U.S. Department of Transportation
Pipeline and Hazardous Materials Safety Administration

1200 New Jersey Ave, SE
Washington, D.C. 20590

DEC -6 2010

Mr. Eric Kelly
Syngenta
P.O. Box 13800
Greensboro, NC 27419

Reference No. 10-0130

Dear Mr. Kelly,

This is in response to your e-mail requesting clarification of the Hazardous Materials Regulations (HMR; 49 CFR Parts 171-180) applicable to the transportation of your product, Dual Magnum. You state your product does not meet the definition of any of the hazard classes specified in the HMR. You also state that because your product contains naphthalene (<=1%), which is listed in the Hazardous Substance Table in appendix A to the § 172.101 Hazardous Materials Table (HMT), it is regulated as a Class 9 material only when the quantity of naphthalene in a single container equals or exceeds the reportable quantity (RQ) of 100 lbs. per package as indicated in the Hazardous Substance Table. You ask whether your understanding is correct that your product is not subject to the HMR unless the naphthalene meets the RQ of 100 lbs. per package. You further ask whether transporting this product would require the use of a special permit (DOT-SP 12412).

As provided in § 173.22, it is the shipper's responsibility to properly classify a hazardous material. This office generally does not perform this function. However, based on the information provided, if your product does not meet the definition of any of the hazard classes in Part 173, does not meet the RQ (100 lbs. in this case) for the material, and is not a hazardous waste or marine pollutant (see § 171.8), then you are understanding that it is not subject to the HMR is correct. As provided in § 171.8, the term "hazardous material" includes hazardous substances, hazardous wastes, marine pollutants, elevated temperature materials, materials designated as hazardous in the HMT (see § 172.101), and materials that meet the defining criteria for hazard classes and divisions in Part 173 of Subchapter C of the HMR.

Based on the information provided in your email, it appears that your product, Dual Magnum, is not regulated under the HMR. To be classified as a hazardous substance, a material would have to meet the definition of a hazardous substance in § 171.8 which states that a hazardous substance means a material, including its mixtures and solutions, that—

(1) Is listed in the appendix A to §172.101 of this subchapter;
(2) Is in a quantity, in one package, which equals or exceeds the reportable quantity (RQ) listed in the appendix A to §172.101 of this subchapter; and
(3) When in a mixture or solution—
(i) For radionuclides, conforms to paragraph 7 of the appendix A to §172.101.
(ii) For other than radionuclides, is in a concentration by weight which equals or exceeds the concentration corresponding to the RQ of the material, as shown in the following table:

RQ pounds (kilograms)	Concentration by weight	
	Percent	PPM
5000 (2270)	10	100,000
1000 (454)	2	20,000
100 (45.4)	0.2	2,000
10 (4.54)	0.02	200
1 (0.454)	0.002	20

The term does not include petroleum, including crude oil or any fraction thereof which is not otherwise specifically listed or designated as a hazardous substance in appendix A to §172.101 of this subchapter, and the term does not include natural gas, natural gas liquids, liquefied natural gas, or synthetic gas usable for fuel (or mixtures of natural gas and such synthetic gas).

However, it should be noted that a material can meet the Class 9 definition for reasons other than being a hazardous substance. A Class 9 material is defined as a material that presents a hazard during transportation but does not meet the definition of any other hazard class (see § 173.140).

With regard to your question concerning special permit DOT-SP 12412, applying for a special permit is not applicable to a material that is not regulated under the HMR.

I hope this information is helpful. Please contact this office should you have additional questions.

Sincerely,

T. Glenn Foster

T. Glenn Foster
Chief, Regulatory Review and Reinvention
Standards and Rulemaking Division

McIntyre
§ 173.140
Applicability
10-0130

Drakeford, Carolyn (PHMSA)

From: Drakeford, Carolyn (PHMSA)
Sent: Thursday, June 24, 2010 2:49 PM
To: 'Eric Kelly'
Subject: RE: Interpretation of DOT's definition of a liquid hazardous material

Thank you

-----Original Message-----
From: Eric Kelly [mailto:Eric.Kelly@SSCOOP.COM]
Sent: Thursday, June 24, 2010 2:48 PM
To: Drakeford, Carolyn (PHMSA)
Subject: RE: Interpretation of DOT's definition of a liquid hazardous material

Southern States Cooperative, Inc.
6606 West Broad Street
P.O. Box 26234
Richmond, VA 23260

(804) 281-1584

-----Original Message-----
From: carolyn.drakeford@dot.gov [mailto:carolyn.drakeford@dot.gov]
Sent: Thursday, June 24, 2010 2:19 PM
To: Eric Kelly
Subject: RE: Interpretation of DOT's definition of a liquid hazardous material

Can you please send me your address and telephone?

