

**BEFORE THE
UNITED STATES DEPARTMENT OF TRANSPORTATION
OFFICE OF THE ADMINISTRATOR
PIPELINE AND HAZARDOUS MATERIALS SAFETY ADMINISTRATION**

In the Matter of:

Aldrich Chemical Company, Inc.

Respondent.

**PHMSA Case No. 04-068-FSB-EA
DMS Docket No. RSPA-04-19015**

DECISION ON APPEAL

I. Background

On August 25, 2004, the Office of Chief Counsel of the Pipeline and Hazardous Materials Safety Administration (PHMSA),¹ U.S. Department of Transportation (DOT), issued an Order² (Order) to Aldrich Chemical Company, Inc., (Respondent) finding Respondent had knowingly committed two violations of the Hazardous Materials Regulations (HMR), 49 C.F.R. Parts 171-180, and assessing a civil penalty in the amount of \$12,190. Respondent offered a hazardous material (packing group I, inhalation hazard, zone B) for transportation in commerce in packaging which did not meet the requirements for transporting a toxic by inhalation, hazard zone B material, failed to properly describe the material on its shipping papers, and failed to properly mark and label the packages.

The Order, which is incorporated by reference, assessed the \$12,190 civil penalty originally proposed in the January 23, 2004 Notice of Probable Violation (NOPV). In a letter

¹ Effective February 20, 2005, the Pipeline and Hazardous Materials Safety Administration (PHMSA) was created to further the highest degree of safety in pipeline transportation and hazardous materials transportation. See Section 108 of the Norman Y. Mineta Research and Special Programs Improvement Act (Public Law 108-426, 118 Stat. 2423-2429 (November 30, 2004)); see also 70 Fed. Reg. 8299 (February 18, 2005), re-delegating the hazardous materials safety functions from the Research and Special Programs Administration (RSPA) to the Administrator, PHMSA. For ease of reading and clarity, when an action occurred at RSPA, this order will refer to PHMSA.

² Docket Number RSPA-2004-19015-1 at <http://dms.dot.gov>.

dated September 16, 2004, Respondent timely submitted an appeal of the Order.³

II. Summary

Respondent had information tending to show the original shipper may have misclassified the material and therefore had an affirmative obligation to determine whether the appropriate packing group was used before re-shipping the material. Respondent, a chemical company, should have known the appropriate classification for the mixture was PG I, PIH Zone B based on the MSDS and the classifications of the component chemicals. Therefore, Respondent's appeal is denied.

III. Discussion

This enforcement case arose out of an August 20, 2003 compliance inspection at Crescent Chemical Company, Inc., in Islandia, New York. The inspector observed a shipment of hazardous material sold under the Riedel-deHaën brand name Hydranal – Working Medium K. After Sigma-Aldrich Laborchemikalien GmbH shipped the material to Respondent, Respondent re-shipped the material to Crescent Chemical Company. Sigma-Aldrich Laborchemikalien GmbH packaged, marked and labeled the product as RQ toxic, liquids, organic, n.o.s. (chloroform, ethylene chlorohydrin), 6.1, poisonous materials, UN2810, PG II. The inspector noted the Hazardous Materials Table identifies ethylene chlorohydrin as a toxic liquid, flammable, PG I, PIH Zone B.⁴ In addition, the Material Safety Data Sheet (MSDS) for the product cautioned the product is “very toxic by inhalation.”⁵ After reviewing additional data from Respondent's supplier, the inspector

³ Sigma-Aldrich Corporation, the parent company of Aldrich Chemical Company, appears to have filed the appeal in this case. Although it is highly irregular to permit an appeal to be filed by a party other than the one directly charged, I will permit it in this case. This Decision on Appeal will use “Respondent” to refer to Aldrich Chemical Company and Sigma-Aldrich Corporation.

⁴ Ethylene chlorohydrin is a synonym of 2-Chloroethanol. Respondent used both names in its correspondence.

⁵ Respondent argued in its April 5, 2004 letter that the use of the phrase “toxic by inhalation” on the MSDS does not lead to the conclusion that a material should be classified as PIH. Respondent listed 28 products with MSDS

concluded Hydranal – Working Medium K meets the criteria for a material poisonous by inhalation, hazard zone B (PIH Zone B).

In this appeal, Respondent argues the violations are unsupportable. First, Respondent argues it did not knowingly violate the HMR because it reasonably relied on the information it had available at the time. Respondent emphasizes it did not repackage or relabel the product; it only warehoused and shipped the product. Second, requiring re-shippers to reanalyze and reclassify products prior to shipping is unreasonable and is not explicitly required by the HMR. Finally, Respondent contends the published hazard data is incomplete, making classification of mixtures according to PHMSA’s methods and criteria impossible. Respondent challenges the classification assigned by the inspector, stating “the data does not completely support the reclassification.”⁶ As discussed below, Respondent’s appeal must be denied.

