



E&L Enterprises Inc.

1140 Pine Orchard Road Oakdale Tennessee 37829 Tel. (423) 369-2080 Fax (423) 369-2033

Material Safety Data Sheet

May be used to comply with OSHA's
Hazard Communication Standard
29 CFR 1910.1200. Standard must be consulted
for specific requirements

U.S. Department of Labor

Occupational Safety and Health Administration
(Non-mandatory Form)
Form Approved OMB No. 1218-0072

Section I – Company Identification

Manufacturer's Name	E&L Enterprises, Inc.
Address	1140 Pine Orchard Road, Oakdale, Tennessee 37829
County	Morgan
Country	USA
Emergency Telephone Number	(423) 369-2080
Telephone Number for Information	(423) 369-2080
Facsimile Number	(423) 369-2033
MSDS #	PC115
MSDS Date	January 5, 2004
Supersedes	July 7, 1997

Section II – Product Identification

Component/ Product Trade Name	Type	Form	Composition	CAS RN	% By Wt.
Pan Based Carbon Fiber	Sized	Milled	Pan Based	7440-44-0	100%

Section III – Physical Properties

Appearance	Black milled fibers	Specific Gravity (H ₂ O = 1)	Not Applicable
Vapor Pressure (mm Hg.)	Not Applicable	Melting Point	6512.0° F (3600.0° C)
Vapor Density (AIR = 1)	Not Applicable	Solubility in Water	Negligible, below 0.1%
Odor	None	Physical State	Solid
Molecular Weight	Not Applicable	Molecular Formula	Not Applicable
% Volatile	Not Applicable	pH	Not Applicable

Section IV – Hazardous Identification

Hazardous Ratings (HMIS)

Health	Flammability	Reactivity	Protective Equipment
1	0	0	E

Hazardous Overview

This product is not expected to present any immediate concern for emergency response personnel.
This product is electrically conductive and has the potential to cause severe problems in exposed

electrical equipment. May cause minor skin and or eye irritation. Do not incinerate. This product is not expected to burn, however, incineration of carbon fibers can generate airborne particulates that can cause electrical malfunction.

Exposure Control

Component	OSHA (PEL)	ACGIH (TLV)	Supplier Recommended
Carbon Fiber, Pan Based	Not Defined	Not Defined	3.0 fibers/cc

Personal Protective Equipment.

Engineering controls and personal protective equipment (PPE) are required. Good hygiene practices should be followed. Before eating, drinking, or smoking, wash face and hands thoroughly with soap and water. Avoid unnecessary skin contact. Impervious gloves are recommended to prevent prolonged skin contact. For operations where eye or face contact can occur, eye protection is recommended.

Exposure Guidelines

Ventilation Requirements	Eye Protection	Skin Protection	Respiratory
Local exhaust needed where possible to contain airborne fibers.	Safety glasses needed. Do not wear contact lenses when working with carbon fiber.	Protective gloves and full body clothing needed to prevent skin irritation.	Dust mask or air purifying respirator needed if there is a potential for exposure to high concentrations of airborne fibers.

Potential Health Effects

Skin: This product may cause slight irritation of the skin. Mechanical irritation may arise from the carbon fiber abrading or becoming imbedded into the skin. Chemical irritation may occur from exposure to sizing present on the fibers.

Eye: Fragments of this product may cause mechanical irritation of the eye.

Inhalation: Inhalation exposure to respirable fibers of this product is not expected to occur under normal industrial use. However, under very limited circumstances, exposure to respirable fibers of this product can occur and result in irritation of the respiratory tract.

Ingestion: No hazard is expected during normal industrial use. Ingestion is not a likely route of exposure for this product. Not necessary to induce vomiting. No known hazard exists.

Chronic Effects/Carcinogenicity: None of the ingredients in this product are listed as carcinogens or potential carcinogens by OSHA, NTP or IARC. Under very limited circumstances, exposure to respirable fibers of this product can occur and result in irritation to respiratory tract; prolonged exposure may cause more adverse effects.

