Move containers from spill area. Contain and/or absorb spill with inert material (e.g. sand, vermiculite), then place in suitable container.
- Test atmosphere for MDI. Wash spill area clean with liquid decontaminant.

Prohibited Materials
- No data available.

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Section 7 - Handling and Storage

Handling
- Put on appropriate personal protective equipment. 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. Do not ingest. Avoid contact with eyes, skin and clothing. Avoid exposure during pregnancy. Do not breathe (dust, vapor or spray mist) Wear appropriate respirator when ventilation is inadequate.

Storage
- Keep in the original container or an approved alternative made from a compatible material, kept tightly closed when not in use. Empty containers retain product residue and can be hazardous. Do not reuse container. Do not store in containers made of copper, copper alloys or galvanized surfaces. Keep away from moisture. Due to reaction with water producing CO2-gas, a hazardous build-up of pressure could result if contaminated containers are re-sealed. Do not reseal contaminated containers. Uncontaminated containers, free of moisture, may be resealed only after placing under a nitrogen blanket.

Special Packaging Materials
- No data available
Section 8 - Exposure Controls/Personal Protection

Personal Protective Equipment

- **Pictograms**

- **Respiratory**
  - Use a properly fitted, air-purifying or air-fed respirator complying with an approved standard if a risk assessment indicates this is necessary.

- **Eye/Face**
  - Wear splash goggles.

- **Hands**
  - Chemical-resistant, impervious gloves should be worn at all times when handling this product.

- **Skin/Body**
  - Wear lab coat or other protective overgarment. Base the choice of protection on the job activity and potential for skin contact.

General Industrial Hygiene Considerations

- In accordance with good industrial hygiene practices, precautions should be taken to avoid contact. If contact occurs, wash hands, face and other potentially exposed areas immediately after handling material (especially before eating, drinking, or smoking).

Engineering Measures/Controls

- Use local exhaust ventilation to maintain airborne concentrations below the TLV. Suitable respiratory equipment should be used in cases of insufficient ventilation or where operational procedures demand it.

<table>
<thead>
<tr>
<th>Exposure Limits/Guidelines</th>
<th>Result</th>
<th>ACGIH</th>
<th>Canada British Columbia</th>
<th>Canada Manitoba</th>
<th>Canada New Brunswick</th>
<th>Canada Northwest Territories</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Isocyanic acid, methylenedi-p-phenylene ester (101-68-8)</strong></td>
<td>Ceilings</td>
<td>Not established</td>
<td>0.01 ppm Ceiling</td>
<td>Not established</td>
<td>Not established</td>
<td>0.02 ppm Ceiling; 0.2 mg/m³ Ceiling</td>
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<tr>
<td><strong>Isocyanic acid, methylenedi-p-phenylene ester (101-68-8)</strong></td>
<td>TWAs</td>
<td>0.005 ppm TWA</td>
<td>0.005 ppm TWA</td>
<td>0.005 ppm TWA</td>
<td>0.005 ppm TWA; 0.051 mg/m³ TWA</td>
<td>Not established</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Exposure Limits/Guidelines (Con't.)</th>
<th>Result</th>
<th>Canada Nova Scotia</th>
<th>Canada Nunavut</th>
<th>Canada Ontario</th>
<th>Canada Quebec</th>
<th>Canada Yukon</th>
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<tbody>
<tr>
<td><strong>Isocyanic acid, methylenedi-p-phenylene ester (101-68-8)</strong></td>
<td>TWAs</td>
<td>0.005 ppm TWA</td>
<td>Not established</td>
<td>0.005 ppm TWAEV (designated substance regulation); 0.2 µmol/m³ TWAEV (designated substance regulation)</td>
<td>0.005 ppm TWAEV; 0.051 mg/m³ TWAEV</td>
<td>Not established</td>
</tr>
<tr>
<td><strong>Ceilings</strong></td>
<td></td>
<td>Not established</td>
<td>0.02 ppm Ceiling; 0.2 mg/m³ Ceiling</td>
<td>0.02 ppm CEV (designated substances regulation); 0.8 µmol/m³ CEV (designated substances regulation)</td>
<td>Not established</td>
<td>0.02 ppm Ceiling; 0.2 mg/m³ Ceiling</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Exposure Limits/Guidelines (Con't.)</th>
<th>Result</th>
<th>NIOSH</th>
<th>OSHA</th>
<th>OSHA Vacated</th>
<th>United States - California</th>
</tr>
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<tbody>
<tr>
<td><strong>Isocyanic acid, methylenedi-p-phenylene ester (101-68-8)</strong></td>
<td>TWAs</td>
<td>0.005 ppm TWA; 0.05 mg/m³ TWA</td>
<td>Not established</td>
<td>Not established</td>
<td>0.005 ppm PEL; 0.051 mg/m³ PEL</td>
</tr>
<tr>
<td><strong>Ceilings</strong></td>
<td></td>
<td>0.020 ppm Ceiling (10 min); 0.2 mg/m³ Ceiling (10 min)</td>
<td>0.02 ppm Ceiling; 0.2 mg/m³ Ceiling</td>
<td>0.02 ppm Ceiling; 0.2 mg/m³ Ceiling</td>
<td>Not established</td>
</tr>
</tbody>
</table>
Section 9 - Physical and Chemical Properties

Physical Form: Liquid
Appearance/Description: Amber liquid with slightly musty odor.

<table>
<thead>
<tr>
<th>Property</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Color</td>
<td>Amber</td>
</tr>
<tr>
<td>Taste</td>
<td>No data available</td>
</tr>
<tr>
<td>Odor</td>
<td>Slightly musty</td>
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<tr>
<td>Odor Threshold</td>
<td>NDA</td>
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<tr>
<td>Boiling Point</td>
<td>&gt; 300 C (&gt; 572 F)</td>
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<tr>
<td>Melting Point</td>
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<tr>
<td>Specific Gravity</td>
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<tr>
<td>Density</td>
<td>NDA</td>
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<tr>
<td>Bulk Density</td>
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<td>pH</td>
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</tr>
<tr>
<td>Water Solubility</td>
<td>NDA</td>
</tr>
<tr>
<td>Solvent Solubility</td>
<td>NDA</td>
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<tr>
<td>Viscosity</td>
<td>NDA</td>
</tr>
<tr>
<td>Half-Life</td>
<td>NDA</td>
</tr>
<tr>
<td>Octanol/Water Partition coefficient</td>
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</tr>
<tr>
<td>Coefficient of water/oil distribution</td>
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</tr>
<tr>
<td>Bioaccumulation Factor</td>
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</tr>
<tr>
<td>Biochemical Oxygen Demand BOD/BOD5</td>
<td>NDA</td>
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<tr>
<td>Persistence</td>
<td>NDA</td>
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<tr>
<td>Vapour Pressure</td>
<td>NDA</td>
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<td>Vapor Density</td>
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<tr>
<td>Evaporation Rate</td>
<td>NDA</td>
</tr>
<tr>
<td>VOC (Wt.)</td>
<td>NDA</td>
</tr>
<tr>
<td>VOC (Vol.)</td>
<td>NDA</td>
</tr>
<tr>
<td>Volatiles (Wt.)</td>
<td>NDA</td>
</tr>
<tr>
<td>Volatiles (Vol.)</td>
<td>NDA</td>
</tr>
<tr>
<td>Flash Point</td>
<td>198.89 C (390.002 F)</td>
</tr>
<tr>
<td>Flash Point Test Type</td>
<td>CC (Closed Cup)</td>
</tr>
<tr>
<td>LEL</td>
<td>NDA</td>
</tr>
<tr>
<td>Degradation</td>
<td>NDA</td>
</tr>
</tbody>
</table>

Section 10 - Stability and Reactivity
Stability

▪ Stable at room temperature. Reaction with water (moisture) produces CO2-gas. Exothermic reaction with materials containing active hydrogen groups. The reaction becomes progressively more vigorous and can be violent at higher temperatures if the miscibility of the reaction partners is good or is supported by stirring or by the presence of solvents. MDI is insoluble with, and heavier than water and sinks to the bottom but reacts slowly at the interface. A solid water-insoluble layer of polyurea is formed at the interface by liberating carbon dioxide gas.

Hazardous Polymerization

▪ Polymerization will occur at elevated temperatures in the presence of alkalies, tertiary amines and metal compounds.

Conditions to Avoid

▪ High temperatures.

Incompatible Materials

▪ Water, alcohol, amines, bases and acids.

Hazardous Decomposition

▪ Combustion products may include: carbon oxides (CO, CO2) nitrogen oxides (NO, NO2 etc.) hydrocarbons and HCN.

Section 11 - Toxicological Information

May cause skin sensitization. Symptoms include redness, and skin rash. May cause respiratory sensitization.

<table>
<thead>
<tr>
<th>Component Name</th>
<th>Concentration</th>
<th>CAS</th>
<th>Data</th>
</tr>
</thead>
<tbody>
<tr>
<td>Isocyanic acid, methylenedi-p-phenylene ester</td>
<td>30% TO 60%</td>
<td>101-68-8</td>
<td>Acute Toxicity: orl-rat LD50:9200 mg/kg; ihl-rat LC50:178 mg/m3; ihl-hmn TCLo:130 ppb/30M; ihl-rat TCLo:10 mg/m3/6H/4W-I; Irritation: skn-rbt 500 mg/24H; Mutagen: dnd-hmn-ihl 20 ppb/15M-C; Reproductive: ihl-rat TCLo:9 mg/m3/6H (6-15D preg)</td>
</tr>
<tr>
<td>Polymethylene polyphenyl isocyanate</td>
<td>30% TO 60%</td>
<td>9016-87-9</td>
<td>Acute Toxicity: orl-rat LD50:49 gm/kg; ihl-rat LC50:490 mg/m3/4H; ihl-rat TCLo:4 mg/m3/6H/4W-I; skn-rbt LD50:9400 mg/kg; Irritation: eye-rbt 100 mg MLD; Reproductive: ihl-rat TCLo:12 mg/m3/6H (6-15D preg); Tumorigen/Carcinogen: ihl-rat TCLo:6 mg/m3/6H/2Y-I</td>
</tr>
<tr>
<td>1,1,1,2-Tetrafluoroethane</td>
<td>7% TO 13%</td>
<td>811-97-2</td>
<td>Acute Toxicity: ihl-rat LC50:1500 gm/m3/4H; Reproductive: ihl-rat TCLo:30 pph/6H (6-15D preg); Tumorigen/Carcinogen: ihl-rat TCLo:50000 ppm/6H/2Y-I</td>
</tr>
</tbody>
</table>

Key to abbreviations

LD = Lethal Dose
TC = Toxic Concentration
MLD = Mild
LC = Lethal Concentration

Section 12 - Ecological Information

Ecological Fate

▪ No information available for the product.

Persistence/Degradability

▪ No known significant effects or critical hazards.

Bioaccumulation Potential

▪ No information available for the product.

Mobility in Soil

▪ No information available for the product.

