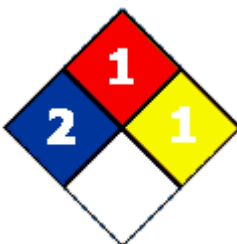




# Material Safety Data Sheet

NFPA	HMIS	PPE	Transport Symbol						
	<table border="1"> <tr> <td>Health Hazard</td> <td>2*</td> </tr> <tr> <td>Fire Hazard</td> <td>1</td> </tr> <tr> <td>Reactivity</td> <td>1</td> </tr> </table>	Health Hazard	2*	Fire Hazard	1	Reactivity	1		
Health Hazard	2*								
Fire Hazard	1								
Reactivity	1								

Issuing Date March 11, 2008

Revision Date April 7, 2008

Revision Number 1

## 1. PRODUCT AND COMPANY IDENTIFICATION

**Product Name** **Component A for**  
 Touch 'n Seal Foam Kit 200FR / 600 FR / RF-17FR  
 Touch 'n Seal Mine Foam (25FSI)180M / 200M / 600M  
 Touch 'n Seal Mine Foam (LOI)180M / 200M / 600M  
 Touch 'n Seal Rib & Roof Foam Sealant  
 Touch 'n Seal Foam Kit 300FR / 1000 FR

**Recommended Use** Insulation, Sealant

**Supplier Address** Convenience Products, division of Clayton Corp.  
 866 Horan Drive  
 Fenton, MO 63026-2416 USA  
 TEL: (636) 349-5855

**Emergency Telephone Number** Chemtrec 1-800-424-9300  
 (703) 527-3887 outside US

## 2. HAZARDS IDENTIFICATION

### WARNING!

#### Emergency Overview

Contents under pressure.

May be harmful if swallowed, inhaled, or absorbed through skin

May cause sensitization by skin contact

May cause allergic respiratory reaction.

Persons allergic to isocyanates, and particularly those suffering from asthma or other respiratory conditions, should not work with isocyanates.

Vapors may be irritating to eyes, nose, throat, and lungs.

May cause drowsiness and dizziness.

**Appearance** Pale Amber

**Physical State** Liquid

**Odor** Faint hydrocarbon

### Potential Health Effects

**Principle Routes of Exposure** Inhalation, Skin contact, Eye contact.

### Acute Toxicity

**Eyes**

Irritating to eyes. Risk of serious damage to eyes.

**Skin**

Harmful in contact with skin. Will bond to skin. May cause sensitization by skin contact.

**Inhalation**

Harmful by inhalation. Irritating to respiratory system. May cause allergic respiratory reaction. Intentional misuse by deliberately concentrating and inhaling contents may be harmful or fatal. Inhalation of vapors in high concentration may cause shortness of breath (lung edema). May cause allergy or asthma symptoms or breathing difficulties if inhaled.

**Component A for**

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<b>Ingestion</b>	May be harmful if swallowed. May cause additional affects as listed under "Inhalation". Ingestion may cause gastrointestinal irritation, nausea, vomiting and diarrhea. Product may cure in the gastrointestinal tract and form an obstruction. May cause adverse cardiac effects, blood disturbances, and metabolic acidosis.
<b>Chronic Effects</b>	Repeated or prolonged exposure may cause central nervous system damage. Intentional misuse by deliberately concentrating and inhaling contents may be harmful or fatal. Chronic hydrocarbon abuse has been associated with irregular heart rhythms and potential cardiac arrest. Repeated or prolonged contact causes sensitization, asthma and eczemas.
<b>Aggravated Medical Conditions</b>	Allergies. Skin disorders. Respiratory disorders. Central nervous system. Preexisting eye disorders. Kidney disorders. Liver disorders.
<b>Interactions with Other Chemicals</b>	Irritants. Sensitizers. Epoxies. Use of alcoholic beverages may enhance toxic effects.
<b>Environmental Hazard</b>	See Section 12 for additional Ecological information

