Public Service of New Hampshire

1000 Elm Street, Manchester, NH 03101

Public Service Company of New Hampshire
P.O. Box 330
Manchester, NH 03105-0330
(603) 669-4000

The Northeast Utilities System

March 27, 2001

Ms. Sharon L. Ducharme, P.E.
NH Department of Environmental Services
Water Division
Wastewater Engineering Bureau
6 Hazen Drive, P.O. Box 95
Concord, New Hampshire 03302-0095

Subject: PSNH Schiller Station Coal Yard Sprays
NPDES Permit No. NH0001473

Dear Ms. Ducharme:

In accordance with our approved program, Schiller Station continues to test various dust suppressant chemicals on coal as it is being unloaded from shipping vessels. Last week we collected the first quarterly round of effluent samples to monitor surfactant concentrations. As we approach the drier seasons, a vendor has proposed supplementing the vessel offloading applications with additional sprays in the actual coal yard.

BetzDearborn has recommended applying Dustreat DC9136, a latex binder that is widely used to control fugitive dust from inactive storage piles. They report that it is "exceptional at forming a tenacious crust to prevent blowing under even extreme conditions". The material can be sprayed from existing water guns located on a conveyor in the coal yard. Applications will vary depending upon weather conditions, BetzDearborn has provided the following approximate annual usage rate:

- Twelve applications to cover roughly two acres.
- Each application to consist of 120 gallons of DC9136 mixed with 4000 gallons of water.
- Annual use of DC9136 to equal approximately 1440 gallons, or 12,000 pounds.

An MSDS and a product bulletin of DC9136 is attached for your review. BetzDearborn confirms that the vast majority of the chemical will adhere to the coal and be burned or will naturally degrade and evaporate. They expect that less than 5-percent of the substance will wash off. In addition to preventing unwanted air emissions, the application will actually reduce pollutant loading in the runoff by shedding rainwaters from the coal pile, and will reduce oxidation and the risk of internal fires.

PSNH requests the current testing program be expanded to allow the additional application of this substance to assist our efforts to minimize offsite air emissions and maintain the coal inventory. Please contact me at (603) 634-2439 if you have questions or need additional information.

Very truly yours,

Allan G. Palmer
Senior Engineer

Attachments

cc: Joy J. Hilton
U.S. Environmental Protection Agency
Region I
1 Congress Street, Suite 1100 (SEW)
Boston, MA 02114-2023

Corporate_L

ISSUE DATE: 29-JAN-1997

MATERIAL SAFETY DATA SHEET

BetzDearborn, Division of Hercules Incorporated
4636 Somerton Road
Trevose, PA 19053
Business telephone: (215) 355-3300

EMERGENCY TELEPHONE (HEALTH/ACCIDENT)
(800) 877-1940 (USA)

HMIS RATINGS
(See Section 16 for additional information)
HEALTH: 1
FLAMMABILITY: 1
REACTIVITY: 0

1 PRODUCT IDENTIFICATION

PRODUCT NAME:

DUSTREAT DC9136

PRODUCT APPLICATION AREA:

MATERIAL HANDLING TREATMENT.

2 COMPOSITION / INFORMATION ON INGREDIENTS

Information for specific product ingredients as required by the U.S. OSHA HAZARD COMMUNICATION STANDARD is listed. Refer to additional sections of this MSDS for our assessment of the potential hazards of this formulation.

HAZARDOUS INGREDIENTS:

This product is not hazardous as defined by OSHA regulations.

No component is considered to be a carcinogen by the National Toxicology Program, the International Agency for Research on Cancer, or the Occupational Safety and Health Administration at OSHA thresholds for carcinogens.

3 HAZARDS IDENTIFICATION

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EMERGENCY OVERVIEW

CAUTION

May cause slight irritation to the skin. May cause moderate irritation to the eyes. Mists/aerosols may cause irritation to upper respiratory tract.

DOT hazard is not applicable
Emergency Response Guide is not applicable
Odor: Mild; Appearance: White, Liquid

Fire fighters should wear positive pressure self-contained breathing apparatus(full face-piece type). Proper fire-extinguishing media: dry chemical, carbon dioxide, foam or water

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POTENTIAL HEALTH EFFECTS

ACUTE SKIN EFFECTS:
Primary route of exposure; May cause slight irritation to the skin.

ACUTE EYE EFFECTS:
May cause moderate irritation to the eyes.

ACUTE RESPIRATORY EFFECTS:
Mists/aerosols may cause irritation to upper respiratory tract.

INGESTION EFFECTS:
No evidence of adverse effects from available information.

TARGET ORGANS:
No evidence of potential chronic effects.

MEDICAL CONDITIONS AGGRAVATED:
Not known.

SYMPTOMS OF EXPOSURE:
May cause redness or itching of skin.