Section 13 - Disposal Considerations

Product

▪ The generation of waste should be avoided or minimized wherever possible. Empty containers or liners may retain some product residues. All wastes containing the material should be properly labeled. Dispose of any waste residues according to prescribed federal, state, and local guidelines, e.g., appropriately permitted chemical waste incinerator.

Packaging

▪ Empty containers or liners may retain some product residues. This material and its container must be disposed of in a safe way.

Section 14 - Transportation Information
DOT - United States - Department of Transportation
  Shipping Name: Compressed gas or gases, n.o.s.
  ID Number: UN1956
  Hazard Class: 2.2
  Labeling Class: 2.2

TDG - Canada - Transport of Dangerous Goods
  Shipping Name: Compressed gases, n.o.s.
  ID Number: UN1956
  Hazard Class: 2.2
  Labeling Class: 2.2

IMO/IMDG – International Maritime Transport
  Shipping Name: Compressed gases
  ID Number: UN1956
  Hazard Class: 2.2
  Labeling Class: 2.2

IATA - International Air Transport Association
  Shipping Name: Compressed gases
  ID Number: UN1956
  Hazard Class: 2.2
  Labeling Class: 2.2

### Section 15 - Regulatory Information

#### SARA Hazard Classifications
- Acute, Chronic

<table>
<thead>
<tr>
<th>Component</th>
<th>CAS</th>
<th>MA</th>
<th>MN</th>
<th>NJ</th>
<th>PA</th>
</tr>
</thead>
<tbody>
<tr>
<td>Isocyanic acid, methylenedi-p-phenylene ester</td>
<td>101-68-8</td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
</tr>
<tr>
<td>Polymethylene polyphenyl isocyanate</td>
<td>9016-87-9</td>
<td>No</td>
<td>No</td>
<td>Yes</td>
<td>No</td>
</tr>
<tr>
<td>1,1,1,2-Tetrafluoroethane</td>
<td>811-97-2</td>
<td>No</td>
<td>Yes</td>
<td>No</td>
<td>No</td>
</tr>
</tbody>
</table>

#### Inventory

<table>
<thead>
<tr>
<th>Component</th>
<th>CAS</th>
<th>TSCA</th>
</tr>
</thead>
<tbody>
<tr>
<td>Isocyanic acid, methylenedi-p-phenylene ester</td>
<td>101-68-8</td>
<td>Yes</td>
</tr>
<tr>
<td>Polymethylene polyphenyl isocyanate</td>
<td>9016-87-9</td>
<td>Yes</td>
</tr>
<tr>
<td>1,1,1,2-Tetrafluoroethane</td>
<td>811-97-2</td>
<td>Yes</td>
</tr>
</tbody>
</table>
Canada - List of Prohibited and Restricted Cosmetic Ingredients (The Cosmetic Ingredient Hotlist)

- 1,1,1,2-Tetrafluoroethane 811-97-2 7% TO 13% Not Listed
- Isocyanic acid, methylenedi-p-phenylene ester 101-68-8 30% TO 60% Not Listed
- Polymethylene polyphenyl isocyanate 9016-87-9 30% TO 60% Not Listed

Canada - WHMIS - Classifications of Substances

- 1,1,1,2-Tetrafluoroethane 811-97-2 7% TO 13% A
- Isocyanic acid, methylenedi-p-phenylene ester 101-68-8 30% TO 60% D1A, D2A, D2B
- Polymethylene polyphenyl isocyanate 9016-87-9 30% TO 60% D1A, D2A, D2B

Canada - WHMIS - Ingredient Disclosure List

- 1,1,1,2-Tetrafluoroethane 811-97-2 7% TO 13% Not Listed
- Isocyanic acid, methylenedi-p-phenylene ester 101-68-8 30% TO 60% 0.1 %
- Polymethylene polyphenyl isocyanate 9016-87-9 30% TO 60% Not Listed

Environment

Canada - CEPA - Priority Substances List

- 1,1,1,2-Tetrafluoroethane 811-97-2 7% TO 13% Not Listed
- Isocyanic acid, methylenedi-p-phenylene ester 101-68-8 30% TO 60% Not Listed
- Polymethylene polyphenyl isocyanate 9016-87-9 30% TO 60% Not Listed

Canada - CEPA - Schedule I - List of Toxic Substances

- 1,1,1,2-Tetrafluoroethane 811-97-2 7% TO 13% Not Listed
- Isocyanic acid, methylenedi-p-phenylene ester 101-68-8 30% TO 60% Not Listed
- Polymethylene polyphenyl isocyanate 9016-87-9 30% TO 60% Not Listed

Canada - CEPA - Schedule III Part I - Export Control List - Prohibited Substances

- 1,1,1,2-Tetrafluoroethane 811-97-2 7% TO 13% Not Listed
- Isocyanic acid, methylenedi-p-phenylene ester 101-68-8 30% TO 60% Not Listed
- Polymethylene polyphenyl isocyanate 9016-87-9 30% TO 60% Not Listed

Canada - CEPA - Schedule III Part II - Substances Subject to Notification or Consent

- 1,1,1,2-Tetrafluoroethane 811-97-2 7% TO 13% Not Listed
- Isocyanic acid, methylenedi-p-phenylene ester 101-68-8 30% TO 60% Not Listed
- Polymethylene polyphenyl isocyanate 9016-87-9 30% TO 60% Not Listed

Canada - CEPA - Schedule III Part III - Restricted Substances

- 1,1,1,2-Tetrafluoroethane 811-97-2 7% TO 13% Not Listed
- Isocyanic acid, methylenedi-p-phenylene ester 101-68-8 30% TO 60% Not Listed
- Polymethylene polyphenyl isocyanate 9016-87-9 30% TO 60% Not Listed

Canada - Council of Ministers of the Environment - Water Quality Guidelines for Agricultural Irrigation

- 1,1,1,2-Tetrafluoroethane 811-97-2 7% TO 13% Not Listed
- Isocyanic acid, methylenedi-p-phenylene ester 101-68-8 30% TO 60% Not Listed
- Polymethylene polyphenyl isocyanate 9016-87-9 30% TO 60% Not Listed

Canada - Council of Ministers of the Environment - Water Quality Guidelines for Agricultural Livestock Uses

- 1,1,1,2-Tetrafluoroethane 811-97-2 7% TO 13% Not Listed
- Isocyanic acid, methylenedi-p-phenylene ester 101-68-8 30% TO 60% Not Listed
- Polymethylene polyphenyl isocyanate 9016-87-9 30% TO 60% Not Listed

Canada - Council of Ministers of the Environment - Water Quality Guidelines for Freshwater Aquatic Life
- 1,1,1,2-Tetrafluoroethane 811-97-2 7% TO 13% Not Listed
- Isocyanic acid, methylenedi-p-phenylene ester 101-68-8 30% TO 60% Not Listed
- Polymethylene polyphenyl isocyanate 9016-87-9 30% TO 60% Not Listed

Canada - Council of Ministers of the Environment - Water Quality Guidelines for Marine Aquatic Life
- 1,1,1,2-Tetrafluoroethane 811-97-2 7% TO 13% Not Listed
- Isocyanic acid, methylenedi-p-phenylene ester 101-68-8 30% TO 60% Not Listed
- Polymethylene polyphenyl isocyanate 9016-87-9 30% TO 60% Not Listed

Canada - DWQ (Drinking Water Quality) - AOs
- 1,1,1,2-Tetrafluoroethane 811-97-2 7% TO 13% Not Listed
- Isocyanic acid, methylenedi-p-phenylene ester 101-68-8 30% TO 60% Not Listed
- Polymethylene polyphenyl isocyanate 9016-87-9 30% TO 60% Not Listed

Canada - DWQ (Drinking Water Quality) - MACs
- 1,1,1,2-Tetrafluoroethane 811-97-2 7% TO 13% Not Listed
- Isocyanic acid, methylenedi-p-phenylene ester 101-68-8 30% TO 60% Not Listed
- Polymethylene polyphenyl isocyanate 9016-87-9 30% TO 60% Not Listed

Canada - DWQ (Drinking Water Quality) - Parameters without Guidelines
- 1,1,1,2-Tetrafluoroethane 811-97-2 7% TO 13% Not Listed
- Isocyanic acid, methylenedi-p-phenylene ester 101-68-8 30% TO 60% Not Listed
- Polymethylene polyphenyl isocyanate 9016-87-9 30% TO 60% Not Listed

Canada - DWQ (Drinking Water Quality) - Radionuclide Dose Conversion Factors
- 1,1,1,2-Tetrafluoroethane 811-97-2 7% TO 13% Not Listed
- Isocyanic acid, methylenedi-p-phenylene ester 101-68-8 30% TO 60% Not Listed
- Polymethylene polyphenyl isocyanate 9016-87-9 30% TO 60% Not Listed

Canada - DWQ (Drinking Water Quality) - Radionuclide Maximum Acceptable Concentration
- 1,1,1,2-Tetrafluoroethane 811-97-2 7% TO 13% Not Listed
- Isocyanic acid, methylenedi-p-phenylene ester 101-68-8 30% TO 60% Not Listed
- Polymethylene polyphenyl isocyanate 9016-87-9 30% TO 60% Not Listed

Canada - Environmental Emergency Regulations
- 1,1,1,2-Tetrafluoroethane 811-97-2 7% TO 13% Not Listed
- Isocyanic acid, methylenedi-p-phenylene ester 101-68-8 30% TO 60% Not Listed
- Polymethylene polyphenyl isocyanate 9016-87-9 30% TO 60% Not Listed

Canada - Federal Halocarbon Regulations
- 1,1,1,2-Tetrafluoroethane 811-97-2 7% TO 13% Not Listed
- Isocyanic acid, methylenedi-p-phenylene ester 101-68-8 30% TO 60% Not Listed
- Polymethylene polyphenyl isocyanate 9016-87-9 30% TO 60% Not Listed

Canada - National Ambient Air Quality Objectives - Maximum Acceptable Levels
- 1,1,1,2-Tetrafluoroethane 811-97-2 7% TO 13% Not Listed
- Isocyanic acid, methylenedi-p-phenylene ester 101-68-8 30% TO 60% Not Listed
- Polymethylene polyphenyl isocyanate 9016-87-9 30% TO 60% Not Listed

Canada - National Ambient Air Quality Objectives - Maximum Desirable Levels
- 1,1,1,2-Tetrafluoroethane 811-97-2 7% TO 13% Not Listed
- Isocyanic acid, methylenedi-p-phenylene ester 101-68-8 30% TO 60% Not Listed
- Polymethylene polyphenyl isocyanate 9016-87-9 30% TO 60% Not Listed

Canada - National Ambient Air Quality Objectives - Maximum Tolerable Levels
- 1,1,1,2-Tetrafluoroethane 811-97-2 7% TO 13% Not Listed
- Isocyanic acid, methylenedi-p-phenylene ester 101-68-8 30% TO 60% Not Listed
- Polymethylene polyphenyl isocyanate 9016-87-9 30% TO 60% Not Listed

