

MATERIAL SAFETY DATA SHEET

SECTION 1 - PRODUCT INFORMATION

Product:

Touch 'n Seal® Quick Cure High Yield, Touch 'n Seal® Quick Cure RX, Touch 'n Seal® All-Direction Dispensing, and Touch 'n Seal® Fast Gun Foam

Manufacturer:

Convenience Products
866 Horan Drive
Fenton, MO 63026-2416 USA

Date Prepared 7/1/99

Telephone Numbers:

Emergency Number: Chemtrec 1-800-424-9300

Technical Information: (636) 349-5333
(Regular Business Hours)

SECTION II - HAZARDOUS INGREDIENTS/IDENTITY INFORMATION

CHEMICAL NAME	CAS NO.	OSHA PEL	ACGIH TLV	PERCENTAGE
Polyurethane Resin	NE*	NE*	NE*	50-85
4,4-Diphenylmethane Diisocyanate	101-68-8	0.02ppm CEIL	0.005ppm TWA	5-15
Chlorodifluoromethane (HCFC-22)	75-45-6	1,000ppm TWA	1,000ppm TWA	15-25

*Not established

Hazard Rating:	Health 3	Flammability 0	Reactivity 1
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SECTION III - PHYSICAL/CHEMICAL CHARACTERISTICS

Boiling PointHCFC-22Polyurethane Resin	-41.4°F at 1 ATM NE*
Vapor PressureHCFC-22	136 psia at 70°F
Vapor Density (AIR = 1)HCFC-22	2.98 at 1 ATM

Specific Gravity (H ₂ O = 1)Polyurethane Resin	1.1
Solubility in Water	Insoluble, reacts with water
Appearance and Odor	Gel under pressure. Faint ether-like odor

SECTION IV - FIRE AND EXPLOSION HAZARD DATA

Flash Point

Polyurethane Resin >400°F

Extinguishing Media

Water fog, foam, CO₂ or dry chemical

Fire Fighting Procedures

Wear self-contained breathing apparatus and turnout gear. Hazardous decomposition products include CO, CO₂, NO, and traces of HCl. Cured foam: Wear self-contained breathing apparatus. Hazardous decomposition products include CO, CO₂, NO, and traces of HCl.

Usual Hazards

Temperatures above 120°F will increase the pressure in the can, which may lead to rupturing. Cured foam: This product will burn. Do not expose to heat, sparks, or open flame. This product is not intended for use in applications above 250°F (121°C). Always protect foam with approved facings. This product is not a FIRE STOP or FIRE BARRIER penetration sealant.

SECTION V - REACTIVITY DATA

Stability	Stable under normal storage and handling conditions. Do not store above 120°F. Cured foam will deteriorate when exposed to UV light.
Incompatibility	Water, alcohols, strong bases, finely powdered metal such as aluminum, magnesium or zinc, and strong oxidizers.
Conditions/Hazards to Avoid:	Contamination with water may form CO ₂ . Avoid high heat; i.e., flames, extremely hot metal surfaces, heating elements, combustion engines, etc. Do not store in auto or direct sunlight.

SECTION VI - HEALTH HAZARD DATA

Toxicology Test Data

MDI:

Rat, 4 hr Inhalation LC50 - Aerosol 490 mg/m₃
Highly Toxic

Rat, 4 hr Inhalation LC50 - Vapor 11 mg/l
Toxic

Rat, Oral LD50 - > 10,000 mg/kg
Practically Nontoxic

Rat, Inhalation Oncogenicity Study - @ ~0.2, 1, 6 mg/m₃
URT irritant; Carcinogenic @ 6 mg/m₃

HCFC-22

Rat, 2 hr Inhalation LC50 - 200,000ppm

Polyurethane ResinNE*

Acute Overexposure Effects

Eye contact with MDI may result in conjunctival irritation and mild corneal opacity. Skin contact may result in dermatitis, either irritative or allergic. Inhalation of MDI vapors may cause irritation of the mucous membranes of the nose, throat or trachea, breathlessness, chest discomfort, difficult breathing and reduced pulmonary function. Air-borne overexposure well above the PEL may result additionally in eye irritation, headache, chemical bronchitis, asthma-like findings or pulmonary edema. Isocyanates have also been reported to cause hypersensitivity pneumonitis, which is characterized by flu-like symptoms, the onset of which may be delayed. Gastrointestinal symptoms include nausea, vomiting and abdominal pain. HCFC-22 vapor is irritating to eyes. Liquid is irritating to eyes and may cause tissues to freeze. Contact of liquid with skin may cause tissue to freeze (frost bite). Dense vapor displaces breathing air in confined or unventilated areas. Inhaling concentrated vapors can cause drowsiness, unconsciousness, respiratory depression and death due to asphyxiation. This compound also increases the sensitivity of the heart to adrenalin, possibly resulting in rapid heartbeat (tachycardia), irregular heartbeat (cardiac arrhythmias), and depression of cardiac function. Persons with preexisting heart disease may be at increased risk from exposure.

Polyurethane resin forms a quick bond with skin. Cured foam is hard to remove from skin. May cause eye damage.

