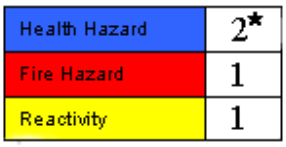
Material Safety Data Sheet

NFPA	HMIS	PPE	Transport Symbol
			

Issuing Date 27-Feb-2007 **Revision Date 24-Sept-2009** **Revision Number** 1

1. PRODUCT AND COMPANY IDENTIFICATION

Product Name
Touch 'n Foam® Professional Quick Cure Polyurethane Insulating Sealant
Touch 'n Seal® Quick Cure Polyurethane Foam Sealant RX (cylinder)
Touch 'n Seal Quick Cure Polyurethane Foam Sealant HY (cylinder)

Recommended Use
Sealant, Insulation

Supplier Address
Convenience Products, Division of Clayton Corp.
866 Horan Drive
Fenton, MO 63026-2416 USA
TEL: (636) 349-5333

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

2. HAZARDS IDENTIFICATION

WARNING!

Emergency Overview

Contents under pressure. Avoid temperatures above (120℉)
May be harmful if swallowed or inhaled.
May cause allergic skin reaction.
May cause allergic respiratory reaction.
Vapors may be irritating to eyes, nose, throat, and lungs.
May cause drowsiness and dizziness.
Keep upwind of spill. Stay out of low areas

Appearance Pale Amber **Physical State** Liquid Aerosol **Odor** Faint hydrocarbon

Potential Health Effects

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

Acute Toxicity

Eyes
Irritating to eyes. May cause slight temporary corneal injury due to adhesive character.

Skin
Prolonged or repeated exposure may cause slight skin irritation. Material will stick to skin causing irritation upon removal. Animal studies have shown that skin contact with isocyanates may play a role in causing respiratory sensitization. Repeated or prolonged skin contact may cause allergic reactions with susceptible persons.

Skin Absorption
A single prolonged exposure is unlikely to result in the material being absorbed in harmful amounts.

Inhalation

Maintain local exhaust ventilation system during use. If large concentrations of vapors build up they could cause upper respiratory tract and lung irritation. May cause allergic respiratory reaction. Inhalation of vapors in high concentration may cause shortness of breath (lung edema).

Ingestion

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.

Chronic Effects

Tissue injury in the upper respiratory tract and lungs has been observed in laboratory animals after repeated excessive exposures to MDI / Polymeric MDI aerosols. Intentional misuse by deliberately concentrating and inhaling contents may be harmful or fatal. Repeated or prolonged contact causes sensitization, asthma and eczemas.

Birth / Developmental Effects:

In laboratory animals, MDI/Polymeric MDI did not cause birth defects; other fetal effects occurred only at high doses that were toxic to the mother.

Aggravated Medical Conditions

Allergies. Skin disorders. Respiratory disorders. Central nervous system. Preexisting eye disorders. Kidney disorders. Liver disorders.

Interactions with Other Chemicals

Irritants. Sensitizers. Epoxies. Use of alcoholic beverages may enhance toxic effects.

3. COMPOSITION/INFORMATION ON INGREDIENTS

Chemical Name	CAS-No	Weight %
1,1,1,2 – Tetrafluoroethane (HFC-134a, Fluorocarbon)	811-97-2	10-30
Flame Retardant	Proprietary	5-20
Flame Retardant	Proprietary	5-20
Polymethylene polyphenylene isocyanate	9016-87-9	10-30
Methylene bisphenyl isocyanate (MDI)	101-68-8	10-30
Polyol blend	Proprietary	10-30
Methylenediphenyl diisocyanate	26447-40-5	1-5

4. FIRST AID MEASURES

General Advice

If emergency warrants call 911 or emergency medical service. Show this safety data sheet to the doctor in attendance. Remove and wash soiled clothing before reuse.

Eye Contact

Immediately flush with plenty of water. After initial flushing, remove any contact lenses and continue flushing for at least 15 minutes. Keep eye wide open while rinsing. Obtain medical attention, preferably from an ophthalmologist.

Skin Contact

Remove contaminated clothing; wash before reuse. Foam will stick to skin; studies demonstrate that cleaning very soon after exposure with corn oil or nail polish remover is most effective. If foam dries on skin, apply generous amounts of petroleum jelly or lanolin, put on plastic gloves and wait 1 hour. With a clean cloth, firmly wipe off petroleum jelly and repeat process if necessary. Do not attempt to remove dried foam with solvents.

