To: Garvin, Shawn[garvin.shawn@epa.gov]
Cc: Melvin, Karen[Melvin.Karen@epa.gov]
From: Hodgkiss, Kathy
Sent: Fri 1/31/2014 2:30:29 PM
Subject: FW: Additional information for RDC-777 and crude glycerin

Not regulated by SPCC. Please let us know if you need more info. Thanks, Kathy

From: Matthiessen, Craig
Sent: Friday, January 31, 2014 9:27 AM
To: Melvin, Karen; Armstrong, Joan
Cc: Jennings, Kim; Tulis, Dana; Stanton, Larry; Irizarry, Gilberto; Wilson, Gregory; Principe, Vanessa; Hodgkiss, Kathy
Subject: RE: Additional information for RDC-777 and crude glycerin

Ok; yes. Here's my definitive statement: Ex. 5 - Deliberative

Ex. 5 - Deliberative

From: Melvin, Karen
Sent: Friday, January 31, 2014 9:20 AM
To: Matthiessen, Craig; Armstrong, Joan
Cc: Jennings, Kim; Tulis, Dana; Stanton, Larry; Irizarry, Gilberto; Wilson, Gregory; Principe, Vanessa; Hodgkiss, Kathy
Subject: RE: Additional information for RDC-777 and crude glycerin

I just heard from the OSC that the source of the glyceride in the RDC-777 mixture is the same as the crude glycerine stored in the other tanks onsite. Craig, can you now make a definitive statement about the regulation of this pursuant to SPCC?

From: Matthiessen, Craig
Sent: Friday, January 31, 2014 9:04 AM
To: Melvin, Karen; Armstrong, Joan
Cc: Jennings, Kim; Tulis, Dana; Stanton, Larry; Irizarry, Gilberto; Wilson, Gregory; Principe, Vanessa
Subject: FW: Additional information for RDC-777 and crude glycerin

See below. It looks like the 'crude glycerin' that has canola oil mono may not be an oil as I

thought. Per Greg, monoglycerides are more like a surfactant rather than an oil. The only other info we don't have yet is whether there is more information on the 'fatty acids' and 'glycerides' in the RDC-777; if these are coming from the crude glycerin or 'acidulated' glycerine, Ex. 5 - Deliberative Ex. 5 - Deliberative Craig

From: Wilson, Gregory
Sent: Thursday, January 30, 2014 9:49 AM
To: Matthiessen, Craig
Cc: Principe, Vanessa; Jennings, Kim
Subject: RE: Additional information for RDC-777 and crude glycerin

Not so sure. If you look at section 3 Composition/Information on Ingredients, the last item under non-hazardous components says; Glyceride, canola-oil mono, with a CAS 226993-77-7. Monoglycerides are used in the food industry as emulsifiers. Ex. 5 - Deliberative Ex. 5 - Deliberative

See section 5.5:
http://onlinelibrary.wiley.com/doi/10.1002/0471238961.0615150406180905.a01.pub2/full

From: Matthiessen, Craig
Sent: Thursday, January 30, 2014 8:58 AM
To: Wilson, Gregory
Cc: Principe, Vanessa; Jennings, Kim
Subject: FW: Additional information for RDC-777 and crude glycerin

Hi;

Please take a look – seems to me the crude glycerin canola based would be oil due to the canola. Not enough information on the 'acidulated' glycerine. Thanks - Craig

From: Armstrong, Joan
Sent: Thursday, January 30, 2014 6:47 AM
To: Bove, James; Matthiessen, Craig
Cc: Hodgkiss, Kathy; Melvin, Karen; Parent, Suzanne
Subject: FW: Additional information for RDC-777 and crude glycerin

Jim and Craig,

I just received this from the OSC about the glycerin and RDC-777 stored on site. Please let me know your thoughts on this information as it pertains to SPCC applicability. As well as if you need additional information from the facility regarding these products.

Joan

Joan Armstrong

Oil & Prevention Branch

Hazardous Site Cleanup Division

U.S. Environmental Protection Agency

1650 Arch Street, Mail Code 3HS61

Philadelphia, PA 19103

(215)814-3155 (direct line)

(215)814-3005 (fax)

From: Linden, melissa
Sent: Wednesday, January 29, 2014 5:05 PM
To: Armstrong, Joan
Subject: RE: Additional information for RDC-777 and crude glycerin

Hi Joan,

I did confirm that the RDC-777 is just the congealed waste of the Freedom Industries that they mix with water to make a road dust suppressant, no additional products are added to it.

