

Message

**From:** GOLDSTEIN, DANIEL A [FND/1000] [/O=MONSANTO/OU=NA-1000-01/CN=RECIPIENTS/CN=527246]  
**Sent:** 10/21/1999 6:07:23 PM  
**To:** WARD, DENNIS P [FND/1005] [/O=MONSANTO/OU=NA-1000-01/CN=RECIPIENTS/CN=180518]; WRATTEN, STEPHEN J [FND/1000] [/O=MONSANTO/OU=NA-1000-01/CN=RECIPIENTS/CN=119523]; WOLFERSBERGER, DAVID E [AG/1000] [/O=MONSANTO/OU=NA-1000-01/CN=RECIPIENTS/CN=187093]; KLEIN, ANDREW J [AG/1000] [/O=MONSANTO/OU=NA-1000-01/CN=RECIPIENTS/CN=100901]; HOOGHEEM, THOMAS J [AG/1000] [/O=MONSANTO/OU=NA-1000-01/CN=RECIPIENTS/CN=131872]; DANHAUS, ROY G [FND/1000] [/O=MONSANTO/OU=NA-1000-01/CN=RECIPIENTS/CN=218231]; FEE-WHITE, DAWN M [FND/1000] [/O=MONSANTO/OU=NA-1000-01/CN=RECIPIENTS/CN=181904]  
**CC:** CARRATO, J THOMAS [FND/1000] [/O=MONSANTO/OU=NA-1000-01/CN=RECIPIENTS/CN=49246]; HEYDENS, WILLIAM F [FND/1000] [/O=MONSANTO/OU=NA-1000-01/CN=RECIPIENTS/CN=230737]; FARMER, DONNA R [FND/1000] [/O=MONSANTO/OU=NA-1000-01/CN=RECIPIENTS/CN=180070]; KAEMPFE, TERRY A [FND/1000] [/O=MONSANTO/OU=NA-1000-01/CN=RECIPIENTS/CN=129103]; DE RYCK, PATRICK H [AG/1560] [/O=MONSANTO/OU=NA-1560-01/CN=RECIPIENTS/CN=207055]; NESBIT, JOEL T [AG/1630] [/O=MONSANTO/OU=NA-1630-01/CN=RECIPIENTS/CN=49178]  
**Subject:** RE: US PRODUCTS- Database

Dennis-

The degree of flexibility can be quite large if we are talking about inert ingredients. I would agree that a change in AI would almost certainly trigger a change in EPA Reg #, as did a change from safener 4660 to 13900. However, a change in surfactants, which EPA would consider a minor change in all likelihood, could involve the introduction of ethylene glycol, which has gone in and out of several of our products over time.

In a 10 kg child, with 7 liters of free body water, a potentially toxic level of 50 mg/dl can be reached with an ingestion of 500 mg/kg, or 3.5 gms of ethylene glycol. At 5% concentration, this is 70 cc of product. However, the product mixture would have an LD 50 in rodents at somewhere at or above the same dose of 500 mg/kg, which is 10,000 mg/kg of the finished product, i.e. - essentially non-toxic by EPA criteria. This could easily slip by without a change in EPA Reg #. Ethylene glycol can cause irreversible kidney damage and neurological injury at non-fatal doses, and is readily treatable if recognized early, but is not routinely measured in hospital toxicology labs.

The consequences of even a single avoidable child death or severe injury as a result of our inability to identify product content may be quite severe- as you can well imagine. The above scenario is not all that implausible if you look at our overall product spectrum- although as noted before, it is probably not an issue in the consumer product area. The fact that I now see formulation changes may also help to prevent this in the future.

Dan

-----Original Message-----

**From:** WARD, DENNIS P [FND/1005]  
**Sent:** Thursday, October 21, 1999 11:10 AM  
**To:** GOLDSTEIN, DANIEL A [FND/1000]; WRATTEN, STEPHEN J [FND/1000]; WOLFERSBERGER, DAVID E [AG/1000]; KLEIN, ANDREW J [AG/1000]; HOOGHEEM, THOMAS J [AG/1000]; DANHAUS, ROY G [FND/1000]; FEE-WHITE, DAWN M [FND/1000]  
**Cc:** CARRATO, J THOMAS [FND/1000]; HEYDENS, WILLIAM F [FND/1000]; FARMER, DONNA R [FND/1000]; KAEMPFE, TERRY A [FND/1000]; DE RYCK, PATRICK H [AG/1560]; NESBIT, JOEL T [AG/1630]  
**Subject:** RE: US PRODUCTS- Database

Dan,

I'm not sure that I agree with what you've said entirely. The registration number will always unequivocally identify the active ingredient and its content. Although some flexibility for modifying the formula under a given registration is allowed, this flexibility is not that great. Only small changes are allowed. From a medical perspective how likely is it that these small changes will be significant?