-----Original Message-----
From: INFOCNTR (PHMSA)
Sent: Thursday, June 17, 2010 8:47 AM
To: Drakeford, Carolyn (PHMSA)
Subject: FW: Interpretation of DOT's definition of a liquid hazardous material

Carolyn,
This gentleman would like an official interpretation on the issue below.
Thanks,
Rob

-----Original Message-----
From: Eric Kelly [mailto:Eric.Kelly@SSCOOP.COM]
Sent: Wednesday, June 16, 2010 3:07 PM
To: INFOCNTR (PHMSA)
Cc: Tracy Fleming; Jim Wright
Subject: Interpretation of DOT's definition of a liquid hazardous material

Completed via phone by RB on 6/16 @ 3:19 am

This is a follow-up to my telephone discussion yesterday with an OHMS representative concerning the subject issue.

Please review my interpretation of a DOT regulated liquid hazardous material as it pertains to DOT-SP 12412 (copy attached).

In reviewing the characteristics of a product for determination of DOT regulation applicability, I conclude that a liquid mixture/solution that doesn't meet any other identified hazard class (1-8), becomes a Class 9 regulated hazardous material only when it equals or exceeds the RQ of a hazardous substance defined in DOT's Appendix A.

For example: Based on the documented characteristics of the product Dual Magnum (MSDS attached), this product does not meet DOT's definition of a hazard Class 1 thru 8. However, due to the existence of naphthalene (<=1%) in this product, it does meet DOT's definition of a Class 9 Miscellaneous Hazardous Material when the pounds of naphthalene in a single container equals or exceeds DOT's Appendix A defined RQ of 100 lbs. (or 1,700 gallons of Dual Magnum in this example).

Would you concur with this interpretation of the regulation in determining that this product is not a DOT regulated liquid hazardous material requiring use of DOT-SP 12412 until the defined RQ is met?
(1,700 gallons contained in one tank per the example above) Please advise. Thanks...

<<SP12412_2006126418.pdf>> <<DualMagnumMSDS.pdf>>

syngenta

MATERIAL SAFETY DATA SHEET

Syngenta Crop Protection, Inc.
Post Office Box 18300
Greensboro, NC 27419

In Case of Emergency, Call
1-800-888-8372

1. PRODUCT IDENTIFICATION

Product Name: **DUAL MAGNUM** Product No.: A9793D

EPA Signal Word: Caution

Active Ingredient(%): s-Metolachlor (83.7%) CAS No.: 87392-12-9

Chemical Name: Acetamide, 2-chloro-N-(2-ethyl-6-methylphenyl)-N-(2-methoxy-1-methylethyl]-,(S)

Chemical Class: Chloroacetanilide Herbicide

EPA Registration Number(s): 100-816 **Section(s) Revised: 2, 3, 8, 13, 15**

2. HAZARDS IDENTIFICATION

Health and Environmental

Harmful if inhaled. May be harmful if swallowed or in contact with skin. May cause sensitization by skin contact. Vapors may cause drowiness and dizziness.

Hazardous Decomposition Products

May decompose at high temperatures forming toxic gases.

Physical Properties

Appearance: Golden brown liquid

Odor: Sweet

Unusual Fire, Explosion and Reactivity Hazards

During a fire, irritating and possibly toxic gases may be generated by thermal decomposition or combustion.

3. COMPOSITION/INFORMATION ON INGREDIENTS

Material	OSHA PEL	ACGIH TLV	Other	NTP/IARC/OSHA Carcinogen
Petroleum Solvent	Not Established	Not Established	Not Established	No
1,2,4-Trimethylbenzene (<= 1%)	Not Established	25 ppm TWA	25 ppm TWA **	No
Naphthalene (<= 1%)	10 ppm TWA	10 ppm TWA (skin)	10 ppm TWA **	See "Toxicity", Sec. 11
s-Metolachlor (83.7%)	Not Established	Not Established	10 mg/m³ TWA ***	No

** recommended by NIOSH

*** Syngenta Occupational Exposure Limit (OEL)

Ingredients not precisely identified are proprietary or non-hazardous. Values are not product specifications.
Syngenta Hazard Category: C, S

4. FIRST AID MEASURES

Have the product container, label or Material Safety Data Sheet with you when calling Syngenta (800-888-8372), a poison contol center or doctor, or going for treatment.

