

TGG: JCL: MMG: AJO: RF
XF: _____

TO: Distribution

FROM: T. G. Grumbles

DATE: April 7, 1989

Interoffice
Communication

SUBJ: VTAC MEETING MINUTES OF APRIL 4, 1989

VISTA

The meeting was held in Ponca City with myself, Carl Kerfoot and Allen Nielsen in attendance. Carl Kerfoot was not present for the first hour due to a meeting conflict. During that time, Pat Morris joined Allen and I to discuss the recent Ether Sulfate comparative irritancy testing. Below is a summary of the discussions and action items.

1. Ether Sulfate Testing - 3 normal and 3 novel catalyst produced ether sulfates were tested to compare the relative irritancy potential of the products. It was anticipated that the novel produced would be less irritating, however, the results showed no significant difference in the skin irritation indices. The reports have previously been summarized for those concerned in a March 1 memo by TGG.

Pat Morris did a further evaluation of the results and determined there were significant sample quality differences. These are outlined in her IOC of March 17 (attached). Based on the sample differences and the fact that Colgate plans to do further testing (as described in the 3/17 IOC) we decided we would do no further testing at this time.

It was emphasized that all products tested exhibited a normal, or acceptable, range of irritancy potential.

2. The current VTAC Charter and testing protocol document were reviewed for corrections and additions. The following items will be done.

- Action Items:
- 1) TGG will talk to Ron Poe about having the chemicals technology section represented.
 - 2) AMN will develop verbiage regarding the routine aquatic toxicity and biodegradation screening currently done. This will be added to the protocol.
 - 3) OCK will develop a statement regarding the minimization of animal use in the testing protocols. This will be added to the protocol.
 - 4) AMN will pull together testing protocols to be added to our mammalian testing protocols.

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The above action items will be completed by April 12.

3. Testing results for the following products were briefly discussed:

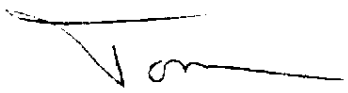
Alumina Sol LPA 140, LPA, LPA-210 - skin irritation
Dispal 180 Novel 10-44 Ethoxylate
Alfonic 1618-65 Experimental Test
New Novel Catalyst

4. The V-2100 testing recommendation has been made and subsequent information on timing and costs supplied to Jernigan. We are awaiting approval to proceed.
5. The CITE data base contains some toxicology data but the listing is generally incomplete. It was decided we should have the data removed from CITE due to the non-compatibility of the CITE format and the tox information.

Action Item: TGG will write AMN formally requesting the deletion.

6. Miscellaneous Action Items:

- A. Only one copy of the full study will be sent to Ponca City in the future.
- B. TGG will discuss developing a computerized data base with AJO.
- C. The revised charter and protocol document will be sent to Virgil Weiss for review.
- D. TGG will discuss the progress on the addition of toxicologist staff with Virgil Weiss.



T. G. Grumbles

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Distribution: O. C. Kerfoot, A. M. Nielsen-Ponca City

W. L. McClain

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T86

VISTA

Interoffice
Communication

To: M. F. Cox
From: Patricia A. Morris
Date: March 17, 1989
Subject: **Dermal and Ocular Irritation Data for Improved NOVEL®
ESs and ALFONIC® ESs**

On March 1, Tom Grumbles summarized dermal and eye irritation data comparing ALFONIC® and Improved NOVEL® 1214-GC-20, 30, and 40 ether sulfates. Analytical data are summarized in Table I. Irritation data are summarized in Table II.

The laboratory that completed the work is Stillmeadow in Houston, Texas. The range of the dermal irritation values were 3.7 to 4.3. According to Dr. Kuhn (the director of the studies) they do not perform statistics on their data; therefore, they cannot say whether 3.7 is statistically different from 4.3. She did say that she feels that there is not much difference between 3.7 and 4.3. Tom Grumbles stated in his report that the data is within expected variability.

