



Material Safety Data Sheet - MSDS

Handi-Foam

Section 1. Chemical Product and Company Identification

Common Name : Handi-Foam **Code** : HF340
Synonym : Not available. **Validation Date** : 2004-10-24.
Trade name : Not available. **In Case of Emergency** : (714) 739-1408
Manufactured for : L.H. Dottie Company
6131 S. Garfield Avenue
Commerce, California 90040
Tel: (323) 725-1000

Section 2. Composition, Information on Ingredients

Name	CAS #	% by Weight	Exposure Limits
Polymethylenepolyphenyl isocyanate	9016-87-9	15-30	Not available.
Chlorodifluoromethane	75-45-6	15-30	ACGIH TLV (United States, 2003). : TWA: 3540 mg/m ³ 8 hour(s). Form: All forms TWA: 1000 ppm 8 hour(s). Form: All forms NIOSH REL (United States, 2001). STEL: 4375 mg/m ³ 15 minute(s). Form: All forms STEL: 1250 ppm 15 minute(s). Form: All forms TWA: 3500 mg/m ³ 10 hour(s). Form: All forms TWA: 1000 ppm 10 hour(s). Form: All forms OSHA PEL 1989 (United States, 1989). TWA: 3500 mg/m ³ 8 hour(s). Form: All forms TWA: 1000 ppm 8 hour(s). Form: All forms ACGIH TLV (United States, 2003). TWA: 0,05 mg/m ³ 8 hour(s). Form: All forms TWA: 0,01 ppm 8 hour(s). Form: All forms NIOSH REL (United States, 2001). CEIL: 0,2 mg/m ³ 10 minute(s). Form: All forms CEIL: 0,02 ppm 10 minute(s). Form: All forms TWA: 0,05 mg/m ³ 10 hour(s). Form: All forms TWA: 0,01 ppm 10 hour(s). Form: All forms OSHA PEL (United States, 1993). CEIL: 0,2 mg/m ³ Form: All forms CEIL: 0,02 ppm Form: All forms
4,4'-Methylenediphenyl diisocyanate	101-68-8	15-30	

This material is classified as hazardous under OSHA regulations.

See Section 8 for Exposure Limits.
See Section 11 for Toxicological Data.

Section 3. Hazards Identification

Physical State and Appearance : Liquid. (Viscous liquid.)

Emergency Overview : WARNING!
MAY CAUSE RESPIRATORY TRACT IRRITATION.
MAY CAUSE ALLERGIC RESPIRATORY REACTION.
Do not breathe vapor or mist. Keep container closed. Use only with adequate ventilation.

Routes of Entry : Inhalation.

Potential Acute Health Effects

Eyes : Non-irritating to the eyes.

Skin : Non-irritant for skin. Non-sensitizer for skin.

Inhalation : Hazardous in case of inhalation (lung irritant, lung sensitizer).

Ingestion : Not available.

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Potential Chronic Health Effects	: CARCINOGENIC EFFECTS: Classified 3 (Not classifiable for human.) by IARC [Polymethylenepolyphenyl isocyanate]. Classified A4 (Not classifiable for human or animal.) by ACGIH, 3 (Not classifiable for human.) by IARC [Chlorodifluoromethane]. Classified 3 (Not classifiable for human.) by IARC [4,4'-Methylenediphenyl diisocyanate]. MUTAGENIC EFFECTS: Not available. TERATOGENIC EFFECTS: Not available.
Medical Conditions Aggravated by Overexposure:	: Repeated or prolonged exposure is not known to aggravate medical condition.
Over-exposure signs/symptoms	: Not available.

[See Section 11 for Toxicological Data.](#)

Section 4. First Aid Measures

Eye Contact	: Check for and remove any contact lenses. In case of contact, immediately flush eyes with plenty of water for at least 15 minutes. Get medical attention if irritation occurs.
Skin Contact	: In case of contact, immediately flush skin with plenty of water. Get medical attention.
Inhalation	: If inhaled, remove to fresh air. If not breathing, give artificial respiration. If breathing is difficult, give oxygen. Get medical attention.
Ingestion	: Do not induce vomiting unless directed to do so by medical personnel. Never give anything by mouth to an unconscious person. If large quantities of this material are swallowed, call a physician immediately.
Notes to Physician	: No specific antidote. Medical staff must contact Poison Information Center.

Section 5. Fire Fighting Measures

Flammability of the Product	: May be combustible at high temperature.
Auto-ignition Temperature	: Not available.
Flash Points	: Closed cup: >427°C (800.6°F). (Pensky-Martens.)
Flammable Limits	: Not available.
Products of Combustion	: These products are carbon oxides (CO, CO ₂), nitrogen oxides (NO, NO ₂), halogenated compounds, hydrogen chloride, hydrogen fluoride.
Fire Hazards in Presence of Various Substances	: Non-flammable in presence of heat.
Explosion Hazards in Presence of Various Substances	: Risks of explosion of the product in presence of mechanical impact: Not applicable. Risks of explosion of the product in presence of static discharge: Not applicable.
Fire Fighting Media and Instructions	: SMALL FIRE: Use dry chemical powder. LARGE FIRE: Use water spray, fog or foam. Do not use water jet.
Protective Clothing (Fire)	: Be sure to use an approved/certified respirator or equivalent.
Special Remarks on Fire Hazards	: Not available.

