U.S. Department
of Transportation

**Pipeline and Hazardous
Materials Safety
Administration**

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

FEB 13 2009

Mr.Barry Lia, Ph.D.
Lia BD Consulting
9314 40th Ave. N.E.
Seattle, WA 98115

Ref. No.: 09-0024

Dear Dr. Lia:

This is in response to your e-mail requesting clarification of the Hazardous Materials Regulations (HMR; 49 CFR Parts 171-180) regarding applicability to aqueous solutions of silver nitrate and iron sulfate. Specifically, you ask us to confirm that an aqueous solution of 0.25 % silver nitrate (0.015 M) and an aqueous solution of 0.25 % iron sulfate (0.008 M) in containers not more than 100 milliliters each do not meet the criteria for a hazardous material under the HMR.

Your understanding is correct. The concentration of the quantity of material per inner container, as described in your e-mail, does not meet the criteria for a hazardous material under the HMR and, therefore, is not subject to the HMR.

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

Sincerely,

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

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$175.18
Air
09-0024

Drakeford, Carolyn <PHMSA>

From: INFOCNTR <PHMSA>
Sent: Monday, January 26, 2009 2:12 PM
To: Drakeford, Carolyn <PHMSA>
Subject: FW: query about checked baggage materials <<#280774-377849#>>

From: Barry Lia [mailto:barrylia@comcast.net]
Sent: Sunday, January 25, 2009 9:59 PM
To: INFOCNTR <PHMSA>
Subject: Fwd: query about checked baggage materials <<#280774-377849#>>

Dear Hazardous Materials Information Center,

Repeating what I wrote in my query to the Transportation Security Administration (TSA) below:
I am planning a trip from Seattle (SEA) to California (SFO or SMF) the end of February, in order to attend a small conference. At this conference, I am to demonstrate a paper chromatography method for quality testing of vegetable juices (cited in Tingstad, *Quality and Method: Rising pictures in evaluation of food quality*, Gads Forlag 2001.) This is for educational purposes.
My kit includes glassware (24 glass dishes about 2.5 inches in diameter), pipet, papers, and two small bottles of solution. I am planning to pack this kit within my checked bag (NOT my carry-on bag). It will be packed in a solid metal photo gear case about 6"x12"x18" within my checked bag. I will also pack one 2 liter bottle of purified water in my checked bag.
The solutions are 0.25% silver nitrate (0.015M) and 0.25% iron sulfate (0.008 M), no more than 100 milliliters each. They are not flammable or disabling chemicals. I understand from the MSDS information from Sigma-Aldrich, that silver nitrate solution is hazardous to the aquatic environment. These are the precautions for a *2.5%* solution of sodium nitrate (mine are ten times less concentrated):
Toxic to aquatic organisms
May cause long-term adverse effects in the aquatic environment
This material and/or its container must be disposed of as hazardous waste
Avoid release to the environment
I will be packing waste solution back home for disposal at our county hazardous waste center. Transportation in both directions will be in a solid, padded photo gear case.
I have a Ph.D. in neurobiology. I have handled material much more hazardous in my career. I am being preemptive, seeking to avoid incurring trouble with safety or security regulations and having my demonstration materials held up or confiscated.

I am looking for a statement that neither of these solutions (0.015 M silver nitrate or 0.009 M iron sulfate) present a hazard precluding their airline transport in my checked bag, that they are not flammable or disabling chemicals and, therefore, that they should not be confiscated by TSA officials.
I trust that the TSA has steered me to the correct office for this ruling.
The US Department Of Transportation's Hazardous Materials Regulations (49 Code of Federal Regulation, Parts 100-185) are written, issued, and officially interpreted by the US DOT Pipeline and Hazardous Materials Safety Administration, Office of Hazardous Materials Safety (http://hazmat.dot.gov).
Therefore, we also encourage you to contact the Hazardous Materials Information Center at: 1-800-467-4922 or infocntr@dot.gov for assistance with specific questions or comments regarding these regulations and hope that this information was helpful

I can be reached at 206-753-9244.

Thank you for your attention,

Barry Lia, Ph.D. \ Lia BD Consulting
barrylia@comcast.net \ Seattle WA
9314 40th Ave NE, Seattle WA 98115 \ 206-522-1937

Begin forwarded message:

From: "TSA-ContactCenter" <TSA-ContactCenter@dhs.gov>
Date: January 22, 2009 12:41:43 PM PST
To: <barrylia@comcast.net>
Subject: Re: query about checked baggage materials <<#280774-377849#>>

Thank you for your e-mail.

The Aviation and Transportation Security Act (ATSA) established the Transportation Security Administration (TSA) and mandated deadlines for enhanced security measures.

Incrementally, TSA worked to meet its mandates and at the same time provide an increased level of customer service. As changes and enhancements to aviation security were implemented, TSA publicized Traveler Tips to aid travelers with the enhanced screening process. To inform travelers of changes to the checked baggage screening process, TSA introduced suggestions that may assist travelers with the new procedures.

TSA recommends that passengers not pack food items (e.g.: water) in their checked luggage. While the practice **is not** prohibited, some food items have properties that may cause one or more baggage screening methods to alarm. Hand screening of the luggage will be required to clear every alarm. Travelers who pack food items in checked baggage may do so with the understanding that this may cause delays for themselves and/or their baggage.

In general, the US Department of Transportation (DOT) regulations prohibit passengers and crewmembers from carrying hazardous materials (e.g.:silver nitrate and iron sulfate) aboard commercial aircraft. In addition, the US Department Of Transportation's Hazardous Materials Regulations (49 Code of Federal Regulation, Parts 100-185) are written, issued, and officially interpreted by the US DOT Pipeline and Hazardous Materials Safety Administration, Office of Hazardous Materials Safety (http://hazmat.dot.gov).

Therefore, we also encourage you to contact the Hazardous Materials Information Center at: 1-800-467-4922 or infocntr@dot.gov for assistance with specific questions or comments regarding these regulations and hope that this information was helpful.

We encourage you to visit our website at www.tsa.gov for additional information about TSA. We continue to add new information and encourage you to check the website frequently for updated information.

TSA Contact Center

--- Original Message ---
From: "Barry Lia" <barrylia@comcast.net>
Received: 1/20/09 12:31:35 PM EST
To: "TSA Contact Center" <TSA-ContactCenter@dhs.gov>
Subject: query about checked baggage materials

Dear TSA,
I am planning a trip from Seattle (SEA) to California (SFO or SMF) the end of February, in order to attend a small conference (see below). At this conference, I am to demonstrate a paper chromatography method for quality testing of vegetable juices (Saturday afternoon on Agenda below).
My kit includes glassware (24 glass dishes about 2.5 inches in diameter), pipet, papers, and two small bottles of solution. I am planning to pack this kit within my checked bag (NOT my carry-on bag). It will be packed in a solid metal photo gear case about 6"x12"x18" within my checked bag. I will also pack one 2 liter bottle of purified water in my checked bag. The solutions

are 0.25% silver nitrate and 0.25% iron sulfate, no more than 100 milliliters each. They are not flammable or disabling chemicals.

Looking over the TSA and FAA websites, it appears to me that this would be acceptable. The only possible exception may be that the water bottle is larger than 16 ounces? If so, could I repackage the same amount of water in smaller bottles? Would four 500 milliliter bottles (16.9 oz) pass?

I am looking forward to your ruling,

Barry Lia \ barrylia@comcast.net \ Seattle WA
9314 40th Ave NE, Seattle WA 98115 \ 206-522-1937

----- TCC Control Number: -----
<<#280774-377849#>>