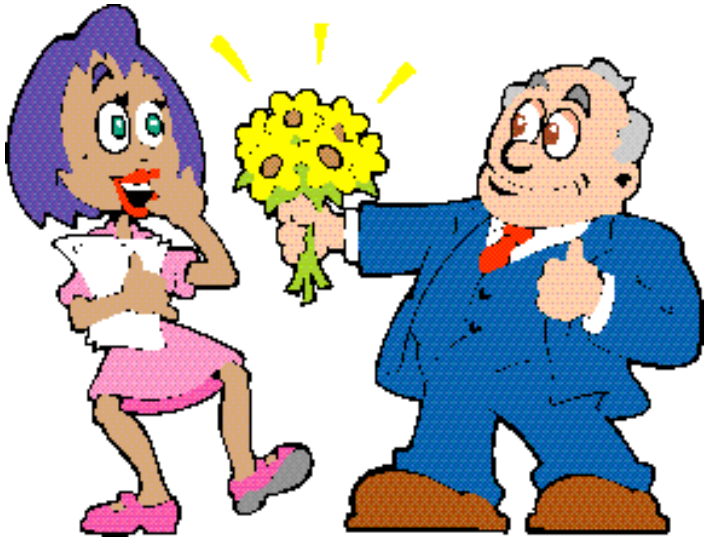

The Penetrant Professor from Met-L-Chek®

The Fiscal Cliff

One never knows whether something that is done (or not done) in Congress will affect you or me. These days we hear lots and lots about the looming fiscal cliff and what to do about it. It seems that what Congress wants to do about it is to do nothing except to blame the inaction on "the other guy", whoever that may be. For their trouble, Congress has earned the distinction, in a recent survey, of having a popularity so low that people would rather have head lice than Congress.

Well, what does this have to do with we people in NDT? It turns out that it has a significant impact. In recent issues of the "Penetrant Professor", we have discussed the work on a new and significant proposed specification that deals with **UV-A** sources. This work is spearheaded by **John Brausch**, who works for the U. S. Air Force, and John was going to attend the January meeting of **ASTM** in Florida to further discuss this work. Well, gosh, the Air Force, being prudent and not having a crystal ball with which to tell the future, canceled all out of town flight plans, in anticipation of the country falling off the fiscal cliff. So John cannot attend the meeting, which in some way, affects all of us in NDT. Pity, but Congress is to blame.

Nomenclature

This describes a recent mix-up due to a misunderstanding about how some NDT products are described. We all know that penetrant products are clearly described by what they do. We know what penetrants are, what removers are, and what developers are. But when these products are shipped, they need to be classified by nomenclature listed in the NMFC (National Motor Freight Classification) documents. The reason for this is that different classifications are charged different freight rates. The number of classifications are finite, and they do not get into sufficient detail that one would find "NDT developer" listed. So a listed classification must be chosen that accurately reflects what the product is, but which almost invariably has a different name. In the case of bulk non-aqueous developer, the shipping classification is "isopropanol".

That all seems pretty simple, but a case came up where it was a problem. The customer received an order of developer, but noted that the shipping papers listed it as "isopropanol". The customer was working to a specification that called for the use of "developer", and was

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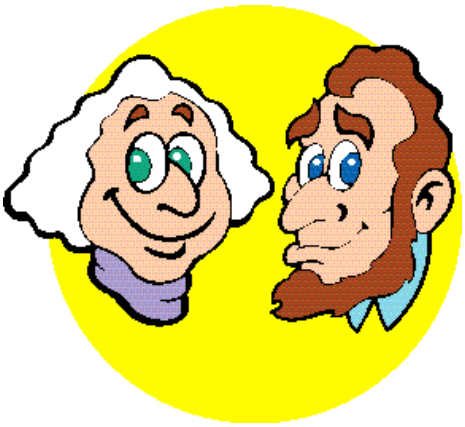

confused by this disparity of names. Time was of the essence regarding the inspection, so an urgent plea came asking if isopropanol was another name for developer and if the two were identical. It was a case of confusing terms that were used for different purposes, and was simply cleared up. But similar things happen from time to time and one never can predict what will come up.

Web Page Updates

The web is a wonderful place to find information or misinformation. Keeping information up to date is a never ending challenge. To this end we have made several new up dates available on our web page, www.met-l-chek.com, under guides. Topics covered are aerosol cans, batch numbers, shelf life, and choosing a penetrant.

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call or Email Beverly Clarke.

Penetrant Sensitivity

We recently had a question about the relative sensitivity of Method A penetrants versus Method D penetrants, when the same sensitivity level was used. In accordance with AMS-2644, the sensitivity of a level 4 penetrant is identical, whether it is a Method A, Method B, Method C, or Method D penetrant. This has been determined by the sensitivity tests made by the Air Force as part of the QPL qualification tests. If this is so, why do some users, particularly users who are testing rotating jet engine parts, require Method D only? The answer to this is that Method D is considered to be more tolerant to variations in the process than Method A. The idea is that Method A can be subject to over washing, as an example, while Method D is less subject to this. This idea has the attraction of common sense to it, but it should be noted, however, that there is no scientific evidence to confirm this that we are aware of. The logic behind it, to our knowledge, has not been confirmed by either laboratory or field tests. As a practical matter, when used by experienced inspectors, the results should be equivalent. But if one is working to a specification that stipulates that only Method D should be used, that is the way to go.

Feb 2013

Check Your Materials!

There has been an increase in the number of audits being performed on penetrant inspection lines. **ASTM E-1417** and most other specifications require that the in-use penetrant inspection materials be periodically checked to insure that they are still serviceable and will perform satisfactorily. Some users perform these tests themselves, but auditors are more comfortable if the tests have been performed by a third party. Met-L-Chek is an approved penetrant qualification laboratory and has the equipment, experience, and know-how to perform the required tests. In fact, Met-L-Chek personnel assisted in the development of many of the test specifications based on over 50 years in the business. The Met-L-Chek penetrant test service is **Pen-Chek®**, and the Met-L-Chek magnetic particle test service is **Mag-Chek™**. Both are economical and results are supplied quickly. Inquire today for more information.

The Penetrant
Professor