



U.S. Department  
of Transportation  
**Research and  
Special Programs  
Administration**

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

AUG 27 1999

Mr. Frank Imperatore  
Environmental Health and Safety Services  
Virginia Polytechnic Institute  
and State University  
459 Tech Center Drive  
Blacksburg, VA 24061

Ref. No. 99-0167

Dear Mr. Imperatore:

This is in response to your letter dated June 24, 1999, and subsequent telephone conversation with a member of my staff, regarding the proper packaging and shipping descriptions for waste cyanides and brucine under the Hazardous Materials Regulations (HMR; 49 CFR Parts 171-180).

Virginia Tech generates the following materials as waste for off site shipment: sodium cyanide; potassium cyanide; and brucine.

Under § 173.22, it is the shipper's responsibility to properly classify and describe a hazardous material in accordance with Parts 172 and 173. Such determinations are not required to be verified by this Office. In the scenario you present in your letter you describe all three hazardous materials with one proper shipping name, "Waste toxic solids, inorganic, n.o.s., 6.1, UN3288, PG I, (Sodium cyanide, Brucine, Potassium cyanide)." This description is incorrect. The proper description of each hazardous material offered for transportation is required on the shipping paper (§ 172.200(a)). In addition, a non-bulk packaging must be marked with the proper shipping name and identification number for each hazardous material in the packaging (§ 172.301). For example, a combination packaging containing inner containers of waste sodium cyanide, waste potassium cyanide and waste brucine would be described as follows:

Waste, sodium cyanide, 6.1, UN1588, PG I  
Waste, potassium cyanide, 6.1, UN1680, PG I  
Waste, brucine, 6.1, UN1570, PG I



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173.22

You are correct in your understanding that materials meeting the definition of Division 6.1, Packing Group I may not be packaged in lab packs (§ 173.12(b)(3)). Materials shipped in non-bulk packagings under the shipping names "Waste, sodium cyanide," "Waste, potassium cyanide" and "Waste, brucine," that are Packing Group I materials, must be packaged in accordance with § 173.211. An outer packaging may contain more than one hazardous material; however, it is the responsibility of the person offering a hazardous material for transportation to ensure that the requirements in §§ 173.21, 173.24 and 173.24a are met.

I hope this satisfies your request.

Sincerely,



Delmer F. Billings  
Chief, Standards Development  
Office of Hazardous Materials Standards



VIRGINIA POLYTECHNIC INSTITUTE  
AND STATE UNIVERSITY

Environmental Health and Safety Services

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BPH  
§ 173.22  
99-0167

June 24, 1999

Mr. Edward T. Mazzullo  
Director, Office of Hazardous Materials Standards  
U.S. DOT/RSPA (DHM-10)  
400 7th Street SW  
Washington, D.C. 20590-0001

Dear Mr. Mazzullo:

I am writing on behalf of Virginia Tech to confirm our understanding of the Hazardous Material Regulations as they apply to packaging and shipping of materials listed in HMT of poisonous material (Division 6.1) (49 CFR173.132) and packing group one (PG I) (49 CFR173.133).

In a typical three-month period, Virginia Tech will generate the following listed materials as waste for off site shipment.

- One pound of Sodium Cyanide in a glass container
- 500 grams of Potassium Cyanide in a glass container

It is our understanding that the listed materials are prohibited for labpack as per 49 CFR173.12 (b)(3).

It would appear that we could package the listed materials into one shipping container to save on disposal cost since they are chemically compatible. The shipping container would meet the requirements of a combination packaging as per 49 CFR173.211 (b). The proper DOT shipping description would be "Waste Cyanides, inorganic, solid, n.o.s., 6.1, UN1588, PG I (Sodium Cyanide, Potassium Cyanide)". Is this correct?

During a specific three-month period, Virginia Tech may additionally generate 250 grams of Brucine in a glass container as waste for off site shipment. It would appear that we could package the Brucine with the cyanides listed above since they are chemically compatible. The shipping container would meet the requirements of a combination packaging as per 49 CFR173.211 (b). The proper DOT shipping description would be "Waste Toxic solids, inorganic, n.o.s, 6.1, UN3288, PG I, (Sodium Cyanide, Brucine, Potassium Cyanide)". Is this correct?

If you have any questions, please feel free to contact me at 540-231-2982 or imperato@vt.edu.

Sincerely,

Frank Imperatore

cc: Erik Amelink