



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

1200 New Jersey Avenue, SE  
Washington, DC 20590

MAR 1 2010

Mr. Stephen V. Moser  
Assistant General Counsel  
Dow Corning Corporation  
Midland, Michigan 48686-0994

Ref. No.: 09-0273

Dear Mr. Moser:

This responds to your letter dated November 9, 2009 regarding the proper hazard classification for Chlorosilanes products under the Hazardous Materials Regulations (HMR; 49 CFR Parts 171-180). Specifically, you ask whether Chlorosilanes products currently not classed as Division 4.3 (Dangerous When Wet) materials in the § 172.101 Hazardous Materials Table (§ 172.101 HMT) meet the definition in § 173.124(c) for a Division 4.3 (Dangerous When Wet) material.

According to your letter, you are seeking reaffirmation of your understanding of a previous letter, dated March 18, 1998, from the International Standards Coordinator for Hazardous Materials Safety to Ms. Laura Neuwirth, Lathan & Watkins, that discusses subsidiary labeling requirements for materials that meet Division 4.3 criteria.

You did not provide sufficient information (e.g., hazard characteristics, material safety data sheet (MSDS)) for this Office to make a determination concerning the classification of your Chlorosilanes products. Under § 173.22 of the HMR, it is the shipper's responsibility to properly classify a hazardous material. This Office does not perform that function.

As you are aware, the § 172.101 HMT specifically lists the basic description "Trimethylchlorosilane, 3, UN 1298, IP", as a Class 3 (Flammable liquid) material with a subsidiary hazard of Class 8 (Corrosive). The proper labels for a Class 3 material having a subsidiary hazard of Class 8 are the FLAMMABLE LIQUID and CORROSIVE hazard warning labels. However, it is the shipper's responsibility to determine if a material has any other subsidiary hazards that require subsidiary hazard labels or placards under the provisions of §§ 172.402 and 172.505, respectively. Such determinations are not required to be verified by this Office. If your material meets the definition for a Division 4.3 material as specified in § 173.124(c), then the shipping paper must note the Division 4.3 subsidiary hazard and the

package must bear a Division 4.3 label, whether or not the Division 4.3 subsidiary hazard is indicated in the §172.101 HMT entry for the material.

I hope this information is helpful. If we can be of further assistance, please contact us.

Sincerely,

A handwritten signature in black ink, appearing to read "Charles E. Betts". The signature is written in a cursive style with a large initial "C" and "B".

Charles E. Betts  
Chief, Standards Development  
Office of Hazardous Materials Standards

November 9, 2009

U.S. Department of Transportation  
PHMSA Office of Hazardous Materials Standards  
Attn: PHH-10  
East Building  
1200 New Jersey Avenue, S.E.  
Washington, DC 20590-0001

Re: Request for Clarification

Dear Sir/Madam:

Dow Corning Corporation (DCC) has determined that a number of its chlorosilanes meet the definition of Dangerous When Wet (DWW) as set forth in 49 CFR Section 173.124(c), but are not already classified as DWW in the Hazardous Materials Table (49 CFR 172.101, the "Table"). For the reasons explained below, DCC respectfully requests that PHMSA confirm that it is proper for DCC to label and placard these chlorosilanes as a subsidiary DWW hazard, based on the requirements of 49 CFR 172.402(a)(2) (relating to subsidiary hazard labels) and 49 CFR 172.505(c) (relating to placarding for subsidiary hazards).

To put this request in full context and assist PHMSA in its consideration of the issue presented, we offer the following additional information. Attached are two letters from 1998 between Frits Wybenga, U.S. DOT, and Latham & Watkins, then legal counsel to the Silicones Environmental Health and Safety Council (SEHSC), addressing in part this subject. Also attached is a letter DCC has provided to carriers and officials since 1998 explaining why certain chlorosilanes are labeled and placarded as they are.