Chronic Overexposure Effects

Acute or chronic overexposure to isocyanates may cause sensitization in some individuals, resulting in allergic symptoms of the lower respiratory tract (asthma-like), including wheezing, shortness of breath and difficulty breathing. Subsequent reactions may occur at or substantially below the PEL and TLV. Asthma caused by isocyanates, including MDI, may persist in some individuals after removal from exposure and may be irreversible. Some isocyanate sensitized persons may experience asthma reactions upon exposure to non-isocyanate containing dusts or irritants. Cross sensitization to different isocyanates may occur. Long-term overexposure to isocyanates has also been reported to cause lung damage, including reduced lung function, which may be permanent. An animal study indicated that MDI may induce respiratory hypersensitivity following dermal exposure.

Lifetime exposure of rats and mice to 5% HCF-22 in air caused reduced body weight gain in male rats but no clinical or histopathologic evidence of adverse effects. No effects were noted at 1% HCFC-22 on Mice. At 5% and below, Mice showed no significant adverse effects attributable to exposure.

Carcinogenicity

Results from a lifetime inhalation study in rats indicate that MDI aerosol was carcinogenic at 6 mg/m³, the highest dose tested. This is well above the recommended TLV of 5 ppb (0.05 mg/m³). Only irritation was noted at the lower concentration of 0.2 and 1 mg/m³. Lifetime exposure of rats to 5% HCFC-22 in air resulted in a slightly higher incidence of fibrosarcomas (a malignant connective-tissue tumor) in male rats compared to controls. Some of these tumors involved the salivary glands. This effect was not seen in female rats at the same dose level or in rats of either sex at the lower dose level of 1%. Rats given HCFC-22 orally also showed no increased incidence of tumors. In addition, mice exposed to 5 and 1% HCFC-22 in a similar fashion showed no increased incidence of tumors. Spontaneously occurring fibrosarcomas are not uncommon in aging rats and the increase seen in male rats may have been due to a weak tumor-promoting effect or other non-specific effect (stress, etc.) of HCFC-22.

Mutagenicity

HCFC-22 has been shown to cause mutations in the bacterium salmonella. This may be due to the unusual metabolic capabilities of this organism. HCFC-22 is not mutagenic in yeast cell, hamster cell, or in vivo mouse and rat cell assays (dominant lethal and bone marrow cytogenetic toxicity tests).

Teratogenicity

Offspring born to rats exposed to 5% of HCFC-22 for 6 hours per day during pregnancy showed stunt growth and a small, but statistically significant, incidence of absent eyes. However, this dose level also caused maternal toxicity. An increased incidence of absent eyes did not occur in rabbits exposed at 5% of HCFC-22 and below or in rats at 1% of HCFC-22 and below where maternal toxicity was not observed. Medical Conditions Generally Aggravated by Exposure Breathing difficulties, chest discomfort, headache, eye and nose membrane irritation.

Emergency and First Aid Procedures

Inhalation - Remove to fresh air. Give oxygen. If not breathing, give artificial respiration. Keep victim quiet. Do not give stimulants. Get immediate medical attention.

Skin - If frostbitten, warm skin slowly with water; otherwise, wash affected areas with soap and water. Remove contaminated clothing and launder before reuse. Remove wet foam immediately from skin with acetone or nail polish remover. Dried foam is hard to remove from skin. If foam dries on skin, apply generous amounts of petroleum jelly or lanolin, leave on for one hour, wash thoroughly, and repeat process until foam is removed. Do not attempt to remove dried foam with solvents.

Eye - In case of eye contact, flush with water for 15 minutes. Get immediate medical attention.
Ingestion - In case of ingestion, get immediate medical attention.

SECTION VII - PRECAUTIONS FOR SAFE HANDLING AND USE

Spills/Leaks - Allow foam to cure (harden).

Waste Disposal - Dispose according to federal, state, and local regulations

Container Disposal - Dispose according to federal, state, and local regulations.

Storage - Store in a cool, dry place. Ideal storage temperature is 60°F - 80°F. Storage above 90°F will shorten the shelf life. Do not store above 120°F (49°C). Protect containers from physical abuse. Do not store in auto or in direct sunlight. Store upright.

SECTION VIII - PERSONAL PROTECTION

Respiratory Protection

None required if in well ventilated area.

Clothing

Wear gloves, coveralls, long sleeve shirts, and head covering to avoid skin contact. Contaminated equipment or clothing should be cleaned after each use or disposed of.

Eye Protection

Wear face shield, goggles, or safety glasses.

Ventilation

If ventilation is not enough to maintain P.E.L. exhaust area.

SECTION IX - OTHER REGULATORY INFORMATION

SARA - This product contains a toxic chemical (or chemicals) subject to the reporting requirements of Section 313 of the Emergency Planning and Community Right-To-Know Act of 1986 (40CFR 372).

NAME	CAS NO.	AMOUNT
Diphenylmethane Diisocyanate	101-68-8	5-15%

CERCLA - Reportable Quantity - yes(1 lb. of Diphenylmethane Diisocyanate)

RCRA Hazardous Waste - No

DOT Proper Shipping Name - Consumer Commodity The above information is accurate to the best of our knowledge. However, since data, safety standards, and government regulations are subject to change and the conditions of handling and use or misuse are beyond our control, Convenience Products makes no warranty, either express or implied, with respect to the completeness or continuing accuracy of the information contained herein and disclaims all liability for reliance thereon. User should satisfy himself that he has all current data relevant to his particular use.

*NE - Not Established NA - Not Applicable