**3. COMPOSITION/INFORMATION ON INGREDIENTS**

Chemical Name	CAS-No	Weight %
1,1,1,2- Tetrafluoroethane (Non-Flammable Compressed Gas, HFC-134a, Fluorocarbon)	811-97-2	7-14
Polymethylene polyphenylene isocyanate	9016-87-9	30-60
Methylene bisphenyl isocyanate (MDI)	101-68-8	30-60
Methylenediphenyl diisocyanate	26447-40-5	5-10

**4. FIRST AID MEASURES**

<b>General Advice</b>	Call 911 or emergency medical service. Remove and isolate contaminated clothing and shoes.
<b>Eye Contact</b>	In case of contact with substance, immediately flush skin or eyes with running water for at least 20 minutes.
<b>Skin Contact</b>	Wash off immediately with soap and plenty of water removing all contaminated clothes and shoes. Remove and wash contaminated clothing before re-use. Wash off immediately with plenty of water. If skin irritation persists, call a physician.
<b>Inhalation</b>	Move victim to fresh air. Apply artificial respiration if victim is not breathing. Administer oxygen if breathing is difficult.
<b>Ingestion</b>	Call a physician or Poison Control Center immediately. Do not induce vomiting. Rinse mouth. Drink plenty of water. Never give anything by mouth to an unconscious person.
<b>Notes to Physician</b>	May cause sensitization of susceptible persons. Treat symptomatically. Keep victim warm and quiet.
<b>Protection of First-aiders</b>	Ensure that medical personnel are aware of the material(s) involved, and take precautions to protect themselves.

**5. FIRE-FIGHTING MEASURES**

<b>Flammable Properties</b>	Containers may explode when heated.
<b>Flash Point</b>	None

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**Suitable Extinguishing Media**

Dry chemical, CO2, water spray or regular foam. Water spray, fog or regular foam. Move containers from fire area if you can do it without risk. Dike fire-control water for later disposal.

**Unsuitable Extinguishing Media**

Do not scatter spilled material with high pressure water streams.

**Explosion Data**

**Sensitivity to mechanical impact** None  
**Sensitivity to static discharge** None

**Specific Hazards Arising from the Chemical**

Ruptured cylinders may rocket.

**Protective Equipment and Precautions for Firefighters**

Wear self-contained breathing apparatus and protective suit.

**NFPA** Health Hazard 2 Flammability 1 Stability 1 Physical and Chemical Hazards -

**HMS** Health Hazard 2\* Flammability 1 Stability 1 Personal Precautions -

**6. ACCIDENTAL RELEASE MEASURES**

**Personal Precautions** Do not touch or walk through spilled material. Stop leak if you can do it without risk.

**Methods for Containment** If possible, turn leaking containers so that gas escapes rather than liquid. Allow substance to evaporate. Dike to collect large liquid spills.

**Methods for Cleaning Up** Soak up with inert absorbent material. Sweep up and shovel into suitable containers for disposal. Do not direct water at spill or source of leak.

**Other Information** Ventilate the area.

**7. HANDLING AND STORAGE**

**Handling** Avoid contact with skin, eyes and clothing. Wear personal protective equipment. Remove and wash contaminated clothing before re-use. Do not breathe vapors or spray mist. Do not eat, drink or smoke when using this product. Use only in area provided with appropriate exhaust ventilation. Ensure adequate ventilation. Avoid breathing vapors or mists. Contents under pressure. Do not puncture or incinerate cans. Do not stick pin or any other sharp object into opening on top of can.

**Storage** Keep containers tightly closed in a cool, well-ventilated place. Ideal Storage Temperature is 16-32 °C / 60 – 90 °F. Storage above 32°C / 90 °F will reduce its shelf-life. Never keep at temperatures above 48.8 °C / 120 °F. Protect the container from physical abuse. Keep out of the reach of children.