In its appeal, Respondent acknowledges the shipment was packaged and labeled according to the hazard and classification data it had at the time, which was later determined to be incorrect. Respondent emphasized it is a re-shipper and, at the time of shipment, did not know the relative concentrations of the two listed hazardous ingredients in Hydranal – Working Medium K (ethylene chlorohydrin and chloroform). Respondent argues it relied on its supplier to provide all hazard information and to classify the product for shipment⁷ and thus did not knowingly violate the HMR because it relied on the shipper’s classification. Respondent contends, as a re-shipper, it could not reasonably have known the product was misclassified.

stating “toxic by inhalation” that are not classified as PIH. The 28 listed products are all solids, which, as Respondent noted, cannot be classified as PIH. All of the items on Respondent’s list of liquid products with MSDS bearing the phrase “toxic by inhalation” are classified as PIH. Because the hazardous material at issue in this case is a liquid, Respondent’s lists of products do not support Respondent’s argument.

⁶ Docket Number RSPA-2004-19015-2.

⁷ In recognition of Respondent’s status as a re-shipper, PHMSA has already reduced the penalty by twenty-five percent (25%) as prescribed in the HMR.

Under the Hazardous Materials Transportation Uniform Safety Act of 1990, now codified at 49 U.S.C. § 5123: “A person acts knowingly when— (A) the person has actual knowledge of the facts giving rise to the violation; or (B) a reasonable person acting in the circumstances and exercising reasonable care would have that knowledge.” Based on the information available in the shipping papers and the MSDS, Respondent had sufficient reason to question the shipper’s classification of the product as PG II.⁸ Here, Respondent’s reliance on the shipper was not reasonable.

As Respondent notes, the HMR do not explicitly require re-shippers to reanalyze and reclassify all potentially hazardous materials prior to shipping; however, a re-shipper “independently is responsible for ensuring that the shipment complies with Federal hazmat law.” 49 C.F.R. § 107, Subpart D, App. A. Therefore, re-shippers are required to investigate when there is sufficient information to suggest the shipper’s original classification was incorrect and then, if necessary, to reclassify those materials prior to re-shipping.

Finally, Respondent asserts that insufficient data exist to classify the product based on the criteria stated in the HMR.⁹ Because the data are incomplete, Respondent argues implementation of PHMSA’s classification methods and criteria is impossible. Respondent’s argument hinges on the HMR definition of LC50: “LC50 for acute toxicity on inhalation means that concentration of vapor, mist, or dust which, administered by continuous inhalation for one hour to both male and female young adult albino rats, causes death within 14 days in

⁸ As noted by Respondent in a spreadsheet submitted in its April 5, 2004 correspondence, varying the concentration of the hazardous materials in the mixture could result in an appropriate packing group (PG) ranging from PG III to PG I, PIH Zone B. Respondent’s own calculations demonstrate it was capable of determining there was a possibility the shipper had misclassified the product. Based on the information eventually obtained from the manufacturer regarding the relative concentrations of ethylene chlorohydrin and chloroform in Hydranal –Working Medium K, the packing group for the mixture could be either PG I, PIH Zone B or PG II – not PG III.

⁹ Sigma-Aldrich’s claim to be unable to determine the appropriate classification for Hydranal – Working Medium K is inconsistent with its revision of the MSDS, which appears to be issued by the Sigma-Aldrich Corporation, not Riedel-deHaën (the manufacturer, a subsidiary of Sigma-Aldrich). If it is truly unable to determine the classification based on published data, then Riedel-deHaën, Sigma-Aldrich, or Aldrich Chemical Company should perform the necessary testing to determine the LC50 for the mixture.

half of the animals tested.” 49 C.F.R. § 173.132(b). Respondent argues the published LC50 value for ethylene chlorhydrin does not include a time element, thereby preventing it from calculating the LC50 value for the mixture of hazardous materials present in the product.¹⁰ Based on the information provided by the manufacturer, virtually all of the possible combinations of ethylene chlorhydrin and chloroform result in a classification of PG I, PIH Zone B. Respondent, however, takes issue with these assumptions, essentially claiming that it cannot be held responsible because there is no way for it to know **for certain** the appropriate classification without knowing the time element of the LC50 value (emphasis added).

After inquiries from Respondent following the inspection, however, Respondent’s supplier acknowledged the appropriate classification of Hydranal – Working Medium K is PG I, PIH Zone B. Unlike Respondent and the inspector, Respondent’s supplier knows the actual concentrations of each component and in a position to do whatever testing is needed to ensure the material is properly classified. Sigma-Aldrich Corporation (the parent company of Aldrich Chemical Company, Riedel-deHaën and Sigma-Aldrich Laborchemikalien GmbH) immediately adopted this revised classification by changing its MSDS and notifying customers of the corrected classification.

