



TAMPA ELECTRIC

September 8, 2000

Mr. Scott M. Sheplak, P.E.
Florida Department of Environmental Protection
111 South Magnolia Drive, Suite 4
Tallahassee, Florida 32301

Via FedEx
Airbill No. 7903 5405 1280

Scott Sheplak
RECEIVED
SEP 11 2000
BUREAU OF AIR REGULATION

**Re: Tampa Electric Company
Big Bend Station
FDEP Files No. 0570039-002-AV
Notification of Use of
Coal Treated with Binder**

Dear Mr. Sheplak:

As you know, based on the Department's copy of the letter from Hillsborough County Environmental Protection Commission to Tampa Electric Company (TEC) dated August 24, 2000, TEC intends to begin using coal that has been treated with a binder. The types of coal currently being use will remain the same; however, it will be treated with the binder agent prior to delivery to the power plant. The main environmental benefit of the binder application is reduced particulate emissions during handling of the material. Otherwise, there is no expected change in the type, or amount of emissions associated with the use of this fuel. An additional aspect of the treatment of the coal with the binder product is it allows the producer of the fuel to qualify for a fuel tax credit. TEC intends to begin using the treated coal in varying percentages of the overall fuel mix on or after October 1, 2000.

There are currently several types of binder that could be used in the treatment process. Information on the three binder agents currently under evaluation for use in the treatment process for the fuel that TEC will receive is enclosed. One or more of these binders may be used interchangeably.

Please feel free to telephone me at (813) 641-5033, if you have any questions.

Sincerely,

Jamie Hunter
Consulting Engineer
Environmental Affairs

EP\gm\JH935

Enclosures

c/enc: Mr. Jerry Kissel, FDEP-SW District
Mr. Jerry Campbell, EPCHC

TAMPA ELECTRIC COMPANY
P. O. BOX 111 TAMPA, FL 33601-0111

(813) 226-4111

AN EQUAL OPPORTUNITY COMPANY
HTTP://WWW.TECOENERGY.COM

CUSTOMER SERVICE:
HILLSBOROUGH COUNTY (813) 223-0800
OUTSIDE HILLSBOROUGH COUNTY: (888) 223-0200

1. CHEMICAL PRODUCT & COMPANY IDENTIFICATION

24-HOUR EMERGENCY PHONE NUMBER: 517-636-4400

Product: LATEX DL 298NA

Product Code: 61584

Effective Date: 01/07/99 Date Printed: 04/25/00 MSD: 005213

The Dow Chemical Company, Midland, MI 48674

Customer Information Center: 800-256-2436

2. COMPOSITION/INFORMATION ON INGREDIENTS

Proprietary carboxylated styrene/ butadiene polymer		40-62%
Water	CAS# 007732-18-5	38-60%

3. HAZARDS IDENTIFICATION

EMERGENCY OVERVIEW

 * Milky white liquid emulsion. Slight odor. No significant immediate *
 * hazards for emergency response are known. Dike and contain spills. *
 * Avoid dilution of spills. *

POTENTIAL HEALTH EFFECTS (See Section 11 for toxicological data.)

EYE: May cause slight transient (temporary) eye irritation.
Corneal injury is unlikely.

SKIN: Short single exposure not likely to cause significant skin irritation. Prolonged or repeated exposure may cause slight skin irritation. Material may stick to skin causing irritation upon removal. A single prolonged exposure is not likely to result in the material being absorbed through the skin in harmful amounts.

INGESTION: Single dose oral toxicity is considered to be extremely low. No hazards anticipated from swallowing small amounts incidental to normal handling operations.

INHALATION: Single exposure to vapors is not likely to be hazardous.

SYSTEMIC & OTHER EFFECTS: No relevant information found.

CANCER INFORMATION: No relevant information found.

(Continued on Page 2)

* or (R) Indicates a Trademark of The Dow Chemical Company

Product Name: LATEX DL 298NA
Product Code: 61586

Effective Date: 01/07/99

Date Printed: 04/25/00

MSD: 005213

3. HAZARDS IDENTIFICATION (CONTINUED)

TERATOLOGY (BIRTH DEFECTS): No relevant information found.

REPRODUCTIVE EFFECTS: No relevant information found.

4. FIRST AID

EYES: Flush eyes with plenty of water.

SKIN: Wash off in flowing water or shower.

INGESTION: If swallowed, seek medical attention. Do not induce vomiting unless directed to do so by medical personnel.

INHALATION: Remove to fresh air if effects occur. Consult a physician.

NOTE TO PHYSICIAN: No specific antidote. Supportive care. Treatment based on judgment of the physician in response to reactions of the patient.