Inhalation

Move victim to fresh air. Apply artificial respiration if victim is not breathing. Administer oxygen if breathing is difficult. If breathing is difficult, oxygen should be administered by qualified personnel. Call a physician or transport to a medical facility.

Ingestion

Call a physician or Poison Control Center immediately. May produce an allergic reaction. Do not induce vomiting unless directed to do so by medical personnel. Drink plenty of water. Never give anything by mouth to an unconscious person.

Notes to Physician

Maintain adequate ventilation and oxygenation of the patient. May cause asthma-like (reactive airways) symptoms. May cause respiratory sensitization or asthma-like symptoms. Respiratory symptoms, including pulmonary edema, may be delayed. Exposure may increase "myocardial irritability". If you are sensitized to diisocyanates, consult your physician regarding working with other respiratory irritants or sensitizers. No specific antidote. Treatment of exposure should be directed at the control of symptoms and the clinical condition of the patient.

Protection of First-aiders

Remove all sources of ignition. Ensure that medical personnel are aware of the material(s) involved, and take precautions to protect themselves.

5. FIRE-FIGHTING MEASURES

Flammable Properties

Aerosol cans exposed to fire can rupture.

Flash Point

None

Suitable Extinguishing Media

Isolate fire and deny unnecessary entry. Use an extinguishing agent suitable for type of surrounding fire. Dry chemical, CO_2, water spray, fog or regular foam. Stay upwind. Keep out of low areas where gases fume s can accumulate. Move containers from fire area if you can do it without risk. Damaged cylinders should be handled only by specialists.

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** -
HMIS	**Health Hazard** 2*	**Flammability** 1	**Stability** 1	**Personal Precautions** -B

6. ACCIDENTAL RELEASE MEASURES

Personal Precautions

Do not touch or walk through spilled material. Use appropriate safety equipment. Evacuate area. Keep personnel out of low areas, confined or poorly ventilated areas. Keep upwind of spill. Ensure adequate ventilation. No smoking in area. Only trained and properly protected personnel must be involved in clean-up operations.

Methods for Containment

If possible, turn leaking containers so that gas escapes rather than liquid. Allow substance to evaporate. Contain spilled materials if possible without risk. Absorb with materials such as Sawdust. Dirt Vermiculite. Collect in suitable and properly labeled open containers. Do not place in sealed containers. Wash what is left of the spill site with large quantities water.

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. Curing foam gives off HFC-134a. Do not put curing foam in a sealed drum.

7. HANDLING AND STORAGE

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. Avoid breathing vapors or mists. Contents under pressure. Do not puncture or incinerate cans. Container, even those that have been emptied, can contain vapors. 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. Keep in properly labeled containers. Keep in an area equipped with sprinklers. Keep out of the reach of children. Ideal storage temperature is 16-32 ℃ / 60 – 90 ℉. Stor age above 32 ℃ / 90 ℉ will reduce its shelf-life. Never keep at temperatures above 48.8 ℃ / 120 ℉.

8. EXPOSURE CONTROLS / PERSONAL PROTECTION

Exposure Guidelines

Chemical Name	ACGIH TLV	OSHA PEL	NIOSH IDLH
Methylene bisphenyl isocyanate (MDI)	TWA: 0.005 ppm	Ceiling: 0.02 ppm Ceiling: 0.2 mg/m^3	75 mg/m^3

NIOSH IDLH: Immediately Dangerous to Life or Health

Engineering Measures

Showers
Eyewash stations
Ventilation systems

Personal Protective Equipment

Eye/Face Protection

Tightly fitting safety glasses with side-shields.

Skin and Body protection

Lightweight protective clothing. Impervious gloves.

Respiratory Protection

Atmospheric levels of PMDI should be maintained below the exposure guidelines. If exposure limits are exceeded or irritation is experienced, use a NIOSH/MSHA approved air-purifying respirator equipped with an organic vapor absorbent and a particle filter. For situations where the atmospheric levels exceed the level for which an air-purifying respirator is effective, use a positive-pressure air-supplied respirator. Respiratory protection must be provided in accordance with current local regulations.

Hygiene Measures

When using, do not eat, drink or smoke. Maintain regular cleaning of equipment, work area and clothing.