**8. EXPOSURE CONTROLS / PERSONAL PROTECTION****Exposure Guidelines**

Chemical Name	ACGIH TLV	OSHA PEL	NIOSH IDLH
1,1,1,2- Tetrafluoroethane* HFC-134a	None-established	None-established	
Methylene bisphenyl isocyanate (MDI)	TWA: 0.005 ppm	Ceiling: 0.02 ppm Ceiling: 0.2 mg/m <sup>3</sup>	75 mg/m <sup>3</sup>

\* Workplace Environmental Exposure Level (AIHA) 8 hours TWA 1000ppm.

**Component A for**

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NIOSH IDLH: Immediately Dangerous to Life or Health

**Engineering Measures**                      Showers  
     Eyewash stations  
     Ventilation systems

**Personal Protective Equipment**  
**Eye/Face Protection**                      Tightly fitting safety goggles.  
**Skin and Body protection**                Lightweight protective clothing. Impervious gloves.  
**Respiratory Protection**                    If exposure limits are exceeded or irritation is experienced, NIOSH/MSHA approved respiratory protection should be worn. Respiratory protection must be provided in accordance with current local regulations.

**Hygiene Measures**                              When using, do not eat, drink or smoke. Wear suitable gloves and eye/face protection.

<b>9. PHYSICAL AND CHEMICAL PROPERTIES</b>
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<b>Appearance</b>	Pale Amber	<b>Odor</b>	Faint hydrocarbon
<b>Odor Threshold</b>	No information available	<b>Physical State</b>	Liquid (Frothable)
<b>pH</b>	No information available		
<b>Flash Point</b>	None	<b>Autoignition Temperature</b>	Not applicable
<b>Decomposition temperature</b>	No data available	<b>Boiling Point/Range</b>	-26°C / -15°F for HFC-134a
<b>Melting Point/Range</b>	No data available		
<b>Flammability Limits in Air</b>	No data available	<b>Explosion Limits</b>	No data available
<b>Specific Gravity</b>	1.2	<b>Water Solubility</b>	Not Compatible
<b>Solubility</b>	No data available	<b>Evaporation Rate</b>	No data available
<b>Vapor Pressure</b>	No data available	<b>Vapor Density</b>	No data available
<b>VOC Content</b>	Not applicable	<b>EPA VOC (g/l)</b>	no
<b>Partition Coefficient (n-octanol/water)</b>	No data available		

<b>10. STABILITY AND REACTIVITY</b>
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<b>Stability</b>	Stable under recommended storage conditions
<b>Conditions to Avoid</b>	Keep away from open flames, hot surfaces and sources of ignition. Temperatures above 48.8 °C / 120 °F.
<b>Incompatible Products</b>	Water. Alcohols. Strong bases. Strong oxidizing agents. Finely powdered metals.
<b>Hazardous Decomposition Products</b>	Carbon monoxide (CO), Carbon dioxide (CO <sub>2</sub> ), Nitrogen oxides (NO <sub>x</sub> ), Hydrogen cyanide.
<b>Hazardous Polymerization</b>	Hazardous polymerization does not occur.

**Component A for**

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## 11. TOXICOLOGICAL INFORMATION

**Acute Toxicity**

**Product Information** No acute toxicity information is available for this product..

**Component Information**

Chemical Name	LD50 Oral	LD50 Dermal	LC50 Inhalation
1,1,1,2- Tetrafluoroethane HFC-134a	None-established	None-established	None-established
Polymethylene polyphenylene isocyanate	49 g/kg ( Rat )	9400 mg/kg ( Rabbit )	490 mg/m <sup>3</sup> ( Rat ) 4 h
Methylene bisphenyl isocyanate (MDI)	9200 mg/kg ( Rat )		
Methylenediphenyl diisocyanate		6200 mg/kg ( Rabbit )	0.369 mg/L ( Rat ) 4 h

**Subchronic Toxicity (28 days)****Chronic Toxicity****Chronic Toxicity**

Repeated or prolonged exposure may cause central nervous system damage. Intentional misuse by deliberately concentrating and inhaling contents may be harmful or fatal. Chronic hydrocarbon abuse has been associated with irregular heart rhythms and potential cardiac arrest. Repeated or prolonged contact causes sensitization, asthma and eczemas.

