

MATERIAL SAFETY DATA SHEET

(Essentially similar to OSHA form 174, Sept. 1985 - For Compliance with OSHA's Hazard Communication Standard, 29CFR 1910.1200)

Section I - Product Identity: Piranha® II (5720)

Manufacturer's Name:
Fiberlock Technologies, Inc.
150 Dascomb Road
Andover, MA 01810

Date of Preparation: August 15, 2002
Information Telephone Number: (978) 623-9987
Emergency Telephone Numbers:
Weekdays: (978) 623-9987
After hours, weekends & holidays: (978) 887-5926,
or "CHEM-TEL" Emergency Contact Number: (800) 255-3924

Section II - Hazardous Ingredients/Identity Information

HAZARDOUS COMPONENT	CAS. NO.	OSHA HAZARD	Exposure Limit Mixture/Not Estab.	Units	Agency	Type
Toluene	108-88-3	Non-Flammable	100 (375 mg/m3)	ppm	OSHA	TWA
			150 (560 mg/m3)	ppm	OSHA	STEL
			50	ppm	ACGIH	TWA (skin)
			150	ppm	ACGIH	STEL (skin)
*Methylene Chloride	75-09-2	PEL;TWA	25	ppm	OSHA	TWA
			125	ppm	OSHA	STEL
			50	ppm	ACGIH	TLV
Methanol	67-56-1	Poison	200	ppm	OSHA	TWA (skin)
			250	ppm	OSHA	STEL (skin)
			200	ppm	ACGIH	TWA (skin)
			250	ppm	ACGIH	STEL (skin)
2-Butoxy Ethanol	111-76-2		25	ppm	OSHA	TLV (skin)
			20	ppm	ACGIH	TLV (skin)

The composition of this product may be proprietary information. In the event of a medical emergency, compositional information will be provided to a physician or nurse. This product is hazardous as defined in 29CFR 1910.1200, based on the information listed above.

Section III - Physical/Chemical Characteristics

The following data are approximate or typical values and should not be used for precise design purposes.

Boiling Range:	Mixture/Not Established	Specific Gravity (15.6 /15.6):	1.13
Vapor Pressure (mm Hg) @ 100°C	Mixture/Not Established	Melting Point	N/A
Vapor Density (AIR=1) Heavier Lighter	X	Evaporation Rate @ 1 ATM and 25C (77F) (Butyl Acetate=1)	Mixture/Not Established
		Appearance: Clear to hazy liquid gel Odor: ether like odor	Viscosity: 500-1000cps Molecular Weight: N/A
Solubility in Water @ 1 ATM and 25C (77F)	Mixture/Not Established		pH 7-9 98% Volatile by Vol.

Section IV - Fire and Explosion Hazard Data

Flash Point: Nonflam- mable	Flammable Limits: Mixture/Not Established	Autoignition Temp.: Mixture/ Not Established	OSHA HAZARD: Nonflammable	PEL/TWA: Poison	DOT ID Number: Not Regulated
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Handling Precautions: This liquid is volatile and gives off invisible vapors. Either the liquid or vapor may settle in low areas or travel some distances along the ground or surface to ignition sources where they may ignite or explode. Keep product away from ignition sources, such as heat, sparks, pilot lights, static electricity and open flames. Extinguishing Media: Fires involving this product are unlikely, but if one should occur follow instructions listed below: Use foam, water spray (fog), dry chemical, carbon dioxide and vaporizing liquid type extinguishing agents may all be suitable for extinguishing fires involving this type of product, depending on the size or potential size of fire and circumstances related to the situation. Plan fire protection and response strategy through consultation with local fire protection authorities or appropriate specialists. The following procedures for this type of product are based on the recommendations in the National Fire Protection Association's "Fire Protection Guide on Hazardous Materials," eighth edition. Use dry chemical, foam or carbon dioxide to extinguish the fire, water may be ineffective, but should be used to keep fire-exposed containers cool. If a leak or spill has ignited, use water spray to disperse the vapors and to protect men attempting to stop a leak. Water spray may be used to flush spills away from exposures. Minimize breathing of gases, vapor, fumes or decomposition products. Use supplied air-breathing equipment for enclosed or confined spaces or as otherwise needed. Note: The inclusion of the phrase "water may be ineffective" is to indicate that although water can be used to cool and protect exposed material, water may not extinguish the fire unless used under favorable conditions. Decomposition Products Under Fire Conditions: Involvement in fire or high temperatures forms hydrogen chloride and very small amounts of phosgene and chlorine. Solvent decomposition occurs when catalyzed by metal chlorides, which can be produced by reaction with HCl and metals in the system. In presence of aluminum and excessive water, the decomposition can proceed rapidly with production of large amounts of heat and HCl fumes. "Empty" container warning: "Empty" containers retain residue (liquid or vapor) that can be dangerous. Do not pressurize, cut, weld, braze, solder, drill, grind, or expose such containers to heat, flame, sparks, static electricity, or other sources of ignition; they may explode and cause injury or death. Do not attempt to clean since residue is difficult to remove. "Empty" drums should be completely drained, properly bunged and promptly returned to a drum reconditioner. All other containers should be disposed of in an environmentally safe manner and in accordance with governmental regulations. For work on tanks refer to Occupational Safety and Health Administration regulations, ANSI Z49.1. and other governmental and industrial references pertaining to cleaning, repairing, welding, or other contemplated operations.

