MATERIAL SAFETY DATA SHEET
UltraFiber 500®

DATE PREPARED: June, 2004 **DATE REVISED: December, 2006**

Buckeye Technologies Inc.
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SECTION 1 IDENTIFICATION OF THE SUBSTANCE OR PREPARATION

SECTION 1.1 Identification of the Substance or Preparation

SUBSTANCE IDENTIFICATION: *UltraFiber 500®*

CHEMICAL NAME: None. *UltraFiber 500®* is classified as a mixture or preparation.

CAS NUMBER: None. *UltraFiber 500®* is classified as a mixture or preparation.

EINECS NUMBER: None. *UltraFiber 500®* is classified as a mixture or preparation.

OTHER IDENTIFICATION MEANS: None.

MANUFACTURED AT: Perry, FL U.S.A.

SECTION 1.2 Use of the Substance or Preparation

UltraFiber 500® is used as a fiber admixture for cementitious composites.

SECTION 1.3 Emergency Telephone

901-320-8100

SECTION 2 COMPOSITION/INFORMATION ON INGREDIENTS

UltraFiber 500® is predominantly (>95% by weight) cellulose pulp (CAS No. 65996-61-4), containing two proprietary additives.

SECTION 3 HAZARDS IDENTIFICATION

UltraFiber 500® is not classified as dangerous according to Directive 1999/45/EC.

SECTION 3.1 Emergency Overview

UltraFiber 500® fibers are formed into white, odorless sheets that are converted into rectangular dice. The sheets may catch fire and burn if exposed to ignition sources such as sparks and open flames. Combustion products mainly are compounds of carbon, hydrogen and oxygen, including carbon monoxide.

SECTION 3.2 Potential Health Effects By Route Of Exposure

Chronic (Cancer):	*UltraFiber 500*® fibers themselves, cellulose pulp, and the additives are not listed in lists of carcinogens published by IARC, NTP, or OSHA.
Conditions Aggravated:	Data are not available.
Eye:	Dust released from *UltraFiber 500*® is predominately cellulose, and may mechanically irritate eyes, causing redness and watering.
Ingestion:	*UltraFiber 500*® is predominantly cellulose. Cellulose swallowed in association with exposures below published TLV's is not likely to be harmful. (See Section 8.1.) The extent to which the additives may alter this conclusion about cellulose is not known.
Inhalation:	Dust released from *UltraFiber 500*® is predominately cellulose. Cellulose inhaled in association with exposures below published TLV's is not likely to be harmful. (See Section 8.1.) The extent to which the additives may alter this conclusion about cellulose is not known.
Skin Absorption:	Unlikely to occur. Cellulose is virtually insoluble in lipid solvents and water. The extent to which the additives may alter this conclusion is not known.
Skin Contact:	Repeatedly handling finished forms may mechanically roughen skin.

SECTION 4 FIRST AID MEASURES

SECTION 4.1 First Aid Procedures

Eye:	Treat dust in eyes as a foreign object. Flush with water to remove. Get medical Help if irritation persists.
Inhalation:	Remove to fresh air. Get medical help if persistent irritation, severe coughing or breathing difficulty occurs.

SECTION 5 FIRE FIGHTING MEASURES

SECTION 5.1 Flammable Properties

UltraFiber 500®, as loose fibers, sheets, or rectangular dice, can be ignited and will burn with a self-sustained flame. Combustion products include compounds of carbon, hydrogen and oxygen, for example carbon monoxide.

SECTION 5.2 Explosion Properties

UltraFiber 500® dust, as any cellulosic dust, is an explosion hazard.

SECTION 5.3 Extinguishing Media

Water is effective to extinguish burning *UltraFiber 500*®. Other extinguishing methods may be used as deemed appropriate. No extinguishing method is known to be unsafe for use with *UltraFiber 500*®.

SECTION 5.4 Fire-fighting Instruction

Keep personnel removed from and upwind of fire. Wear appropriate fire-fighting gear and respiratory protection.

SECTION 6 ACCIDENTAL RELEASE MEASURES

Collect for recovery or disposal. No special personal or environmental precautions are necessary.

SECTION 7 HANDLING AND STORAGE

SECTION 7.1 Handling

Use equipment and practices appropriate for large, heavy items. Special precautions are not necessary.

SECTION 7.2 Storage

Store in a cool, dry location away from heat sources, open flames, and sparks.

SECTION 8 EXPOSURE CONTROLS/PERSONAL PROTECTION

SECTION 8.1 Exposure Limit Values

UltraFiber 500® dust may be considered cellulose (CAS No. 9004-34-6). The effects of the additives on these values are unknown.