Ingestion:	If swallowed: Call Syngenta (800-888-8372), a poison control center or doctor immediately for treatment advice. Do not give any liquid to the person. Do not induce vomiting unless told to do so after calling 800-888-8372 or by a poison control center or doctor. Do not give anything by mouth to an unconscious person.
Eye Contact:	If in eyes: Hold eye open and rinse slowly and gently with water for 15-20 minutes. Remove contact lenses, if present, after 5 minutes, then continue rinsing eye. Call Syngenta (800-888-8372), a poison control center or doctor for treatment advice.
Skin Contact:	If on skin or clothing: Take off contaminated clothing. Rinse skin immediately with plenty of water for 15-20 minutes. Call Syngenta (800-888-8372), a poison control center or doctor for treatment advice.
Inhalation:	If inhaled: Move person to fresh air. If person is not breathing, call 911 or an ambulance, then give artificial respiration, preferably mouth-to-mouth if possible. Call Syngenta (800-888-8372), a poison control center or doctor for further treatment advice.

Notes to Physician

There is no specific antidote if this product is ingested.

Treat symptomatically.

Persons suffering a temporary allergic reaction may respond to treatment with antihistamines or steroid creams and/or systemic steroids.

Contains petroleum distillate - vomiting may cause aspiration pneumonia.

Medical Condition Likely to be Aggravated by Exposure

None known.

5. FIRE FIGHTING MEASURES

Fire and Explosion

Flash Point (Test Method):	> 200°F (Setaflash)	
Flammable Limits (% in Air):	Lower: Not Applicable	Upper: Not Applicable
Autoignition Temperature:	Not Available	
Flammability:	Not Applicable	

Unusual Fire, Explosion and Reactivity Hazards

During a fire, irritating and possibly toxic gases may be generated by thermal decomposition or combustion.

In Case of Fire

Use dry chemical, foam or CO2 extinguishing media. Wear full protective clothing and self-contained breathing apparatus. Evacuate nonessential personnel from the area to prevent human exposure to fire, smoke, fumes or products of combustion. Prevent use of contaminated buildings, area, and equipment until decontaminated. Water runoff can cause environmental damage. If water is used to fight fire, dike and collect runoff.

6. ACCIDENTAL RELEASE MEASURES

In Case of Spill or Leak

Control the spill at its source. Contain the spill to prevent from spreading or contaminating soil or from entering sewage and drainage systems or any body of water. Clean up spills immediately, observing precautions outlined in Section 8. Cover entire spill with absorbing material and place into compatible disposal container. Scrub area with hard water detergent (e.g. commercial products such as Tide, Joy, Spic and Span). Pick up wash liquid with additional absorbent and place into compatible disposal container. Once all material is cleaned up and placed in a disposal container, seal container and arrange for disposition.

7. HANDLING AND STORAGE

Store the material in a well-ventilated, secure area out of reach of children and domestic animals. Do not store food, beverages or tobacco products in the storage area. Prevent eating, drinking, tobacco use, and cosmetic application in areas where there is a potential for exposure to the material. Wash thoroughly with soap and water after handling.

8. EXPOSURE CONTROLS/PERSONAL PROTECTION

THE FOLLOWING RECOMMENDATIONS FOR EXPOSURE CONTROLS/PERSONAL PROTECTION ARE INTENDED FOR THE MANUFACTURE, FORMULATION, PACKAGING AND USE OF THIS PRODUCT.

FOR COMMERCIAL APPLICATIONS AND/OR ON-FARM APPLICATIONS CONSULT THE PRODUCT LABEL.

Ingestion:	Prevent eating, drinking, tobacco usage and cosmetic application in areas where there is a potential for exposure to the material. Wash thoroughly with soap and water after handling.
Eye Contact:	Where eye contact is likely, use chemical splash goggles. Facilities storing or utilizing this material should be equipped with an eyewash facility and a safety shower.
Skin Contact:	Where contact is likely, wear chemical-resistant gloves (such as barrier laminate, butyl rubber, nitrile rubber or Viton), coveralls, socks and chemical-resistant footwear.
Inhalation:	A respirator is not normally required when handling this substance. Use effective engineering controls to comply with occupational exposure limits. In case of emergency spills, use a NIOSH approved respirator with any R, P or HE filter.

9. PHYSICAL AND CHEMICAL PROPERTIES

Appearance:	Golden brown liquid
Odor:	Sweet
Melting Point:	Not Applicable
Boiling Point:	Not Available
Specific Gravity/Density:	1.09 g/cm^3 @ 68°F (20°C)
pH:	5.5 (1% solution in H2O @ 77°F (25°C))

Solubility in H2O

s-Metolachlor: 0.48g/l @ 77°F (25°C)

Vapor Pressure

s-Metolachlor: 2.8 x 10(-5) mmHg @ 77°F (25°C)

10. STABILITY AND REACTIVITY

Stability:	Stable under normal use and storage conditions.
Hazardous Polymerization:	Will not occur.
Conditions to Avoid:	None known.
Materials to Avoid:	None known.
Hazardous Decomposition Products:	May decompose at high temperatures forming toxic gases.