Recently, however, a tanker carrying trimethylchlorosilane was stopped by a New York State trooper. The trooper and other state transportation officials with whom he conferred (NYSDOT) concluded that the shipment was improper because a DWW placard was affixed to the tanker and the shipping papers referenced a subsidiary DWW hazard when there is no specific reference to Division 4.3 in Column 6 of the Table for trimethylchlorosilane. According to NYSDOT, DCC must use only shipping references and placards consistent with the specific hazard codes identified in the Table for the listed material and may not reference or placard for any other subsidiary risk without special approval from U.S. DOT. When provided with copies of the 1998 letters noted above, NYSDOT stated that these letters were ambiguous and not satisfactory to establish the requisite U.S. DOT approval. NYSDOT recommended that we seek clarification from PHMSA; hence, this request. Attached

Engram  
§ 172.101  
§ 173.124(c)  
§ 172.402(a)(2)  
§ 172.505(c)  
Placarding  
09-0273

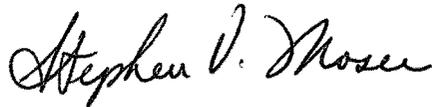
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for your easy reference is a copy of the recent letter we sent to NYSDOT concerning this matter.

Dow Corning is committed to safely transporting its products on America's highways and takes seriously its obligations to comply with the letter and spirit of all applicable transportation safety regulations. We firmly believe it is our legal obligation (and the proper interpretation of the regulations and the Wybenga letter) to placard as DWW any and all products that meet the Division 4.3 criteria, whether that hazard is specifically identified in the Table or not. Thus, we disagree with NYSDOT's interpretation of the regulations as applied to our ongoing shipments of trimethylchlorosilane and similarly situated chlorosilanes. However, we do agree that PHMSA is the best authority in this instance to address the propriety of our practices.

Thank you for your attention to this matter. If you have questions or require further information, please let me know. I can most easily be reached by telephone at (989) 496-5843 or email at [steve.moser@dowcorning.com](mailto:steve.moser@dowcorning.com). We look forward to hearing from you at your earliest opportunity.

Very truly yours,



Stephen V. Moser  
Assistant General Counsel  
Dow Corning Corporation

Attachments

LATHAM & WATKINS

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DANA LATHAM PARTNER

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SAN FRANCISCO OFFICE  
305 MONTGOMERY STREET, SUITE 4000  
SAN FRANCISCO, CALIFORNIA 94111-7802  
TELEPHONE (415) 391-0000  
FAX (415) 395-0000

January 27, 1998

BY MESSENGER

Frits Wybenga  
International Standards Coordinator  
Robert A. Richard  
Assistant International Standards Coordinator  
RSPA, DHM5, Room 8422  
U.S. Department of Transportation  
400 7th Street, S.W.  
Washington, D.C. 20590-0001

Charles H. Ke  
Chief, Sciences Group  
Office of Hazardous Materials Technology, Room 8430  
U.S. Department of Transportation  
400 7th Street, S.W.  
Washington, D.C. 20590-0001

Re: **SEHSC Proposal On The Regulation  
Of Materials That Emit Toxic Gas When Wet**

Dear Messrs. Wybenga, Richard and Ke:

On behalf of the Silicones Environmental Health and Safety Council ("SEHSC"), I want to express our appreciation for the time and attention you have given to SEHSC's proposal concerning the regulation of hazardous materials that emit toxic gas when wet, which we submitted to the U.S. Department of Transportation ("DOT") on March 21, 1997. In particular, we appreciate the opportunity we had to meet with you on March 26, 1997, to discuss the recommendations in our proposal. This letter serves to confirm DOT's comments on SEHSC's proposal that were made during our March

Frits Wybenga  
Robert A Richard  
Charles H Ke  
January 27, 1998  
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26th meeting and to convey the commitment of SEHSC's members to implement handling and labeling practices no later than the end of 1998 in accordance with this proposal on a voluntary basis.

A. **Use of the "Dangerous When Wet" Label**

SEHSC's proposal recommends that the "dangerous when wet" ("DWW") label be used as a subsidiary risk label for all chlorosilanes not currently classified as DWW by DOT, until such time as the Agency is able to revise its regulatory framework in a manner that both requires and allows shippers of chlorosilanes to classify and label their materials. During our meeting, we reviewed the deficiencies in DOT's regulations that prevent shippers of chlorosilanes and other similar water reactive materials from determining whether the evolution of toxic gas from such materials when in contact with water is a primary or secondary hazard. You indicated that SEHSC could use the DWW label as a subsidiary risk label for chlorosilanes not already classified as DWW if these chemical substances otherwise meet the definition of DWW as set forth in 49 C.F.R. § 173.124(c).