Dennis

-----Original Message-----

**From:** GOLDSTEIN, DANIEL A [FND/1000]  
**Sent:** Thursday, October 21, 1999 10:57 AM  
**To:** WARD, DENNIS P [FND/1005]; WRATTEN, STEPHEN J [FND/1000]; WOLFERSBERGER, DAVID E [AG/1000]; KLEIN, ANDREW J [AG/1000]; HOOGHEEM, THOMAS J [AG/1000]; DANHAUS, ROY G [FND/1000]; FEE-WHITE, DAWN M [FND/1000]  
**Cc:** CARRATO, J THOMAS [FND/1000]; HEYDENS, WILLIAM F [FND/1000]; FARMER, DONNA R [FND/1000]; KAEMPFE, TERRY A [FND/1000]; DE RYCK, PATRICK H [AG/1560]; NESBIT, JOEL T [AG/1630]  
**Subject:** RE: US PRODUCTS- Database

Dennis-

While the EPA number does identify the product, the EPA number stays the same when a formulation changes. Thus, it does NOT actually meet our needs in terms of identifying the specific contents of the container.

This is of little import for the Consumer line as the formulations are not changing often, but in the Ag line it is not atypical to reformulate at least annually and in some cases changes have occurred every few months.

Dan

-----Original Message-----

**From:** WARD, DENNIS P [FND/1005]  
**Sent:** Wednesday, October 20, 1999 5:46 PM  
**To:** WRATTEN, STEPHEN J [FND/1000]; WOLFERSBERGER, DAVID E [AG/1000]; KLEIN, ANDREW J [AG/1000]; GOLDSTEIN, DANIEL A [FND/1000]; HOOGHEEM, THOMAS J [AG/1000]; DANHAUS, ROY G [FND/1000]; FEE-WHITE, DAWN M [FND/1000]  
**Cc:** CARRATO, J THOMAS [FND/1000]; HEYDENS, WILLIAM F [FND/1000]; FARMER, DONNA R [FND/1000]; KAEMPFE, TERRY A [FND/1000]; DE RYCK, PATRICK H [AG/1560]; NESBIT, JOEL T [AG/1630]  
**Subject:** RE: US PRODUCTS- Database

Dan,

I agree with Steve's position that it would not be practical to put MON #'s on labels. For lawn and garden formulations the only definitive way to identify what is "in the bottle" would be to get the lot/batch number off the container. Short of this information being available, the registration number would be the next best thing.

In the U.S. if poison control centers could be coached on the importance of obtaining the registration number it would unambiguously identify which product is involved in an incident.

Dennis

-----Original Message-----

**From:** WRATTEN, STEPHEN J [FND/1000]  
**Sent:** Wednesday, October 20, 1999 4:29 PM  
**To:** WOLFERSBERGER, DAVID E [AG/1000]; KLEIN, ANDREW J [AG/1000]; GOLDSTEIN, DANIEL A [FND/1000]; HOOGHEEM, THOMAS J [AG/1000]; DANHAUS, ROY G [FND/1000]; WARD, DENNIS P [FND/1005]; FEE-WHITE, DAWN M [FND/1000]  
**Cc:** CARRATO, J THOMAS [FND/1000]; HEYDENS, WILLIAM F [FND/1000]; FARMER, DONNA R [FND/1000]; KAEMPFE, TERRY A [FND/1000]; DE RYCK, PATRICK H [AG/1560]; NESBIT, JOEL T [AG/1630]  
**Subject:** RE: US PRODUCTS- Database

*There is also the problem of identifying very clearly what is the same formulation, globally. Thus, people could know that Rodeo is really the same as Custom, Pro is really the same as Ultra, MON 2139 in France is really the same as in Morocco, etc. This facilitates people finding money-saving or even profit opportunities at our expense. Parallel imports are enough of a problem without a road map.*

*Some of the most basic code number, such as MON 0818, MON 0139, etc. are wellknown, but*

newer ones are not.

Also, as I mentioned to Dan, when MON numbers become etched in stone on labels, then we will be very reluctant to change them, so that when minor changes are made to the formulations, we will call that MON xxxx-1, xxxx-2, etc. to avoid changing xxxx on the labels. Then, we loose track of what we really have ourselves.

I am against the proposal of printing MON nos.

Steve

-----Original Message-----

**From:** WOLFERSBERGER, DAVID E [AG/1000]  
**Sent:** Wednesday, October 20, 1999 3:56 PM  
**To:** KLEIN, ANDREW J [AG/1000]; GOLDSTEIN, DANIEL A [FND/1000]; HOOGHEEM, THOMAS J [AG/1000]; WRATTEN, STEPHEN J [FND/1000]; DANHAUS, ROY G [FND/1000]; WARD, DENNIS P [FND/1005]; FEE-WHITE, DAWN M [FND/1000]  
**Cc:** CARRATO, J THOMAS [FND/1000]; HEYDENS, WILLIAM F [FND/1000]; FARMER, DONNA R [FND/1000]; KAEMPFE, TERRY A [FND/1000]; DE RYCK, PATRICK H [AG/1560]; NESBIT, JOEL T [AG/1630]  
**Subject:** RE: US PRODUCTS- Database

Drew,

At one time there was great reluctance to publize MON numbers in any way. The concern, I was told, that having MON numbers readily available would give competitors an idea of the test work that we were doing. If they saw a lot MON numbers in field tests, it would perhaps provide an idea the direction our research efforts were taking.

This probably isn't the case now as we are using MON numbers routinely to control our plant operations, etc.

Another situation is if we want to make a "blind" change in the formulation. If the MON number changes on the label, then it might be noted by our customers who might then question the change. This also might not be a big deal.

It could create a bit of a management problem if the MON number of a formulation is changed, but the label doesn't change. Dawn, you might be able to provide some thoughts on how often this occurs.

From a quality control point of view, this makes sense and really tightens up our in plant control.

A key question then is how public to we want to make MON numbers. If there is no problem with our customers and others knowing the MON numbers then it probably not a big problem.

David

-----Original Message-----

**From:** KLEIN, ANDREW J [AG/1000]  
**Sent:** Wednesday, October 20, 1999 3:46 PM  
**To:** GOLDSTEIN, DANIEL A [FND/1000]; HOOGHEEM, THOMAS J [AG/1000]; WRATTEN, STEPHEN J [FND/1000]; DANHAUS, ROY G [FND/1000]; WARD, DENNIS P [FND/1005]; FEE-WHITE, DAWN M [FND/1000]; WOLFERSBERGER, DAVID E [AG/1000]  
**Cc:** CARRATO, J THOMAS [FND/1000]; HEYDENS, WILLIAM F [FND/1000]; FARMER, DONNA R [FND/1000]; KAEMPFE, TERRY A [FND/1000]; JAFFE, DANIEL M [FND/1000]  
**Subject:** RE: US PRODUCTS- Database

Somebody's going to have to explain to me why this hasn't been done already?  
Drew

-----Original Message-----

**From:** GOLDSTEIN, DANIEL A [FND/1000]  
**Sent:** Wednesday, October 20, 1999 12:55 PM  
**To:** KLEIN, ANDREW J [AG/1000]; HOOGHEEM, THOMAS J [AG/1000]; WRATTEN, STEPHEN J [FND/1000]; DANHAUS, ROY G [FND/1000]; WARD, DENNIS P [FND/1005]; FEE-WHITE, DAWN M [FND/1000]; WOLFERSBERGER, DAVID E [AG/1000]  
**Cc:** CARRATO, J THOMAS [FND/1000]; HEYDENS, WILLIAM F [FND/1000]; FARMER, DONNA R [FND/1000]; KAEMPFE, TERRY A [FND/1000]; JAFFE, DANIEL M [FND/1000]  
**Subject:** RE: US PRODUCTS- Database

All-

This is an ever-growing list and already contains some discontinued products, although I have not made a systematic effort to reconstruct backward in time, and have no plans to do so.

Even if we keep this list up to date, we have a major practical problem when confronted with a product in the field, which is usually of indeterminate age. The serial number may allow us to eventually track the product to a time and place, and hence to a formulation- but not on an emergency basis.

**Is there any possibility, via the UPC code or via putting a MON # on the label or container, that would allow us to SPECIFICALLY identify a product as a particular formula?? (Ideally- as a GLOBAL solution!)**

I realize that this question raises serious labeling and logistical issues- but it is worth consideration.

Dan

-----Original Message-----

**From:** KLEIN, ANDREW J [AG/1000]  
**Sent:** Wednesday, October 20, 1999 8:11 AM  
**To:** HOOGHEEM, THOMAS J [AG/1000]; GOLDSTEIN, DANIEL A [FND/1000]; WRATTEN, STEPHEN J [FND/1000]; DANHAUS, ROY G [FND/1000]; WARD, DENNIS P [FND/1005]; FEE-WHITE, DAWN M [FND/1000]; WOLFERSBERGER, DAVID E [AG/1000]  
**Cc:** CARRATO, J THOMAS [FND/1000]; HEYDENS, WILLIAM F [FND/1000]; FARMER, DONNA R [FND/1000]; KAEMPFE, TERRY A [FND/1000]; JAFFE, DANIEL M [FND/1000]  
**Subject:** RE: US PRODUCTS- Database

Understand the adds, but do we ever "drop" as in pick up all existing products?  
Seems this will be an ever growing list!  
drew

-----Original Message-----

**From:** HOOGHEEM, THOMAS J [AG/1000]  
**Sent:** Wednesday, October 20, 1999 7:27 AM  
**To:** GOLDSTEIN, DANIEL A [FND/1000]; WRATTEN, STEPHEN J [FND/1000]; DANHAUS, ROY G [FND/1000]; WARD, DENNIS P [FND/1005]; FEE-WHITE, DAWN M [FND/1000]; WOLFERSBERGER, DAVID E [AG/1000]; KLEIN, ANDREW J [AG/1000]  
**Cc:** CARRATO, J THOMAS [FND/1000]; HEYDENS, WILLIAM F [FND/1000]; FARMER, DONNA R [FND/1000]; KAEMPFE, TERRY A [FND/1000]; JAFFE, DANIEL M [FND/1000]

**Subject:** RE: US PRODUCTS- Database

great job dan; as we add/drop products all the time, we need to make sure a process is in place to update/correct this database on at least an annual basis...tjh

-----Original Message-----

**From:** GOLDSTEIN, DANIEL A [FND/1000]  
**Sent:** Tuesday, October 19, 1999 12:22 PM  
**To:** WRATTEN, STEPHEN J [FND/1000]; DANHAUS, ROY G [FND/1000];  
WARD, DENNIS P [FND/1005]; FEE-WHITE, DAWN M [FND/1000];  
WOLFERSBERGER, DAVID E [AG/1000]; KLEIN, ANDREW J  
[AG/1000]  
**Cc:** CARRATO, J THOMAS [FND/1000]; HOOGHEEM, THOMAS J  
[AG/1000]; HEYDENS, WILLIAM F [FND/1000]; FARMER, DONNA R  
[FND/1000]; KAEMPFE, TERRY A [FND/1000]; JAFFE, DANIEL M  
[FND/1000]  
**Subject:** US PRODUCTS- Database

All-

I have completed the US formulation database for the poison control center based upon what I believe is the current US product line. (Drew- thank you for offering your group's assistance- I had some time open up and went ahead and finished) The Excel data table with CAS # database is attached.

We now need to review and correct/update the document prior to providing it to the various Poison Centers as required.

**ALL- Any good ideas how to review and verify this document???**

**DAWN / STEVE / ROY / DENNIS:**

- 1) Are all products present?
- 2) Any discontinued products?
- 3) Any new products known to be coming in the near future?
- 4) EPA registration numbers correct?

**DENNIS-**

I am missing the formula for Green Cross 41% "ROundup Super-Concentrate" - please provide this if available.

**DREW / DAVID-**

Any possibility of help with proofing the formulas? This is going to be a difficult task- especially if I am trying to find my own errors- which is always difficult.

**TOM CARRATO-**

Please check that general content is OK for release. Anybody else that needs to approve this??

Thanks- Dan

<< File: US\_PROD.xls >>