Canada - Ozone Depleting Substances - Schedule 2
- 1,1,1,2-Tetrafluoroethane 811-97-2 7% TO 13% Not Listed
- Isocyanic acid, methylenedi-p-phenylene ester 101-68-8 30% TO 60% Not Listed
- Polymethylene polyphenyl isocyanate 9016-87-9 30% TO 60% Not Listed

Canada - Ozone Depleting Substances - Schedule 3
- 1,1,1,2-Tetrafluoroethane 811-97-2 7% TO 13% Not Listed
- Isocyanic acid, methylenedi-p-phenylene ester 101-68-8 30% TO 60% Not Listed
- Polymethylene polyphenyl isocyanate 9016-87-9 30% TO 60% Not Listed

Canada - Ozone Depleting Substances - Schedule 4
- 1,1,1,2-Tetrafluoroethane 811-97-2 7% TO 13% Not Listed
- Isocyanic acid, methylenedi-p-phenylene ester 101-68-8 30% TO 60% Not Listed
- Polymethylene polyphenyl isocyanate 9016-87-9 30% TO 60% Not Listed

Other

Canada - Controlled Drugs - Class 1 Targeted Substances
- 1,1,1,2-Tetrafluoroethane 811-97-2 7% TO 13% Not Listed
- Isocyanic acid, methylenedi-p-phenylene ester 101-68-8 30% TO 60% Not Listed
- Polymethylene polyphenyl isocyanate 9016-87-9 30% TO 60% Not Listed

Canada - Controlled Drugs - Class 2 Targeted Substances
- 1,1,1,2-Tetrafluoroethane 811-97-2 7% TO 13% Not Listed
- Isocyanic acid, methylenedi-p-phenylene ester 101-68-8 30% TO 60% Not Listed
- Polymethylene polyphenyl isocyanate 9016-87-9 30% TO 60% Not Listed

Canada - Controlled Drugs - Class A Precursors
- 1,1,1,2-Tetrafluoroethane 811-97-2 7% TO 13% Not Listed
- Isocyanic acid, methylenedi-p-phenylene ester 101-68-8 30% TO 60% Not Listed
- Polymethylene polyphenyl isocyanate 9016-87-9 30% TO 60% Not Listed

Canada - Controlled Drugs - Class B Precursors
- 1,1,1,2-Tetrafluoroethane 811-97-2 7% TO 13% Not Listed
- Isocyanic acid, methylenedi-p-phenylene ester 101-68-8 30% TO 60% Not Listed
- Polymethylene polyphenyl isocyanate 9016-87-9 30% TO 60% Not Listed

Canada - Controlled Drugs - Exempt Precursors
- 1,1,1,2-Tetrafluoroethane 811-97-2 7% TO 13% Not Listed
- Isocyanic acid, methylenedi-p-phenylene ester 101-68-8 30% TO 60% Not Listed
- Polymethylene polyphenyl isocyanate 9016-87-9 30% TO 60% Not Listed

Canada - Controlled Drugs - Schedule I
- 1,1,1,2-Tetrafluoroethane 811-97-2 7% TO 13% Not Listed
- Isocyanic acid, methylenedi-p-phenylene ester 101-68-8 30% TO 60% Not Listed
- Polymethylene polyphenyl isocyanate 9016-87-9 30% TO 60% Not Listed

Canada - Controlled Drugs - Schedule II
- 1,1,1,2-Tetrafluoroethane 811-97-2 7% TO 13% Not Listed
- Isocyanic acid, methylenedi-p-phenylene ester 101-68-8 30% TO 60% Not Listed
- Polymethylene polyphenyl isocyanate 9016-87-9 30% TO 60% Not Listed

Canada - Controlled Drugs - Schedule III
<table>
<thead>
<tr>
<th><strong>1,1,1,2-Tetrafluoroethane</strong></th>
<th>811-97-2</th>
<th>7% TO 13%</th>
<th>Not Listed</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Isocyanic acid, methylenedi-p-phenylene ester</strong></td>
<td>101-68-8</td>
<td>30% TO 60%</td>
<td>Not Listed</td>
</tr>
<tr>
<td><strong>Polymethylene polyphenyl isocyanate</strong></td>
<td>9016-87-9</td>
<td>30% TO 60%</td>
<td>Not Listed</td>
</tr>
</tbody>
</table>

**Canada - Controlled Drugs - Schedule IV**

<table>
<thead>
<tr>
<th><strong>1,1,1,2-Tetrafluoroethane</strong></th>
<th>811-97-2</th>
<th>7% TO 13%</th>
<th>Not Listed</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Isocyanic acid, methylenedi-p-phenylene ester</strong></td>
<td>101-68-8</td>
<td>30% TO 60%</td>
<td>Not Listed</td>
</tr>
<tr>
<td><strong>Polymethylene polyphenyl isocyanate</strong></td>
<td>9016-87-9</td>
<td>30% TO 60%</td>
<td>Not Listed</td>
</tr>
</tbody>
</table>

**Canada - Controlled Drugs - Schedule V**

<table>
<thead>
<tr>
<th><strong>1,1,1,2-Tetrafluoroethane</strong></th>
<th>811-97-2</th>
<th>7% TO 13%</th>
<th>Not Listed</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Isocyanic acid, methylenedi-p-phenylene ester</strong></td>
<td>101-68-8</td>
<td>30% TO 60%</td>
<td>Not Listed</td>
</tr>
<tr>
<td><strong>Polymethylene polyphenyl isocyanate</strong></td>
<td>9016-87-9</td>
<td>30% TO 60%</td>
<td>Not Listed</td>
</tr>
</tbody>
</table>

**Canada - Controlled Drugs - Schedule VII**

<table>
<thead>
<tr>
<th><strong>1,1,1,2-Tetrafluoroethane</strong></th>
<th>811-97-2</th>
<th>7% TO 13%</th>
<th>Not Listed</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Isocyanic acid, methylenedi-p-phenylene ester</strong></td>
<td>101-68-8</td>
<td>30% TO 60%</td>
<td>Not Listed</td>
</tr>
<tr>
<td><strong>Polymethylene polyphenyl isocyanate</strong></td>
<td>9016-87-9</td>
<td>30% TO 60%</td>
<td>Not Listed</td>
</tr>
</tbody>
</table>

**Canada - Controlled Drugs - Schedule VIII**

<table>
<thead>
<tr>
<th><strong>1,1,1,2-Tetrafluoroethane</strong></th>
<th>811-97-2</th>
<th>7% TO 13%</th>
<th>Not Listed</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Isocyanic acid, methylenedi-p-phenylene ester</strong></td>
<td>101-68-8</td>
<td>30% TO 60%</td>
<td>Not Listed</td>
</tr>
<tr>
<td><strong>Polymethylene polyphenyl isocyanate</strong></td>
<td>9016-87-9</td>
<td>30% TO 60%</td>
<td>Not Listed</td>
</tr>
</tbody>
</table>

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**Canada British Columbia**

**Environment**

**Canada - British Columbia - Ozone Depleting Substances**

<table>
<thead>
<tr>
<th><strong>1,1,1,2-Tetrafluoroethane</strong></th>
<th>811-97-2</th>
<th>7% TO 13%</th>
<th>Not Listed</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Isocyanic acid, methylenedi-p-phenylene ester</strong></td>
<td>101-68-8</td>
<td>30% TO 60%</td>
<td>Not Listed</td>
</tr>
<tr>
<td><strong>Polymethylene polyphenyl isocyanate</strong></td>
<td>9016-87-9</td>
<td>30% TO 60%</td>
<td>Not Listed</td>
</tr>
</tbody>
</table>

**Canada Manitoba**

**Environment**

**Canada - Manitoba - Ozone Depleting Substances and Other Halocarbons - Class 1**

<table>
<thead>
<tr>
<th><strong>1,1,1,2-Tetrafluoroethane</strong></th>
<th>811-97-2</th>
<th>7% TO 13%</th>
<th>Not Listed</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Isocyanic acid, methylenedi-p-phenylene ester</strong></td>
<td>101-68-8</td>
<td>30% TO 60%</td>
<td>Not Listed</td>
</tr>
<tr>
<td><strong>Polymethylene polyphenyl isocyanate</strong></td>
<td>9016-87-9</td>
<td>30% TO 60%</td>
<td>Not Listed</td>
</tr>
</tbody>
</table>

**Canada - Manitoba - Ozone Depleting Substances and Other Halocarbons - Class 2**

<table>
<thead>
<tr>
<th><strong>1,1,1,2-Tetrafluoroethane</strong></th>
<th>811-97-2</th>
<th>7% TO 13%</th>
<th>Not Listed</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Isocyanic acid, methylenedi-p-phenylene ester</strong></td>
<td>101-68-8</td>
<td>30% TO 60%</td>
<td>Not Listed</td>
</tr>
<tr>
<td><strong>Polymethylene polyphenyl isocyanate</strong></td>
<td>9016-87-9</td>
<td>30% TO 60%</td>
<td>Not Listed</td>
</tr>
</tbody>
</table>

**Canada Northwest Territories**

**Other**

**Canada - Northwest Territories - Ozone Depleting Substances and Halocarbon Alternatives**

<table>
<thead>
<tr>
<th><strong>1,1,1,2-Tetrafluoroethane</strong></th>
<th>811-97-2</th>
<th>7% TO 13%</th>
<th>Group 6 Substance</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Isocyanic acid, methylenedi-p-phenylene ester</strong></td>
<td>101-68-8</td>
<td>30% TO 60%</td>
<td>Not Listed</td>
</tr>
<tr>
<td><strong>Polymethylene polyphenyl isocyanate</strong></td>
<td>9016-87-9</td>
<td>30% TO 60%</td>
<td>Not Listed</td>
</tr>
</tbody>
</table>

**Canada Nova Scotia**
Environment

Canada - Nova Scotia - Ozone Layer Protection Regulations

- 1,1,2-Tetrafluoroethane 811-97-2 7% TO 13% Not Listed
- Isocyanic acid, methylenedi-p-phenylene ester 101-68-8 30% TO 60% Not Listed
- Polymethylene polyphenyl isocyanate 9016-87-9 30% TO 60% Not Listed

Canada Ontario

Environment

Canada - Ontario - Airborne Contaminant Reporting - Table 2A

- 1,1,2-Tetrafluoroethane 811-97-2 7% TO 13% Not Listed
- Isocyanic acid, methylenedi-p-phenylene ester 101-68-8 30% TO 60% Not Listed
- Polymethylene polyphenyl isocyanate 9016-87-9 30% TO 60% Not Listed

Canada - Ontario - Airborne Contaminant Reporting - Table 2B

- 1,1,2-Tetrafluoroethane 811-97-2 7% TO 13% Not Listed
- Isocyanic acid, methylenedi-p-phenylene ester 101-68-8 30% TO 60% Not Listed
- Polymethylene polyphenyl isocyanate 9016-87-9 30% TO 60% Not Listed

Canada - Ontario - Drinking Water Standards - Aesthetic Objectives (AO)