9. PHYSICAL AND CHEMICAL PROPERTIES

Appearance	Pale Amber	**Odor**	Faint hydrocarbon
Odor Threshold	No information available	**Physical State**	Liquid Aerosol
pH	No information available		
Flash Point	None	**Autoignition Temperature**	Not applicable
Decomposition temperature	No data available	**Boiling Point/Range**	-41℃ / -42℉
Melting Point/Range	No data available		
Flammability Limits in Air	No data available	**Explosion Limits**	No data available
Specific Gravity	1.2	**Water Solubility**	Not Compatible
Solubility	Compatible.	**Evaporation Rate**	No data available
Vapor Pressure	No data available	**Vapor Density**	No data available
VOC Content	Not applicable	**EPA VOC (g/l)**	0

10. STABILITY AND REACTIVITY

Stability — Stable under recommended storage conditions

Conditions to Avoid — Keep away from open flames, hot surfaces and sources of ignition. Temperatures above 48.8 ℃ / 120 ℉.

Incompatible Products — Water. Alcohols. Strong bases. Strong oxidizing agents. Finely powdered metals.

Hazardous Decomposition Products — Carbon monoxide (CO), Carbon dioxide (CO_2), Nitrogen oxides (NOx), Hydrogen cyanide.

Hazardous Polymerization — Hazardous polymerization does not occur.

11. TOXICOLOGICAL INFORMATION

Acute Toxicity

Sensitization - Skin — Skin contact may cause an allergic skin reaction. Animal studies have shown that skin contact with isocyanates may play a role in respiratory sensitization.

Sensitization – Respiratory — May cause allergic respiratory response. MDI concentrations below the exposure guidelines may cause allergic respiratory reactions in individuals already sensitized. Asthma-like symptoms may include coughing, difficult breathing and a feeling of tightness in the chest. Occasionally, breathing difficulties may be life threatening.

Product Information

Chemical Name	LD50 Oral	LD50 Dermal	LC50 Inhalation
Flame Retardant	1,250 mg/kg (Rat)	>5,000 mg/kg (Rabbit)*	>4.6 mg/l (Rat) 4-hr
Flame Retardant	>2,000 mg/kg (Rat)	>23,700 mg/kg (Rabbit) >2000 mg/kg (Rat)	>5.22 mg/l (Rat) 4-h
Polymethylene polyphenylene isocyanate	49 g/kg (Rat)	9400 mg/kg (Rabbit)	490 mg/m^3 (Rat) 4 h
Methylene bisphenyl isocyanate (MDI)	9200 mg/kg (Rat)		
Polyol blend	64 mL/kg (Rat)	20 mL/kg (Rabbit)	

Chemical Name	LD50 Oral	LD50 Dermal	LC50 Inhalation
Methylenediphenyl diisocyanate		6200 mg/kg (Rabbit)	0.369 mg/L (Rat) 4 h

Chronic Toxicity Repeated or prolonged exposure may cause central nervous system damage. Tissue injury in the upper respiratory tract and lungs has been observed in laboratory animals after repeated excessive exposures to MDI/polymeric MDI aerosols. Repeated or prolonged contact causes sensitization, asthma and eczemas. Repeated or prolonged contact may causes sensitization, asthma and eczemas.

Carcinogenicity There are no known carcinogenic chemicals in this product.

Mutagenicity Contains no known mutagenetic chemicals

Reproductive Toxicity This product does not contain any known or suspected reproductive hazards

Target Organ Effects Contains component(s) that have been reported to cause effects on the following organs in animals: Kidney, Liver, Bone marrow.

Endocrine Disruptor Information This product does not contain any known or suspected endocrine disruptors

12. ECOLOGICAL INFORMATION

Ecotoxicity effects.

Chemical Name	Toxicity to Algae	Toxicity to Fish	Microtox	Daphnia Magna (Water Flea)
Flame Retardant	EC50 > 10 mg/L 72 h			EC50 3.9 - 5.5 mg/L 48 h
Methylenediphenyl diisocyanate	EC50 = 3230 mg/L 96 h			EC50 > 1000 mg/L 24 h

13. DISPOSAL CONSIDERATIONS

Waste Disposal Method This material, as supplied, is not a hazardous waste according to Federal regulations (40 CFR 261). Should not be released into the environment. Dispose of in accordance with local regulations. Allow foam to cure before disposal.