Signs and Symptoms of Exposure

Slight irritation of the affected area.

Section V - Emergency and First Aid Procedures

Eyes: If fibers get into the eyes, flush eyes with water for 15 minutes. Seek medical attention if irritation persists.

Skin: Wash fibers off in cold, running water with soap. If fibers are imbedded in the skin, remove fibers with tweezers. Seek medical attention if irritation develops or persists.

Inhalation: If there is inhalation exposure to the fibers of this product, remove source of exposure and move victim to fresh air. Seek medical attention if irritation or breathing difficulty develops.

Ingestion: Not expected to occur. Ingestion is not a likely route of exposure for this product.

Section VI – Fire Fighting Measures

Flammable Properties: Not expected to burn. However, under high heat (>750 °F), this product may react with oxygen to give off carbon oxides and other decomposition products.

Flash Point: Not applicable.

Flammable Limits (UFL/LFL): Not applicable.

Extinguishing Media: This material is not expected to burn in a fire. If this product is present in a fire, fight fire based on the presence of materials that are flammable.

Fire Fighting Instructions: As in any fire, wear a self-contained breathing apparatus with pressure demand (MSHA/NOIS approved or equivalent) and full protective gear.

Section VII - Precautions for Safe Handling and Use

Steps to Be Taken in Case Material is Released or Spilled

Collect, sweep up or vacuum spilled material and either reuse or dispose of properly. Milled carbon fibers may be slippery if spilled posing an accident risk. Flush area with water.

Waste Disposal Method

Keep container closed. Maintain good housekeeping to control dust. The waste material of this product is not expected to be hazardous. Landfill waste material. Do not incinerate carbon fibers since airborne fibers may cause electrical malfunctions. Any disposal practices must be in compliance with federal, state, and local laws and regulations. Contact local state environmental agencies for specific requirements.

Transportation Information

This product is not regulated as dangerous or hazardous goods according to the regulations of DOT, IMO or IATA. Therefore, no hazard label, hazard class or UN number is applicable to this product.

Section VIII – Ecological Information

No ecological information exists on this product however, carbon fiber is sufficiently inert to expected exposure conditions that no ecological affect is anticipated. To the best of our knowledge, this product does not contain nor is manufactured with any Class I or Class II Ozone Depleting Chemicals (ODCs).

Section IX – Toxicological Information

No toxicological information exists on this product. E&L Enterprises, Inc. knows of no published reports which link carbon fiber to clinical disease or adverse health effects in humans.

Section X –Regulatory Information

Federal Regulations:

CERCLA: No constituents of this material are regulated as hazardous substances.

CAA: No substances regulated as hazardous air pollutants are contained in this material.

SARA: This material is categorized as “immediate health hazard” and “not a physical hazard”.

TSCA: Product components are listed on the TSCA inventory.

State Regulations: Not determined.

International Regulations: Not determined.

Section XI –Other Information

Acronyms:

ACGIH- American Conference of Governmental Industrial Hygienists

CAA- Clean Air Act

CAS- Chemical Abstracts Service

CASRN- Chemical Abstract Service Registration Number

CECRLA- Comprehensive Environmental Response Compensation and Liability Act

DOT: Department of Transportation

HMIS- Hazardous Materials Identification Rating

IARC- International Agency for Research on Cancer

IATA- International Air Transport Association

IMO- International Maritime Organization

MSHA- Mine Safety and Health Administration

N/A- Not Applicable

NOIS- Neuro-Oncology Information System

NTP- National Toxicology Program

ODC- Ozone Depleting Chemicals

OSHA- Occupational Safety and Health Administration

PEL- Permissible Exposure Limit

PPE- Personal Protective Equipment

SARA- Superfund Amendments and Reauthorization Act

TLV- Threshold Limit Value

TSCA- Toxic Substances Control Act

TWA- Time Weighted Average

UN- United Nations Number

DISCLAIMER:

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