- 1,1,2-Tetrafluoroethane 811-97-2 7% TO 13% Not Listed
- Isocyanic acid, methylenedi-p-phenylene ester 101-68-8 30% TO 60% Not Listed
- Polymethylene polyphenyl isocyanate 9016-87-9 30% TO 60% Not Listed

Canada - Ontario - Drinking Water Standards - Interim Maximum Acceptable Concentrations (IMAC)

- 1,1,2-Tetrafluoroethane 811-97-2 7% TO 13% Not Listed
- Isocyanic acid, methylenedi-p-phenylene ester 101-68-8 30% TO 60% Not Listed
- Polymethylene polyphenyl isocyanate 9016-87-9 30% TO 60% Not Listed

Canada - Ontario - Drinking Water Standards - Maximum Acceptable Concentration (MAC)

- 1,1,2-Tetrafluoroethane 811-97-2 7% TO 13% Not Listed
- Isocyanic acid, methylenedi-p-phenylene ester 101-68-8 30% TO 60% Not Listed
- Polymethylene polyphenyl isocyanate 9016-87-9 30% TO 60% Not Listed

Canada - Ontario - Drinking Water Standards - Operational Guidelines (OG)

- 1,1,2-Tetrafluoroethane 811-97-2 7% TO 13% Not Listed
- Isocyanic acid, methylenedi-p-phenylene ester 101-68-8 30% TO 60% Not Listed
- Polymethylene polyphenyl isocyanate 9016-87-9 30% TO 60% Not Listed

Canada - Ontario - Ozone Depleting Substances - Ozone Depletion Factor

- 1,1,2-Tetrafluoroethane 811-97-2 7% TO 13% Not Listed
- Isocyanic acid, methylenedi-p-phenylene ester 101-68-8 30% TO 60% Not Listed
- Polymethylene polyphenyl isocyanate 9016-87-9 30% TO 60% Not Listed

Canada - Ontario - Ozone Depleting Substances - Solvents - Class 1

- 1,1,2-Tetrafluoroethane 811-97-2 7% TO 13% Not Listed
- Isocyanic acid, methylenedi-p-phenylene ester 101-68-8 30% TO 60% Not Listed
- Polymethylene polyphenyl isocyanate 9016-87-9 30% TO 60% Not Listed

Canada - Ontario - Ozone Depleting Substances - Solvents - Class 2

- 1,1,2-Tetrafluoroethane 811-97-2 7% TO 13% Not Listed
- Isocyanic acid, methylenedi-p-phenylene ester 101-68-8 30% TO 60% Not Listed
- Polymethylene polyphenyl isocyanate 9016-87-9 30% TO 60% Not Listed

Canada - Ontario - Ozone Depleting Substances - Solvents - Class 3
- 1,1,1,2-Tetrafluoroethane 811-97-2 7% TO 13% Not Listed
- Isocyanic acid, methylenedi-p-phenylene ester 101-68-8 30% TO 60% Not Listed
- Polymethylene polyphenyl isocyanate 9016-87-9 30% TO 60% Not Listed

**Canada Yukon**

**Environment**

**Canada - Yukon - Ozone Depleting Substances and Other Halocarbons**
- 1,1,1,2-Tetrafluoroethane 811-97-2 7% TO 13% Not Listed
- Isocyanic acid, methylenedi-p-phenylene ester 101-68-8 30% TO 60% Not Listed
- Polymethylene polyphenyl isocyanate 9016-87-9 30% TO 60% Not Listed

**United States**

**Labor**

**U.S. - OSHA - Process Safety Management - Highly Hazardous Chemicals**
- 1,1,1,2-Tetrafluoroethane 811-97-2 7% TO 13% Not Listed
- Isocyanic acid, methylenedi-p-phenylene ester 101-68-8 30% TO 60% Not Listed
- Polymethylene polyphenyl isocyanate 9016-87-9 30% TO 60% Not Listed

**U.S. - OSHA - Specifically Regulated Chemicals**
- 1,1,1,2-Tetrafluoroethane 811-97-2 7% TO 13% Not Listed
- Isocyanic acid, methylenedi-p-phenylene ester 101-68-8 30% TO 60% Not Listed
- Polymethylene polyphenyl isocyanate 9016-87-9 30% TO 60% Not Listed

**Environment**

**U.S. - CAA (Clean Air Act) - 1990 Hazardous Air Pollutants**
- 1,1,1,2-Tetrafluoroethane 811-97-2 7% TO 13% Not Listed
- Isocyanic acid, methylenedi-p-phenylene ester 101-68-8 30% TO 60%
- Polymethylene polyphenyl isocyanate 9016-87-9 30% TO 60% Not Listed

**U.S. - CAA (Clean Air Act) - Accidental Release Prevention - Flammable Substances**
- 1,1,1,2-Tetrafluoroethane 811-97-2 7% TO 13% Not Listed
- Isocyanic acid, methylenedi-p-phenylene ester 101-68-8 30% TO 60% Not Listed
- Polymethylene polyphenyl isocyanate 9016-87-9 30% TO 60% Not Listed

**U.S. - CAA (Clean Air Act) - Accidental Release Prevention - Toxic Substances**
- 1,1,1,2-Tetrafluoroethane 811-97-2 7% TO 13% Not Listed
- Isocyanic acid, methylenedi-p-phenylene ester 101-68-8 30% TO 60% Not Listed
- Polymethylene polyphenyl isocyanate 9016-87-9 30% TO 60% Not Listed

**U.S. - CAA (Clean Air Act) - Class I Ozone Depletors**
- 1,1,1,2-Tetrafluoroethane 811-97-2 7% TO 13% Not Listed
- Isocyanic acid, methylenedi-p-phenylene ester 101-68-8 30% TO 60% Not Listed
- Polymethylene polyphenyl isocyanate 9016-87-9 30% TO 60% Not Listed

**U.S. - CAA (Clean Air Act) - Class II Ozone Depletors**
- 1,1,1,2-Tetrafluoroethane 811-97-2 7% TO 13% Not Listed
- Isocyanic acid, methylenedi-p-phenylene ester 101-68-8 30% TO 60% Not Listed
- Polymethylene polyphenyl isocyanate 9016-87-9 30% TO 60% Not Listed

**U.S. - CAA (Clean Air Act) - High Risk Hazardous Air Pollutants**
- 1,1,1,2-Tetrafluoroethane 811-97-2 7% TO 13% Not Listed
- Isocyanic acid, methylenedi-p-phenylene ester 101-68-8 30% TO 60% Not Listed
- Polymethylene polyphenyl isocyanate 9016-87-9 30% TO 60% Not Listed
U.S. - CAA (Clean Air Act) - HON Rule - Organic HAPs
- 1,1,1,2-Tetrafluoroethane 811-97-2 7% TO 13% Not Listed
- Isocyanic acid, methylenedi-p-phenylene ester 101-68-8 30% TO 60% Not Listed
- Polymethylene polyphenyl isocyanate 9016-87-9 30% TO 60% Not Listed

U.S. - CAA (Clean Air Act) - HON Rule - SOCMI Chemicals
- 1,1,1,2-Tetrafluoroethane 811-97-2 7% TO 13% Not Listed
- Isocyanic acid, methylenedi-p-phenylene ester 101-68-8 30% TO 60% Group III
- Polymethylene polyphenyl isocyanate 9016-87-9 30% TO 60% Not Listed

U.S. - CAA (Clean Air Act) - National Primary Ambient Air Quality Standards
- 1,1,1,2-Tetrafluoroethane 811-97-2 7% TO 13% Not Listed
- Isocyanic acid, methylenedi-p-phenylene ester 101-68-8 30% TO 60% Not Listed
- Polymethylene polyphenyl isocyanate 9016-87-9 30% TO 60% Not Listed

U.S. - CAA (Clean Air Act) - National Secondary Ambient Air Quality Standards
- 1,1,1,2-Tetrafluoroethane 811-97-2 7% TO 13% Not Listed
- Isocyanic acid, methylenedi-p-phenylene ester 101-68-8 30% TO 60% Not Listed
- Polymethylene polyphenyl isocyanate 9016-87-9 30% TO 60% Not Listed

U.S. - CAA (Clean Air Act) - SNAP Program Listing of Substitutes for ODSs
- 1,1,1,2-Tetrafluoroethane 811-97-2 7% TO 13% Acceptable substitute for: 1, 2, 4, 6
- Isocyanic acid, methylenedi-p-phenylene ester 101-68-8 30% TO 60% Not Listed
- Polymethylene polyphenyl isocyanate 9016-87-9 30% TO 60% Not Listed

U.S. - CWA (Clean Water Act) - Total Toxic Organics for Metal Finishing Point Source Category
- 1,1,1,2-Tetrafluoroethane 811-97-2 7% TO 13% Not Listed
- Isocyanic acid, methylenedi-p-phenylene ester 101-68-8 30% TO 60% Not Listed
- Polymethylene polyphenyl isocyanate 9016-87-9 30% TO 60% Not Listed

U.S. - CAA (Clean Air Act) - Urban HAPs List (Integrated Urban Strategy)
- 1,1,1,2-Tetrafluoroethane 811-97-2 7% TO 13% Not Listed
- Isocyanic acid, methylenedi-p-phenylene ester 101-68-8 30% TO 60% Not Listed
- Polymethylene polyphenyl isocyanate 9016-87-9 30% TO 60% Not Listed

U.S. - CAA (Clean Air Act) - VOCs with Negligible Photochemical Reactivity
- 1,1,1,2-Tetrafluoroethane 811-97-2 7% TO 13%
- Isocyanic acid, methylenedi-p-phenylene ester 101-68-8 30% TO 60% Not Listed
- Polymethylene polyphenyl isocyanate 9016-87-9 30% TO 60% Not Listed

U.S. - CAA (Clean Air Act) - Volatile Organic Compounds (VOCs) in SOCMI
- 1,1,1,2-Tetrafluoroethane 811-97-2 7% TO 13% Not Listed
- Isocyanic acid, methylenedi-p-phenylene ester 101-68-8 30% TO 60% Not Listed
- Polymethylene polyphenyl isocyanate 9016-87-9 30% TO 60% Not Listed

U.S. - CERCLA/SARA - Hazardous Substances and their Reportable Quantities
- 1,1,1,2-Tetrafluoroethane 811-97-2 7% TO 13% Not Listed
- Isocyanic acid, methylenedi-p-phenylene ester 101-68-8 30% TO 60% 5000 lb final RQ; 2270 kg final RQ
- Polymethylene polyphenyl isocyanate 9016-87-9 30% TO 60% Not Listed

