



Date: February 8, 2010
Topic: **OTC Model Rule for Adhesives and Sealants**

This bulletin is a resource to clarify issues related to the recent imposition of regulations in the Northeast to reduce the emissions of volatile organic compounds (VOC's) that result from the application of adhesives, sealants, and primers. The Ozone Transport Commission (OTC) developed a model rule for a broad range of industrial adhesives and sealants that impacts the products typically used for roofing applications. The states that make up the OTC are now in the process of instituting regulations at the state level that incorporate the guidelines from the original model rule.

The states that are currently involved are listed below:

| | | | |
|----------------------|---------------|--------------|----------|
| Connecticut | Maryland | New York | Virginia |
| Delaware | Massachusetts | Pennsylvania | |
| District of Columbia | New Hampshire | Rhode Island | |
| Maine | New Jersey | Vermont | |

The EPDM Roofing Association (ERA) successfully established a dialogue with the various state representatives on this important issue. They have asked that accommodations be made for the roofing industry due to lack of established substitutes and the need for contractor training. The regulations limit VOC content, which may prohibit the usage of some conventional adhesives or primers. As a result, ERA has sought a level of accommodation to permit a more gradual phase-in of the requirements so winter installations are not impacted. Currently, a number of states have agreed to a seasonal implementation that requires the usage of the low-VOC products in the summer when peak ozone levels are reached.

A companion document to this letter is a list of frequently asked questions that addresses the proposed regulations. This information can be used to explain the pertinent issues to your customers and employees. The document also includes information on those states that have adopted the seasonal implementation of the regulation. Links have been provided for key organizations and states that have adopted the regulation. States that are not listed are still in the process of developing their regulations. In all cases, we recommend that you monitor the status of pending regulations in your state.

With regard to acceptable products that comply with the regulations, the development of new compliant products for both EPDM and TPO are underway. While we currently have a number of products that comply, it is our intent to have a full product line of user-friendly, compliant products for usage with our systems. Please refer to the attached document for a current listing of acceptable products. Contact your Mule-Hide Field Sales Representative for training on these products.

Sincerely,

Kate Baumann
Director of Marketing, Customer Service & Procurement
Mule-Hide Products Co., Inc.

VOC Regulations for Adhesives and Sealants Common Questions and Answers

The Ozone Transport Commission (OTC), which is made up of 13 Northeast and Mid-Atlantic states developed a model rule to reduce VOC limits in an effort to meet the clean air requirements set by the Environmental Protection Agency (EPA).

What are VOC's?

VOC stands for Volatile Organic Compound. The main purpose of VOC Regulations is to reduce the formation of ozone (smog). Several states have adopted rules to regulate the VOC content of all types of products including single-ply roofing adhesives, sealants and primers.

Which states are affected?

Adoption of VOC regulations and dates these regulations go into effect vary by state. See attached list for specifics.

Which products are impacted by these new regulations?

Today, many of the Mule-Hide products we have had for years already comply with the OTC Model Rule or have compliant alternatives. Mule-Hide is working diligently to develop new and improved compliant alternatives. A complete list of affected Mule-Hide products and alternatives is included below.

| Standard Product | Compliant Alternative |
|-------------------------------|--|
| EPDM Bonding Adhesive | Mule-Hide Acrylic Water Base Bonding Adhesive, or EPDM Low VOC Bonding |
| TPO Bonding Adhesive | Mule-Hide WBBA2000, or TPO Low VOC Bonding |
| PVC Bonding Adhesive | Mule-Hide WBBA2000, or PVC Low VOC Bonding |
| Splice Adhesive (Black/White) | Pre-Taped EPDM or In-Seam Tape |
| Tape Primer | Low VOC EPDM Tape Primer, Low VOC TPO Tape Primer |

Products packaged in 16-oz. Or smaller tubes or bottles are exempt.

How do the new regulations impact my business?

The language varies somewhat by state but essentially applies to any person who, on and after the effective date, sells, offers for sale, supplies or uses an adhesive, sealant or primer that does not meet the VOC content limits set forth in the regulation. For bidding purposes, compliant products may often carry a price premium of up to 50% over traditional solvent-based adhesives or primers. Please contact your local Mule-Hide distributor regarding pricing and availability.

When do the regulations go into effect?

Through the efforts of the EPDM Roofing Association (ERA), a number of the OTC member states have agreed to a "phase-in" period for the years 2009 through 2011. States that have yet to implement the rule are also being asked to include a "phase-in" period to cover 2010

and 2011. This “phase-in” period is to allow for successful development of compliant solvent-based alternatives prior to full year OTC Model Rule enforcement in 2012.

The following table includes states that have already implemented the rule and the effective dates for 2009 through 2011. During these time periods, products that meet the OTC Model Rule requirements must be used in that respective state. OTC member states not appearing in the table have yet to implement the rule.

| Effective Dates | | | |
|-----------------|---|--|--|
| State | 2009 | 2010 | 2011 |
| Connecticut | June 1 st – August 31st | May 1 st – September 30 th | May 1 st – September 30 th |
| Delaware | | May 1 st – September 30 th | May 1 st – September 30 th |
| DC | June 1 st – August 31st | May 1 st – September 30 th | May 1 st – September 30 th |
| Maryland | May 15 th – September 15 th | May 1 st – September 30 th | May 1 st – September 30 th |
| New Jersey | June 1 st – August 31st | May 1 st – September 30 th | May 1 st – September 30 th |
| Rhode Island | July 1 st – August 31st | May 1 st – September 30 th | May 1 st – September 30 th |

(RI has an exemption for products manufactured prior to July 1, 2009)

At this time, all states adopting the OTC rule will require full year compliance on and after January 1, 2012.

If work is planned in any of the OTC member states, it is critical to keep abreast of the time periods when low VOC products are required for use by that specific state’s regulation.

Please refer to these links for complete and current information on VOC regulations.

OTC (Ozone Transport Commission): www.otcair.org

Connecticut: www.ct.gov/dep/lib/dep/regulations/22a/22a-174-1through200.pdf

Delaware: <http://regulations.delaware.gov/register/april2009/final/12%20DE%20Reg%201333%2004-01-09.htm>

DC: <http://ddoe.dc.gov/ddoe/site/default.asp>

Maryland: www.mde.state.md.us/assets/document/air/publichearing/26-11-35 AS Roofing Adhesives TSD.pdf

New Jersey: www.nj.gov/dep/aqm/Sub24,26,34adoption2008.doc (pgs 44-47)

Rhode Island: www.dem.ri.gov/programs/benveron/air/pdf/dr44fs.pdf

Additional information and current status of state implementation dates can be found at www.epdmroofs.org

Mule-Hide Products Co., Inc. is committed to providing our customers with the products and services they need for their commercial roofing projects. Thank you for choosing Mule-Hide for your commercial roofing needs.