


ROLF C. HAGEN INC., 20500 TRANSCANDA HWY,
BAIE D'URFÉ, QUEBEC, H9X 0A2
CANADA

Laguna
Waterfall Foam
PT590

Section I. Product and Company Identification	
Product name	Laguna Waterfall Foam
CAS #	Mixture
Use	Moisture-cured sealant used to fill, seal, and bond for ponds.
Supplier	Rolf C. Hagen Inc., 20 500 Trans Canada Hwy, Baie d'Urfé, H9X 0A2
Emergency	Call your local poison control center

Section II. Hazards Identification	
WHMIS	Classification
	A: Compressed gas B-5: Flammable aerosol D-2A: Toxic materials causing other toxic effects (Very toxic) D-2B: Toxic materials causing other toxic effects (Toxic)

Section III. Composition and Information on Ingredients			
Ingredients	Conc. (%)	CAS #	EC #
4,4' Diphenylmethane Diisocyanate	5-10	101-68-8	202-966-6
Polymethylene Polyphenyl Isocyanate	5-10	9016-87-9	Not available
Isobutane	3-7	75-28-5	200-857-2
Dimethyl Ether	3-7	115-10-6	204-065-8
Propane	1-5	74-98-6	200-827-9

Section IV. First Aid Measures	
Eye contact	Immediately flush with copious quantities of water for at least 15 minutes holding lids apart to ensure flushing of the entire surface. Remove contact lenses. If irritation persists, seek medical attention.
Skin contact	Immediately remove the contaminated clothes and flush with plenty of water and soap. Wash clothing before reuse. If irritation persists, seek medical attention.
Inhalation	Remove victim to fresh air. If not breathing, give artificial respiration. If breathing is difficult, give oxygen. Obtain medical attention.
Ingestion	Do not induce vomiting. Never administered any liquids to an unconscious or convulsing person. Seek medical attention.

Section V. Fire Fighting Measures	
Suitable extinguishing media	
Use carbon dioxide (CO ₂), dry chemical, Halon 1211 or chemical foam.	
Water is not recommended unless used in large quantities and other extinguishing agents are not available. Water may spread the fire.	



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Specific hazards arising from the chemical
Combustion products are toxic and may include and are not limited to carbon oxides, nitrogen oxides, hydrogen fluoride, and traces of hydrogen cyanide. Vapours may cause a flash fire. Content under pressure, should not be exposed to high temperatures in order to avoid excessive pressure build up and possible container rupture. Use water spray to keep fire-exposed containers cool.
Special protective actions for fire-fighters
Keep upwind of fire. Wear adequate personal protection to prevent contact with material or its combustion products. Use self-contained breathing apparatus.

Section VI. Accidental Release Measures	
Person-related safety precautions	Isolate the hazard area and deny entry to unnecessary and unprotected personnel. Eliminate sources of ignition. Vapors can accumulate in low areas. Provide ventilation. If in a confined space or limited air circulation area, clean-up workers should wear appropriate respiratory protection. Wear adequate personal protective equipment and clothing.
Measures for environmental protection	Prevent entry into drains, waterways or sewers.
Measures for cleaning/collecting	Uncured product is very sticky, so carefully remove the bulk of the foam by scraping it up and then immediately remove residue with a rag and solvent such as mineral spirits, acetone (nail polish remover), paint thinner, etc. Once the product is cured, it can only be removed by physically scraping, buffing, etc. Scoop up material and place in closed container for disposal.

Section VII. Handling and Storage	
Handle in accordance with good industrial hygiene and safety practices. Avoid contact with eyes, skin and clothing. After handling and before eating, drinking or smoking, wash hands and face thoroughly with soap and water. May be sensitive to mechanical impact or static discharge. Use only in a well ventilated area or outdoors. Vapors released during and immediately after dispensing may accumulate and ignite explosively if proper ventilation is not employed. Keep away from sources of ignition. Extinguish or remove all sources of ignition during dispensing, until product becomes tack free or skins over. Contents under pressure. Container may explode if heated. Do not pierce or burn, even after use. Avoid temperatures below 40°F (5°C). For longest shelf life, avoid storage above 95°F (35°C). Prevent accidental contact with incompatible chemicals. Store in a dry place away from oxidizing agents and other incompatible materials. Keep containers closed and in upper position.	

Section VIII. Exposure Controls and Personal Protection	
Protective clothing	Apply the appropriate protective measures for safe handling of chemicals.



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	<p>Respiratory protection: If atmospheric levels are expected to exceed the exposure levels, use a NIOSH approved air purifying respirator equipped with an organic vapor cartridge and particulate filter. If atmospheric levels exceed 10 times the TLV or PEL level for which an air-purifying respirator is effective, use a powered air purifying respirator (PAPR). The type of respiratory protection selected must comply with the requirements set forth in OSHA's Respiratory Protection Standard (29 CFR 1910.134).</p> <p>Eye/Face Protection: Wear safety glasses with side shields or goggles.</p> <p>Skin Protection: Wear chemical resistant gloves (nitrile). Wear suitable protective clothing.</p>
Engineering controls	Use ventilation adequate to keep exposures below recommended exposure limits.