5. FIRE FIGHTING MEASURES

FLAMMABLE PROPERTIES:

FLASH POINT: Not applicable

METHOD USED: Not applicable

AUTOIGNITION TEMPERATURE: Not applicable

FLAMMABILITY LIMITS:

LFL: Not applicable

UFL: Not applicable

HAZARDOUS COMBUSTION PRODUCTS: Under fire conditions some components of this product may decompose. The smoke may contain unidentified toxic and/or irritating compounds. Hazardous combustion products may include and are not limited to hydrocarbons, carbon monoxide and dense smoke.

OTHER FLAMMABILITY INFORMATION: This material will not burn until the water has evaporated. Residue can burn.

EXTINGUISHING MEDIA: To extinguish combustible residues of this product use water fog, carbon dioxide, dry chemical or foam.

FIRE FIGHTING INSTRUCTIONS: Keep people away. Isolate fire area

(Continued on Page 3)

* or (R) Indicates a Trademark of The Dow Chemical Company

Product Name: LATEX DL 298NA
Product Code: 61564

Effective Date: 01/07/99

Date Printed: 04/25/00

MSD: 005213

5. FIRE FIGHTING MEASURES (CONTINUED)

and deny unnecessary entry. To extinguish combustible residues of this product use water fog, carbon dioxide, dry chemical or foam.

PROTECTIVE EQUIPMENT FOR FIRE-FIGHTERS: Wear positive-pressure, self-contained breathing apparatus (SCBA) and protective fire fighting clothing (includes fire fighting helmet, coat, pants, boots, and gloves). If protective equipment is not available or not used, fight fire from a protected location or safe distance.

6. ACCIDENTAL RELEASE MEASURES (See Section 15 for Regulatory Information)

PROTECT PEOPLE: Avoid contact with eyes and skin.

PROTECT THE ENVIRONMENT: Contain material to prevent contamination of soil, surface water or ground water.

CLEANUP: Recover and recycle spilled latex if possible, otherwise collect with absorbent material and transfer to appropriate containers for disposal. Water may be used for final cleaning of affected area.

7. HANDLING AND STORAGE

HANDLING: Practice reasonable care to avoid repeated, prolonged skin contact. Addition of chemicals may cause coagulation.

STORAGE: Store at temperatures between 40F and 110F. May coagulate if frozen at 32F, 0C. Material may develop bacteria odor on long-term storage. No safety problems known.

8. EXPOSURE CONTROLS/PERSONAL PROTECTION

ENGINEERING CONTROLS: Good general ventilation should be sufficient for most conditions. Local exhaust ventilation may be necessary for some operations.

PERSONAL PROTECTIVE EQUIPMENT

EYE/FACE PROTECTION: Use safety glasses.

SKIN PROTECTION: Wear clean, long-sleeved, body-covering clothing. Use gloves impervious to this material.

(Continued on Page 4)

* or (R) Indicates a Trademark of The Dow Chemical Company

Product Name: LATEX DL 298NA
Product Code: 61584

Effective Date: 01/07/99

Date Printed: 04/25/00

MSD: 005213

8. EXPOSURE CONTROLS/PERSONAL PROTECTION (CONTINUED)

RESPIRATORY PROTECTION: No respiratory protection should be needed.

EXPOSURE GUIDELINE(S): None established.

9. PHYSICAL AND CHEMICAL PROPERTIES

APPEARANCE: Milky white liquid emulsion.
ODOR: Slight odor.
VAPOR PRESSURE: 17.5 mmHg @ 20C
VAPOR DENSITY: 0.624 @ 50F
BOILING POINT: 212F, 100C
SOLUBILITY IN WATER: Latex as sold is dilutable. Polymer component is insoluble.
SPECIFIC GRAVITY: .980 - 1.040

The physical data listed are for a series of latexes. For specific properties on any given latex, see the product bulletin.

10. STABILITY AND REACTIVITY

CHEMICAL STABILITY: Stable under recommended storage conditions. See storage section.

CONDITIONS TO AVOID: Active ingredient decomposes at elevated temperatures. Product can decompose at elevated temperatures.

INCOMPATIBILITY WITH OTHER MATERIALS: None known.

HAZARDOUS DECOMPOSITION PRODUCTS: Hazardous decomposition products depend upon temperature, air supply and the presence of other materials.

HAZARDOUS POLYMERIZATION: Will not occur.

11. TOXICOLOGICAL INFORMATION (See Section 3 for Potential Health Effects. For detailed toxicological data, write or call the address or non-emergency number shown in Section 1)

SKIN: The dermal LD50 has not been determined.

INGESTION: The oral LD50 for rats is > 5000mg/kg for similar materials.

MUTAGENICITY: No relevant information found.

(Continued on Page 5)

* or (R) Indicates a Trademark of The Dow Chemical Company

Product Name: LATEX BL 256NA
Product Code: 61584

Effective Date: 01/07/99

Date Printed: 04/25/00

MSD: 005213

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12. ECOLOGICAL INFORMATION (For detailed Ecological data, write or call the address or non-emergency number shown in Section 1)

ENVIRONMENTAL FATE

MOVEMENT & PARTITIONING: No bioconcentration of the polymeric component is expected because of its high molecular weight. Latex dispersions will color water a milky white.