Section V - Reactivity Data

This product is stable and will not react violently with water. Hazardous polymerization will not occur. Avoid contact with strong oxidants such as liquid chlorine, concentrated oxygen, sodium hypochlorite, calcium hypochlorite, strong alkalis (such as alkali metals) open flames, and electrical arcs. This product should not be used in contact with aluminum or zinc or their alloys. Avoid open flames, welding arcs, or other high temperature sources which include decomposition to irritating and corrosive HCl from solvent vapor. Strong UV light (e.g. welding arc) can cause significant phosgene to be generated.

Section VI - Routes of Entry, Health Hazard Data, Toxicity Data, and First Aid Procedures

Route(s) of Entry: Inhalation, Skin, Ingestion

Variability among individuals: Health studies have shown that many petroleum hydrocarbons and synthetic lubricants pose potential human health risks, which may vary, from person to person. As a precaution, exposure to liquids, vapors, mists or fumes should be minimized. Effects of overexposure (signs and symptoms of exposure): High vapor concentrations are irritating to the eyes and the respiratory tract, and may cause headaches, dizziness, anesthesia, drowsiness, unconsciousness, and other central nervous system effects, including death. (cont. on page 2)

Nature of hazard and toxicity information: **WARNING:** Concentrated. Prolonged or deliberate inhalation of this product may cause serious nervous system damage. Toxicology data for methylene chloride: Skin: The dermal LD50 has not been determined. Ingestion: The oral LD50 for rats is 1500-2500 mg/kg. **MUTAGENICITY** (effects on Genetic Material): Negative or equivocal results have been obtained in mutagenicity tests with methylene chloride using mammalian cells or animals. This consistent with the lack of interaction with DNA in rats and hamsters. Although results of Ames bacterial test have generally been positive, overall the data suggests that genotoxic potential does not appear to be a significant factor in the toxicity of methylene chloride. Experience in industry has shown no increased incidences of cancer of any type in the worker population. IARC lists this product as having inadequate evidence in humans and sufficient evidence in animals to evaluate carcinogenicity, Group 2B. Preexisting medical conditions may be aggravated by exposure. Persons with angina or other cardiovascular disease should not be exposed to this product.

EMERGENCY FIRST AID PROCEDURES:

Eye Contact: If slashed in eyes, flush with clear water for 15 minutes or until irritation subsides. If irritation persists, call a physician. Skin Contact: In case of skin contact, remove contaminated clothing and wash skin thoroughly with soap and water. Inhalation: If overcome by vapor, remove from exposure and call a physician immediately. If breathing is irregular or has stopped, start resuscitation; administer oxygen, if available. Ingestion: If ingested, **Do not** induce vomiting; call a physician immediately.

Poisonous if swallowed. Can effect the optic nerve resulting in blindness. Can cause mental sluggishness, nausea and vomiting leading to severe illness, possibly death.

Section VII: Environmental Information

STEPS TO BE TAKEN IN CASE MATERIAL IS RELEASED OR SPILLED: Shut off and eliminate all ignition sources. Keep people away. Recover free product. Add sand, earth or other suitable absorbent to spill area. Minimize breathing vapors. Minimize skin contact. Ventilate confined spaces, open all windows and doors. Keep product out of sewers and watercourses by diking or impounding. Advise authorities if product has entered sewer, water course or extensive land areas. Assure conformity with applicable governmental regulations. Continue to observe precautions for volatile, combustible vapors from absorbed material. Handling equipment must be grounded to prevent sparking. Transportation Incident Information: For further information relative to spills resulting from transportation incident, refer to latest Department of Transportation Emergency Response Guidebook for Hazardous Materials Incidents, DOT 5800.3

The following information may be useful in complying with various state and federal laws and regulations under various environmental statutes:

Reportable Quantity (RQ). EPA Regulations 40 CTR 302 (Cercla Section 102)

NO RQ for product. RQ for product with:	Toluene is	7,692 lbs.
	Methylene Chloride is	1,428 lbs.
	Methanol is	41,500 lbs

Threshold Planning Quantity (TPQ), EPA Regulation 40 CFR 355 (Sara sections 301 301) No TPQ for product or any constituent greater than 1% or .01% (carcinogen). Toxic Chemical Release Reporting, EPA Regulation 40 CFR 372 (Sara Sections 313) This product contains toluene, methylene chloride, and methanol. Hazardous Chemical Reporting, EPA Regulation 40 CFR 370 (Sara Sections 311, 312)

EPA Hazard Classification Code:	Acute Hazard	Chronic Hazard	Fire Hazard	Reactive Hazard	Not Applicable
	XXX	XX			

Section VIII: Protection and Precautions

RESPIRATORY PROTECTION: Use supplied-air respiratory protection in confined or enclosed spaces, if needed.

VENTILATION: Use only with ventilation sufficient to prevent exceeding recommended exposure limit or build up of explosive concentrations of vapor in air. No smoking, flame or other ignition sources. Use explosion-proof ventilation as required to control particulate concentrations.

PROTECTIVE GLOVES: Use chemical-resistant gloves, if needed, to avoid prolonged or repeated skin contact.

EYE PROTECTION: Use splash goggles or face shield when eye contact may occur.

OTHER PROTECTIVE EQUIPMENT: Use chemical resistant apron or other impervious clothing, if needed, to avoid contaminating regular clothing, which could result in prolonged or repeated skin contact.

WORK PRACTICES/ENGINEERING CONTROLS: Keep containers closed when not in use. Do not store near heat, sparks, flame or strong oxidants. To prevent fire or explosion risk from static accumulation and discharge, effectively ground product transfer system in accordance with the National Fire Protection Association standard for petroleum products. In order to prevent fire or explosion hazard use appropriate equipment. Information on electrical equipment appropriate for use with this product may be found in the latest edition of the National Electrical Code (NTPA-70). This document is available from the National Fire Protection Association, Batterymarch Park, Quincy, Massachusetts, 02269.

PERSONAL HYGIENE: Minimize breathing vapor or mist. Avoid prolonged or repeated contact with skin. Remove contaminated clothing laundry or dry clean before reuse. Remove contaminated shoes and thoroughly clean and dry before reuse. Cleanse skin thoroughly after contact before breaks and meals and at the end of work period. Product is readily removed from skin by waterless hand cleaners followed by washing thoroughly with soap and water. Eye wash fountains and safety showers should be available for emergency.

Note: Product label will contain additional non-OSHA related information.

The information and recommendations contained herein are to the best of Fiberlock Technologies, Inc. knowledge and belief, accurate and reliable as of the date issued. Fiberlock Technologies, Inc. does not warrant or guarantee their accuracy or reliability and Fiberlock Technologies, Inc. shall not be liable for any loss or damage arising out of the use thereof.

The information and recommendations are offered for the user's consideration and examination and it is the user's responsibility to satisfy itself that they are suitable and complete for its particular use. If buyer repackages this product, legal council should be considered to ensure proper health, safety and other necessary information is included on the container.

The environmental information included under section VIII hereof as well as the hazardous material identification system (HMIS) and National Fire Protection Association (NFPA) ratings have been included by Fiberlock Technologies, Inc. in order to provide additional health and hazard classification information. The ratings recommended are based upon the criteria supplied by the developers of these rating systems, together with Fiberlock Technologies interpretation of the available data.

SUPPLEMENTAL INFORMATION

To comply with New Jersey DOH Right-To-Know labeling law (N.J.A.C. 8:59 - 5.1 & 5.2)

OSHA required label information: In compliance with Hazard and right-to-know requirements the following OSHA Hazard Warnings should be found on the label, bill of lading or invoice accompanying this shipment: **DANGER!**

CAS. No.:

108-88-3
75-09-2
67-56-1
111-76-2

CHEMICAL INGREDIENTS:

Toluene
Methylene Chloride
Methanol
2-Butoxy Ethanol

HMIS HAZARD RATING

Health 3	Flammability 1	Physical Hazard 0	Personal Protection H
HAZARD INDEX: 0=Minimal, 1=Slight, 2=Moderate, 3=Serious, 4=Severe			
PERSONAL PROTECTION CODE			
H=Safety Glasses, Gloves, Vapor Respirator, Synthetic Apron			