

MATERIAL SAFETY DATA SHEET

1 PRODUCT AND COMPANY IDENTIFICATION

Product Name: Varpel Rope
Synonyms: 1,4-dichlorobenzene
Molecular Formula: C₆H₄CL₂
Molecular Weight: 147.0
Product Number: FIN 383, 384

Supplier:
Dr. T's Nature Products, Inc.
P. O. Box 682, 2658 US Hwy 19 North
Pelham, GA 31779

Emergency Telephone: 1-800-299-6288

Intended Use: Rodent and snake repellent

2 COMPOSITION / INFORMATION ON INGREDIENTS

Hazardous component	CAS-No.	Weight %
1,4-dichlorobenzene	106-46-7	99.64

Components not listed are not hazardous or are below reportable limits.

3 HAZARDS IDENTIFICATION

Emergency Overview

Physical State: Elongated paper rope containing white crystals

Color: White

Odor: Mothball

WARNING!

Combustible vapor

Harmful if swallowed.

Dust or vapor causes irritation to eyes and respiratory tract.

May cause allergic skin reaction.

High vapor concentrations may cause headache or disorientation.

Prolonged or repeated skin contact may cause drying, cracking, or irritation.

Potential Health Effects

Inhalation: Causes irritation. Inhalation of dust or vapors can cause headache, nausea, vomiting, and disorientation.

Eye Contact: Causes irritation. Exposure may cause eye tearing, redness, swelling, and discomfort.

Skin Contact: May cause sensitization by skin contact. Prolonged exposure may cause redness, itching, swelling, and inflammation.

Ingestion: Harmful if swallowed. May cause systemic effects. Extremely large oral dosages may be fatal.

Chronic Health Effects: Repeated or prolonged exposure can cause target organ damage. Effects may be delayed. Chronic inhalation, skin absorption or ingestion of 1,4-dichlorobenzene has caused liver and kidney damage in laboratory animals.

Target Organ(s): Eye, skin, lung, gastrointestinal tract, kidney, liver

OSHA Regulatory Status: Hazardous

4 FIRST AID MEASURES

Inhalation: Move to fresh air. Treat symptomatically. Get medical attention if symptoms persist.

Eye Contact: In case of contact, immediately flush eyes with plenty of water for at least 15 minutes. If easy to do, remove contact lenses, if worn. Get medical attention.

Skin Contact: In case of contact, immediately flush skin with plenty of water. Remove contaminated clothing and shoes. Get medical attention. Wash clothing before reuse.

Ingestion: If swallowed, induce vomiting as directed by medical personnel. Never give anything by mouth to an unconscious person. Get medical attention.

5 FIRE-FIGHTING MEASURES

Extinguishing Media: Water spray, dry chemical, carbon dioxide

Unsuitable Extinguishing Media: None known

Special Fire Fighting Procedures: Wear self-contained breathing apparatus and protective clothing.

Unusual Fire & Explosion Hazards: Fire may produce irritating and/or toxic gases. Material in powder form, capable of creating a dust explosion.

Hazardous Combustion Products: Carbon oxides, hydrogen chloride

6 ACCIDENTAL RELEASE MEASURES

Personal Precautions: Wear appropriate personal protective equipment. See Section 8.

Spill Cleanup Methods: Minimize dust generation and accumulation. Sweep up and place in a clearly labeled container for chemical waste. Do not allow material to enter drains or streams.

7. HANDLING AND STORAGE

Handling: Wear appropriate personal protective equipment. Avoid breathing dust or vapor. Avoid contact with eyes, skin and clothing. Do not taste or swallow. Use only with adequate ventilation. Wash thoroughly after handling.

Prevention of Fire and Explosion: Keep away from heat, sparks, and flame. Keep away from strong oxidizing agents. Minimize dust generation and accumulation. In the United States of America, refer to NFPA® Pamphlet No. 654, "Prevention of Fire and Dust Explosions in the Chemical, Dye, Pharmaceutical, and Plastics Industries."

Storage: Keep container tightly closed until ready for use. Keep in a cool, well-ventilated place. Keep away from moisture.

8 EXPOSURE CONTROLS / PERSONAL PROTECTION

Exposure Limits:

Chemical Name	Source	Type	Exposure Limits	Notes
1,4-dichlorobenzene	ACGIH	TWA	10 ppm	Irritation; kidney
1,4-dichlorobenzene	OSHA Z-1	TWA	75 ppm	--
1,4-dichlorobenzene	NIOSH	IDLH	150 ppm	--

Engineering Controls: Use process enclosures, local exhaust ventilation, or other engineering controls to keep airborne contaminants below established exposure limits.

Respiratory Protection: If engineering controls do not keep airborne concentrations below established exposure limits, wear a NIOSH-approved respirator equipped with high-efficiency particulate filter(s). Contact health and safety professionals for specific information.

Eye Protection: Wear safety glasses with side shields (or goggles).

Hand Protection: Wear protective gloves and clothing. Contact health and safety professionals for additional information.