U.S. - CERCLA/SARA - Radionuclides and Their Reportable Quantities
- 1,1,1,2-Tetrafluoroethane 811-97-2 7% TO 13% Not Listed
- Isocyanic acid, methylenedi-p-phenylene ester 101-68-8 30% TO 60% Not Listed
- Polymethylene polyphenyl isocyanate 9016-87-9 30% TO 60% Not Listed
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<thead>
<tr>
<th><strong>U.S. - CERCLA/SARA - Section 302 Extremely Hazardous Substances EPCRA RQs</strong></th>
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<td>- 1,1,2-Tetrafluoroethane 811-97-2 7% TO 13% Not Listed</td>
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<th><strong>U.S. - CERCLA/SARA - Section 302 Extremely Hazardous Substances TPQs</strong></th>
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<th><strong>U.S. - CERCLA/SARA - Section 313 - Emission Reporting</strong></th>
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<td>- 1,1,2-Tetrafluoroethane 811-97-2 7% TO 13% Not Listed</td>
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<th><strong>U.S. - CERCLA/SARA - Section 313 - PBT Chemical Listing</strong></th>
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<th><strong>U.S. - CWA (Clean Water Act) - Bioaccumulative Chemicals of Concern (BCCs)</strong></th>
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<th><strong>U.S. - CWA (Clean Water Act) - Priority Pollutants</strong></th>
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<th><strong>U.S. - CWA (Clean Water Act) - Recommended Water Quality Criteria - CCC for Freshwater Life</strong></th>
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<td>- 1,1,2-Tetrafluoroethane 811-97-2 7% TO 13% Not Listed</td>
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</table>
U.S. - CWA (Clean Water Act) - Recommended Water Quality Criteria - Human Health Consumption for Aquatic Organisms

- 1,1,1,2-Tetrafluoroethane 811-97-2 7% TO 13%  Not Listed
- Isocyanic acid, methylenedi-p-phenylene ester 101-68-8 30% TO 60%  Not Listed
- Polymethylene polyphenyl isocyanate 9016-87-9 30% TO 60%  Not Listed

U.S. - CWA (Clean Water Act) - Recommended Water Quality Criteria - Human Health Consumption for Water and Aquatic Organisms

- 1,1,1,2-Tetrafluoroethane 811-97-2 7% TO 13%  Not Listed
- Isocyanic acid, methylenedi-p-phenylene ester 101-68-8 30% TO 60%  Not Listed
- Polymethylene polyphenyl isocyanate 9016-87-9 30% TO 60%  Not Listed

U.S. - CWA (Clean Water Act) - Reportable Quantities of Designated Hazardous Substances

- 1,1,1,2-Tetrafluoroethane 811-97-2 7% TO 13%  Not Listed
- Isocyanic acid, methylenedi-p-phenylene ester 101-68-8 30% TO 60%  Not Listed
- Polymethylene polyphenyl isocyanate 9016-87-9 30% TO 60%  Not Listed

U.S. - CWA (Clean Water Act) - Total Toxic Organics for Electroplating Point Source Category

- 1,1,1,2-Tetrafluoroethane 811-97-2 7% TO 13%  Not Listed
- Isocyanic acid, methylenedi-p-phenylene ester 101-68-8 30% TO 60%  Not Listed
- Polymethylene polyphenyl isocyanate 9016-87-9 30% TO 60%  Not Listed

U.S. - EPA - ATSDR - Acute Minimal Risk Levels

- 1,1,1,2-Tetrafluoroethane 811-97-2 7% TO 13%  Not Listed
- Isocyanic acid, methylenedi-p-phenylene ester 101-68-8 30% TO 60%  Not Listed
- Polymethylene polyphenyl isocyanate 9016-87-9 30% TO 60%  Not Listed

U.S. - EPA - ATSDR - CERCLA Priority List

- 1,1,1,2-Tetrafluoroethane 811-97-2 7% TO 13%  Not Listed
- Isocyanic acid, methylenedi-p-phenylene ester 101-68-8 30% TO 60%  Not Listed
- Polymethylene polyphenyl isocyanate 9016-87-9 30% TO 60%  Not Listed

U.S. - EPA - ATSDR - Chronic Minimal Risk Levels

- 1,1,1,2-Tetrafluoroethane 811-97-2 7% TO 13%  Not Listed
- Isocyanic acid, methylenedi-p-phenylene ester 101-68-8 30% TO 60%  Not Listed
- Polymethylene polyphenyl isocyanate 9016-87-9 30% TO 60%  Not Listed

U.S. - EPA - ATSDR - Intermediate Minimal Risk Levels

- 1,1,1,2-Tetrafluoroethane 811-97-2 7% TO 13%  Not Listed
- Isocyanic acid, methylenedi-p-phenylene ester 101-68-8 30% TO 60%  Not Listed
- Polymethylene polyphenyl isocyanate 9016-87-9 30% TO 60%  Not Listed

U.S. - EPA - Designated Generic Categories - Aqueous Ammonia

- 1,1,1,2-Tetrafluoroethane 811-97-2 7% TO 13%  Not Listed
- Isocyanic acid, methylenedi-p-phenylene ester 101-68-8 30% TO 60%  Not Listed
- Polymethylene polyphenyl isocyanate 9016-87-9 30% TO 60%  Not Listed

U.S. - EPA - Designated Generic Categories - Certain Glycol Ethers

- 1,1,1,2-Tetrafluoroethane 811-97-2 7% TO 13%  Not Listed
- Isocyanic acid, methylenedi-p-phenylene ester 101-68-8 30% TO 60%  Not Listed
- Polymethylene polyphenyl isocyanate 9016-87-9 30% TO 60%  Not Listed
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<tr>
<th>U.S. - EPA - Designated Generic Categories - Chlorophenols</th>
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<td>● 1,1,1,2-Tetrafluoroethane 811-97-2 7% TO 13% Not Listed</td>
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<tr>
<th>U.S. - EPA - Designated Generic Categories - Dioxins and Dioxin-like Compounds</th>
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<tr>
<td>● 1,1,1,2-Tetrafluoroethane 811-97-2 7% TO 13% Not Listed</td>
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<tr>
<th>U.S. - EPA - Designated Generic Categories - Ethylenebisdithiocarbamic Acid, Salts and Esters</th>
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<td>● 1,1,1,2-Tetrafluoroethane 811-97-2 7% TO 13% Not Listed</td>
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<tr>
<th>U.S. - EPA - Designated Generic Categories - Lead and Lead Compounds</th>
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<td>● 1,1,1,2-Tetrafluoroethane 811-97-2 7% TO 13% Not Listed</td>
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<th>U.S. - EPA - Designated Generic Categories - Nicotine and Salts</th>
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<th>U.S. - EPA - Designated Generic Categories - Nitrate Compounds</th>
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<td>● 1,1,1,2-Tetrafluoroethane 811-97-2 7% TO 13% Not Listed</td>
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<tr>
<th>U.S. - EPA - Designated Generic Categories - Pesticides and Other PBTs</th>
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<td>● 1,1,1,2-Tetrafluoroethane 811-97-2 7% TO 13% Not Listed</td>
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<tr>
<th>U.S. - EPA - Designated Generic Categories - Polychlorinated Alkanes</th>
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<tr>
<th>U.S. - EPA - Designated Generic Categories - Polycyclic Aromatic Compounds</th>
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<td>● Polymethylene polyphenyl isocyanate 9016-87-9 30% TO 60% Not Listed</td>
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### U.S. - EPA - HPV (High Production Volume) Challenge Program Chemical List

- 1,1,1,2-Tetrafluoroethane 811-97-2 7% TO 13% Indicator 0; Not Sponsored
- Isocyanic acid, methylenedi-p-phenylene ester 101-68-8 30% TO 60% Indicator 2; Not Sponsored
- Polymethylene polyphenyl isocyanate 9016-87-9 30% TO 60% Not Listed

### U.S. - EPA - IRIS Carcinogenicity Assessment

- 1,1,1,2-Tetrafluoroethane 811-97-2 7% TO 13% Not Listed
- Isocyanic acid, methylenedi-p-phenylene ester 101-68-8 30% TO 60% Classification: not classifiable as a human carcinogen; basis: under U.S. EPA's 1996 Proposed Guidelines for Carcinogen Risk Assessment, the carcinogenic potential of MDI/PMDI would be characterized as cannot be determined, but for which there is suggestive evidence that raises concern for carcinogenic effects; last revised: 02/07/1998
- Polymethylene polyphenyl isocyanate 9016-87-9 30% TO 60% Classification: under U.S. EPAs 1986 guidelines monomeric MDI or polymeric MDI (PMDI) would be classified as not classifiable or a group D chemical. Under EPA 1996 guidelines the carcinogenic potential of MDI/PMDI would be characterized as cannot be determined, but for which there is suggestive evidence that raises concern for carcinogenic effects; last revised: 02/07/1998

### U.S. - EPA - IRIS Inhalation Reference Concentration (RfC) Information

- 1,1,1,2-Tetrafluoroethane 811-97-2 7% TO 13% 80 mg/m3 RfC (critical effect: Leydig cell hyperplasia)
- Isocyanic acid, methylenedi-p-phenylene ester 101-68-8 30% TO 60% 0.0006 mg/m3 RfC (critical effect: hyperplasia of the olfactory epithelium)
- Polymethylene polyphenyl isocyanate 9016-87-9 30% TO 60% 0.0006 mg/m3 RfC (critical effect: hyperplasia of the olfactory epithelium)

### U.S. - EPA - IRIS Oral Reference Dose (RfD) Information

- 1,1,1,2-Tetrafluoroethane 811-97-2 7% TO 13% Not Listed
- Isocyanic acid, methylenedi-p-phenylene ester 101-68-8 30% TO 60% Not Listed
- Polymethylene polyphenyl isocyanate 9016-87-9 30% TO 60% Not Listed

### U.S. - EPA - Master Testing List

- 1,1,1,2-Tetrafluoroethane 811-97-2 7% TO 13% Chemical Testing Program Underway; Voluntary Testing Agreement
- Isocyanic acid, methylenedi-p-phenylene ester 101-68-8 30% TO 60% Chemical Testing Program Underway; Voluntary Testing Agreement
- Polymethylene polyphenyl isocyanate 9016-87-9 30% TO 60% Chemical Testing Program Underway; Voluntary Testing Agreement

### U.S. - EPA - NAC/AEGL - Priority Chemicals for Guideline Development

- 1,1,1,2-Tetrafluoroethane 811-97-2 7% TO 13% Not Listed
- Isocyanic acid, methylenedi-p-phenylene ester 101-68-8 30% TO 60% Not Listed
- Polymethylene polyphenyl isocyanate 9016-87-9 30% TO 60% Not Listed

### U.S. - EPA - NAC/AEGL - Acute Exposure Guidelines (AEGL-1) - Final

- 1,1,1,2-Tetrafluoroethane 811-97-2 7% TO 13% 8000 ppm 10 min AEGL-1 (final); 8000 ppm 30 min AEGL-1 (final); 8000 ppm 60 min AEGL-1 (final); 8000 ppm 4 hr AEGL-1 (final); 8000 ppm 8 hr AEGL-1 (final)
- Isocyanic acid, methylenedi-p-phenylene ester 101-68-8 30% TO 60% Not Listed
- Polymethylene polyphenyl isocyanate 9016-87-9 30% TO 60% Not Listed