4 FIRST AID MEASURES

SKIN CONTACT:
Remove contaminated clothing. Wash exposed area with a large quantity of soap solution or water for 15 minutes.

EYE CONTACT:
Immediately flush eyes with water for 15 minutes. Immediately contact a physician for additional treatment.

INHALATION:
Remove victim from contaminated area to fresh air. Apply appropriate first aid treatment as necessary.

INGESTION:
Do not feed anything by mouth to an unconscious or convulsive victim. Do not induce vomiting. Immediately contact physician. Dilute contents of stomach using 3-4 glasses milk or water.

5 FIRE FIGHTING MEASURES

FIRE FIGHTING INSTRUCTIONS:
Fire fighters should wear positive pressure self-contained breathing apparatus (full face-piece type).

EXTINGUISHING MEDIA:
dry chemical, carbon dioxide, foam or water

HAZARDOUS DECOMPOSITION PRODUCTS:
Thermal decomposition (destructive fires) yields elemental oxides.

FLASH POINT:
> 200F > 93C P-M(CC)

6 ACCIDENTAL RELEASE MEASURES

PROTECTION AND SPILL CONTAINMENT:
Ventilate area. Use specified protective equipment. Contain and absorb on absorbent material. Place in waste disposal container. Flush area with water. Wet area may be slippery. Spread sand/grit.

DISPOSAL INSTRUCTIONS:
Water contaminated with this product may be sent to a sanitary sewer treatment facility,in accordance with any local agreement,a permitted waste treatment facility or discharged under a permit. Product as is - Incinerate or land dispose in an approved landfill.

7 HANDLING & STORAGE

HANDLING:
Normal chemical handling.

STORAGE:
Keep containers closed when not in use. Reasonable and safe chemical storage.

8 EXPOSURE CONTROLS / PERSONAL PROTECTION

EXPOSURE LIMITS

This product is not hazardous as defined by OSHA regulations.

ENGINEERING CONTROLS:
adequate ventilation

PERSONAL PROTECTIVE EQUIPMENT:
Use protective equipment in accordance with 29CFR 1910 Subpart I

RESPIRATORY PROTECTION:
A RESPIRATORY PROTECTION PROGRAM THAT MEETS OSHA'S 29 CFR 1910.134 AND ANSI Z88.2 REQUIREMENTS MUST BE FOLLOWED WHENEVER WORKPLACE CONDITIONS WARRANT A RESPIRATOR'S USE.
USE AIR PURIFYING RESPIRATORS WITHIN USE LIMITATIONS ASSOCIATED WITH THE EQUIPMENT OR ELSE USE SUPPLIED AIR-RESPIRATORS.
If air-purifying respirator use is appropriate, use a respirator with dust/mist filters.

SKIN PROTECTION:
rubber gloves-- Wash off after each use. Replace as necessary.

EYE PROTECTION:
splash proof chemical goggles

9 PHYSICAL & CHEMICAL PROPERTIES

Specific Grav.(70F,21C)	1.021	Vapor Pressure (mmHG)	17.5
Freeze Point (F)	31	Vapor Density (air=1)	0.62
Freeze Point (C)	-1		
Viscosity(cps 70F,21C)	380	% Solubility (water)	0.0

Odor	Mild
Appearance	White

Physical State		Liquid
Flash Point	P-M(CC)	> 200F > 93C
pH As Is (approx.)		8.7
Evaporation Rate (Ether=1)		< 1.00

NA = not applicable ND = not determined

10 STABILITY & REACTIVITY

STABILITY:
Stable under normal storage conditions.
HAZARDOUS POLYMERIZATION:
Will not occur.
INCOMPATIBILITIES:
May react with strong oxidizers.
DECOMPOSITION PRODUCTS:
Thermal decomposition (destructive fires) yields elemental oxides.
BETZDEARBORN INTERNAL PUMPOUT/CLEANOUT CATEGORIES:
"A"

11 TOXICOLOGICAL INFORMATION

Oral LD50 RAT: >2,000 mg/kg
NOTE - Estimated value
Dermal LD50 RABBIT: >2,000 mg/kg
NOTE - Estimated value

12 ECOLOGICAL INFORMATION

AQUATIC TOXICOLOGY

Fathead Minnow 96 Hour Static Screen with 48-Hour Renewal

0% Mortality: 5000 mg/L

Daphnia magna 48 Hour Static Renewal Bioassay

LC50: 97 mg/L
No Effect Level: 31 mg/L

BIODEGRADATION

COD (mg/gm):	1500
TOC (mg/gm):	400
BOD-5 (mg/gm):	33
BOD-28 (mg/gm):	29

13 DISPOSAL CONSIDERATIONS

If this undiluted product is discarded as a waste, the US RCRA hazardous waste identification number is :
Not applicable.

Please be advised; however, that state and local requirements for waste disposal may be more restrictive or otherwise different from federal regulations. Consult state and local regulations regarding the proper disposal of this material.