DEGRADATION & TRANSFORMATION: The polymeric component is not expected to biodegrade.

ECOTOXICOLOGY: Material is practically non-toxic to aquatic organisms on an acute basis (LC50 greater than 100 mg/L in most sensitive species).

13. DISPOSAL CONSIDERATIONS (See Section 15 for Regulatory Information)

DISPOSAL METHOD: DO NOT DUMP INTO ANY SEWERS, ON THE GROUND, OR INTO ANY BODY OF WATER. All disposal methods must be in compliance with all Federal, State/Provincial and local laws and regulations. Regulations may vary in different locations. Waste characterizations and compliance with applicable laws are the responsibility solely of the waste generator.

THE DOW CHEMICAL COMPANY HAS NO CONTROL OVER THE MANAGEMENT PRACTICES OR MANUFACTURING PROCESSES OF PARTIES HANDLING OR USING THIS MATERIAL. THE INFORMATION PRESENTED HERE PERTAINS ONLY TO THE PRODUCT AS SHIPPED IN ITS INTENDED CONDITION AS DESCRIBED IN SECTION 2 (Composition/Information On Ingredients).

FOR UNUSED OR UNCONTAMINATED PRODUCT, the preferred options include sending to a licensed, permitted recycler, reclaimer, incinerator or other thermal destruction device.

As a service to its customers, Dow can provide names of information resources to help identify waste management companies and other facilities which recycle, reprocess or manage chemicals or plastics, and that manage used drums. Telephone Dow's Customer Information Center at 800-258-2436 or 517-832-1556 for further details.

14. TRANSPORT INFORMATION

CANADIAN TDG INFORMATION:

For TDG regulatory information, if required, consult transportation regulations, product shipping papers, or your Dow representative.

(Continued on Page 6)

* or (R) Indicates a Trademark of The Dow Chemical Company

Product Name: LATEX DL 788NA
Product Code: 61884

Effective Date: 01/07/99 Date Printed: 04/25/00 MSD: 005213

14. TRANSPORT INFORMATION (CONTINUED)

U. S. DEPARTMENT OF TRANSPORTATION (D.O.T.):
This product is not regulated by DOT when shipped domestically by land.

15. REGULATORY INFORMATION (Not meant to be all-inclusive--selected regulations represented)

NOTICE: The information herein is presented in good faith and believed to be accurate as of the effective date shown above. However, no warranty, express or implied is given. Regulatory requirements are subject to change and may differ from one location to another; it is the buyer's responsibility to ensure that its activities comply with federal, state or provincial, and local laws. The following specific information is made for the purpose of complying with numerous federal, state or provincial, and local laws and regulations. See other sections for health and safety information.

U.S. REGULATIONS
=====

SARA 313 INFORMATION: To the best of our knowledge, this product contains no chemical subject to SARA Title III Section 313 supplier notification requirements.

SARA HAZARD CATEGORY: This product has been reviewed according to the EPA "Hazard Categories" promulgated under Sections 311 and 312 of the Superfund Amendment and Reauthorization Act of 1986 (SARA Title III) and is considered, under applicable definitions, to meet the following categories:

Not to have met any hazard category

CANADIAN REGULATIONS
=====

WHMIS INFORMATION: The Canadian Workplace Hazardous Materials Information System (WHMIS) Classification for this product is:

This product is not a "Controlled Product" under WHMIS.

(Continued

on Page 7)

* or (R) Indicates a Trademark of The Dow Chemical Company

Product Name: LATEX DL 298NA
Product Code: 61984

Effective Date: 01/01/99

Date Printed: 04/25/00

MSD: 005213

REGULATORY INFORMATION: (CONTINUED)

16. OTHER INFORMATION

MSDS STATUS: Revised Section 13



MATERIAL SAFETY DATA SHEET

Product

NALCO 883E

EMERGENCY TELEPHONE NUMBER

(800)462-637E (24 Hours) (800)HM-ALERT

Integrated Risk Information System, U.S. Environmental Protection Agency, Washington, D.C. (TOMES CPS™ CD-ROM Version), Micromedex, Inc., Englewood, CO.

Annual Report on Carcinogens, National Toxicology Program, U.S. Department of Health and Human Services, Public Health Service.

Title 29 Code of Federal Regulations, Part 1910, Subpart Z, Toxic and Hazardous Substances, Occupational Safety and Health Administration (OSHA), (Ariel Insight™ CD-ROM Version), Ariel Research Corp., Bethesda MD.

Registry of Toxic Effects of Chemical Substances, National Institute for Occupational Safety and Health, Cincinnati, OH, (TOMES CPS™ CD-ROM Version), Micromedex, Inc., Englewood, CO.

Ariel Insight™ (An integrated guide to industrial chemicals covered under major regulatory and advisory programs), North American Module, Western European Module, Chemical Inventories Module and the Generics Module (Ariel Insight™ CD-ROM Version), Ariel Research Corp., Bethesda, MD.