### U.S. - EPA - NAC/AEGL - Acute Exposure Guidelines (AEGL-1) - Interim

- 1,1,1,2-Tetrafluoroethane 811-97-2 7% TO 13% Not Listed
- Isocyanic acid, methylenedi-p-phenylene ester 101-68-8 30% TO 60% Not Listed
- Polymethylene polyphenyl isocyanate 9016-87-9 30% TO 60% Not Listed
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<tr>
<td>1,1,1,2-Tetrafluoroethane                                    811-97-2 7% TO 13% Not Listed</td>
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<tbody>
<tr>
<td>1,1,1,2-Tetrafluoroethane                                    811-97-2 7% TO 13% 13000 ppm 10 min AEGL-2 (final); 13000 ppm 30 min AEGL-2 (final); 13000 ppm 60 min AEGL-2 (final); 13000 ppm 4 hr AEGL-2 (final); 13000 ppm 8 hr AEGL-2 (final)</td>
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<td>Isocyanic acid, methylenedi-p-phenylene ester                101-68-8 30% TO 60% Not Listed</td>
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<tr>
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<td>1,1,1,2-Tetrafluoroethane                                    811-97-2 7% TO 13% 27000 ppm 10 min AEGL-3 (final); 27000 ppm 30 min AEGL-3 (final); 27000 ppm 60 min AEGL-3 (final); 27000 ppm 4 hr AEGL-3 (final); 27000 ppm 8 hr AEGL-3 (final)</td>
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<tr>
<th>U.S. - EPA - NAC/AEGL - Acute Exposure Guidelines (AEGL-3) - Proposed</th>
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<td>1,1,1,2-Tetrafluoroethane                                    811-97-2 7% TO 13% Not Listed</td>
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<td>1,1,1,2-Tetrafluoroethane                                    811-97-2 7% TO 13% Not Listed</td>
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<th>U.S. - FIFRA - Listing of Pesticide Chemicals (40 CFR 180)</th>
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<tbody>
<tr>
<td>1,1,1,2-Tetrafluoroethane                                    811-97-2 7% TO 13% Section number 180.910</td>
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</table>
• Polymethylene polyphenyl isocyanate 9016-87-9 30% TO 60% Not Listed

U.S. - FIFRA - Pesticide Product Other Ingredients
• 1,1,1,2-Tetrafluoroethane 811-97-2 7% TO 13% List 4B - Inert Ingredients
• Isocyanic acid, methylenedi-p-phenylene ester 101-68-8 30% TO 60% List 3 - Unknown Toxicity
• Polymethylene polyphenyl isocyanate 9016-87-9 30% TO 60% List 3 - Unknown Toxicity

U.S. - FIFRA - Pesticides Classified for Restricted Use
• 1,1,1,2-Tetrafluoroethane 811-97-2 7% TO 13% Not Listed
• Isocyanic acid, methylenedi-p-phenylene ester 101-68-8 30% TO 60% Not Listed
• Polymethylene polyphenyl isocyanate 9016-87-9 30% TO 60% Not Listed

U.S. - RCRA (Resource Conservation & Recovery Act) - Basis for Listing - Appendix VII
• 1,1,1,2-Tetrafluoroethane 811-97-2 7% TO 13% Not Listed
• Isocyanic acid, methylenedi-p-phenylene ester 101-68-8 30% TO 60% Not Listed
• Polymethylene polyphenyl isocyanate 9016-87-9 30% TO 60% Not Listed

U.S. - RCRA (Resource Conservation & Recovery Act) - Constituents for Detection Monitoring
• 1,1,1,2-Tetrafluoroethane 811-97-2 7% TO 13% Not Listed
• Isocyanic acid, methylenedi-p-phenylene ester 101-68-8 30% TO 60% Not Listed
• Polymethylene polyphenyl isocyanate 9016-87-9 30% TO 60% Not Listed

U.S. - RCRA (Resource Conservation & Recovery Act) - D Series Wastes - Max Conc of Contaminants for the Tox Characteristic
• 1,1,1,2-Tetrafluoroethane 811-97-2 7% TO 13% Not Listed
• Isocyanic acid, methylenedi-p-phenylene ester 101-68-8 30% TO 60% Not Listed
• Polymethylene polyphenyl isocyanate 9016-87-9 30% TO 60% Not Listed

U.S. - RCRA (Resource Conservation & Recovery Act) - F Series Wastes - Wastes from Nonspecific Sources
• 1,1,1,2-Tetrafluoroethane 811-97-2 7% TO 13% Not Listed
• Isocyanic acid, methylenedi-p-phenylene ester 101-68-8 30% TO 60% Not Listed
• Polymethylene polyphenyl isocyanate 9016-87-9 30% TO 60% Not Listed

U.S. - RCRA (Resource Conservation & Recovery Act) - Hazardous Constituents - Appendix VIII to 40 CFR 261
• 1,1,1,2-Tetrafluoroethane 811-97-2 7% TO 13% Not Listed
• Isocyanic acid, methylenedi-p-phenylene ester 101-68-8 30% TO 60% Not Listed
• Polymethylene polyphenyl isocyanate 9016-87-9 30% TO 60% Not Listed

U.S. - RCRA (Resource Conservation & Recovery Act) - K Series Wastes - Wastes from Specified Sources
• 1,1,1,2-Tetrafluoroethane 811-97-2 7% TO 13% Not Listed
• Isocyanic acid, methylenedi-p-phenylene ester 101-68-8 30% TO 60% Not Listed
• Polymethylene polyphenyl isocyanate 9016-87-9 30% TO 60% Not Listed

U.S. - RCRA (Resource Conservation & Recovery Act) - List for Hazardous Constituents
• 1,1,1,2-Tetrafluoroethane 811-97-2 7% TO 13% Not Listed
• Isocyanic acid, methylenedi-p-phenylene ester 101-68-8 30% TO 60% Not Listed
• Polymethylene polyphenyl isocyanate 9016-87-9 30% TO 60% Not Listed

U.S. - RCRA (Resource Conservation & Recovery Act) - P Series Wastes - Acutely Toxic Wastes
• 1,1,1,2-Tetrafluoroethane 811-97-2 7% TO 13% Not Listed
• Isocyanic acid, methylenedi-p-phenylene ester 101-68-8 30% TO 60% Not Listed
• Polymethylene polyphenyl isocyanate 9016-87-9 30% TO 60% Not Listed

U.S. - RCRA (Resource Conservation & Recovery Act) - Part 268 Appendix III - Halogenated Organic Compounds (HOCs)
• 1,1,1,2-Tetrafluoroethane 811-97-2 7% TO 13% Not Listed
• Isocyanic acid, methylenedi-p-phenylene ester 101-68-8 30% TO 60% Not Listed
● Polymethylene polyphenyl isocyanate 9016-87-9 30% TO 60% Not Listed

U.S. - RCRA (Resource Conservation & Recovery Act) - Phase 4 LDR Rule - Universal Treatment Standards
● 1,1,1,2-Tetrafluoroethane 811-97-2 7% TO 13% Not Listed
● Isocyanic acid, methylenedi-p-phenylene ester 101-68-8 30% TO 60% Not Listed
● Polymethylene polyphenyl isocyanate 9016-87-9 30% TO 60% Not Listed

U.S. - RCRA (Resource Conservation & Recovery Act) - TSD Facilities Ground Water Monitoring
● 1,1,1,2-Tetrafluoroethane 811-97-2 7% TO 13% Not Listed
● Isocyanic acid, methylenedi-p-phenylene ester 101-68-8 30% TO 60% Not Listed
● Polymethylene polyphenyl isocyanate 9016-87-9 30% TO 60% Not Listed

U.S. - RCRA (Resource Conservation & Recovery Act) - U Series Wastes - Acutely Toxic Wastes & Other Hazardous Characteristics
● 1,1,1,2-Tetrafluoroethane 811-97-2 7% TO 13% Not Listed
● Isocyanic acid, methylenedi-p-phenylene ester 101-68-8 30% TO 60% Not Listed
● Polymethylene polyphenyl isocyanate 9016-87-9 30% TO 60% Not Listed

U.S. - RCRA (Resource Conservation & Recovery Act) - Waste Minimization Priority Chemicals
● 1,1,1,2-Tetrafluoroethane 811-97-2 7% TO 13% Not Listed
● Isocyanic acid, methylenedi-p-phenylene ester 101-68-8 30% TO 60% Not Listed
● Polymethylene polyphenyl isocyanate 9016-87-9 30% TO 60% Not Listed

U.S. - SDWA (Safe Drinking Water Act) - CCL (Contaminant Candidate List)
● 1,1,1,2-Tetrafluoroethane 811-97-2 7% TO 13% Not Listed
● Isocyanic acid, methylenedi-p-phenylene ester 101-68-8 30% TO 60% Not Listed
● Polymethylene polyphenyl isocyanate 9016-87-9 30% TO 60% Not Listed

U.S. - SDWA (Safe Drinking Water Act) - Health Advisories - Drinking Water Equivalent Level (DWEL)
● 1,1,1,2-Tetrafluoroethane 811-97-2 7% TO 13% Not Listed
● Isocyanic acid, methylenedi-p-phenylene ester 101-68-8 30% TO 60% Not Listed
● Polymethylene polyphenyl isocyanate 9016-87-9 30% TO 60% Not Listed

U.S. - SDWA (Safe Drinking Water Act) - Health Advisories - Lifetime Health Advisory
● 1,1,1,2-Tetrafluoroethane 811-97-2 7% TO 13% Not Listed
● Isocyanic acid, methylenedi-p-phenylene ester 101-68-8 30% TO 60% Not Listed
● Polymethylene polyphenyl isocyanate 9016-87-9 30% TO 60% Not Listed

U.S. - SDWA (Safe Drinking Water Act) - Health Advisories - One Day HA for 10-Kg Child
● 1,1,1,2-Tetrafluoroethane 811-97-2 7% TO 13% Not Listed
● Isocyanic acid, methylenedi-p-phenylene ester 101-68-8 30% TO 60% Not Listed
● Polymethylene polyphenyl isocyanate 9016-87-9 30% TO 60% Not Listed

U.S. - SDWA (Safe Drinking Water Act) - Health Advisories - Ten Day HA for 10-Kg Child
● 1,1,1,2-Tetrafluoroethane 811-97-2 7% TO 13% Not Listed
● Isocyanic acid, methylenedi-p-phenylene ester 101-68-8 30% TO 60% Not Listed
● Polymethylene polyphenyl isocyanate 9016-87-9 30% TO 60% Not Listed

U.S. - SDWA (Safe Drinking Water Act) - MCLGs (Maximum Contaminant Level Goals)
● 1,1,1,2-Tetrafluoroethane 811-97-2 7% TO 13% Not Listed
● Isocyanic acid, methylenedi-p-phenylene ester 101-68-8 30% TO 60% Not Listed
● Polymethylene polyphenyl isocyanate 9016-87-9 30% TO 60% Not Listed

U.S. - SDWA (Safe Drinking Water Act) - MCLs (Maximum Contaminant Levels)
● 1,1,1,2-Tetrafluoroethane 811-97-2 7% TO 13% Not Listed
● Isocyanic acid, methylenedi-p-phenylene ester 101-68-8 30% TO 60% Not Listed
- Polymethylene polyphenyl isocyanate 9016-87-9 30% TO 60% Not Listed

U.S. - SDWA (Safe Drinking Water Act) - Unregulated Contaminant Monitoring Regulation (UCMR)
- 1,1,1,2-Tetrafluoroethane 811-97-2 7% TO 13% Not Listed
- Isocyanic acid, methylenedi-p-phenylene ester 101-68-8 30% TO 60% Not Listed
- Polymethylene polyphenyl isocyanate 9016-87-9 30% TO 60% Not Listed

U.S. - SDWA (Safe Drinking Water Act) - SMCLs (Secondary Maximum Contaminant Levels)
- 1,1,1,2-Tetrafluoroethane 811-97-2 7% TO 13% Not Listed
- Isocyanic acid, methylenedi-p-phenylene ester 101-68-8 30% TO 60% Not Listed
- Polymethylene polyphenyl isocyanate 9016-87-9 30% TO 60% Not Listed

U.S. - TSCA (Toxic Substances Control Act) - Section 4 - Chemicals Whose Testing Requirements Have Sunset
- 1,1,1,2-Tetrafluoroethane 811-97-2 7% TO 13% Not Listed
- Isocyanic acid, methylenedi-p-phenylene ester 101-68-8 30% TO 60% Not Listed
- Polymethylene polyphenyl isocyanate 9016-87-9 30% TO 60% Not Listed

U.S. - TSCA (Toxic Substances Control Act) - Section 5 - New Chemicals Program (NCP) Chemical Categories
- 1,1,1,2-Tetrafluoroethane 811-97-2 7% TO 13% Not Listed
- Isocyanic acid, methylenedi-p-phenylene ester 101-68-8 30% TO 60% Not Listed
- Polymethylene polyphenyl isocyanate 9016-87-9 30% TO 60% Not Listed

Inventory - United States - Section 8(b) Inventory (TSCA) - PMN Number to EPA Accession Number Link
- 1,1,1,2-Tetrafluoroethane 811-97-2 7% TO 13% Not Listed
- Isocyanic acid, methylenedi-p-phenylene ester 101-68-8 30% TO 60% Not Listed
- Polymethylene polyphenyl isocyanate 9016-87-9 30% TO 60% Not Listed

U.S. - TSCA (Toxic Substances Control Act) - Section 12(b) - Export Notification
- 1,1,1,2-Tetrafluoroethane 811-97-2 7% TO 13% Section 5, 1 % de minimus concentration
- Isocyanic acid, methylenedi-p-phenylene ester 101-68-8 30% TO 60% Not Listed
- Polymethylene polyphenyl isocyanate 9016-87-9 30% TO 60% Not Listed

U.S. - TSCA (Toxic Substances Control Act) - Section 4 - Chemical Test Rules (40 CFR 799)
- 1,1,1,2-Tetrafluoroethane 811-97-2 7% TO 13% Not Listed
- Isocyanic acid, methylenedi-p-phenylene ester 101-68-8 30% TO 60% Not Listed
- Polymethylene polyphenyl isocyanate 9016-87-9 30% TO 60% Not Listed

U.S. - TSCA (Toxic Substances Control Act) - Section 4 - HDD/HDF - Chemicals Required for Testing
- 1,1,1,2-Tetrafluoroethane 811-97-2 7% TO 13% Not Listed
- Isocyanic acid, methylenedi-p-phenylene ester 101-68-8 30% TO 60% Not Listed
- Polymethylene polyphenyl isocyanate 9016-87-9 30% TO 60% Not Listed

U.S. - TSCA (Toxic Substances Control Act) - Section 8 - HDD/HDF - Precursors Required for Reporting
- 1,1,1,2-Tetrafluoroethane 811-97-2 7% TO 13% Not Listed
- Isocyanic acid, methylenedi-p-phenylene ester 101-68-8 30% TO 60% Not Listed
- Polymethylene polyphenyl isocyanate 9016-87-9 30% TO 60% Not Listed

U.S. - TSCA (Toxic Substances Control Act) - Section 4(e) - ITC Priority Testing List
- 1,1,1,2-Tetrafluoroethane 811-97-2 7% TO 13% Not Listed
- Isocyanic acid, methylenedi-p-phenylene ester 101-68-8 30% TO 60% Not Listed
- Polymethylene polyphenyl isocyanate 9016-87-9 30% TO 60% Not Listed

U.S. - TSCA (Toxic Substances Control Act) - Section 5(a)(2) - Chemicals with Significant New Use Rules (SNURs)
- 1,1,1,2-Tetrafluoroethane 811-97-2 7% TO 13% Not Listed
- Isocyanic acid, methylenedi-p-phenylene ester 101-68-8 30% TO 60% Not Listed
- Polymethylene polyphenyl isocyanate 9016-87-9 30% TO 60% Not Listed
U.S. - TSCA (Toxic Substances Control Act) - Section 5(e) - New Chemical Exposure Limits (NCELs)
- 1,1,1,2-Tetrafluoroethane 811-97-2 7% TO 13% Not Listed
- Isocyanic acid, methylenedi-p-phenylene ester 101-68-8 30% TO 60% Not Listed
- Polymethylene polyphenyl isocyanate 9016-87-9 30% TO 60% Not Listed

U.S. - TSCA (Toxic Substances Control Act) - Section 6 - Restricted Substances
- 1,1,1,2-Tetrafluoroethane 811-97-2 7% TO 13% Not Listed
- Isocyanic acid, methylenedi-p-phenylene ester 101-68-8 30% TO 60% Not Listed
- Polymethylene polyphenyl isocyanate 9016-87-9 30% TO 60% Not Listed

U.S. - TSCA (Toxic Substances Control Act) - Section 8(a) - Chemical-Specific Reporting and Recordkeeping
- 1,1,1,2-Tetrafluoroethane 811-97-2 7% TO 13% Not Listed
- Isocyanic acid, methylenedi-p-phenylene ester 101-68-8 30% TO 60% Not Listed
- Polymethylene polyphenyl isocyanate 9016-87-9 30% TO 60% Not Listed

U.S. - TSCA (Toxic Substances Control Act) - Section 8(a) - Inventory Update Rule - Partially Exempt Substances
- 1,1,1,2-Tetrafluoroethane 811-97-2 7% TO 13% Not Listed
- Isocyanic acid, methylenedi-p-phenylene ester 101-68-8 30% TO 60% Effective 06/01/1987, Reporting 12/27/1990 Not Listed
- Polymethylene polyphenyl isocyanate 9016-87-9 30% TO 60% Not Listed

U.S. - TSCA (Toxic Substances Control Act) - Section 8(d) - 716.120(a) - Health and Safety Reporting - List of Substances
- 1,1,1,2-Tetrafluoroethane 811-97-2 7% TO 13% Effective 10/15/1990 Sunset 11/09/1993
- Isocyanic acid, methylenedi-p-phenylene ester 101-68-8 30% TO 60% Effective 06/01/1987 Sunset 06/01/1997
- Polymethylene polyphenyl isocyanate 9016-87-9 30% TO 60% Effective 06/01/1987 Sunset 12/19/1995

U.S. - TSCA (Toxic Substances Control Act) - Section 8(d) - 716.120(d) - Health and Safety Reporting
- 1,1,1,2-Tetrafluoroethane 811-97-2 7% TO 13% Not Listed
- Isocyanic acid, methylenedi-p-phenylene ester 101-68-8 30% TO 60% Not Listed
- Polymethylene polyphenyl isocyanate 9016-87-9 30% TO 60% Not Listed

Other

U.S. - CPSC (Consumer Product Safety Commission) - Specially Regulated Substances
- 1,1,1,2-Tetrafluoroethane 811-97-2 7% TO 13% Not Listed
- Isocyanic acid, methylenedi-p-phenylene ester 101-68-8 30% TO 60% Not Listed
- Polymethylene polyphenyl isocyanate 9016-87-9 30% TO 60% Not Listed

United States - California

Environment

U.S. - California - Priority Toxic Pollutants - Human Health Criteria
- 1,1,1,2-Tetrafluoroethane 811-97-2 7% TO 13% Not Listed
- Isocyanic acid, methylenedi-p-phenylene ester 101-68-8 30% TO 60% Not Listed
- Polymethylene polyphenyl isocyanate 9016-87-9 30% TO 60% Not Listed

U.S. - California - Priority Toxic Pollutants - Saltwater Criteria
- 1,1,1,2-Tetrafluoroethane 811-97-2 7% TO 13% Not Listed
- Isocyanic acid, methylenedi-p-phenylene ester 101-68-8 30% TO 60% Not Listed
- Polymethylene polyphenyl isocyanate 9016-87-9 30% TO 60% Not Listed
### U.S. - California - Proposition 65 - Carcinogens List
- 1,1,2-Trifluoroethane 811-97-2 7% TO 13%  Not Listed
- Isocyanic acid, methylenedi-p-phenylene ester 101-68-8 30% TO 60%  Not Listed
- Polymethylene polyphenyl isocyanate 9016-87-9 30% TO 60%  Not Listed

### U.S. - California - Proposition 65 - Developmental Toxicity
- 1,1,2-Trifluoroethane 811-97-2 7% TO 13%  Not Listed
- Isocyanic acid, methylenedi-p-phenylene ester 101-68-8 30% TO 60%  Not Listed
- Polymethylene polyphenyl isocyanate 9016-87-9 30% TO 60%  Not Listed

### U.S. - California - Proposition 65 - Maximum Allowable Dose Levels (MADL)
- 1,1,2-Trifluoroethane 811-97-2 7% TO 13%  Not Listed
- Isocyanic acid, methylenedi-p-phenylene ester 101-68-8 30% TO 60%  Not Listed
- Polymethylene polyphenyl isocyanate 9016-87-9 30% TO 60%  Not Listed

### U.S. - California - Proposition 65 - No Significant Risk Levels (NSRL)
- 1,1,2-Trifluoroethane 811-97-2 7% TO 13%  Not Listed
- Isocyanic acid, methylenedi-p-phenylene ester 101-68-8 30% TO 60%  Not Listed
- Polymethylene polyphenyl isocyanate 9016-87-9 30% TO 60%  Not Listed

### U.S. - California - Proposition 65 - Reproductive Toxicity - Female
- 1,1,2-Trifluoroethane 811-97-2 7% TO 13%  Not Listed
- Isocyanic acid, methylenedi-p-phenylene ester 101-68-8 30% TO 60%  Not Listed
- Polymethylene polyphenyl isocyanate 9016-87-9 30% TO 60%  Not Listed

### U.S. - California - Proposition 65 - Reproductive Toxicity - Male
- 1,1,2-Trifluoroethane 811-97-2 7% TO 13%  Not Listed
- Isocyanic acid, methylenedi-p-phenylene ester 101-68-8 30% TO 60%  Not Listed
- Polymethylene polyphenyl isocyanate 9016-87-9 30% TO 60%  Not Listed

