



U.S. Department  
of Transportation

**Pipeline and  
Hazardous Materials Safety  
Administration**

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

JUN 13 2005

Mr. Cal Herrmann ScD  
Consulting Chemist  
General Hydroponics  
P.O. Box 1576  
Sebastopol, CA 95473

Ref No.: 04-0195

Dear Mr. Cal Herrmann:

This responds to your December 15, 2004 letter requesting clarification of the Hazardous Materials Regulations (HMR; 49 CFR Parts 171-180) for plant nutrient products that are sold for hydroponic plant growth. Specifically, you ask if the products described in your letter are subject to the HMR. You provide the following two product descriptions:

- 1) Aqueous solution of inorganic minerals containing less than 10% Nitrates.
- 2) Dry mixtures of inorganic minerals containing calcium nitrate and ammonium nitrate, with less than 10% ammonium nitrate and at least 12% water of crystallization.

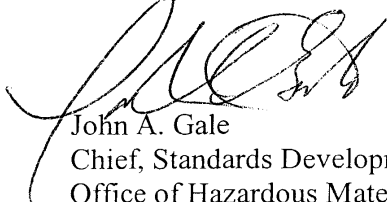
In accordance with § 173.22 of the HMR, it is the shipper's responsibility to determine the hazard class of a material offered for transportation in commerce. This office does not perform that function.

Special Provision 58 (see § 172.102) provides an exception for aqueous solutions of Division 5.1 inorganic solid nitrate substances when the concentration of the substances in solution at the minimum temperature encountered in transport is not greater than 80% of the saturation limit. Your product is not subject to the HMR if it meets Special Provision 58 and does not meet the definition of any other hazard class listed in § 173.2.

Special Provision 34 (see § 173.102) provides an exception for commercial grade calcium nitrate fertilizer, when consisting mainly of a double salt (calcium nitrate and ammonium nitrate) containing not more than 10 percent ammonium nitrate and at least 12 percent water of crystallization. Your product is not subject to the HMR if it meets Special provision 34 and does not meet the definition of an other hazard class listed in § 173.2.

I hope this information is helpful. Please contact us if you require additional assistance.

Sincerely,



John A. Gale  
Chief, Standards Development  
Office of Hazardous Materials Standards



040195

172.101  
172.102



Office of Hazardous Materials Standards,  
Research and Special Programs Administration,  
Attn: DHM10  
U.S. Department of Transportation  
400 7th Street SW.  
Washington, DC 20590-0001

Eichenlaub  
§ 172.101  
§ 172.102  
Proper Shipping Name  
04-0795

Dec 15, 2004

To whom it may concern:

Pursuant to CFR 49 105.20 we are requesting information on applicability of DOT regulations concerning shipping some of plant nutrient products that are sold for hydroponic plant growth. They are individually packaged in 1 to 5 pound or quart to gallon containers meeting the defined container requirements, and boxes of several item containers.

Specifically we need to know if we understand correctly as it relates to our products if they contain nitrates. We ship products that contain nitrates in two forms. They are:

Aqueous solutions of mixtures of inorganic minerals containing less than 10% Nitrates. We think these products could be classified as -- Nitrates, Inorganic, aqueous solution, n.o.s., and exempt from the 5.1 shipping regulations as defined under code 58 of 172.102.

Dry mixtures of inorganic minerals containing calcium nitrate and ammonium nitrate and with less than 10 percent ammonium nitrate and at least 12% water of crystallization. We think that these products could be classified as containing calcium nitrate and under code 34 of 172.102 be exempt from 172.101.

Please advise us if our assumptions are correct or not in this matter.

Sincerely,

Cal Herrmann ScD  
Consulting Chemist  
707-824-9376