14 TRANSPORT INFORMATION

DOT HAZARD: Not Applicable
UN / NA NUMBER: Not applicable
DOT EMERGENCY RESPONSE GUIDE #: Not applicable

15 REGULATORY INFORMATION

TSCA:
All components of this product are listed in the TSCA inventory.
CERCLA AND/OR SARA REPORTABLE QUANTITY (RQ):
Treat as oil spill
SARA SECTION 312 HAZARD CLASS:
Product is non-hazardous under Section 311/312
SARA SECTION 302 CHEMICALS:
No regulated constituent present at OSHA thresholds
SARA SECTION 313 CHEMICALS:
No regulated constituent present at OSHA thresholds

CALIFORNIA REGULATORY INFORMATION

CALIFORNIA SAFE DRINKING WATER AND TOXIC ENFORCEMENT ACT (PROPOSITION 65) CHEMICALS PRESENT:

No regulated constituent present at OSHA thresholds

MICHIGAN REGULATORY INFORMATION

No regulated constituent present at OSHA thresholds

16 OTHER INFORMATION

NFPA/HMIS		CODE TRANSLATION
Health	1	Slight Hazard
Fire	1	Slight Hazard
Reactivity	0	Minimal Hazard
Special	NONE	No special Hazard
(1) Protective Equipment	B	Goggles,Gloves

(1) refer to section 8 of MSDS for additional protective equipment recommendations.

CHANGE LOG

	EFFECTIVE DATE	REVISIONS TO SECTION:	SUPERCEDES
MSDS status:	29-JAN-1997		** NEW **

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DusTreat® DC9136

Crusting Agent

- ☐ Provides a semi-permanent, rain-resistant crust
- ☐ Controls fugitive dust emissions from inactive storage piles
- ☐ Protects piles against wind erosion
- ☐ Reduces inventory losses
- ☐ Reduces oxidation and coal pile fires
- ☐ Improves working conditions and community relations
- ☐ Reduces coal pile run-off
- ☐ Effectively crusts coal, coke, metallic ores, fly ash, waste materials, mine tailings, and various other materials

DESCRIPTION AND USE

DusTreat® DC9136 is blend of wetting and binding agents specifically formulated to reduce fugitive emissions from inactive storage piles. DusTreat DC9136 will penetrate and bind the material to form a cohesive, durable, rain-resistant crust. This product does not contain sulfur or heavy metals.

The semi-permanent crust helps maintain inventory value by suppressing dust emissions, reducing pile rutting, and slowing the rate of oxidation by inhibiting oxygen penetration. The rain resistance of the crust will help keep the reserves available for winter reclaim by decreasing the potential for freezing.

TYPICAL APPLICATION

Storage piles can be a large source of fugitive emissions.

These emissions can be both a safety hazard and an environmental nuisance that can grossly affect community and personnel relations. In coal handling systems, oxidation of the coal can significantly reduce its heating value. Stratification of coal piles can increase the severity of dust and oxidation.

In addition, pile run-off can contaminate water resources.

The application of DusTreat DC9136 as a water solution via spray systems can significantly reduce the problems associated with open storage. Applying DusTreat DC9136 to the surface of the storage pile will immediately result in the binding of the fines. As the crusting agent cures, a hard but flexible crust will develop.

Applications of binder to protect stockpiles can be made with conventional spray equipment.

Hydroseeders are ideal for mixing and spraying the binder. Trucks usually used to spray the haul roads can be replumbed and used. The main concerns are to reach all areas of the pile with the sprayed solutions while minimizing run-off and waste of the binder solution.

DusTreat DC9136 may be used for crusting materials in rail cars or trucks. This will suppress fugitive emissions

and reduce the potential for freezing by inhibiting water penetration. Other applications of DusTreat DC9136 include ash piles, soil stabilization, road berms, and pile crusting for various solid materials.

TREATMENT AND FEEDING REQUIREMENTS

Proper treatment levels for DusTreat DC9136 depend on many factors. The binder concentration, as well as the volume of diluted binder applied, is influenced by the type of material treated, its particle size and density, and the amount of time available to spray the surface. This product should be used in accordance with control parameters BetzDearborn establishes for a specific application.

GENERAL PROPERTIES

Physical properties of DusTreat DC9136 are shown on the Material Safety Data Sheet, a copy of which is available on request.

PACKAGING INFORMATION

BetzDearborn DusTreat DC9136 is a liquid blend, available in a variety of containers and delivery methods.

Contact your BetzDearborn sales representative for details.

STORAGE

DusTreat DC9136 should be stored at temperatures above freezing and below 120°F (48°C). Steam tracing is not recommended. To ensure maximum activity, use this product within 6 months.

SAFETY PRECAUTIONS

A Material Safety Data Sheet containing detailed information about this product is available upon request.

PFG 247 9812

Home Index Search Feedback