The Teratogen Information System, University of Washington, Seattle, WA (TOMES CPS™ CD-ROM Version), Micromedex, Inc., Englewood, CO

Prepared By : Product Safety Department
Date issued : 05/08/2000
Replaces : 09/08/1998



MATERIAL SAFETY DATA SHEET

Product

NALCO 9838

EMERGENCY TELEPHONE NUMBER

(800)462-5378 (24 Hours) (800) I-M-ALERT

1. CHEMICAL PRODUCT AND COMPANY IDENTIFICATION

PRODUCT NAME : NALCO 9838

CHEMICAL DESCRIPTION : Polymer, Water

COMPANY IDENTIFICATION : Nalco Chemical Company
One Nalco Center
Naperville, Illinois
60563-1198

EMERGENCY TELEPHONE NUMBER : (800)462-5378 (24 Hours) (800) I-M-ALERT

NFPA 704M/HMIS RATING

HEALTH: 0/1 FLAMMABILITY: 1/1 REACTIVITY: 0/0 OTHER:

0 = Insignificant 1 = Slight 2 = Moderate 3 = High 4 = Extreme

2. COMPOSITION/INFORMATION ON INGREDIENTS

Based on our hazard evaluation, none of the substances in this product are hazardous.

3. HAZARDS IDENTIFICATION

****EMERGENCY OVERVIEW****

CAUTION

May cause irritation with prolonged contact.

Do not get in eyes, on skin, on clothing. Do not take internally. Wear suitable protective clothing. Keep container tightly closed. Flush affected area with water. Protect product from freezing.

May evolve oxides of carbon (COx) under fire conditions.

PRIMARY ROUTES OF EXPOSURE :

Eye, Skin

HUMAN HEALTH HAZARDS - ACUTE :

EYE CONTACT :

May cause irritation with prolonged contact.

SKIN CONTACT :

May cause irritation with prolonged contact.

INGESTION:

Not a likely route of exposure. No adverse effects expected.

INHALATION :



MATERIAL SAFETY DATA SHEET

Product:

NALCO 9105

EMERGENCY TELEPHONE NUMBER

(800)462-5378 (24 Hours) (400) LM-ALERT

Not a likely route of exposure. No adverse effects expected.

SYMPTOMS OF EXPOSURE :

Acute :

A review of available data does not identify any symptoms from exposure not previously mentioned.

Chronic :

A review of available data does not identify any symptoms from exposure not previously mentioned.

AGGRAVATION OF EXISTING CONDITIONS :

Skin contact may aggravate an existing dermatitis condition.

4. FIRST AID MEASURES

EYE CONTACT :

Flush affected area with water. If symptoms develop, seek medical advice.

SKIN CONTACT :

Flush affected area with water. If symptoms develop, seek medical advice.

INGESTION :

Do not induce vomiting without medical advice. If conscious, washout mouth and give water to drink. If symptoms develop, seek medical advice.

INHALATION :

Remove to fresh air, treat symptomatically. If symptoms develop, seek medical advice.

NOTE TO PHYSICIAN :

Based on the individual reactions of the patient, the physician's judgement should be used to control symptoms and clinical condition.

5. FIRE FIGHTING MEASURES

Flash Point: > 200 °F / > 93 °C (PMCC)

EXTINGUISHING MEDIA :

This product would not be expected to burn unless all the water is boiled away. The remaining organics may be ignitable. Use extinguishing media appropriate for surrounding fire.

FIRE AND EXPLOSION HAZARD :

May evolve oxides of carbon (COx) under fire conditions.

SPECIAL PROTECTIVE EQUIPMENT FOR FIRE FIGHTING :

In case of fire, wear a full face positive-pressure self contained breathing apparatus and protective suit.

6. ACCIDENTAL RELEASE MEASURES

PERSONAL PRECAUTIONS :

Restrict access to area as appropriate until clean-up operations are complete. Stop or reduce any leaks if it is safe



MATERIAL SAFETY DATA SHEET

Product:

NALCO PERP

EMERGENCY TELEPHONE NUMBER:

(800)482-6378 (24 Hours) (800) I-M-ALERT

to do so. Do not touch spilled material. Ventilate spill area if possible. Use personal protective equipment recommended in Section 8 (Exposure Controls/Personal Protection).

METHODS FOR CLEANING UP :

SMALL SPILLS: Soak up spill with absorbent material. Place residues in a suitable, covered, properly labeled container. Wash affected area. **LARGE SPILLS:** Contain liquid using absorbent material, by digging trenches or by dyking. Reclaim into recovery or salvage drums or tank truck for proper disposal. Contact an approved waste hauler for disposal of contaminated recovered material. Dispose of material in compliance with regulations indicated in Section 13 (Disposal Considerations).

ENVIRONMENTAL PRECAUTIONS :

Do not contaminate surface water.