Skin Protection: Wear disposable coveralls, lab coat, or apron to prevent skin contact.

Hygiene Measures: Eye bath, safety shower, washing facilities

9 PHYSICAL AND CHEMICAL PROPERTIES

Color: White

Odor: Mothball

Odor Threshold: No data available

Physical State: Elongated paper rope containing white crystals

pH: No data available

Boiling Point: 174°C (345.2°F)

Melting Point: 53°C (127.4°F)

Flash Point: 65°C (150°F) (Cleveland open cup)

Evaporation Rate: <1

Flammability: Flammable

Flammability Limit – Upper (%): No data available

Flammability Limit – Lower (%): No data available

Vapor Pressure: 0.6 mmHg @ 20°C

Vapor Density (Air=1): 5.1

Specific Gravity: 1.46

Solubility in Water: Insoluble

Solubility (Other): Soluble in alcohol

Partition Coefficient (n-Octanol/water): log Kow = 3.44

Autoignition Temperature: No data available

Decomposition Temperature: No data available

10 STABILITY AND REACTIVITY

Stability: Stable

Conditions to Avoid: None known

Incompatible Materials: Strong oxidizing agents, acids

Hazardous Decomposition Products: Carbon oxides, hydrogen chloride

Hazardous Polymerizations: Will not occur.

11 TOXICOLOGICAL INFORMATION

Specified Substances

Acute Toxicity

Chemical Name	Test Results
1,4-dichlorobenzene	Dermal LD ₅₀ (Rat): 2000 mg/kg
1,4-dichlorobenzene	Oral LD ₅₀ (Rat): 500 mg/kg
1,4-dichlorobenzene	Inhalation LC ₅₀ (Rat): 5000 mg/m ³ /4H
1,4-dichlorobenzene	Eye (Human): Irritant

Listed Carcinogens:

Chemical Name	IARC	NTP	OSHA	ACGIH
1,4-dichlorobenzene	2B (Possible carcinogenic to humans)	Anticipated carcinogen		A3 (Confirmed animal carcinogen, unknown relevance to humans)

12 ECOLOGICAL INFORMATION

Specified Substances

Acute Toxicity

Chemical Name	Test Results
1,4-dichlorobenzene	96-hr LC ₅₀ (Bluegill sunfish): 4.25 mg/l
1,4-dichlorobenzene	96-hr LC ₅₀ (Sheepshead minnow): 7.4 mg/l
1,4-dichlorobenzene	96-hr LC ₅₀ (Fathead minnow): 33.7 mg/l
1,4-dichlorobenzene	96-hr LC ₅₀ (Glass shrimp): 69 mg/l

Biodegradation tests suggest that this material would meet the OECD guidelines for classification as “inherently biodegradable.”

13 DISPOSAL CONSIDERATIONS

General Information: This product can become a hazardous waste as designated by the Environmental Protection Agency under the authority of the Resource Conservation and Recovery Act (RCRA). Product (or waste) has RCRA Hazardous Waste Number U072 as designated in 40 CFR 261.33. This material is subject to the RCRA Land Disposal Restriction of 40 CFR 268.

Pesticide wastes are toxic. Improper disposal of excess pesticide, spray mixture, or rinsate is a violation of Federal Law. If these cannot be disposed of by uses according to directions for use, contact your state pesticide or Environmental Control Agency or the Hazardous Waste representative at the nearest EPA Regional Office for guidelines.

Disposal Methods: Disposal by incineration is Best Available Demonstrated Treatment (BDAT). All federal, state, and local regulations should be followed in disposing of this substance.

Container: Since emptied containers retain product residue, follow label warnings even after container is emptied.

14 TRANSPORT INFORMATION

DOT:

UN No: 3077

Proper Shipping Name: Environmentally hazardous substance, solid, n.o.s. (1,4-dichlorobenzene)

Class: 9

Packaging Group: III

Label: 9

? **Product Number FIN 383**, 9.62 lb pail, meets the special provisions as described in the DOT 49 CFR, 173.155 (b) (2), and can be shipped as a Consumer Commodity.

? **Product Number FIN 384**, 19.24 lb pail, Consumer Commodity Provisions do not apply.

Consumer Commodity Provisions: In containers of 5L (5.0 kg; 11 lbs) capacity or less, this product is classified as a “Consumer Commodity.”

Marine Pollutant: 1,4-dichlorobenzene

TDG:

UN No: 3077

Proper Shipping Name: Environmentally hazardous substance, solid, n.o.s. (1,4-dichlorobenzene)

Class: 9

Packaging Group: III

Label: 9

IATA:

UN No: 3077

Proper Shipping Name: Environmentally hazardous substance, solid, n.o.s. (1,4-dichlorobenzene)

Class: 9

Packaging Group: III

Label: Environmentally Hazardous Substance

Special provisions: None

Passenger aircraft: No quantity limitation

Cargo aircraft: No quantity limitation

IMDG:

UN No: 3077

Proper Shipping Name: Environmentally hazardous substance, solid, n.o.s. (1,4-dichlorobenzene)

Class: 9

Packaging Group: III

Label: 9

- ? **Product Number FIN 383**, 9.62 lb pail, meets the special provisions as described in the International Maritime Dangerous Goods IMDG Code, 2004 edition, Chapter 3.4 Limited Quantities, and can be shipped as a Consumer Commodity.
- ? **Product Number FIN 384**, 19.24 lb pail, as described in the International Maritime Dangerous Goods IMDG Code, 2004 edition, Chapter 3.4 Limited Quantities, Limited Quantity Provisions do not apply.

Limited Quantity Provision/Exemption: In containers of 5L (5.0 kg; 11 lbs) capacity or less, this product is classified as a "Consumer Commodity" under IMDG regulations. Limited quantities of dangerous goods for personal or household use that are packaged and distributed in a form intended or suitable for sale through retail agencies are in addition exempt from marking of the Proper Shipping Name and UN Number on the packaging.

Marine Pollutant: 1,4-dichlorobenzene

15	REGULATORY INFORMATION
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Canadian Controlled Products Regulations: This product has been classified according to the hazard criteria of the Canadian Controlled Products Regulations, Section 33, and the MSDS contains all required information.

WHMIS Classification: B4, D1B, D2A, D2B

Inventory Status

This product or all components are listed on the following inventory: TSCA, DSL

US Regulations

CERCLA Hazardous Substance List (40 CFR 302.4):

Component	Reportable Quantity
1,4-dichlorobenzene	100 lbs

SARA Title III

Section 302 Extremely Hazardous Substance (40 CFR 355, Appendix A): None

Section 311/312 (40 CFR 370):

Acute (Immediate)
 Chronic (Delayed)
 Fire
 Reactive
 Pressure Generating

Section 313 Toxic Release Inventory (40 CFR 372):

Component	CAS No.	Concentration
1,4-dichlorobenzene	106-46-7	99.64%

Clean Air Act (CCA) Section 112, 1990 Amendments, Statutory Hazardous Air Pollutants: 1,4-dichlorobenzene

Clean Air Act (CAA) Section 112(i) High-Risk Hazardous Air Pollutants (40CFR 63.74): None

Clean Air Act (CAA) Section 112(r) Accidental Release Prevention (40CFR 68.130): None

Clean Water Act Section 307 Toxic Pollutants (40 CFR 401.15): 1,4-dichlorobenzene

Clean Water Act Section 311 Hazardous Chemical (40 CFR 116.4): 1,4-dichlorobenzene

Clean Water Act Section 311 Hazardous Substances (40 CFR 117.3): 1,4-dichlorobenzene

Drug Enforcement Act:

Drug Enforcement Administration (21 CFR 1310.02(b) and 1310.04 (f)(2)): None

Drug Enforcement Administration (21 CFR 1310.12(c)): None

TSCA:

TSCA Section 4(a) Final Test Rules & Testing Consent Orders: 1,4-dichlorobenzene

TSCA Section 12(B) Export Notification (40 CFR 707, Subpt D): 1,4-dichlorobenzene

State Regulations

California Safe Drinking Water and Toxic Enforcement Act of 1986 (Proposition 65):

WARNING: This product contains a chemical known to the State of California to cause cancer or reproductive toxicity:

California Prop 65 chemical: 1,4-dichlorobenzene

Massachusetts Right-To-Know List: 1,4-dichlorobenzene

Michigan Critical Materials List (Michigan Natural Resources and Environmental Protection Act (Act. 451 of 1994)): 1,4-dichlorobenzene

Minnesota Hazardous Substances List: 1,4-dichlorobenzene

New Jersey Right-To-Know List: 1,4-dichlorobenzene

Pennsylvania Right-To-Know List: 1,4-dichlorobenzene

Rhode Island Right-To-Know List: 1,4-dichlorobenzene

16	OTHER INFORMATION
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Hazard Ratings

	Health Hazard	Fire Hazard	Reactivity Hazard	Special Hazard
NFPA	2	2	0	--

	Health Hazard	Fire Hazard	Reactivity Hazard
HMIS	2*	2	0

0 – Minimal; 1 – Slight; 2 – Moderate; 3 – Serious; 4 – Severe; *- Chronic health effect

Revision Information: Update composition, add toxicological data, add regulatory information

Issue Date: 10/27/2005

Disclaimer: The information in this MSDS was obtained from current and reliable sources. However, the data is provided without any warranty, expressed or implied, regarding its correctness or accuracy. Since the conditions of handling, storage and disposal of this product are beyond our control, it is the responsibility of the user both to determine safe conditions for use of this product and to assume full responsibility for loss, injury, and expense arising out of products improper use. No warranty expressed or inferred, regarding the product described in this MSDS shall be created or inferred by any statement in this MSDS. Various government agencies may have specific regulations regarding the transportation, handling, storage, use or disposal of this product which may not be covered in this MSDS. The user is responsible for full compliance.