

Rey G Montemayor/Canada/ ExxonMobil

- To Kevin J Bly/East-US/ExxonMobil@xom
- cc Bob J Falkiner/Canada/ExxonMobil@xom, Michael.Collier@paclp.com

bcc

Subject Re: Fw: Comments on ASTM D323

08/26/2009 08:56 AM

Note: 2 Attachment(s) removed from this message

Although the comments made in Mr. Hlavinka's attachment is technically correct, we have to recognize that when we speak of D323 RVP, we are not talking in the engineering sense, but in the analytical (measurement) sense. When we measure the RVP of a petroleum product using D323, we are measuring the vapor pressure of the petroleum product, and the measurement method uses a gauge to read the pressure at the specific test temperature. Hence, if one uses D323 to measure the vapor pressure of a material that has NO vapor pressure, the gauge will read zero and the RVP by D323 will be reported a zero. If we have a material that has a vapor pressure of 100 psi at the test temperature, the gauge will read 100 and the RVP of the material will be reported as 100 psi.

The other vapor pressure test methods like D5191 makes use of an evacuated chamber before sample introduction. Once the specimen is introduced into the chamber, the material will exhibit its vapor pressure, and the vapor pressure measuring part of the instrument indicates the vapor pressure.

I agree that Note 1 of D323 could be quite confusing because of the word "absolute". However, I believe that the phrase "absolute pressure" is simply an attempt to indicate that the vapor pressure measured by D323 is "absolute", i.e. not relative to anything, rather than defining that the measured vapor pressure is the absolute pressure. Indicating that the measured vapor pressure is an absolute value is quite different in indicating that the measured vapor pressure is the absolute vapor pressure. Perhaps we can revise Note 1 to indicate that the measured vapor pressure by D323 is an absolute value rather than relative. It is clear from D 323 that one makes use of a gauge to read the vapor pressure and report it as the Reid vapor pressure.

Let's wait for Bob's comments.

Rey G. Montemayor, Ph.D.

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Kevin J Bly/East-US/ExxonMobil



Kevin J



Bly/East-US/ExxonMo

- To Bob J Falkiner/Canada/ExxonMobil@xom
- cc Rey G Montemayor/Canada/ExxonMobil@xom, Michael.Collier@paclp.com
- Subject Fw: Comments on ASTM D323

Bob,

Do you have any technical comments pertaining to the e-mail attachment that I received from Michael Hlavinka involving D323 and whether the psi or kPa units in the method should be changed to relate to absolute pressure (i.e., psia/kPa (absolute)), gauge pressure (i.e., psig/kPa(g)), or as a pressure difference (i.e., retain the current psi and kPa nomenclature)? A guick search of the method resulted in no "psia" or "psig" references and no clarifying information in the terminology section exists to address his comments. Any help you can provide would be most appreciated. Based on your response, we may need to examine the other vapor pressure methods to see if a similar clarification may be necessary in those methods. Thanks.

Kevin Blv ExxonMobil Research and Engineering Company Analytical Sciences Lab 1545 Route 22 East, Clinton Township Room | F362 Annandale, NJ 08801

Phone: (908) 730-2820 Fax: (908) 730-3314 E-mail:kevin.j.bly@exxonmobil.com ----- Forwarded by Kevin J Bly/East-US/ExxonMobil on 08/25/2009 06:05 PM -----



Michael Hlavinka <M.Hlavinka@bre.co m >

To "Kevin.J.Bly@exxonmobil.com" <Kevin.J.Bly@exxonmobil.com>

СС

07/20/2009 01:57 PM

Subject Comments on ASTM D323

Dear Mr. Bly:

Please see my attached comments concerning ASTM D323.

Sincerely,

Michael Hlavinka



[attachment "Michael W Hlavinka Ph D P E .vcf" deleted by Rey G Montemayor/Canada/ExxonMobil] [attachment "ASTM D323 Comments.doc" deleted by Rey G Montemayor/Canada/ExxonMobil]