Section 6. Accidental Release Measures

Small Spill and Leak	: Absorb with an inert material and put the spilled material in an appropriate waste disposal.
Large Spill and Leak	: Absorb with an inert material and put the spilled material in an appropriate waste disposal.

Section 7. Handling and Storage

Handling	: Do not breathe vapor or mist. Keep container closed. Use only with adequate ventilation.
Storage	: Keep container tightly closed. Keep container in a cool, well-ventilated area. Do not store above 49°C (120.2°F).

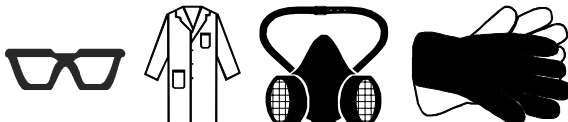
Section 8. Exposure Controls, Personal Protection

Engineering Controls : Provide exhaust ventilation or other engineering controls to keep the airborne concentrations of vapors below their respective occupational exposure limits. Ensure that eyewash stations and safety showers are proximal to the work-station location.

Personal Protection

- Eyes** : Safety glasses.
- Body** : Lab coat.
- Respiratory** : Vapor respirator. Be sure to use an approved/certified respirator or equivalent. Wear appropriate respirator when ventilation is inadequate.
- Hands** : Gloves.
- Feet** : Not applicable.

Protective Clothing (Pictograms)



Personal Protection in Case of a Large Spill : Splash goggles. Full suit. Vapor respirator. Boots. Gloves.

Exposure Limits

Product Name

Chlorodifluoromethane

Exposure Limits

ACGIH TLV (United States, 2003). :

TWA: 3540 mg/m³ 8 hour(s). Form: All forms

TWA: 1000 ppm 8 hour(s). Form: All forms

NIOSH REL (United States, 2001).

STEL: 4375 mg/m³ 15 minute(s). Form: All forms

STEL: 1250 ppm 15 minute(s). Form: All forms

TWA: 3500 mg/m³ 10 hour(s). Form: All forms

TWA: 1000 ppm 10 hour(s). Form: All forms

OSHA PEL 1989 (United States, 1989).

TWA: 3500 mg/m³ 8 hour(s). Form: All forms

TWA: 1000 ppm 8 hour(s). Form: All forms

ACGIH TLV (United States, 2003).

TWA: 0,05 mg/m³ 8 hour(s). Form: All forms

TWA: 0,01 ppm 8 hour(s). Form: All forms

NIOSH REL (United States, 2001).

CEIL: 0,2 mg/m³ 10 minute(s). Form: All forms

CEIL: 0,02 ppm 10 minute(s). Form: All forms

TWA: 0,05 mg/m³ 10 hour(s). Form: All forms

TWA: 0,01 ppm 10 hour(s). Form: All forms

OSHA PEL (United States, 1993).

CEIL: 0,2 mg/m³ Form: All forms

CEIL: 0,02 ppm Form: All forms

4,4'-Methylenediphenyl diisocyanate

[Consult local authorities for acceptable exposure limits.](#)

Section 9. Physical and Chemical Properties

- Physical State and Appearance** : Liquid. (Viscous liquid.)
- Color** : Off-white to yellowish.
- Odor** : Odorless.
- Molecular Weight** : Not applicable.
- Molecular Formula** : Not applicable.
- pH (1% Soln/Water)** : Not applicable.
- Boiling/Condensation Point** : >93.3°C (199.9°F)
- Melting/Freezing Point** : Not available.
- Specific Gravity** : 1.2 (Water = 1)
- Vapor Pressure** : Not available.
- Vapor Density** : The highest known value is 8.6 (Air = 1) (Polymethylenepolyphenyl isocyanate).
- Volatility** : Not available.

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Odor Threshold	: Not available.
Evaporation Rate	: Not available.
VOC	: Not available.
Viscosity	: Not available.
LogK_{ow}	: Not available.
Solubility	: Insoluble in cold water, hot water.

Section 10. Stability and Reactivity

Stability and Reactivity	: The product is stable.
Conditions of Instability	: Not available.
Incompatibility with Various Substances	: Not considered to be reactive.
Hazardous Decomposition Products	: These products are halogenated compounds, hydrogen chloride, hydrogen fluoride.
Hazardous Polymerization	: Will not occur.