Section IX. Physical and Chemical Properties	
Appearance (physical state, color, etc) / Odor	Viscous liquid which forms black foam upon release. Slight hydrocarbon odor during curing stage.
Odor threshold	Data not available
pH	Data not available
Melting point / Freezing point	Data not available
Initial boiling point and boiling range	Data not available
Flash point	-104 °C (-156 °F)
Evaporation rate	Data not available
Flammability (solid, gas)	Flammable
Upper / Lower flammability or explosive limits	Data not available
Vapor pressure	> 50 psig/ 345 kPa (compressed aerosol). After release from container, the vapour pressure is very low (not determined).
Vapor density	Data not available
Liquid density	Data not available
% Volatile	Data not available
Specific gravity	Approximately 1.1 (water = 1)
Solubility	Insoluble. Reacts slowly with water during cure, liberating traces of CO ₂ .
Coefficient of Water/Oil distribution	Data not available
Auto-ignition temperature	Data not available



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Decomposition temperature	Data not available
Viscosity	Data not available

Section X. Stability and Reactivity	
Instability conditions	Stable under normal storage conditions.
Conditions to avoid	Heat. Incompatible materials. Sources of ignition. Avoid temperatures below 40°F (5°C) or temperatures above 95°F (35°C).
Materials to avoid	Alcohols, strong bases, amines, metal compounds, ammonia, and strong oxidizers.
Hazardous decomposition products	Combustion products are toxics and may include and are not limited to carbon oxides, nitrogen oxides, hydrogen fluoride, and traces of hydrogen cyanide.
Hazardous polymerization	No dangerous reaction known under conditions of normal use.
VOC Content (Calculated minus exempt compounds and water)	165 g/l

Section XI. Toxicological Information	
Route of exposure	Conclusion / Remarks
Skin	May cause skin irritation. Symptoms may include redness, edema, drying, defatting, and cracking of the skin. May cause an allergic skin reaction.
Eye	May cause serious eye irritation. Symptoms may include discomfort or pain, excessive blinking and tear production, with possible redness and swelling.
Inhalation	May cause allergy or asthma symptoms or breathing difficulties if inhaled. May cause respiratory tract inhalation. Chronic overexposure to diisocyanates can cause permanent lung damage.
Ingestion	May be harmful if swallowed. May cause stomach distress, nausea or vomiting.
Mutagenicity	Based on the available data, the classification criteria is not met
Carcinogenicity	Based on the available data, the classification criteria is not met
Reproductive toxicity	Based on the available data, the classification criteria is not met
STOT-single exposure	May cause respiratory irritation
STOT-repeated exposure	May cause damage to organs through prolonged or repeated exposure.
Aspiration hazard	Based on available data, the classification criteria are not met.
Acute toxicity	

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	<p>Inhalation LC₅₀ 4,4' Diphenylmethane diisocyanate: 490 mg/m³, 4h rat Polymethylene polyphenyl isocyanate: 310 mg/m³, 4h rat Isobutane: 658 mg/l, 4h rat Dimethyl ether: 308.5 mg/l, 4h rat Propane: 658 mg/l 4h, rat</p> <p>Oral LC₅₀ 4,4' Diphenylmethane diisocyanate: >10 000 mg/kg, rat Polymethylene polyphenyl isocyanate: >10 000 mg/kg, rat</p> <p>Dermal LC₅₀ 4,4' Diphenylmethane diisocyanate: >9400 mg/kg, rabbit Polymethylene polyphenyl isocyanate: >9400 mg/kg, rabbit</p>
Chronic Overexposure	Irritating to skin, Cause serious eye irritation. May cause sensitization by inhalation and skin contact.

Section XII. Ecological Information	
Ecotoxicity	May cause long-term adverse effects in the aquatic environment.
Mobility	Not available
Persistence and Degradability	Not available
Bioaccumulation potential	Not available

Section XIII. Disposal Considerations	
Disposal recommendations	Dispose of as plastic in accordance with all applicable guidelines and regulation. Before disposing of containers, relieve container of any remaining foam and pressure. Allow product to fully cure before disposing. Never discard in a liquid state. Do not puncture or incinerate containers. Use appropriate personal protective equipment.
Disposal of damaged packaging	If the container contains residue of a hazardous product, follow all MSDS and label precautions even after container is emptied.
Regulatory disposal information	Data not available

Section XIV. Transport Information	
T.D.G. Classification	Ground: Consumer commodity ORM-D/ Limited Quantity Air/Water: UN1950 Aerosols, Flammable 2.1 (Flammable Gas Label) / Limited Quantity

Section XV. Regulatory Information	
Exposition Limits	
4,4' Diphenylmethane diisocyanate (CAS 101-68-8)	
OSHA-PEL: 2 mg/m ³ (Ceiling)	



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ACGIH-TLV: 0.005 ppm (Ceiling)

Isobutane (CAS 75-28-5)

ACGIH-TLV: 1000 ppm

Dimethyl ether (CAS 115-10-6)

WEEL: 1000 ppm TWA

Propane (CAS 74-98-6)

OSHA-PEL: 1000 ppm

ACGIH-TLV: 1000 ppm

Chemical Listed as Carcinogen or Potential Carcinogen (NTP, IARC, OSHA, ACGIH, CP65)

4,4' Diphenylmethane diisocyanate: IARC-3 (The agent (mixture, exposure circumstance) is not classifiable as to its carcinogenicity to human)

Polymethylene polyphenyl isocyanate: IARC-3 (The agent (mixture, exposure circumstance) is not classifiable as to its carcinogenicity to human)

Isobutane: not listed

Dimethyl ether: not listed

Propane: not listed

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4,4' Diphenylmethane diisocyanate: DSL

Polymethylene polyphenyl isocyanate: DSL

Isobutane: DSL

Dimethyl ether: DSL

Propane: DSL

Section XVI. Other information

While the company believes the data set forth herein are accurate as the date hereof, the company makes no warranty with respect thereto and expressly disclaims all liability for reliance thereon. Such data are offered solely for your consideration and verification.

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