ACGIH TLV-TWA[1]	10 mg/m^3	Total dust	[1] 1999 TLVs and BEIs, ACGIH
OSHA TLV-TWA[2]	15 mg/m^3	Total dust	[2] 29 CFR 1910.1000, Table Z-1
OSHA TLV-TWA[2]	5 mg/m^3	Respirable dust	

SECTION 8.2 Exposure Controls

SECTION 8.2.1 Occupational Exposure Controls

Minimize practices that generate dust. Use general mechanical and/or local exhaust ventilation to keep dust concentrations below exposure guidelines.

SECTION 8.2.1.1 Respiratory Protection

Wear particulate filter and/or air-purifying respirator when allowable exposure limits may be exceeded.

SECTION 8.2.1.2 Hand Protection

Wear gloves to minimize potential mechanical irritation from handling.

SECTION 8.2.1.3 Eye Protection

Wear safety glasses or goggles where high dust levels are encountered.

SECTION 8.2.1.4 Skin Protection

Outer garments may be desirable in dusty areas.

SECTION 8.2.2 Environmental Exposure Controls

Special environmental exposure controls are not known.

SECTION 9 PHYSICAL AND CHEMICAL PROPERTIES

SECTION 9.1 General Information

Appearance: Short fibers in odorless, white sheets that are converted into rectangular dice.

SECTION 9.2 Important Health, Safety, and Environmental Information

Boiling Point (760 mmHg):	Not applicable
Evaporation Rate (Butyl Acetate = 1):	Not applicable
Flash Point (Method Used):	Not applicable
Melting Point:	Not applicable
pH:	Not applicable
Solubility in Water:	Not expected to exceed 1%
Specific Gravity (H_2O = 1):	1.5
Vapor Density (Air = 1):	Not applicable
Vapor Pressure (mmHg at 20°C):	Not applicable

SECTION 9.3 Other Information

Ignition Temperature: *UltraFiber 500*® ignition temperature is expected to be about 400°C. This expectation is based on the chemical similarity among cellulose, cotton fibers, and viscose rayon fibers. Reported ignition temperatures for cotton and rayon fibers are 390-400°C and 420°C, respectively (Polymer Handbook, Brandrup and Immergut (eds.), 2nd edition, page V-96, 1975).

Minimum Explosive Concentration: Cellulose minimum explosive concentration is 0.055 oz/ft^3 (55 g/m^3), and explosivity indices for cellulose dusts range from weak (<0.1) for raw cotton linters to severe (>10) for ground cotton flock. Variables that affect explosivity include dust concentration, fiber length, heating rate, and moisture content. Data are from Explosivity Of Dusts Used In the Plastics Industry, report of investigations 5971, U.S. Department Of Interior, Bureau Of Mines.

Thermal Decomposition: 200-270°C (Polymer Handbook, Brandrup and Immergut (eds.), 2nd edition, page V-94, 1975).

SECTION 10 STABILITY AND REACTIVITY

SECTION 10.1 Conditions to Avoid

Dust deposits on hot pipes and machines.

SECTION 10.2 Materials to Avoid

Open flames, sparks and strong oxidizing agents, e.g. concentrated nitric and sulfuric acid.

SECTION 10.3 Hazardous Decomposition Products

Chemical Stability:	*UltraFiber 500*® is stable.
Hazardous Decomposition Products:	None known.
Hazardous Polymerization:	Will not occur.

SECTION 11 TOXICOLOGICAL INFORMATION

Information is available upon request.

SECTION 12 ECOLOGICAL INFORMATION

SECTION 12.1 Ecotoxicity

No data are available.

SECTION 12.2 Mobility

UltraFiber 500® is not expected to migrate into groundwater or travel far from the site of release.

SECTION 12.3 Persistence and Biodegradability

No data are available.

SECTION 12.4 Bioaccumulative Potential

No data are available.

SECTION 12.5 Other Adverse Effects

No data are available.

SECTION 13 DISPOSAL CONSIDERATIONS

EUROPEAN UNION

UltraFiber 500®, as made, does not have the properties of a hazardous waste (Council Directive 94/31/EC), and it may be disposed in Member Countries according to Council Directive 75/442/EEC, as amended.

UNITED STATES

UltraFiber 500®, as made, is not a hazardous waste, and it may be landfilled or incinerated in accordance with federal, state, and local requirements.

SECTION 14 TRANSPORT INFORMATION

UltraFiber 500® is predominantly cellulose. The U. S. Department of Transportation does not regulate cellulose as a hazardous material.

SECTION 15 REGULATORY INFORMATION

Regulatory information is provided as a service to our customers. This information may not address all applicable local, state, national and international regulations. The customer is responsible to determine regulatory information that is relevant to their usage of this product. If further assistance is needed, contact your Buckeye Product Manager.

SECTION 15.1 Inventories

CANADA

CANADIAN ENVIRONMENTAL PROTECTION ACT (CEPA):

UltraFiber 500®, as cellulose pulp (CAS No. 65996-61-4), and the additives are included in the Canadian DSL/NDSL.

