



U.S. Department
of Transportation

**Research and
Special Programs
Administration**

400 Seventh St., S.W.
Washington, D.C. 20590

DEC 19 2000

Mr. Thomas H. Hamilton
Director of Safety
Mississippi Transport, Inc.
P.O. Box 209
Stillwater, MN 55082

Ref. No. 00-00270

Dear Mr. Hamilton:

This responds to your letter regarding the classification of a petroleum product (fuel oil #6) under the Hazardous Materials Regulations (HMR; 49 CFR Parts 171-180) and the railroad grade stopping requirement under the Federal Motor Carrier Safety Regulations (FMCSR; 49 CFR Parts 390-397). Your question concerning the railroad grade stopping requirement is being referred to the Federal Motor Carrier Safety Administration (FMCSA) for response. Your HMR inquiry is paraphrased and answered as follows:

Q. We transport a petroleum product (fuel oil #6) with a flashpoint of 250°F. The product is loaded and transported at a temperature of 230°-250°F. Please confirm whether this product is either a flammable liquid, combustible liquid, or an elevated temperature material.

A. Based upon your description of the product, it is an elevated temperature material, which is defined as a material in a liquid phase with a flash point at or above 37.8 C (100 F) that is intentionally heated and offered for transportation or transported at or above its flash point in a bulk packaging. See definition in § 171.8. The product does not meet the definition in § 173.120(b)(1) and (2) of a combustible liquid, which is defined as a liquid, not meeting any other hazard class in the HMR, having a flashpoint above 100°F and below 200°F. The product's hazard class would be determined based upon the temperature at which the product is loaded or offered for transportation.

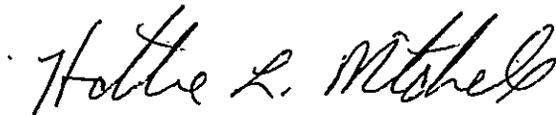
If the product is loaded or transported at a temperature at or above 250°F, it would be properly described as "Elevated temperature liquid, flammable, n.o.s., Class 3, UN3256, PGIII." Section 173.120(a) defines a flammable liquid (Class 3) elevated temperature material as any material in a liquid phase with a flashpoint at or above 100°F that is intentionally heated and offered for transportation or transported at or above its flashpoint in a bulk packaging.

00-0270

If the product is loaded or transported at a temperature below 250°F, it would be properly described as "Elevated temperature liquid, n.o.s., Class 9, UN3257, PGIII." A Class 9 elevated temperature liquid is a liquid that is intentionally heated and offered for transportation or transported at a temperature at or above 100°F and below its flashpoint. See the definition of elevated temperature material in § 171.8 and the definition of Class 9 in § 173.140(b).

I trust this satisfies your inquiry. Please contact us if we can be of further assistance.

Sincerely,

A handwritten signature in cursive script that reads "Hattie L. Mitchell". The signature is written in dark ink and is positioned below the word "Sincerely,".

Hattie L. Mitchell
Chief, Regulatory Review and Reinvention
Office of Hazardous Materials Standards



MISSISSIPPI TRANSPORT, INC.

Stevens

~~8172-560~~

8172-106

Proper Shipping Placarding
Name 00-0270

September 21, 2000

Mr. Edward Mazzullo
Director, Office of Hazardous Materials Standards
USDOT/RSPA/DHM/10
400 7th St. SW
Washington, DC 20590

Dear Mr. Mazzullo:

I am the Safety Director of a petroleum motor carrier in the state of Minnesota. Recently, Koch Petroleum Products, 12555 Clayton Ave., Hastings, MN 55033, a Refiner and Supplier of petroleum products in our area, changed the proper shipping description of a product that we have been hauling for years as a class 3 flammable. I am concerned about this change in description and request clarification in writing from your office to put my concern at rest.

In past years we have transported number 6 Industrial Fuel Oil as a Class 3, NA1993, Packing Group III. This product is normally loaded at the refinery at a temperature of 230 to 250 degrees Fahrenheit. The refinery claims lowest flashpoint to be 250 degrees.

I have been informed that beginning this date the proper shipping description will become "Elevated Temperature Liquid, n.o.s., Class 9, UN3257, PCIII".

My concern here is that until this date the product has been described as "Fuel Oil (No. 1, 2, 3, 5, or 6), Class 3, NA1993, PGIII and we have operated under this shipping name. The Hazardous Material Table has this description. If it is considered a flammable class 3 product when described as "fuel oil #6" how can it now become a non-flammable class 9 product?

Please advise the correct regulation and placarding for transporting this product.

I also request a clarification of regulation 392.10 *Railroad grade crossings; stopping required*. In the above issue if #6 fuel oil is now an "Elevated Temperature Liquid", Class 9, the exemption of class 9 from 392.10, paragraph 3 would seem to indicate that a driver transporting this product (or any similar class 9 black oil product) would not be required to stop at a railroad grade.

392.10, paragraphs 4 and 6 appear to override the exemption of transporting a class 9 product if the product is transported in a cargo tank trailer. Based upon my understanding of paragraphs 4 and 6 I have instructed our drivers to always stop at railroad grades with an exempt class 9 black oil product. Am I correct in this interpretation?

Thank you for your assistance.

A handwritten signature in black ink, appearing to read "Thomas H. Hamilton". The signature is fluid and cursive, with a long horizontal flourish extending to the right.

Thomas H. Hamilton
Director of Safety
Mississippi Transport, Inc.
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651-439-5773

(3) The commercial motor vehicle's cargo or any other object does not obscure the driver's view ahead or to the right or left sides, interfere with the free movement of his/her arms or legs, prevent his/her free and ready access to accessories required for emergencies, or prevent the free and ready exit of any person from the commercial motor vehicle's cab or driver's compartment.

(b) Drivers of trucks and truck tractors. Except as provided in paragraph (b)(4) of this section, the driver of a truck or truck tractor must—

(1) Assure himself/herself that the provisions of paragraph (a) of this section have been complied with before he/she drives that commercial motor vehicle;

(2) Examine the commercial motor vehicle's cargo and its load-securing devices within the first 25 miles after beginning a trip and cause any adjustments to be made to the cargo or load-securing devices (other than steel strapping) as may be necessary to maintain the security of the commercial motor vehicle's load; and

(3) Reexamine the commercial motor vehicle's cargo and its load-securing devices periodically during the course of transportation and cause any adjustments to be made to the cargo or load-securing devices (other than steel strapping) as may be necessary to maintain the security of the commercial motor vehicle's load. A periodic reexamination and any necessary adjustments must be made—

(i) When the driver makes a change of his/her duty status; or

(ii) After the commercial motor vehicle has been driven for 3 hours; or

(iii) After the commercial motor vehicle has been driven for 150 miles, whichever occurs first.

(4) The rules in this paragraph do not apply to the driver of a sealed commercial motor vehicle who has been ordered not to open it to inspect its cargo or to the driver of a vehicle that has been loaded in a manner that makes inspection of its cargo impracticable.

[36 FR 18863, Sept. 23, 1971, as amended at 37 FR 12642, June 27, 1972; 38 FR 23522, Aug. 31, 1973; 60 FR 38739, July 28, 1995; 63 FR 33278, June 18, 1998]

§ 392.9a [Reserved]

[36 FR 8452, May 6, 1971; 59 FR 60319, November 23, 1994]

§ 392.9b [Removed]

[36 FR 12857, July 8, 1971; 60 FR 38739, July 28, 1995; 63 FR 33278, June 18, 1998]

Subpart B—Driving of Vehicles

§ 392.10 Railroad grade crossings; stopping required.

(a) Except as provided in paragraph (b) of this section, the driver of a commercial motor vehicle specified in paragraphs (a) (1) through (6) of this section shall not cross a railroad track or tracks at grade unless he/she first: Stops the commercial motor vehicle within 50 feet of, and not closer than 15 feet to, the tracks; thereafter listens and looks in each direction along the tracks for an approaching train; and ascertains that no train is approaching. When it

is safe to do so, the driver may drive the commercial motor vehicle across the tracks in a gear that permits the commercial motor vehicle to complete the crossing without a change of gears. The driver must not shift gears while crossing the tracks.

(1) Every bus transporting passengers.

(2) Every commercial motor vehicle transporting any quantity of a Division 2.3 chlorine.

(3) Every commercial motor vehicle which, in accordance with the regulations of the Department of Transportation, is required to be marked or placarded with one of the following classifications:

(i) Division 1.1

(ii) Division 1.2, or Division 1.3

(iii) Division 2.3 Poison gas

(iv) Division 4.3

(v) Class 7

(vi) Class 3 Flammable

(vii) Division 5.1

(viii) Division 2.2

(ix) Division 2.3 Chlorine

(x) Division 6.1 Poison

(xi) Division 2.2 Oxygen

(xii) Division 2.1

(xiii) Class 3 Combustible liquid

(xiv) Division 4.1

(xv) Division 5.1

(xvi) Division 5.2

(xvii) Class 8

(xviii) Division 1.4

(4) Every cargo tank motor vehicle, whether loaded or empty, used for the transportation of any hazardous material as defined in the Hazardous Materials Regulations of the Department of Transportation, Parts 107 through 180 of this title.

(5) Every cargo tank motor vehicle transporting a commodity which at the time of loading has a temperature above its flashpoint as determined by § 173.120 of this title.

(6) Every cargo tank motor vehicle, whether loaded or empty, transporting any commodity under exemption in accordance with the provisions of subpart B of part 107 of this title.

(b) A stop need not be made at:

(1) A streetcar crossing, or railroad tracks used exclusively for industrial switching purposes, within a business district, as defined in § 390.5 of this chapter.

(2) A railroad grade crossing when a police officer or crossing flagman directs traffic to proceed.

(3) A railroad grade crossing controlled by a functioning highway traffic signal transmitting a green indication which, under local law, permits the commercial motor vehicle to proceed across the railroad tracks without slowing or stopping.

(4) An abandoned railroad grade crossing which is marked with a sign indicating that the rail line is abandoned.

(5) An industrial or spur line railroad grade crossing marked with a sign reading "Exempt." Such "Exempt" signs shall be erected only by or with the consent of the appropriate State or local authority.



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MATERIAL SAFETY DATA SHEET

#6 FUEL OIL

Revised 10/97. Reformatted 4/99.
Page 1 of 4.

SECTION 1 - MATERIAL IDENTIFICATION		24 HOUR EMERGENCY INFORMATION	
PRODUCT / CHEMICAL NAME	#6 FUEL OIL	Sprague:	603-431-1000
		Chemtrec:	800-424-9300
PRODUCT / CHEMICAL SYNONYMS	BUNKER C FUEL, UTILITY FUEL OIL, RESIDUAL FUEL OIL #6	HMIS / NFPA HAZARD RATING	
CHEMICAL FAMILY / FORMULA	AROMATIC PETROLEUM OIL	4=EXTREME 3=SERIOUS 2=MODERATE 1=SLIGHT 0=MINIMAL	
MATERIAL USE OR OCCURRENCE	INDUSTRIAL FUEL OIL		

SECTION 2 - INGREDIENTS						
COMPONENT	%	C.A.S. NO.	OSHA PEL	OSHA STEL	ACGIH TLV	OTHER
NO. 6 FUEL OIL Consisting of a complex mixture of parafinic, olefinic, and naphthenic hydrocarbons, plus fused polycyclic hydrocarbons (C10 and higher) as benzene solubles.	100	68-553-004	5 mg/M ³ (mineral oil mist)		5 mg/M ³	

SECTION 3 - PHYSICAL DATA			
BOILING POINT:	400°-1200°F (204°-649°C)	% VOLATILITY BY VOLUME:	N/A
VAPOR PRESSURE (mm Hg):	0.2	VAPOR DENSITY (AIR = 1):	6
SPECIFIC GRAVITY (H2O = 1):	.9402 - 1.00	SOLUBILITY IN WATER:	Insoluble.
EVAPORATION RATE (n-butyl acetate = 1): None determined.			
APPEARANCE & ODOR: Thick heavy combustible liquid, black asphaltic odor.			

SECTION 4 - FIRE AND EXPLOSION HAZARD DATA		
FLASH POINT: 150°-270° F (66°-132° C) (Tag. Closed Cup)	AUTOIGNITION TEMP: 765° F	
FLAMMABILITY LIMITS IN AIR (% BY VOL.)	LEL: 3.9	UEL: 20.1
EXTINGUISHING MEDIUM: Dry chemical, foam, carbon dioxide.		
SPECIAL FIRE FIGHTING PROCEDURES: Do not use water on a 6 oil fire in a tank or other containers since it may cause violent eruption and spreading of burning 6 oil. Material will not burn unless preheated. Do not enter confined fire space without full bunker gear (helmet with face shield, bunker coats, gloves, and rubber boots), including a positive-pressure NIOSH approved self-contained breathing apparatus. Cool fire exposed containers with water. Judgement must be used when applying foams to burning oil which is above the boiling point of water. Consult NFPA 11 for additional information.		
UNUSUAL FIRE AND EXPLOSION HAZARDS: Water or foam may cause frothing.		

**MATERIAL SAFETY DATA SHEET****#6 FUEL OIL**

Revised 10/97. Reformatted 4/99. Page 2 of 4.

SECTION 5 - HEALTH DATA

TOXICOLOGICAL TEST DATA:	Oral rat; LD50	RESULTS: 5300 mg/kg (NIOSH RTECS July 1993)
ACUTE HEALTH EFFECTS		CHRONIC HEALTH EFFECTS
INHALATION	Irritation of respiratory tract mucous membranes, nausea, CNS depression, pulmonary edema.	Irritation of respiratory tract mucous membranes, possible mild chemical pneumonitis with high concentrations.
INGESTION	Irritation of gastrointestinal tract. Larger quantities can cause nausea and central nervous system depression.	No known effects.
SKIN CONTACT	May cause skin irritation.	Repeated or prolonged skin contact can result in skin disorders and potential sensitization.
EYE CONTACT	Irritation of cornea and/or conjunctiva.	No known effects.

FIRST AID**PROCEDURES**

INHALATION: Remove from vapor to fresh air. If breathing has stopped give artificial respiration. Maintain airway and blood pressure and administer oxygen if available. Keep affected person warm and at rest. Administration of oxygen should be performed by qualified personnel. Get medical attention immediately.

INGESTION: DO NOT INDUCE VOMITING or give anything by mouth to an unconscious person. Get medical attention immediately.

SKIN CONTACT: Promptly remove contaminated clothing. Wash skin with soap and water. If irritation develops, seek medical aid.

EYE CONTACT: Flush eyes immediately with large amounts of water, occasionally lifting upper and lower lids until no evidence of chemical remains (approximately 15-20 minutes). If irritation develops, seek medical aid.

SECTION 6 - REACTIVITY DATA

STABILITY:	Stable under normal temperatures and pressures.
HAZARDOUS POLYMERIZATION:	Hazardous polymerization has not been known to occur under normal temperatures and pressures.
CONDITIONS TO AVOID:	All sources of ignition (smoking, heat, flames, sparks).
INCOMPATIBLES:	Strong oxidants, e.g., chloring and concentrated oxygen. Carbon monoxide and other unidentified organic compounds may be formed upon combustion.

**MATERIAL SAFETY DATA SHEET****#6 FUEL OIL**

Revised 10/97. Reformatted 4/99. Page 3 of 4.

SECTION 7 - SPECIAL PROTECTION

RESPIRATORY PROTECTION:	Use with adequate ventilation. For large spills or when completing work in confined spaces, use a mask with an organic vapor cartridge or positive pressure air supplied (SCBA) unit.	
VENTILATION	LOCAL EXHAUST: MECHANICAL (General):	Outdoors, work upwind. Recommended for use in enclosed or semi-enclosed work areas.
EYE PROTECTION:	Splash goggles or shields with safety glasses	
PROTECTIVE GLOVES:	Recommended to minimize contact. Neoprene, PVC.	
OTHER PROTECTIVE CLOTHING OR EQUIPMENT:	Employee must wear appropriate impervious clothing and equipment to prevent repeated or prolonged skin contact with this substance.	

SECTION 8 - SPECIAL PRECAUTIONS

PRECAUTIONS FOR SAFE HANDLING AND STORAGE:	Avoid excessive inhalation or skin contact. Isolate from sources of ignition. Prohibit eating, drinking, and the use of tobacco in the immediate area of asphalt use or where asphalt fumes are present. Avoid prolonged contact with exposed skin and sunlight – photosensitization reactions may occur.
SPILL AND LEAK PROCEDURES:	Shut off ignition sources (no smoking, shut off flames or flares in hazard area). Isolate hazard area and restrict entry. If properly trained, proceed with the following measures: 1. For small spills, take up with sand or other absorbent material and place into containers for later disposal; and, 2. For large spills, dike far ahead of spill to prevent entrance into water courses and/or ground water. Observe local, state, and federal governmental regulations.
WASTE DISPOSAL METHOD	Recycle or dispose of in accordance with local, state, and federal safety and environmental laws and regulations.

SECTION 9 - DOT HAZARDOUS MATERIAL INFORMATION

PROPER SHIPPING NAME: FUEL OIL (#6)	LABEL: FLAMMABLE	REQUIRED PLACARDING: FLAMMABLE OR COMBUSTIBLE / 1993
HAZARD CLASS: CLASS 3 (Flammable liquid)	PACKING GROUP (P.G.): III	N.A./U.N. NUMBER: NA 1993
HAZARDOUS SUBSTANCE / RQ: NOT AVAILABLE		SHIPPING DESCRIPTION: FUEL OIL (#6), 3, NA 1993, PG III
NOTE: This product may be re-classed as a combustible liquid when shipped domestically, by land only. If re-classed as a combustible liquid, this product is unregulated by DOT when shipped in non-bulk quantities.		

SECTION 10 - EPA SARA TITLE III INFORMATION

SECTION 311/312	ACUTE: YES	CHRONIC: YES	
HAZARD CLASSIFICATION:	FIRE: YES	PRESSURE: NO	REACTIVE: NO

SECTION 11 - REMARKS

None



MATERIAL SAFETY DATA SHEET

#6 FUEL OIL

Revised 10/97. Reformatted 4/99. Page 4 of 4.

SECTION 12 - ADDITIONAL REGULATORY DATA

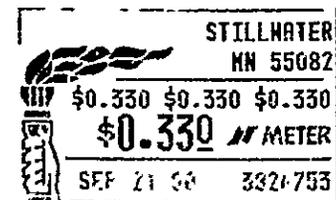
REPORTABLE COMPONENTS:	FEDERAL EPA	%	SARA RQ	CERCLA RQ	RCRA NO.
	N/A		-----	-----	

The information contained herein is based on data available at this time and is believed to be accurate. However, no warranty is expressed or implied regarding the accuracy of these data or the results to be obtained from the use thereof. Since information contained herein may be applied under conditions beyond our control and with which we may be unfamiliar, no responsibility is assumed for the results of its use. The person receiving this information shall make his own determination of the suitability of the material for his particular purposes.



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