Attached are the two glycerin products that Freedom Industry purchases. One of the products Crude Glycerin, Canola based from Archer Daniels Midland Company does contain canola-oil in concentration of 1% by weight, and is listed as a mono-glyceride Ex. 5 - Deliberative

Ex. 5 - Deliberative

Please let me know if you have any questions or need additional information.

Thanks,

Melissa

From: Armstrong, Joan
Sent: Wednesday, January 29, 2014 2:15 PM
To: Linden, melissa
Subject: Additional information for RDC-777 and crude glycerin

Hi Melissa,

As you can see from the email below, I've asked HQ to assist in looking at the MSDS provided by Freedom on the chemicals listed in their Tier II. We need additional information on two products, the crude glycerin and the RDC-777. We need the individual components of the glycerin and the fatty acids and glycerides. Absent that information, we would like the name of the company or companies that supplied Freedom the glycerin, RDC-777 (fatty acids and glycerides).

Thanks Melissa.

Joan

Joan Armstrong

Oil & Prevention Branch

Hazardous Site Cleanup Division

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From: Matthiessen, Craig
Sent: Wednesday, January 29, 2014 8:54 AM
To: Armstrong, Joan
Cc: Jennings, Kim; Wilson, Gregory; Principe, Vanessa; Howard, MarkW; Gioffre, Patricia; Tulis, Dana; Stanton, Larry
Subject: FW: New Freedom's MSDSs

Hi, Joan;

As we discussed – below is information collected by Greg Wilson about two product MSDSs at Freedom Industries.

For the crude glycerin storage, an open question is the source of glycerin used by the company. If it is purchased as a byproduct of biodiesel manufacture, it could have animal fat or veggie oil in it which would make that storage subject to SPCC. You mentioned the OSC will try to get information from the company regarding their glycerin supply to see if that question can be answered.

For the RDC-777, as Greg notes, it contains fatty acids and glycerides which are broad categories. In some cases the glycerides (eg. Triglycerides) could be oils and some fatty acids as well. The open question in this case is whether the company can provide specific chemical names and CAS numbers for these substances to identify whether they are in fact oils or soaps

and to determine SPCC applicability. Thanks - Craig

From: Wilson, Gregory
Sent: Tuesday, January 28, 2014 12:41 PM
To: Matthiessen, Craig
Cc: Principe, Vanessa; Jennings, Kim
Subject: RE: New Freedom's MSDSs

Hey Craig –

I took a quick look at the Crude glycerin and RDC-777 MSDSs. The crude glycerin MSDS indicates glycerin and water under Section 3 – Composition / Information on Ingredients. It is not clear from the MSDS where the glycerin was produced (e.g., from a biodiesel facility or another source). Glycerine can be a by-product from biodiesel process. http://biofuelstechnologyllc.com/Crude_Glycerine.html

Gylcerol: http://onlinelibrary.wiley.com/doi/10.1002/0471238961.0712250313151818.a01/full

The RDC-777 MSDS lists Fatty acids & glycerides, and water under Section 3 – Composition / Information on Ingredients. Fatty acids and glycerides is a broad category. The USCG list of petroleum and non-petroleum oils (pg 4) includes fatty acids (saturated, C13+); fatty acid amides; Oil, misc: Coconut oil, fatty acid; Oil, misc: Cottonseed oil, fatty acid; Oil, misc: Tall, fatty acid; Palm fatty acid distillate; and Tallow fatty acid.

https://homeport.uscg.mil/mycg/portal/ep/contentView.do?channelId=-30095&contentId=402406&programId=117834&programPage=%2Fep%2Fprogram%2Feditorial.jsp&pageTypeId=13489&contentType=EDITORIAL&BV_SessionID=@@@@1273392584.1390925595@@@@&BV_EngineID=ccccadfmdlhimijcfngcfkmdfhfdfgm.0

However, fatty acids also have other uses, such as in soap. http://goldbook.iupac.org/S05721.html Personally, including fatty acids as "oils" raise questions on where to draw the line.