**Carcinogenicity**

There are no known carcinogenic chemicals in this product

**Mutagenicity****Reproductive Toxicity**

This product does not contain any known or suspected reproductive hazards

**Target Organ Effects**

Central nervous system (CNS), Central Vascular System (CVS), Eyes, Kidney, Liver, Respiratory system, spleen.

**Endocrine Disruptor Information**

This product does not contain any known or suspected endocrine disruptors

## 12. ECOLOGICAL INFORMATION

**Ecotoxicity**

Ecotoxicity effects.

Chemical Name	Toxicity to Algae	Toxicity to Fish	Microtox	Daphnia Magna (Water Flea)
Methylenediphenyl diisocyanate	EC50 = 3230 mg/L 96 h			EC50 > 1000 mg/L 24 h

Chemical Name	Log Pow
1,1,1,2- Tetrafluoroethane HFC-134a	1.06

## 13. DISPOSAL CONSIDERATIONS

**Waste Disposal Method**

This material, as supplied, is not a hazardous waste according to state and federal regulations (40 CFR 261).

**Contaminated Packaging**

Dispose of in accordance with local regulations.

**Component A for**

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**14. TRANSPORT INFORMATION****DOT**

**Proper Shipping Name** Compressed gas, n.o.s. (1,1,1,2- Tetrafluoroethane, Nitrogen)  
**Hazard Class** 2.2  
**Description** NONFLAMMABLE GAS (Fluorocarbon, Nitrogen)

**TDG**

**Proper Shipping Name** Compressed gas, n.o.s. (1,1,1,2- Tetrafluoroethane, Nitrogen)  
**Hazard Class** 2.2  
**UN-No** UN1956  
**Description** NONFLAMMABLE GAS (Fluorocarbon, Nitrogen)

**MEX**

**Proper Shipping Name** Compressed gas, n.o.s. (1,1,1,2- Tetrafluoroethane, Nitrogen)  
**Hazard Class** 2.2  
**UN-No** UN1956  
**Description** NONFLAMMABLE GAS (Fluorocarbon, Nitrogen)

**ICAO**

**UN-No** UN1956  
**Proper Shipping Name** Compressed gas, n.o.s. (1,1,1,2- Tetrafluoroethane, Nitrogen)  
**Hazard Class** 2.2  
**Description** NONFLAMMABLE GAS (Fluorocarbon, Nitrogen)

**IATA**

**UN-No** UN1956  
**Proper Shipping Name** Compressed gas, n.o.s. (1,1,1,2- Tetrafluoroethane, Nitrogen)  
**Hazard Class** 2.2  
**ERG Code** 2L  
**Description** NONFLAMMABLE GAS (Fluorocarbon, Nitrogen)

**IMDG/IMO**

**Proper Shipping Name** Compressed gas, n.o.s. (1,1,1,2- Tetrafluoroethane, Nitrogen)  
**Hazard Class** 2  
**UN-No** UN1956  
**EmS No.** F-D, S-U  
**Description** NONFLAMMABLE GAS (Fluorocarbon, Nitrogen)

**RID**

**Proper Shipping Name** Compressed gas, n.o.s. (1,1,1,2- Tetrafluoroethane, Nitrogen)  
**Hazard Class** 2  
**UN-No** UN1956  
**Classification Code** 5A  
**Description** NONFLAMMABLE GAS (Fluorocarbon, Nitrogen)  
**ADR/RID-Labels** 2

**ADR**

**Proper Shipping Name** Compressed gas, n.o.s. (1,1,1,2- Tetrafluoroethane, Nitrogen)  
**Hazard Class** 2  
**UN-No** UN1956  
**Classification Code** 5A  
**ADR/RID-Labels** 2