Respondent questions whether it should have been able to come to the same conclusion as the investigator. The investigator proceeded exactly as Respondent should have

¹⁰ Although published LC50 values may be for any time period, they are generally for one or four hour exposure periods. Assuming the LC50 value for ethylene chlorhydrin was for a four hour exposure period (resulting in a lower toxicity and packing group than if the value were for a one-hour exposure period), the LC50 value and the ratio of the volatility for the mixture indicate either PG II or PG I, PIH Zone B, depending on what, if any, material makes up the remaining portion of the mixture. Assuming the LC50 value for ethylene chlorhydrin was for a one hour exposure period, the LC50 value and the ratio of the volatility for the mixture result in a hazardous material that is PG I, PIH Zone B, for all relative concentrations.

The manufacturer’s information indicates relative concentrations of ethylene chlorhydrin and chloroform, totaling 60-100% of the mixture. If no other substances are in the mixture, all possible relative concentrations of ethylene chlorhydrin and chloroform result in a classification of PG I, PIH Zone B. If other substances are in the mixture, the LC50 for the mixture results almost exclusively in a PG I, PIH Zone B material, regardless of the relative concentrations of the two primary hazardous materials. The LC50 for the mixture is PG II for some relative concentrations of ethylene chlorhydrin and chloroform only if the mixture includes a significant concentration of water or some other material with an extremely high LC50 value.

done. First, he noticed the discrepancy between the packaging and the information available on the MSDS and the listing for the component chemicals in the Hazardous Materials Table. Next, he questioned whether the original shipper had properly classified the material. Those questions led to additional information from the shipper/manufacturer, including the conclusion *by the original shipper*, who knows the actual concentrations, that the appropriate classification of Hydranal – Working Medium K is PG I, PIH Zone B. Had Respondent exercised reasonable care, it would have obtained the same information and would have determined that the shipment was misclassified.

Respondent admits it did not identify Hydranal – Working Medium K as PIH Zone B and did not comply with the HMR requirements for shipping such a material. Respondent had an affirmative obligation to determine the appropriate classification when Respondent had information tending to show the original shipper's classification may have been wrong. Furthermore, the Chief Counsel correctly found Respondent should have known the appropriate classification for the mixture was PG I, PIH Zone B.

Based on the foregoing factors, it is clear that the Chief Counsel, in her Order, took into consideration and carefully analyzed all facts and statutory requirements before assessing a civil penalty of \$12,190.¹¹ Therefore, Respondent's appeal is denied.

IV. Findings

I find there is no basis to grant Respondent's appeal. I find a civil penalty of \$12,190 is appropriate in light of the nature and circumstances of these violations, their extent and gravity, Respondent's culpability, Respondent's ability to pay, the effect of a civil penalty on Respondent's ability to continue in business, and all other relevant factors. Therefore, the

¹¹ The penalty assessed in the Order included a \$3,050 reduction for Respondent's corrective actions, a \$4,060 reduction for Respondent's status as a re-shipper and a \$3,050 increase for a prior violation of the HMR.


Order of August 25, 2004, is affirmed as being substantiated in the record and as being in accordance with the assessment criteria prescribed in 49 C.F.R. § 107.331.

V. Payment

Respondent must pay this \$12,190 civil penalty within 30 days of the date of this Decision on Appeal. See Addendum A for payment information.

VI. Final Administrative Action

This Decision on Appeal constitutes the final administrative action in this proceeding.



Brigham A. McCown
Acting Administrator

Date Issued: **MAR 29 2006**

Attachment

CERTIFIED MAIL – RETURN RECEIPT REQUESTED

CERTIFICATE OF SERVICE

This is to certify that on the 29 day of March, 2006, the Undersigned served in the following manner the designated copies of this Order with attached addendums to each party listed below:

Aldrich Chemical Company, Inc.
1001 West Saint Paul Avenue
Milwaukee, WI 53233
ATTN: Mr. James A. Sanders, Supervisor, Compliance

Original Order with Enclosures
Certified Mail Return Receipt

Mr. Doug Smith, Enforcement Officer
Office of Hazardous Materials Enforcement
400 Seventh Street, S.W.
Washington, D.C. 20590-0001

One Copy (without enclosures)
Personal Delivery

Ms. Colleen Abbenhaus, Chief
Office of Hazardous Materials Enforcement
Eastern Region Office
820 Bear Tavern Road, Suite 306
West Trenton, NJ 08628


One Copy (without enclosures)
First Class Mail

Mr. Joseph Solomey
Office of the Chief Counsel
Pipeline and Hazardous Materials Safety Administration
400 Seventh Street, S.W., Suite 8417
Washington, D.C. 20590

One Copy
Personal Delivery

U.S. DOT Dockets
U.S. Department of Transportation
400 Seventh Street, S.W., RM PL-401
Washington D.C. 20590

One Copy
Personal Delivery


Willard Walker