7. HANDLING AND STORAGE

HANDLING :

Avoid eye and skin contact. Do not take internally. Ensure all containers are labelled. Keep the containers closed when not in use.

STORAGE CONDITIONS :

Store the containers tightly closed.

8. EXPOSURE CONTROLS/PERSONAL PROTECTION

OCCUPATIONAL EXPOSURE LIMITS :

This product does not contain any substance that has an established exposure limit.

ENGINEERING MEASURES :

General ventilation is recommended.

RESPIRATORY PROTECTION :

Respiratory protection is not normally needed.

HAND PROTECTION :

Neoprene gloves, Nitrile gloves, Butyl gloves, PVC gloves

SKIN PROTECTION :

Wear standard protective clothing.

EYE PROTECTION :

Wear chemical splash goggles.

HYGIENE RECOMMENDATIONS :

Keep an eye wash fountain available. Keep a safety shower available. If clothing is contaminated, remove clothing and thoroughly wash the affected area. Launder contaminated clothing before reuse.

HUMAN EXPOSURE CHARACTERIZATION :

Based on our recommended product application and personal protective equipment, the potential human exposure



MATERIAL SAFETY DATA SHEET

Product
NALCO 9838

EMERGENCY TELEPHONE NUMBER:
(800)482-6378 (24 Hours) (800) I-M-ALERT

is: Low

9. PHYSICAL AND CHEMICAL PROPERTIES

PHYSICAL STATE Liquid
APPEARANCE Bluish white
ODOR Slight, Vinegar

SPECIFIC GRAVITY 1.09
DENSITY 9.1 lb/gal
SOLUBILITY IN WATER Complete
pH (100 %) 4.5
VAPOR PRESSURE Same as water

10. STABILITY AND REACTIVITY

STABILITY :
Stable under normal conditions.

HAZARDOUS POLYMERIZATION :
Hazardous polymerization will not occur.

CONDITIONS TO AVOID :
Freezing temperatures

MATERIALS TO AVOID :
None known.

HAZARDOUS DECOMPOSITION PRODUCTS :
Under fire conditions: Oxides of carbon

11. TOXICOLOGICAL INFORMATION

No toxicity studies have been conducted on this product.

CARCINOGENICITY :
None of the substances in this product are listed as carcinogens by the International Agency for Research on Cancer (IARC), the National Toxicology Program (NTP) or the American Conference of Governmental Industrial Hygienists (ACGIH).

HUMAN HAZARD CHARACTERIZATION :
Based on our hazard characterization, the potential human hazard is: Low

12. ECOLOGICAL INFORMATION



MATERIAL SAFETY DATA SHEET

Product
NALCO 9838

EMERGENCY TELEPHONE NUMBER

(800)462-6376 (24 Hours) (800) I-M-ALERT

ECOTOXICOLOGICAL EFFECTS :

The following results are for a 2% aqueous solution.

Acute Fish Results :

Species	Exposure	LC50	Tested Substance
Fathead Minnow	96 hrs	> 1,000 mg/l	Product

Rating : Essentially non-toxic

Acute Invertebrate Results :

Species	Exposure	LC50	EC50	Tested Substance
Daphnia magna	48 hrs		> 1,000 mg/l	Product

Rating : Essentially non-toxic

ENVIRONMENTAL HAZARD AND EXPOSURE CHARACTERIZATION

Based on our hazard characterization, the potential environmental hazard is: Low

Based on our recommended product application and the product's characteristics, the potential environmental exposure is: Low

If released into the environment, see CERCLA/SUPERFUND in Section 15.

13. DISPOSAL CONSIDERATIONS

If this product becomes a waste, it is not a hazardous waste as defined by the Resource Conservation and Recovery Act (RCRA) 40 CFR 261, since it does not have the characteristics of Subpart C, nor is it listed under Subpart D.

As a non-hazardous waste, it is not subject to federal regulation. Consult state or local regulation for any additional handling, treatment or disposal requirements. For disposal, contact a properly licensed waste treatment, storage, disposal or recycling facility.

14. TRANSPORT INFORMATION

Proper Shipping Name / Hazard Class may vary by packaging, properties, and mode of transportation. Typical Proper Shipping Names for this product are:

LAND TRANSPORT :

Proper Shipping Name : PRODUCT IS NOT REGULATED DURING TRANSPORTATION

AIR TRANSPORT (ICAO/IATA) :

Proper Shipping Name : PRODUCT IS NOT REGULATED DURING TRANSPORTATION

MARINE TRANSPORT (IMDG/IMO) :



MATERIAL SAFETY DATA SHEET

Product

NALCO 9838

EMERGENCY TELEPHONE NUMBER

(800)482-5378 (24 Hours) (800) I-H-ALERT

Proper Shipping Name :

PRODUCT IS NOT REGULATED DURING
TRANSPORTATION

15. REGULATORY INFORMATION

NATIONAL REGULATIONS, USA :

OSHA HAZARD COMMUNICATION RULE, 29 CFR 1910.1200 :

Based on our hazard evaluation, none of the substances in this product are hazardous.

CERCLASUPERFUND, 40 CFR 117, 302 :

Notification of spills of this product is not required.

SARASUPERFUND AMENDMENTS AND REAUTHORIZATION ACT OF 1988 (TITLE III) - SECTIONS 302, 311, 312, AND 313 :

SECTION 302 - EXTREMELY HAZARDOUS SUBSTANCES (40 CFR 355) :

This product does not contain substances listed in Appendix A and B as an Extremely Hazardous Substance.

SECTIONS 311 AND 312 - MATERIAL SAFETY DATA SHEET REQUIREMENTS (40 CFR 370) :

Our hazard evaluation has found that this product is not hazardous under 29 CFR 1910.1200.

Under SARA 311 and 312, the EPA has established threshold quantities for the reporting of hazardous chemicals. The current thresholds are: 500 pounds or the threshold planning quantity (TPQ), whichever is lower, for extremely hazardous substances and 10,000 pounds for all other hazardous chemicals.

SECTION 313 - LIST OF TOXIC CHEMICALS (40 CFR 372) :

This product does not contain substances on the List of Toxic Chemicals.

TOXIC SUBSTANCES CONTROL ACT (TSCA) :

The chemical substances in this product are on the TSCA 8(b) Inventory (40 CFR 710).

FEDERAL WATER POLLUTION CONTROL ACT, CLEAN WATER ACT, 40 CFR 401.15 / formerly Sec. 307, 40 CFR / formerly Sec. 311 :

None of the substances are specifically listed in the regulation.

CLEAN AIR ACT, Sec. 111 (40 CFR 60, Volatile Organic Compounds), Sec. 112 (40 CFR 61, Hazardous Air Pollutants), Sec. 602 (40 CFR 82, Class I and II Ozone Depleting Substances) :

None of the substances are specifically listed in the regulation.

CALIFORNIA PROPOSITION 65 :

Substances known to the State of California to cause cancer are present as an impurity or residue.

MICHIGAN CRITICAL MATERIALS :

None of the substances are specifically listed in the regulation.

STATE RIGHT TO KNOW LAWS :

The following substances are disclosed for compliance with State Right to Know Laws:



MATERIAL SAFETY DATA SHEET

Product

NALCO 9838

EMERGENCY TELEPHONE NUMBER

(800)462-6378 (24 Hours) (800) I-M-ALERT

Water
Vinyl Polymer

7732-18-5
20507700000-5047P

NATIONAL REGULATIONS, CANADA :

WORKPLACE HAZARDOUS MATERIALS INFORMATION SYSTEM (WHMIS) :

This product has been classified in accordance with the hazard criteria of the Controlled Products Regulations (CPR) and the MSDS contains all the information required by the CPR.

WHMIS CLASSIFICATION :

Not considered a WHMIS controlled product.

CANADIAN ENVIRONMENTAL PROTECTION ACT (CEPA) :

All substances in this product are listed on the Domestic Substances List (DSL), are exempt, or have been reported in accordance with the New Substances Notification Regulations.

16. OTHER INFORMATION

Due to our commitment to Product Stewardship, we have evaluated the human and environmental hazards and exposures of this product. Based on our recommended use of this product, we have characterized the product's general risk. This information should provide assistance for your own risk management practices. We have evaluated our product's risk as follows:

* The human risk is: Low

* The environmental risk is: Low

Any use inconsistent with our recommendations may affect the risk characterization. Our sales representative will assist you to determine if your product application is consistent with our recommendations. Together we can implement an appropriate risk management process.

This product material safety data sheet provides health and safety information. The product is to be used in applications consistent with our product literature. Individuals handling this product should be informed of the recommended safety precautions and should have access to this information. For any other uses, exposures should be evaluated so that appropriate handling practices and training programs can be established to insure safe workplace operations. Please consult your local sales representative for any further information.

REFERENCES

Threshold Limit Values for Chemical Substances and Physical Agents and Biological Exposure Indices, American Conference of Governmental Industrial Hygienists, OH., (Ariel Insight™ CD-ROM Version), Ariel Research Corp., Bethesda, MD.

Hazardous Substances Data Bank, National Library of Medicine, Bethesda, Maryland (TOMES CPS™ CD-ROM Version), Micromedex, Inc., Englewood, Co.

IARC Monographs on the Evaluation of the Carcinogenic Risk of Chemicals to Man, Geneva: World Health Organization, International Agency for Research on Cancer.



Asphalt Materials, Inc.