EUROPEAN UNION (EU)

DIRECTIVE 67/548 (as amended by DIRECTIVE 92/32):

UltraFiber 500®, as cellulose pulp (CAS No. 65996-61-4), and the additives are included in the EINECS inventory.

SECTION 15.1 Inventories (cont'd)

UNITED STATES
TOXIC SUBSTANCE CONTROL ACT (TSCA):

UltraFiber 500®, as cellulose pulp (CAS Number 65996-61-4), and the additives are included in the TSCA Chemical Substance Inventory.

SECTION 15.2 U.S. Federal Regulations

COMPREHENSIVE ENVIRONMENTAL RESPONSE, COMPENSATION AND LIABILITY ACT OF1980 (CERCLA), also called "SUPERFUND":

Cellulose and the additives are not designated as hazardous substances (40 CFR 302.4), and there are no reportable quantities (40 CFR 302.5) for cellulose releases. Therefore, *UltraFiber 500*® releases to the environment are not subject to CERCLA notification requirements (40 CFR 302.6).

SOLID WASTE DISPOSAL ACT/RESOURCE CONSERVATION AND RECOVERY ACT (RCRA):

Cellulose and the additives are not hazardous waste. *UltraFiber 500*®, as cellulose, does not have characteristics of ignitability (40 CFR 261.21), corrosivity (40 CFR 261.22), or reactivity (40 CFR 261.33); and based on knowledge of its composition, it should not exhibit toxicity characteristics (40 CFR 261.24). Furthermore, cellulose and the additives are not included among the lists of hazardous wastes at 40 CFR Part 261, Subpart D.

SUPERFUND AMENDMENTS AND REAUTHORIZATION ACT OF 1986 (SARA):
TITLE III - EMERGENCY PLANNING AND COMMUNITY RIGHT TO KNOW
Subtitle A - Emergency Planning and Notification
Sec. 302. Substances and facilities covered and notification

Cellulose and the additives are not included in the List of Extremely Hazardous Substances and Their Threshold Planning Quantities (40 CFR Part 355, Appendices A and B).

Subtitle B - Reporting Requirements
Sec. 311. . Material Safety Data Sheets (MSDS)

A MSDS may be required to be available for *UltraFiber 500*®. (See OSHA below.) If so, and if *UltraFiber 500*® exceeds threshold levels (40 CFR 370.20(b)), this MSDS may be subject to MSDS reporting regulations at 40 CFR 370.21.

Sec. 312. Emergency and hazardous chemical inventory forms

A MSDS may be required to be available for *UltraFiber 500*®. (See OSHA below.) If so, and if *UltraFiber 500*® exceeds threshold levels (40 CFR 370.20(b)), *UltraFiber 500*® may be subject to Inventory reporting regulations at 40 CFR 370.25.

Sec. 313. Toxic chemical release forms

UltraFiber 500® is exempt from Toxic Chemical Release Reporting and Supplier Notification Requirements (40 CFR, Part 372, Subparts B and C, respectively). Cellulose and the additives are not included in the Specific Toxic Chemical Listings (40 CFR, Subpart D) to which release reporting and supplier notification requirements apply. Furthermore, chemicals included in the Specific Toxic Chemical listings that might appear as impurities in *UltraFiber 500*® will be present at or below *de minimus* concentrations (40 CFR 372.38).

FOOD DRUG AND COSMETIC ACT:

UltraFiber 500® contains cellulose, which meets the definition for pulp at 21 CFR 186.1673, and the additives comply with one or more FDA regulations.

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SECTION 15.2 U.S. Federal Regulations (cont'd)

OCCUPATIONAL SAFETY AND HEALTH ACT:

A Material Safety Data Sheet (MSDS) may be required to be available for *UltraFiber 500®*. The OSHA Hazard Communication Standard (29 CFR 1910.1200) requires a MSDS for hazardous substances. Although a hazard is not specified, OSHA includes cellulose among toxic and hazardous substances (29 CFR Part 1910, Subpart Z) and limits its inhalation exposure (29 CFR 1910.1000). Therefore, since *UltraFiber 500®* is essentially cellulose, a *UltraFiber 500®* MSDS may be required to be available.

SECTION 15.3 U.S. State Regulations

CALIFORNIA PROPOSITION 65:

Cellulose and the additives are not included in the list of chemicals known to California to cause cancer or reproductive toxicity.

SECTION 15.4 European Union Legislation

Cellulose pulp and the two proprietary additives are not classified as dangerous according to Annex I of Directive 67/548/EEC. *UltraFiber 500®*, as a mixture or preparation, is not classified as dangerous according to Directive 1999/45/EC.

SECTION 16 OTHER INFORMATION

To the best of our knowledge, the information contained herein is accurate. However, Buckeye Technologies makes no warranties or representations concerning the information in this document.

This document was prepared by: Laura H. Long, Manager, Product Safety & Regulatory Affairs

Signature: