

Message

**From:** HEYDENS, WILLIAM F [AG/1000] [/O=MONSANTO/OU=NA-1000-01/CN=RECIPIENTS/CN=230737]  
**Sent:** 9/21/2010 4:00:48 PM  
**To:** AHLERS, ERIN M [AG/1000] [/O=MONSANTO/OU=NA-1630-01/CN=RECIPIENTS/CN=172788]; GARNETT, RICHARD P [AG/5040] [/O=MONSANTO/OU=EA-5041-01/CN=RECIPIENTS/CN=107838]  
**Subject:** RE: New formulations LAS - POEAs Surfactants



Erin,

Here is my perspective. I don't think anything has changed. Right now, we think the situation is still isolated to Germany - but the POEA saga is politically motivated/driven, so any place where politics is a driving force could become vulnerable. That definitely includes Argentina & Brazil, and we have so warned them. Also, we know that 'Toxic surfactants/formulations' will be a target of ANVISA's upcoming review in Brazil, so they are figuring out how to work that situation. Richard's Team is pushing Zanussi & Sahara as fast as they can in Europe. I think we need to constantly update the Business on the Politico-Regulatory situation, but in the end they balance our information with cost, efficacy, etc. We probably need to do a better job making sure that the Formulations Group knows what is going on.

So for now, I think we continue to defend POEA as long as the price doesn't get too high, and we continue to develop back-ups for when & if other areas become in jeopardy. We need to make sure Formulations understands this. And there is even a school of thought that says we should be actively look to move away from POEAs wherever we can, but that's another discussion.

Bill

**From:** AHLERS, ERIN M [AG/1000]  
**Sent:** Monday, September 20, 2010 4:14 PM  
**To:** HEYDENS, WILLIAM F [AG/1000]; GARNETT, RICHARD P [AG/5040]  
**Subject:** FW: New formulations LAS - POEAs Surfactants

Bill and Richard –

UNITED STATES DISTRICT COURT NORTHERN DISTRICT OF CALIFORNIA	
TRIAL EXHIBIT	323
Case No. 3:16-cv-0525-VC	
Date Entered	_____
By	_____
Deputy Clerk	

During a meeting today for a plant health formulations planned for launch in Argentina and Brazil, the question about strategies on POEAs was raised again. In mentioning it to Donna, she shared the email guidance that you had provided a few months ago.

My question to you has a couple of pieces:

1. Has anything changed over the last 3 months that would change the previous guidance?
2. Are there any plans on setting some more formal guidance for formulations under development? Or is the intent to simply present the information below to the business and allow them to perform their own risk assessment?

I know that we aren't going to react based on the quality of science being used to set direction in Germany, but if the long term outlook on POEAs is bleak, should we be encouraging our formulations development to stay away from this family of surfactant chemistry? Or do we think that either a)there won't be significant uptake in the German direction or b)we will continue to resource the defense of this chemistry?

Interested in your thoughts....

Erin

**From:** FARMER, DONNA R [AG/1000]  
**Sent:** Monday, September 20, 2010 3:26 PM  
**To:** AHLERS, ERIN M [AG/1000]  
**Subject:** FW: New formulations LAS - POEAs Surfactants

**From:** HEYDENS, WILLIAM F [AG/1000]  
**Sent:** Tuesday, June 08, 2010 11:38 AM  
**To:** PINA, JUAN [AG/5000]; GARNETT, RICHARD P [AG/5040]; FARMER, DONNA R [AG/1000]  
**Cc:** PAVELY, CHLOE [AG/5000]  
**Subject:** RE: New formulations LAS - POEAs Surfactants

Hello Juan,

As I understand this, the surfactant blend (MON 59174) will still contain approximately 45% POEA. So the proposed formulations (MON 78632 and MON 79669) will still have POEA in them, but it will be present at REDUCED levels. If A Regulatory Authority simply decides that "POEA was banned in Germany so we will ban it here", then this strategy is not likely to work.

Let me review the current situation in Germany/Europe – Richard can correct me if I state anything incorrectly. First, there is no "ban" on our herbicide products. There is a "restriction" in Germany on the use of grain & forage that was sprayed pre-harvest with POEA-containing glyphosate formulations – such grain/forage cannot be directly fed to animals that will be used for meat/milk/egg production. A quirk in the German law does allow it to be fed if it is first processed. This restriction was imposed because there is no POEA residue data that allows them to do a risk assessment – this reason is actually just an excuse that the regulators used to support a POLITICAL decision. So far, the Germans have not imposed any further "restriction", and we are not aware that any other European country is currently considering a "ban" or "restriction" on POEA – that could change, but that is the situation at this time. That said, our European colleagues are trying to register SAHARA (dry) and ZANUSSI (liquid) in EU Member States as quickly as possible in case the problem spreads from Germany.

So that is the situation against which you need to consider your backup action plan. I would hope that this ridiculous political situation in Germany does not travel across the Atlantic Ocean to Argentina. But 27 years in this business has taught me that anything is possible. So I would think that a backup plan of reducing POEA content is not sufficient, but rather a POEA-free formulation (or formulations) would be necessary to totally protect your business in Argentina.

I hope this long answer is off some use to you.

Best regards,

Bill

**From:** PINA, JUAN [AG/5000]  
**Sent:** Monday, June 07, 2010 7:19 AM  
**To:** HEYDENS, WILLIAM F [AG/1000]; GARNETT, RICHARD P [AG/5040]; FARMER, DONNA R [AG/1000]  
**Cc:** PAVELY, CHLOE [AG/5000]  
**Subject:** New formulations LAS - POEAs Surfactants

Dear all,

MONGLY02013061

We are working in LAS New formulations Team in a backup plan for POEAs restrictions. One of the surfactant under analysis is MON 59174 – C-6224.

Surfactant: MON 59174

MON 59174 is a 45/55 weight percent blend of 15EO tallow amine ethoxylate and 20EO C16-18 linear

INGREDIENT	WEIGHT %
Tallow amine ethoxylate 15 EO	40 – 50 limits 45 typical
C16 -18 alcohol ethoxylate 20 EO	50 – 60 limits 55 typical

Specifically, we are looking to two formulations:

MON 78632 : Tallowamina 9.405 %

MON 79669 : Tallowamina 5.085 %

We would like to understand is this could be impacted under a POEAs restriction in the future or if this surfactants could be classified in another family and escape to a restriction. Your input will be very important to determine the backup action plan.

Thanks in advance, best regards,

Juan

Ing. Agr. Juan Ignacio Pina

Asuntos Regulatorios

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