A Heritage Group Company

Material Safety Data Sheet

HES

Page: 1
Rev. Date
10/19/99

1. CHEMICAL PRODUCT AND COMPANY IDENTIFICATION

Asphalt Materials, Inc.
5400 West 86th Street
Indianapolis, IN 46268

COMPANY CONTACT: Douglas A. Lozier
TELEPHONE NUMBER: (317)875-4670

EMERGENCY TELEPHONE NUMBERS

CHEMTREC (800)424-9300 24 hours
Safety Office (317)875-4670 Office hours

PRODUCT NAME: HES

CHEMICAL FAMILY: Emulsified complex petroleum hydrocarbon and water

MSDS IDENTIFICATION CODE/NUMBER: AMI-403

SYNONYMS: HYDROCARBON EMULSIONS

2. COMPOSITION/INFORMATION ON INGREDIENTS

INGREDIENT NAME	EXPOSURE LIMITS	CONCENTRATION PERCENT BY VOLUME
PETROLEUM RESIDUES, PROPRIETARY		45 to 75
WATER		25 to 65
METAL TALLATE, PROPRIETARY		0.5 to 3

Petroleum Residue Emulsions: Emulsified petroleum residues are a complex mixture of high molecular weight hydrocarbons produced from crude petroleum in suspension with water. Composition varies depending on the source of crude and the specifications of the final product.

3. HAZARDS IDENTIFICATION

POTENTIAL HEALTH EFFECTS

EYES

Hot emulsified hydrocarbons can cause thermal burns.

SKIN

Hot emulsified hydrocarbons can cause thermal burns. Frequent or prolonged contact can cause irritation and dermatitis.

INGESTION

Product has low order of acute oral toxicity.

INHALATION

Vapors and Fumes can cause irritation to nasal and respiratory tract. Extended exposure can cause dizziness and nausea.

NES

4. FIRST AID MEASURES**EYES**

Hot or Cold Material - Gently flush with large amounts of water. Call a physician immediately.

SKIN

Hot Material - Gently flush with cool water. Call a physician.

Cold Material - Remove emulsified hydrocarbons with waterless hand cleaner and wash with soap and water. If irritation occurs, call a physician.

INGESTION

If ingested, call a doctor immediately, and follow directions.

INHALATION

Move person to fresh air immediately. If not breathing give artificial resuscitation. Immediately call a physician.

5. FIRE FIGHTING MEASURES**FLAMMABLE PROPERTIES**

FLASH POINT: N.A. °F

AUTOIGNITION: ≥350°F

LOWER EXPLOSIVE LIMIT (%): N.A.

UPPER EXPLOSIVE LIMIT (%): N.A.

EXTINGUISHING MEDIA

Foam, Carbon Dioxide, Dry Chemical, and Water Spray may all be suitable in extinguishing fires involving this product. Avoid using water streams to prevent frothing. Use water spray to cool exposed surfaces.

6. ACCIDENTAL RELEASE MEASURES

Stop source of leak. Eliminate sources of ignition. Contain by diking or impounding. Absorbents can be used to contain spill. After containment, emulsified hydrocarbons can be collected for disposal. Advise authorities if product has entered a sewer or water source. Assure conformity with local, state, and federal governmental regulations for disposal.

7. HANDLING AND STORAGE**HANDLING AND STORAGE PRECAUTIONS**

When opening covers and outlet cap on storage tanks, use faceshield and gloves to avoid possible injury from pressurized resin. Hydrogen sulfide can be generated and accumulated in storage tanks and bulk transport compartments. Stay upwind and vent storage hatches before unloading. Keep heating units and flues in storage tanks covered with at least 12 inches of hydrocarbons. Do not overheat.

Empty Container Warning: Empty containers retain residue (liquid and/or vapor) and can be dangerous. DO NOT PRESSURIZE, CUT, WELD, BRAZE, SOLDER, DRILL, GRIND, OR EXPOSE SUCH CONTAINERS TO HEAT, FLAME, SPARKS, OR OTHER SOURCES OF IGNITION; THEY MAY EXPLODE AND CAUSE INJURY OR DEATH.

8. EXPOSURE CONTROLS/PERSONAL PROTECTION**ENGINEERING CONTROLS**

Local or general exhaust required if in an enclosed area to remain below the TLV.

EYE/FACE PROTECTION

Safety goggles or chemical splash goggles if splashing is anticipated.

8. EXPOSURE CONTROLS/PERSONAL PROTECTION - Continued**SKIN PROTECTION**

Oil impervious gloves, such as Neoprene, if frequent or prolonged contact is expected.

RESPIRATORY PROTECTION

If high vapors are expected, use respirator approved for organic vapors. Observe respirator protection factor criteria cited in ANSI Z88.2 (1980). Self contained breathing apparatus should be used for fire fighting.

OTHER/GENERAL PROTECTION

Wear body covering clothes to avoid prolonged or repeated exposure. Launder before reuse.

9. PHYSICAL AND CHEMICAL PROPERTIES**APPEARANCE**

Light Brown Liquid

ODOR

Characteristic Petroleum Odor

BASIC PHYSICAL PROPERTIES

BOILING POINT: 212°F

MELTING POINT: N.A.°F

VAPOR PRESSURE: <1mm Hg@77°F

VAPOR DENSITY (AIR=1): >1.0

SPECIFIC GRAVITY: 0.96-1.05

SOLUBILITY (H₂O): Completely

pH: 10

10. STABILITY AND REACTIVITY

STABILITY: Stable

INCOMPATIBLE MATERIALS

Strong Oxidizers

HAZARDOUS DECOMPOSITION PRODUCTS

Fumes, Smoke, Carbon Monoxide, Hydrogen Sulfide, Sulfur Dioxide, Aldehydes, and Hydrocarbons

HAZARDOUS POLYMERIZATION: Will not occur

11. TOXICOLOGICAL INFORMATION**MISCELLANEOUS TOXICOLOGICAL INFORMATION**

Bitumen: The International Agency for Research on Cancer has determined that there is sufficient evidence for the carcinogenicity of extracts of steam-refined bitumens, air-refined bitumens and pooled mixtures of steam- and air-refined bitumens in experimental animals. Hydrocarbon emulsion products, properly handled as outlined in this MSDS, are not expected to cause cancer in humans. Skin contact, breathing of mists, fumes, or vapors should be reduced to a minimum to avoid any ill effects. Chronic health effects would not be expected as long as good hygiene and proper safety precautions are practiced.

EBS

12. ECOLOGICAL INFORMATIONOTHER ENVIRONMENTAL INFORMATION

May cause fouling of water. May be toxic to aquatic animals.

13. DISPOSAL CONSIDERATIONS

Waste or contaminated hydrocarbon is normally disposed in a special waste or industrial landfill. Consider recycling into pavement mixtures whenever possible.

14. TRANSPORT INFORMATION

PROPER SHIPPING NAME: (Not considered a DOT-hazardous material)

15. REGULATORY INFORMATIONSARA TITLE III NOTIFICATIONS AND INFORMATION

SARA TITLE III - HAZARD CLASSES: Acute Health Hazard

16. OTHER INFORMATIONNFPA HAZARD RATING - HEALTH: 1 Slight
- FIRE: 0 Negligible
- REACTIVITY: 0 NegligiblePRECAUTIONARY LABEL (OSHA)WARNING - HOT EMULSIFIED PETROLEUM RESIDUE
May produce minor burns on contact

MSDS IDENTIFICATION CODE/NUMBER: AMI-403

PREPARED BY: Douglas A. Lozier

PHONE: (317)875-4670

REFERENCE DOCUMENTATION

Information supplied by Anthony J. Kriech, Heritage Research Group

DISCLAIMER OF EXPRESSED AND IMPLIED WARRANTIES

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EXECUTIVE DIRECTOR

RICHARD D. GARRITY, Ph.D.

ENVIRONMENTAL PROTECTION COMMISSION
of Hillsborough County

FAX Transmittal Sheet

DATE: 8/25/00

TO: Al Lino

FAX Phone: _____ Voice Phone: _____

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FROM: Jerry Campbell

(Circle applicable section below)

Air Division

-Compliance

-Monitoring/Toxics

-Enforcement/Analysis

-Permitting

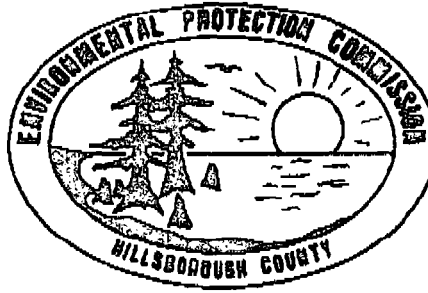
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August 24, 2000

Patrick Shell
Administrator Air Programs
Tampa Electric
P.O. Box 111
Tampa, FL 33601-0111

RE: Coal Binder Emulsion

Dear Mr. Shell:

Pursuant to our meeting on August 21, 2000, EPC staff has reviewed the preliminary request to use the Coal Binder Emulsion (coating) on the coal. We have studied the MSD sheet, dust study and TCLP reports you supplied. It is our understanding that the coating qualifies the fuel for some special consideration in the IRS tax code. TECO would also be able to substitute this product for the other dust suppressants currently in use with the coal. It was estimated that 50% of the coal in use at TECO would be treated with this coating. TECO explained that no modifications would need to occur to accommodate this change in the fuel.

Based on our review, it appears that the request may qualify as an operating change under Rule 62-213.410(3), F.A.C. Our preliminary determination is based on limited information, and the assumption that the annual heat input to the boilers will increase by two percent with the addition of this coating. The information required in the rule would need to be submitted to FDEP in Tallahassee for a final determination.

Thanks for sharing this information with us. If you have any questions, please contact Alice H. Harman, P.E. or myself at 813-272-5530.

Sincerely,

Jerry R. Campbell, P.E.
Director, Air Management Division

cc. Al Linero, P.E. - FDEP Tallahassee
Jerry Kissel, P.E. - FDEP Southwest District