### United States - Massachusetts

#### Environment

##### U.S. - Massachusetts - Allowable Ambient Limits (AALs)
- 1,1,2-Trifluoroethane 811-97-2 7% TO 13%  Not Listed
- Isocyanic acid, methylenedi-p-phenylene ester 101-68-8 30% TO 60%  Not Listed
- Polymethylene polyphenyl isocyanate 9016-87-9 30% TO 60%  Not Listed

##### U.S. - Massachusetts - Allowable Threshold Concentrations (ATCs)
- 1,1,2-Trifluoroethane 811-97-2 7% TO 13%  Not Listed
- Isocyanic acid, methylenedi-p-phenylene ester 101-68-8 30% TO 60%  Not Listed
- Polymethylene polyphenyl isocyanate 9016-87-9 30% TO 60%  Not Listed

##### U.S. - Massachusetts - Drinking Water - Maximum Contaminant Levels (MCLs)
- 1,1,2-Trifluoroethane 811-97-2 7% TO 13%  Not Listed
- Isocyanic acid, methylenedi-p-phenylene ester 101-68-8 30% TO 60%  Not Listed
- Polymethylene polyphenyl isocyanate 9016-87-9 30% TO 60%  Not Listed

##### U.S. - Massachusetts - Drinking Water - Secondary Maximum Contaminant Levels (SMCLs)
- 1,1,2-Trifluoroethane 811-97-2 7% TO 13%  Not Listed
- Isocyanic acid, methylenedi-p-phenylene ester 101-68-8 30% TO 60%  Not Listed
- Polymethylene polyphenyl isocyanate 9016-87-9 30% TO 60%  Not Listed

##### U.S. - Massachusetts - Drinking Water Guidelines
- 1,1,2-Trifluoroethane 811-97-2 7% TO 13%  Not Listed
- Isocyanic acid, methylenedi-p-phenylene ester 101-68-8 30% TO 60% Not Listed
- Polymethylene polyphenyl isocyanate 9016-87-9 30% TO 60% Not Listed

**U.S. - Massachusetts - Groundwater Protection List (333 CMR12.00)**

- 1,1,1,2-Tetrafluoroethane 811-97-2 7% TO 13% Not Listed
- Isocyanic acid, methylenedi-p-phenylene ester 101-68-8 30% TO 60% Not Listed
- Polymethylene polyphenyl isocyanate 9016-87-9 30% TO 60% Not Listed

**U.S. - Massachusetts - Drinking Water - Maximum Residual Disinfectant Levels (MRDLs)**

- 1,1,1,2-Tetrafluoroethane 811-97-2 7% TO 13% Not Listed
- Isocyanic acid, methylenedi-p-phenylene ester 101-68-8 30% TO 60% Not Listed
- Polymethylene polyphenyl isocyanate 9016-87-9 30% TO 60% Not Listed

**U.S. - Massachusetts - Oil & Hazardous Material List - Groundwater Reportable Concentration - Reporting Category 1**

- 1,1,1,2-Tetrafluoroethane 811-97-2 7% TO 13% Not Listed
- Isocyanic acid, methylenedi-p-phenylene ester 101-68-8 30% TO 60% Not Listed
- Polymethylene polyphenyl isocyanate 9016-87-9 30% TO 60% Not Listed

**U.S. - Massachusetts - Oil & Hazardous Material List - Groundwater Reportable Concentration - Reporting Category 2**

- 1,1,1,2-Tetrafluoroethane 811-97-2 7% TO 13% Not Listed
- Isocyanic acid, methylenedi-p-phenylene ester 101-68-8 30% TO 60% Not Listed
- Polymethylene polyphenyl isocyanate 9016-87-9 30% TO 60% Not Listed

**U.S. - Massachusetts - Oil & Hazardous Material List - Reportable Quantity**

- 1,1,1,2-Tetrafluoroethane 811-97-2 7% TO 13% Not Listed
- Isocyanic acid, methylenedi-p-phenylene ester 101-68-8 30% TO 60% Not Listed
- Polymethylene polyphenyl isocyanate 9016-87-9 30% TO 60% Not Listed

**U.S. - Massachusetts - Oil & Hazardous Material List - Soil Reportable Concentration - Reporting Category 1**

- 1,1,1,2-Tetrafluoroethane 811-97-2 7% TO 13% Not Listed
- Isocyanic acid, methylenedi-p-phenylene ester 101-68-8 30% TO 60% Not Listed
- Polymethylene polyphenyl isocyanate 9016-87-9 30% TO 60% Not Listed

**U.S. - Massachusetts - Oil & Hazardous Material List - Soil Reportable Concentration - Reporting Category 2**

- 1,1,1,2-Tetrafluoroethane 811-97-2 7% TO 13% Not Listed
- Isocyanic acid, methylenedi-p-phenylene ester 101-68-8 30% TO 60% Not Listed
- Polymethylene polyphenyl isocyanate 9016-87-9 30% TO 60% Not Listed

**U.S. - Massachusetts - Threshold Effects Exposure Limits (TELs)**

- 1,1,1,2-Tetrafluoroethane 811-97-2 7% TO 13% Not Listed
- Isocyanic acid, methylenedi-p-phenylene ester 101-68-8 30% TO 60% CERCLA and 313 chemical
- Polymethylene polyphenyl isocyanate 9016-87-9 30% TO 60% 313 chemical

**United States - New Jersey**

**Environment**

**U.S. - New Jersey - Control and Prohibition of Air Pollution by Toxic Substances**

- 1,1,1,2-Tetrafluoroethane 811-97-2 7% TO 13% Not Listed
- Isocyanic acid, methylenedi-p-phenylene ester 101-68-8 30% TO 60% Not Listed
- Polymethylene polyphenyl isocyanate 9016-87-9 30% TO 60% Not Listed
### U.S. - New Jersey - Discharge Prevention - List of Hazardous Substances
- 1,1,2-Tetrafluoroethane 811-97-2 7% TO 13% Not Listed
- Isocyanic acid, methylenedi-p-phenylene ester 101-68-8 30% TO 60% Not Listed
- Polymethylene polyphenyl isocyanate 9016-87-9 30% TO 60%

### U.S. - New Jersey - Environmental Hazardous Substances List
- 1,1,2-Tetrafluoroethane 811-97-2 7% TO 13% Not Listed
- Isocyanic acid, methylenedi-p-phenylene ester 101-68-8 30% TO 60% SN 3757 RQ: 500 lbs (Diisocyanates category. Category code N120. In combination of any listed chemicals)
- Polymethylene polyphenyl isocyanate 9016-87-9 30% TO 60% SN 3757 TPQ: 500 lb (Diisocyanates category. Category code N120. Report 500 lbs. In combination of any listed chemicals)

### U.S. - New Jersey - Primary Drinking Water Standards - Action Levels - ALs
- 1,1,1,2-Tetrafluoroethane 811-97-2 7% TO 13% Not Listed
- Isocyanic acid, methylenedi-p-phenylene ester 101-68-8 30% TO 60% Not Listed
- Polymethylene polyphenyl isocyanate 9016-87-9 30% TO 60% Not Listed

### U.S. - New Jersey - Primary Drinking Water Standards - Maximum Contaminant Levels - MCLs
- 1,1,1,2-Tetrafluoroethane 811-97-2 7% TO 13% Not Listed
- Isocyanic acid, methylenedi-p-phenylene ester 101-68-8 30% TO 60% Not Listed
- Polymethylene polyphenyl isocyanate 9016-87-9 30% TO 60% Not Listed

### U.S. - New Jersey - Secondary Drinking Water Standards - Recommended Upper Limits (RULs)
- 1,1,1,2-Tetrafluoroethane 811-97-2 7% TO 13% Not Listed
- Isocyanic acid, methylenedi-p-phenylene ester 101-68-8 30% TO 60% Not Listed
- Polymethylene polyphenyl isocyanate 9016-87-9 30% TO 60% Not Listed

### U.S. - New Jersey - Special Health Hazards Substances List
- 1,1,1,2-Tetrafluoroethane 811-97-2 7% TO 13% Not Listed
- Isocyanic acid, methylenedi-p-phenylene ester 101-68-8 30% TO 60% Not Listed
- Polymethylene polyphenyl isocyanate 9016-87-9 30% TO 60% Not Listed

### U.S. - New Jersey - TCPA - Extraordinarily Hazardous Substances (EHS)
- 1,1,1,2-Tetrafluoroethane 811-97-2 7% TO 13% Not Listed
- Isocyanic acid, methylenedi-p-phenylene ester 101-68-8 30% TO 60% Not Listed
- Polymethylene polyphenyl isocyanate 9016-87-9 30% TO 60% Not Listed

### U.S. - New Jersey - Water Quality - Ground Water Quality Criteria
- 1,1,2-Tetrafluoroethane 811-97-2 7% TO 13% Not Listed
- Isocyanic acid, methylenedi-p-phenylene ester 101-68-8 30% TO 60% Not Listed
- Polymethylene polyphenyl isocyanate 9016-87-9 30% TO 60% Not Listed

### U.S. - New Jersey - Water Quality - Practical Quantitation Levels (PQLs)
- 1,1,2-Tetrafluoroethane 811-97-2 7% TO 13% Not Listed
- Isocyanic acid, methylenedi-p-phenylene ester 101-68-8 30% TO 60% Not Listed
- Polymethylene polyphenyl isocyanate 9016-87-9 30% TO 60% Not Listed

### United States - Pennsylvania

#### Labor

##### U.S. - Pennsylvania - RTK (Right to Know) - Environmental Hazard List
- 1,1,1,2-Tetrafluoroethane 811-97-2 7% TO 13% Not Listed
- Isocyanic acid, methylenedi-p-phenylene ester 101-68-8 30% TO 60%
- Polymethylene polyphenyl isocyanate 9016-87-9 30% TO 60% Not Listed

##### U.S. - Pennsylvania - RTK (Right to Know) - Special Hazardous Substances
<table>
<thead>
<tr>
<th>Substance</th>
<th>CAS Number</th>
<th>Reportable Range</th>
<th>Classification</th>
</tr>
</thead>
<tbody>
<tr>
<td>1,1,1,2-Tetrafluoroethane</td>
<td>811-97-2</td>
<td>7% TO 13%</td>
<td>Not Listed</td>
</tr>
<tr>
<td>Isocyanic acid, methylenedi-p-phenylene ester</td>
<td>101-68-8</td>
<td>30% TO 60%</td>
<td>Toxic</td>
</tr>
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</tr>
</tbody>
</table>

United States - Rhode Island

Labor

U.S. - Rhode Island - Hazardous Substance List

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Section 16 - Other Information

Preparation Date: 1/13/2010
Last Revision Date: 12/10/2010
Acronyms/Definitions: For reference to the acronyms/definitions used in this MSDS please visit www.certainteed.com.
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Key to abbreviations
NDA = No Data Available