As you are aware, the current DWW label has a flame on it which does not indicate the toxic hazard of some DWW materials. For chlorosilanes that are DWW because they emit toxic gas when wet, DOT suggested that shippers also use either a poisonous by inhalation label or a marking explaining the nature of the DWW hazard. In particular, Fritz Wybenga suggested that, in addition to a DWW subsidiary risk label, shippers of chlorosilanes may want to place text on their containers that states "emits toxic gas when wet." SEHSC members have decided to adopt Mr. Wybenga's suggestion for the labeling of domestic shipments of chlorosilanes, except for shipments of "limited quantities" - meaning quantities not exceeding 2 liters.

B. **Clarification of the DWW Test Procedure**

In addition to the labeling issue, SEHSC explained to DOT, both in its written proposal and at the March 26th meeting, that the DWW test procedure fails to specify how much water to use in determining whether a material is in fact DWW. See Appendix E to 49 C.F.R. § 173.124(c). Based on our limited testing results, we noted that the amount of water used in testing a particular chlorosilane for evolution of flammable or toxic gas may determine whether that substance should be classified as DWW. At our meeting, you indicated that it would be appropriate to conduct such testing on a "*worst case*" basis. In other words, if a material emits toxic or flammable gas in sufficient quantities to satisfy the DWW threshold when tested with any amount of water, then it should be classified as DWW.

Frits Wybenga  
Robert A Richard  
Charles H. Ke  
January 27, 1998  
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You also verbally approved the use of theoretical calculations, in addition to actual testing, to determine whether water reactive materials are in fact DWW. The flexibility to use theoretical calculations avoids the need for repetitive testing of materials with various amounts of water to determine the "worst case" release of flammable or toxic gas. This flexibility is especially helpful with chlorosilanes, the reactivity of which may vary significantly depending on the quantity of water involved in testing such substances.

C. **Harmonization Between DOT Regulations and U.N.. Recommendations**

We understand that, at this time, DOT does not plan to act on SEHSC's long term proposal to (i) create a new Division 4.4 and label with a skull and crossbones for materials that emit toxic gas when wet, and (ii) revise the Precedence of Hazard Table to rank the DWW-toxic hazard in relation to other hazards listed in the Table. You have informed us that DOT prefers to wait until the ongoing harmonization efforts with the United Nations ("U.N.") Recommendations on the Transport of Dangerous Goods are concluded. You also indicated, however, that the Agency would be supportive of a broader, industry-wide proposal to the U.N.. on how to regulate materials that emit toxic gas when wet.

SEHSC is most interested in working with its counterpart in Europe - the Centre Europeen Des Silicones ("CES") - to present an industry-wide proposal to the U.N.. on DWW-toxic materials. Shortly after our meeting with DOT, we requested that the CES review and comment on SEHSC's long-term proposal. We also have set up a conference call meeting between the CES and SEHSC Operating Safety Committees to discuss all relevant DWW issues and to explore the possibility of an industry-wide position on the classification and labeling of chlorosilanes. We will keep you apprised of significant developments on this matter.

\* \* \*

Once more, we express our appreciation for your consideration of SEHSC's proposal. We would appreciate it if you could confirm in writing the accuracy of our understanding of DOT's position on the issues noted above -- in particular, (i) the use of the DWW label as a subsidiary risk label for all chlorosilanes not already classified as DWW (assuming they meet the DWW threshold); (ii) the use of theoretical calculations rather than actual testing to determine whether the DWW threshold is exceeded for a particular water reactive material; and (iii) implementation of the DWW testing procedure on a "worst case" basis.

LATHAM & WATKINS

Frits Wybenga  
Robert A. Richard  
Charles H. Ke  
January 27, 1998  
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My colleague, Greg Slater, has relocated from the Washington, D.C. area. Thus, if you have any questions concerning this letter or SEHSC's proposal to DOT, please do not hesitate to contact me at (202) 637-2239, or SEHSC's Executive Director, William Smock, or Deputy Director, Beth Dombrowsky, at (703) 438-3943.

Very truly yours,

Julia A. Hatcher  
of LATHAM & WATKINS

cc: William H. Smock SEHSC, Executive Director  
Elizabeth C. Dombrowsky, SEHSC Deputy Director  
SEHSC DWW Work Group Members

DC DOCS\56247.1



US Department  
of Transportation

**Research and  
Special Programs  
Administration**

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

MAR 1 8 1998

Laura Neuwirth  
Latham & Watkins  
Attorneys at Law  
1001 Pennsylvania Avenue, NW  
Washington, DC 20004-2505

Dear Ms. Neuwirth:

This is in response to your letter of January 27, 1998 recording your understanding of the meeting held between representatives of Silicones Environmental Health & and Safety Council and representatives from our office on March 26, 1997. We concur with your summary of points discussed at the meeting. However, in relation to subsidiary risk labeling it should be noted that 172.402(a)(2) requires the use of the 4.3 subsidiary risk label for substances meeting the Division 4.3 criteria.

Sincerely,

A handwritten signature in black ink, appearing to read 'Frits Wybenga'.

Frits Wybenga  
International Standards Coordinator  
for Hazardous Materials Safety



May 26, 1998

To: Interested Parties

From: Dow Corning Corporation Transportation Regulatory Team

Subject: Addition of Dangerous When Wet (DWW) Subsidiary Hazard to Chlorosilanes

The purpose of this letter and the attached letter from the DOT is to explain why many chlorosilanes being shipped domestically by road and rail by Dow Corning Corporation have been re-classified as a subsidiary Dangerous When Wet. Hopefully, this correspondence will address any confusion you may have regarding the domestic transportation of these materials.

Dow Corning Corporation recently reclassified many chlorosilanes that were not already classed as DWW by the DOT, as a subsidiary DWW. This reclassification is ONLY for domestic transportation . This reclassification was based on recent limited testing and knowledge of the nature of chlorosilanes that indicated that these materials meet the definition of Dangerous When Wet in 49 CFR 173.124(c). Dow Corning Corporation and the Silicones Environmental Health and Safety Council (SEHSC) met with the DOT regarding this issue. In summary, it was determined that the Dow Corning Corporation and other the SEHSC member companies will start labeling and/or placarding chlorosilanes as a subsidiary DWW hazard, if not already classed as a DWW by the DOT to meet the requirements of 172.402(a)(2) and 172.505(c). In addition, it was agreed upon by the DOT that Dow Corning would also add an additional statement near the label and/or placard that reads "Emits Toxic Gas When Wet". This explains why many chlorosilanes now are transported domestically as a subsidiary DWW and carry a statement that reads "Emits Toxic Gas When Wet".

Wayne Winslow

Sr. Transportation Safety and Regulatory Specialist

/Attachment: DOT Letter Dated March 18, 1998

October 9, 2009

Justin Zimmerman  
Motor Carrier Investigator  
New York State Dept of Transportation  
11 Valley park Drive,  
Adams, NY 13605

Dear Mr. Zimmerman:

Thank you for taking the time this morning to talk with me and other representatives of Dow Corning's Transportation Compliance team. I thought it was a helpful discussion, even if we could not come to a full agreement on the application of the Hazardous Materials Transportation Regulations (49 CFR Parts 100-185, the "HMR") to certain shipments of Dow Corning products. The purposes of this letter are: (1) to confirm Dow Corning's commitment to follow up with the U.S. Department of Transportation, Pipeline and Hazardous Materials Safety Administration ("U.S. DOT" or "PHMSA"); and (2) to document the gist of our discussion this morning. We want to avoid any confusion or misunderstanding regarding Dow Corning's knowledge of, and commitment to full compliance with, the HMR. We also want to assure the safe and timely movement of our products in transit.

As we discussed, you recently stopped a tanker carrying trimethylchlorosilane that had a Dangerous When Wet ("DWW") placard on it. Dow Corning interprets the HMR to require such a placard. We base this on our knowledge of the hazards of the chemicals we produce and transport and our reading of the requirements relating to identification of subsidiary hazards, found in 49 CFR Sections 172.101(g), 172.402(a) and 172.505(c). We also base our interpretation on the March 19, 1998 letter from Frits Wybenga of U.S. DOT, written in response to a submission from the Silicones Environmental Health and Safety Council on this subject (the "Wybenga letter").

From our discussion we have a better understanding of your concerns regarding the use of a DWW placard when a material, like trimethylchlorosilane, is listed in the Hazardous Materials Table (49 CFR 172.101, the "Table") but there is no specific reference to Class 4.3 in Column 6 of the Table for that material. In short, we understand that your interpretation of the HMR is that Dow Corning must use only placards consistent with the specific hazard codes identified in the Table for the listed material and may not placard for any other subsidiary risk without special approval from U.S. DOT. You explained that you did not find the Wybenga letter satisfactory to establish such U.S. DOT approval.