Contaminated Packaging Dispose of in accordance with local regulations.

14. TRANSPORT INFORMATION

DOT	**Proper Shipping Name**	Consumer commodity
	Hazard Class	ORM-D
	Description	Consumer commodity, ORM-D
TDG	**UN-No**	UN1950
	Proper Shipping Name	Aerosols
	Hazard Class	2.2
	Description	UN1950, Aerosols, 2.2
MEX	**UN-No**	UN1950
	Proper Shipping Name	Aerosols
	Hazard Class	2.2
	Description	UN1950, Aerosols, 2.2
ICAO	**UN-No**	UN1950
	Proper Shipping Name	Aerosols
	Hazard Class	2.2
	Description	UN1950, Aerosols
IATA	**UN-No**	UN1950
	Proper Shipping Name	Aerosols, non-flammable
	Hazard Class	2.2
	ERG Code	2L
	Description	UN1950, Aerosols, non-flammable, 2.2
IMDG/IMO	**UN-No**	UN1950
	Proper Shipping Name	Aerosols
	Hazard Class	2.2

14. TRANSPORT INFORMATION

	Description	UN1950, Aerosols, 2.2
RID	**UN-No**	UN1950
	Proper Shipping Name	Aerosols
	Hazard Class	2
	Classification Code	5A
	Description	UN1950, Aerosols, 2, RID
	ADR/RID-Labels	2
ADR	**UN-No**	UN1950
	Proper Shipping Name	Aerosols
	Hazard Class	2
	Classification Code	5A
	ADR/RID-Labels	2
ADN	**UN-No**	UN1950
	Proper Shipping Name	Aerosols
	Hazard Class	2
	Classification Code	5A
	Special Provisions	63, 190, 191, 277, 913
	Description	UN1950, Aerosols, 2
	Hazard Labels	2
	Limited Quantity	See SP277

International Inventories			
TSCA	Complies	CHINA	Complies
DSL	Complies	KECL	Complies
EINECS/ELINCS	Complies	PICCS	Complies
ENCS	Complies	AICS	Complies

15. REGULATORY INFORMATION

U.S. Federal Regulations :SARA 313
Section 313 of Title III of the Superfund Amendments and Reauthorization Act of 1986 (SARA). This product does not contain any 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	10-30	1.0
Methylene bisphenyl isocyanate (MDI)	101-68-8	10-30	1.0
Methylenediphenyl diisocyanate	26447-40-5	1-5	1.0
SARA 311/312 Hazard Categories			
Acute Health Hazard	Yes	Fire Hazard	No
Chronic Health Hazard	Yes	**Reactive Hazard**	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
Warning! This product contains chemical known to the State of California to cause cancer. (concentration <0.1%)

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, Fluorocarbon)			X		X

International Regulations

Mexico - Grade

The exposure limits values for 101-68-8 are listed under two synonyms:
Diphenylmethane diisocyanate - 0.02 ppm TWA; 0.2 mg/m^3 TWA
Methylene bisphenyl isocyanate - 0.005 ppm TWA; 0.051 mg/m^3 TWA

Chemical Name	Carcinogen Status	Exposure Limits
Methylene bisphenyl isocyanate (MDI)		Mexico: TWA= 0.2 mg/m^3 Mexico: TWA= 0.02 ppm
Diphenylmethane diisocyanate		Mexico: TWA= 0.005 ppm Mexico: TWA= 0.051 mg/m^3

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, D2B Toxic Materials

Chemical Name	NPRI
Methylene bisphenyl isocyanate (MDI)	X

Legend	KECL- Korean Existing Chemical List
NPRI - National Pollutant Release Inventory	PICS – Philippine Inventory of Chemicals and Chemical Substances
WHMIS – Workplace Hazardous Materials Information System	AICS – Australian Inventory of Chemical Substances
TSCA – Toxic Substance Control Act	TDG – Transportation of Dangerous Goods Act
DSL – Domestic Substance List	ICAO – International Civil Aviation Organization
EINECS – European Inventory of Existing Commercial Chemical Substances	IATA – International Maritime Dangerous Goods Code
ENCS – Japan, Existing and New Chemical Substances	IMDG – International Maritime Dangerous Goods Code

16. OTHER INFORMATION

Issuing Date 22-Feb-2007

Revision Date **24-Sept-2009**

Revision Note Revised by Clayton Corporation EHS Department

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