Section 11. Toxicological Information

Toxicity Data

<u>Ingredient Name</u>	<u>Test</u>	<u>Result</u>	<u>Route</u>	<u>Species</u>
Polymethylenepolyphenyl isocyanate	LD50	>15000 mg/kg	Oral	Rat
	LD50	>9400 mg/kg	Dermal	Rabbit
4,4'-Methylenediphenyl diisocyanate	LD50	9200 mg/kg	Oral	Rat
	LD50	2200 mg/kg	Oral	Mouse

Chronic Effects on Humans : **CARCINOGENIC EFFECTS:** Classified 3 (Not classifiable for human.) by IARC [Polymethylenepolyphenyl isocyanate]. Classified A4 (Not classifiable for human or animal.) by ACGIH, 3 (Not classifiable for human.) by IARC [Chlorodifluoromethane]. Classified 3 (Not classifiable for human.) by IARC [4,4'-Methylenediphenyl diisocyanate].

Other Toxic Effects on Humans : Hazardous in case of inhalation (lung irritant, lung sensitizer).
Non-irritant for skin. Non-sensitizer for skin. Non-irritating to the eyes.

Special Remarks on Toxicity to Animals : Not available.

Special Remarks on Chronic Effects on Humans : Not available.

Special Remarks on Other Toxic Effects on Humans : Not available.

Section 12. Ecological Information




BOD and COD	: Not available.
Biodegradable/OECD	: Not available.
Mobility	: Not available.
Products of Degradation	: These products are carbon oxides (CO, CO ₂) and water, nitrogen oxides (NO, NO ₂), halogenated compounds.
Toxicity of the Products of Biodegradation	: The products of degradation are more toxic than the product itself.
Special Remarks on the Products of Biodegradation	: Not available.

Section 13. Disposal Considerations

Waste Information : Waste must be disposed of in accordance with federal, state and local environmental control regulations.

Consult your local or regional authorities.

Section 14. Transport Information

Regulatory Information	UN number	Proper shipping name	Class	Packing Group	Label	Additional information
United States (DOT)	UN1950	Aerosols, [non-flammable, (each not exceeding 1 L capacity)] (Chlorodifluoromethane)	2.2	-		-
IMDG Code	UN1950	Aerosols, [non-flammable, (each not exceeding 1 L capacity)] (Chlorodifluoromethane)	2.2	-		-
IATA-DGR Class	UN1950	Aerosols, [non-flammable, (each not exceeding 1 L capacity)] (Chlorodifluoromethane)	2.2	-		-

NAERG : 126

Section 15. Regulatory Information

HCS Classification : Compressed Gas
Irritating material
Sensitizing material

U.S. Federal Regulations : TSCA 8(b) inventory: All components listed.
SARA 302/304/311/312 extremely hazardous substances: No products were found.
SARA 302/304 emergency planning and notification: No products were found.
SARA 302/304/311/312 hazardous chemicals: Chlorodifluoromethane; 4,4'-Methylenediphenyl diisocyanate
SARA 311/312 MSDS distribution - chemical inventory - hazard identification: Chlorodifluoromethane: Sudden Release of Pressure, Delayed (Chronic) Health Hazard; 4,4'-Methylenediphenyl diisocyanate: Immediate (Acute) Health Hazard, Delayed (Chronic) Health Hazard
Clean Water Act (CWA) 307: No products were found.
Clean Water Act (CWA) 311: No products were found.
Clean air act (CAA) 112 accidental release prevention: No products were found.
Clean air act (CAA) 112 regulated flammable substances: No products were found.
Clean air act (CAA) 112 regulated toxic substances: No products were found.

SARA 313

Form R - Reporting Requirements : Polymethylenepolyphenyl isocyanate 15-30
Chlorodifluoromethane 15-30
4,4'-Methylenediphenyl diisocyanate 15-30

Supplier Notification : Polymethylenepolyphenyl isocyanate 15-30
Chlorodifluoromethane 15-30
4,4'-Methylenediphenyl diisocyanate 15-30

State Regulations : Pennsylvania RTK: Chlorodifluoromethane: (generic environmental hazard); 4,4'-Methylenediphenyl diisocyanate: (environmental hazard, generic environmental hazard)
Massachusetts RTK: Chlorodifluoromethane; 4,4'-Methylenediphenyl diisocyanate
New Jersey: Chlorodifluoromethane; 4,4'-Methylenediphenyl diisocyanate
California prop. 65: No products were found.

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Section 16. Other Information

Label Requirements : MAY CAUSE RESPIRATORY TRACT IRRITATION.
MAY CAUSE ALLERGIC RESPIRATORY REACTION.

**Hazardous Material
Information System
(U.S.A.)**

Health	2
Fire Hazard	1
Reactivity	1
Personal Protection	C

**National Fire
Protection
Association
(U.S.A.)**



References : - 29CFR Part1910.1200 OSHA MSDS Requirements. - 49CFR Table List of Hazardous Materials, UN#, Proper Shipping Names, PG. ANSI Z400.1, MSDS Standard, 2001. -Manufacturer's Material Safety Data Sheet.

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Notice to Reader

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Final determination of suitability of any material is the sole responsibility of the user. All materials may present unknown hazards and should be used with caution. Although certain hazards are described herein, we cannot guarantee that these are the only hazards that exist.