*Note: Transportation information provided is for reference only. Client is urged to consult 49 CFR 100 - 177, IMDG, IATA, EU, United Nations TDG, and WHMIS (Canada) TDG information manuals for detailed regulations and exceptions covering specific container sizes, packaging materials and methods of shipping.*

**Component A for**

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Touch 'n Seal Foam Kit 200FR / 600FR / RF-17FR  
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<b>15. REGULATORY INFORMATION</b>
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**International Inventories**

<b>TSCA</b>	Complies
<b>DSL</b>	Complies
<b>EINECS/ELINCS</b>	Complies
<b>ENCS</b>	Complies
<b>CHINA</b>	Complies
<b>KECL</b>	Complies
<b>PICCS</b>	Complies
<b>AICS</b>	Complies

**U.S. Federal Regulations****SARA 313**

Section 313 of Title III of the Superfund Amendments and Reauthorization Act of 1986 (SARA). This product contains a chemical or chemicals which are subject to the reporting requirements of the Act and Title 40 of the Code of Federal Regulations, Part 372:

Chemical Name	CAS-No	Weight %	SARA 313 - Threshold Values
Polymethylene polyphenylene isocyanate	9016-87-9	30-60	1.0
Methylene bisphenyl isocyanate (MDI)	101-68-8	30-60	1.0
Methylenediphenyl diisocyanate	26447-40-5	5-10	1.0

**SARA 311/312 Hazard Categories**

<b>Acute Health Hazard</b>	Yes
<b>Chronic Health Hazard</b>	Yes
<b>Fire Hazard</b>	Yes
<b>Sudden Release of Pressure Hazard</b>	Yes
<b>Reactive Hazard</b>	No

**Clean Water Act**

This product does not contain any substances regulated as pollutants pursuant to the Clean Water Act (40 CFR 122.21 and 40 CFR 122.42).

**CERCLA**

This material, as supplied, contains one or more substances regulated as a hazardous substance under the Comprehensive Environmental Response Compensation and Liability Act (CERCLA) (40 CFR 302).

Chemical Name	Hazardous Substances RQs	Extremely Hazardous Substances RQs
Methylene bisphenyl isocyanate (MDI)	5000 lb	

**U.S. State Regulations****California Proposition 65**

This product does not contain any Proposition 65 chemicals.

**U.S. State Right-to-Know Regulations**

Chemical Name	Massachusetts	New Jersey	Pennsylvania	Illinois	Rhode Island
Methylene bisphenyl isocyanate (MDI)	X	X	X	X	X
1,1,1,2- Tetrafluoroethane HFC-134a		X	X		

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**International Regulations****Mexico - Grade**

Chemical Name	Carcinogen Status	Exposure Limits
Methylene bisphenyl isocyanate (MDI)		Mexico: TWA= 0.2 mg/m <sup>3</sup> Ceiling Mexico: TWA= 0.02 ppm Ceiling

**Canada**

This product has been classified in accordance with the hazard criteria of the Controlled Products Regulations (CPR) and the MSDS contains all the information required by the CPR.

**WHMIS Hazard Class**

A Compressed gases  
 D2A Very toxic materials



Chemical Name	NPRI
Methylene bisphenyl isocyanate (MDI)	X
Polymethylene polyphenylene isocyanate	X
1,1,1,2- Tetrafluoroethane, HFC-134a	X

**Legend**

NPRI - National Pollutant Release Inventory

**16. OTHER INFORMATION**

**Issuing Date** March 11, 2008  
**Revision Date** April 7, 2008  
**Revision Note** Add "RF-17FR", FK-300FR, Part#

**Disclaimer**

The information provided on this MSDS is correct to the best of our knowledge, information and belief at the date of its publication. The information given is designed only as a guide for safe handling, use, processing, storage, transportation, disposal and release and is not to be considered as a warranty or quality specification. The information relates only to the specific material designated and may not be valid for such material used in combination with any other material or in any process, unless specified in the text.

**End of MSDS**