11. TOXICOLOGICAL INFORMATION

Acute Toxicity/Irritation Studies (Finished Product)

Ingestion:		
	Oral (LD50 Rat) :	3425 mg/kg body weight
Dermal:		
	Dermal (LD50 Rabbit) :	> 2000 mg/kg body weight
Inhalation:		
	Inhalation (LC50 Rat) :	> 2.61 mg/l air - 4 hours
Eye Contact:	Moderately Irritating (Rabbit)	
Skin Contact:	Slightly Irritating (Rabbit)	
Skin Sensitization:	Sensitizing (Guinea Pig)	

Reproductive/Developmental Effects

s-Metolachlor: None observed.

Chronic/Subchronic Toxicity Studies

s-Metolachlor: None observed.

Carcinogenicity

s-Metolachlor: Benign liver tumors at high dose levels (female rats).

Other Toxicity Information

None

Toxicity of Other Components

1,2,4-Trimethylbenzene (<= 1%)

Test results reported in Section 11 for the final product take into account any acute hazards related to the 1,2,4-trimethylbenzene in the formulation.

Naphthalene (<= 1%)

Test results reported in Section 11 for the final product take into account any acute hazards related to the naphthalene in the formulation.
Chronic overexposure to naphthalene can affect the liver, kidney, respiratory tract and blood.
Carcinogen Status:
NTP: Anticipated Carcinogen
IARC: Group 2B Possible Human Carcinogen

Petroleum Solvent

May cause irritation to the eyes, skin and respiratory system. Excessive inhalation causes headache, dizziness, nausea and loss of motor skills.

Target Organs

Active Ingredients

s-Metolachlor: Liver

Inert Ingredients

1,2,4-Trimethylbenzene: Not Applicable

Naphthalene: Liver, kidney, respiratory tract, blood

Petroleum Solvent: Eye, skin, respiratory system, central nervous system

12. ECOLOGICAL INFORMATION

Summary of Effects

s-Metolachlor:

Very toxic to aquatic life.

Ecotoxicity Effects

s-Metolachlor:

Fish (Rainbow Trout) 96-hour LC50 11.9 ppm

Green Algae 5-day EC50 0.008 ppm

Bird (Bobwhite Quail) LD50 Oral > 2510 mg/kg

Invertebrate (Water Flea) 48-hour EC50 26 ppm

Environmental Fate

s-Metolachlor:

The information presented here is for the active ingredient, s-metolachlor.
Low bioaccumulation potential. Not persistent in soil. Stable in water. Sinks in water (after 24 h).

13. DISPOSAL CONSIDERATIONS

Disposal

Do not reuse product containers. Dispose of product containers, waste containers, and residues according to local, state, and federal health and environmental regulations.

Characteristic Waste: Not Applicable

Listed Waste: Contains Naphthalene U165

14. TRANSPORT INFORMATION

DOT Classification

Ground Transport - NAFTA
Packages < 1700 gal. - Not regulated.

Packages > 1700 gal.
Proper Shipping Name: RQ Other Regulated Substances, Liquid, N.O.S. (Naphthalene)
Hazard Class or Division: Class 9
Identification Number: NA 3082
Packing Group: PG III

Air Transport - NAFTA
Packages < 1700 gal. - Not regulated.

B/L Freight Classification

Herbicides, NOI (NMC Class 60)

Comments

Water Transport - International
Proper Shipping Name:
< 1700 gal.
Environmentally Hazardous Substance, Liquid, N.O.S. (s-Metolachlor), Marine Pollutant
> 1700 gal.
RQ Environmentally Hazardous Substance, Liquid, N.O.S. (s-Metolachlor, Naphthalene), Marine Pollutant
Hazard Class or Division: Class 9
Identification Number: UN 3082
Packing Group: PG III
IMDG EMS #: F-A, S-F

Air Transport - International
Proper Shipping Name: Environmentally Hazardous Substance, Liquid, N.O.S. (s-Metolachlor)
Hazard Class or Division: Class 9
Identification Number: UN 3082
Packing Group: PG III
Packing Auth.: 914 Special Provision A97
Note: Max. inner package: plastic - 5 liters, metal - 10 liters
Max. single package: 450 liters

15. REGULATORY INFORMATION

EPCRA SARA Title III Classification

Section 311/312 Hazard Classes: Acute Health Hazard
Chronic Health Hazard

Section 313 Toxic Chemicals: 1,2,4-Trimethylbenzene (<= 1%) (CAS No. 95-63-6)
Naphthalene (<= 1%) (CAS No. 91-20-3)

California Proposition 65

Not Applicable

CERCLA/SARA 302 Reportable Quantity (RQ)

Report product spills > 1,700 gal. (based on naphthalene [RQ = 100 lbs.] content in the formulation)

RCRA Hazardous Waste Classification (40 CFR 261)