The USCG list does not use the term "glycerides", per se. However, triglycerides are components of vegetable oils and animal fats, many of which are listed. But "glycerides" could also include mono- and di-glycerides. http://goldbook.iupac.org/G02647.html

Other references that may be useful

Fatty acids: http://onlinelibrary.wiley.com/doi/10.1002/14356007.a10_245.pub2/full

Fats and Fatty oils: http://onlinelibrary.wiley.com/doi/10.1002/14356007.a10_173/full

Triglycerides and Oils for Biofuels:
http://onlinelibrary.wiley.com/doi/10.1002/0471238961.trigmurz.a01/full

From: Matthiessen, Craig
Sent: Friday, January 24, 2014 11:01 AM
To: Wilson, Gregory
Cc: Principe, Vanessa; Jennings, Kim
Subject: FW: New Freedom's MSDSs

Hey, Greg;

Please take a look at these MSDSs from the WV company (Freedom Industries) that spilled the crude 4-MCHM. Two are of particular interest: Crude glycerin and RDC-777. The crude glycerin MSDS was generated by the company and it shows that it is a mix with water. The concern is that the glycerin they use may have veggie oil from the biodiesel process in it and it is not reported – R3 wants to check this out. The other – RDC-777 has 50% fatty acids with little additional information. Could those be oils or soaps/surfactants? R3 is also going to get more info on that as well. In the meantime, I'd like your thoughts. Thanks - Craig

From: Jennings, Kim
Sent: Friday, January 24, 2014 7:03 AM
To: Armstrong, Joan; Howard, MarkW; Gioffre, Patricia
Cc: Matthiessen, Craig
Subject: FW: New Freedom's MSDSs

Hi Joan,

Sorry I have been a bit distant from this issue dealing with Executive Order fire drills, but it appears the question still exists whether the product spilled was an oil. Is that still the case? If so, what is the issue or issues? I know Mark told me that the New Freedom facilities produced an MSDS out of the blue that implied there were no oils in the tank. Was that resolved? Are there other regulatory issues?

Again, sorry to be coming into this late, several folks are out today and I may be working this issue.

Thanks,

Kim

From: Armstrong, Joan
Sent: Tuesday, January 21, 2014 9:24 AM
To: Jennings, Kim
Subject: FW: New Freedom's MSDSs

Hi Kim,

I spoke to Mark and he suggested that I forward this to you since Craig may not be available today.

Please let me know if you have any questions or would like to discuss further. Specifically any recommendations you have regarding any further information we may need from New Freedom regarding the materials stored on site.

Joan

Joan Armstrong

Oil & Prevention Branch

Hazardous Site Cleanup Division

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From: Armstrong, Joan
Sent: Tuesday, January 21, 2014 8:55 AM
To: Matthiessen, Craig
Cc: Gioffre, Patricia; Howard, MarkW; Melvin, Karen; Hodgkiss, Kathy
Subject: New Freedom's MSDSs

Hi Craig,

I am emailing you to request HQ's assistant in reviewing the MSDSs provided by New Freedom Industries on Friday, January 17.

As you may recall, Region III received a copy of the Tier II from the State of West Virginia. There are 10 chemicals listed on the Tier II. We requested the MSDSs from the State of West Virginia and received one for MCHM (the material that spilled). West Virginia did not send us an MSDS for any of the other chemicals listed on the Tier II, although I had indicated last week that the MSDS for the Crude Glycerin came from WV, it did not. We then followed our normal protocol when we cannot obtain the MSDS from the state or the company, and conducted a search of the chemicals based on the information provided by New Freedom on their Tier II (i.e., CAS #, chemical name, etc.). It was from that search that we obtained an MSDS for the Crude Glycerin which showed <10% MONG (which contained animal fat, vegetable oil or biodiesel) (This is the MSDS I sent to HQ).

On Friday, the OSC on site was able to get copies of the MSDS for the chemicals listed on the Tier II directly from New Freedom. The MSDS for the Crude Glycerin shows 80-95% glycerin and 5-20% water. The MSDS is generated by New Freedom itself.

I am attaching the MSDSs for chemicals listed on the Tier II (except for the MCHM – which HQ already has). I am requesting that HQ's weigh in on whether any of these substances contain an oil.

Please feel free to give me a call to discuss this further.

Joan Armstrong

Oil & Prevention Branch

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