In the eye irritation test, the surfactant was placed directly on the eye of a rabbit. Some of the eyes were rinsed with water and some of the eyes were not rinsed with water. The eye irritation data implies that rinsing the eye produced more irritation than not rinsing the eye in the 1214-GC-20 and 1214-GC-30 ALFONIC® and Improved NOVEL® ether sulfates. Dr. Kuhn says this is probably due to the water increasing the mobility of the ether sulfate.

I have two observations from the analytical data of the samples. The samples with the lower free oil also exhibited the lower dermal irritation value. This may mean that free oil may play a role in dermal irritation. Second, the ALFONIC® 1214-GC-30 sample exhibited different behavior on the rabbits when compared to the other 5 samples. The maximum irritation occurred immediately with the ALFONIC® 1214-GC-30; whereas, the other samples exhibited maximum irritation after 24 hours. A possible clue to the difference may be the high Klett value (164) which was almost 50% more than the next highest Klett value (112 for ALFONIC® 1214-GC-40).

These two observations would suggest that we may need to keep the free oil as low as possible and check the Klett and pH before deciding to send the new samples for further irritation analysis. It may also be interesting to determine if the free oil does have an effect. This could be done by sending one sample of high free oil.

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From discussions we have had with Carl Kerfoot, Lee Matheson, and Pete Schwab, we decided to make samples for further irritation testing and for irritation work to be completed by Clarence Robbins of Colgate. We have chosen to use 1412 alcohol for the series of samples to be made. We have decided on the 1, 2, 3, and 6 mole Improved NOVEL® ESs. We will use the 1, 3, and 6 mole ALFONIC® ESs for comparison. The alcohol sulfate will be used as a reference point. All of these samples will be 1 gallon. For the high free oil sample we will make 100 grams ALFONIC® 1412-3 moles ES.

Patricia A. Morris/ber
Patricia A. Morris

PAM/bev

attachments

cc: OCK TPM MFC KLM PAS TGG Central Files

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TABLE I. Analytical data for the ALFONIC and Improved NOVEL ESs.

SAMPLE	% FREE ALCOHOL	ALCOHOL MW	EO MW	MOLES EO	WT % EO	ACTIVE	OIL	SALT	HICLEV	KLETT	DIOXANE
NOVEL 20	25.2	193.2	258.66	1.49	25.31	25.63	2.21	.18	23.9	38	35
ALF 20	39.4	195.3	248.12	1.20	21.29	27.15	2.91	.1	19.9	48	20
NOVEL 30	18.8	193.2	275.55	1.87	29.88	25.04	3.17	.16	28.8	98	35
ALF 30	24.49	195.00	279.14	1.94	30.14	26.48	2.74	<.1	29.8	164	50
NOVEL 40	7.2	193.2	330.27	3.11	41.50	26.83	2.18	-	42.54	13	50
ALF 40	**	**	**	**	**	26.6	2.93	<.1	-	112	80

** The LCEODTB was not run on this sample.

NOTE: NOVEL represents Improved NOVEL ES. ALF represents ALFONIC± ES. The weight % EO is 20, 30, or 40. The HICLEV for ALF 40 was not obtained. This was a stock sample received from the plant. The HYDROXYL NO was 176. All samples were from 1214-GC alcohol.

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TABLE II. Dermal and Eye Irritation Data.

SAMPLE	DERMAL	TIME FOR MAX DERMAL IRRITATION	OCULAR	
			WASHED	UNWASHED
NOVEL 20	3.7	24 HRS	38.7	25.8
ALF 20	4.2	24 HRS	20.0	15.7
NOVEL 30	4.3	24 HRS	25.3	19.0
ALF 30	4.0	1 HR	19.0	24.8
NOVEL 40	3.8	24 HRS	34.2	45.7
ALF 40	4.0	24 HRS	15.0	28.3

NOTE: NOVEL represents Improved NOVEL ES. ALF represents ALFONIC ES.
The weight % EO is 20, 30, or 40.

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