

Hand and Surface Sanitizers

- Hazardous Waste Requirements -
- Case Studies -
- Issues and Outstanding Questions -

A NEWMOA Hazardous Waste Webinar

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Three Different Kinds of Material

- Recalled Hand Sanitizer Products.
- Old/Expired/Past-Shelf-Life/Overstock Hand Sanitizer Products.
- Unsalable Surface Sanitizer Products.



Recalled Hand Sanitizer Products



- Regulated by FDA.
- When demand was high at the beginning of COVID, companies marketed illegal hand sanitizer products that contained methanol, 1-propanol, benzene, acetaldehyde or acetal.
- FDA recalled these hand sanitizers and published a [list of 369 recalled hand sanitizer products](#) through 2022.
- Numerous retailers were impacted, including BJ's, Costco, CVS, Shop Rite, Stop & Shop, Target, Walmart, and others.
- FDA recall rules require the manufacturer to develop a recall plan.
- EPA doesn't exercise jurisdiction until FDA or the recall plan specifies that the materials must be disposed of.

Oklahoma Case

- [A warehouse full of hand sanitizer burned to the ground.](#)
- Several other warehouses of this material were located nearby.
- Allegedly being stored prior to shipment to Mexico for reclamation.
- Trucks were literally still arriving to drop off loads of hand sanitizer while the warehouse was burning down.



Old/Expired/Past Shelf-Life/Overstock Hand Sanitizer Products

- Not generated due to recall.
- No longer usable or needed.



Connecticut Case



- Harvard University had a large quantity of alcohol-based hand sanitizer stored at a contract warehouse in Enfield, CT that it no longer had any use for.
- Approx. 60,000 lbs. in total: 6,000 lbs. of the foaming type, 54,000 lbs. of the gel type.
- Both types have flash points below 140 degrees F and are ignitable.
- Harvard found a facility that can recycle the gel type for its alcohol content under the exemption for commercial chemical products being reclaimed ([40 CFR 261.2\(c\)\(3\)](#)).
- The surfactants in the foaming type make it impossible to recycle – will have to be incinerated.
- This case raised issues about who the generator is and whether or not the hazardous portion should be shipped under the warehouse's EPA ID Number or under a separate provisional EPA ID Number issued to Harvard.

New Hampshire Case

- 200 pallets of hand sanitizer at a major NH university.
- LubeMatrix from Wisconsin proposed to send it for alcohol reclamation and use the alcohol as fuel in a cement kiln.
- Claimed it would be exempt if managed this way.
- Later proposed to buy the sanitizer and sell or donate it.
- Would there be a market for it with all the excess product on the market now?



Surface Sanitizer Products

- Are regulated under FIFRA rather than FDA.
- When demand was high at the beginning of COVID, some manufacturers weren't aware they needed to register surface sanitizers as pesticide products and label them in accordance with FIFRA.
- CT had two cases where our Pesticide Program became aware of large stockpiles of non-FIFRA-compliant surface sanitizer products.
- In both cases, it was not practical for the companies that had made the products to retroactively register them and have them re-labeled in accordance with FIFRA.



Connecticut Case #1

- Beacon Disinfectant Products.
- Two products, both were 95% or more ethyl alcohol.
- Nearly 30 “Big Lots” discount stores in CT had varying amounts of the product on-site.
- The products were regulated under FIFRA, but had not been properly registered or marked and labeled in accordance with FIFRA requirements, so they could not be legally sold.
- The disinfectant was in small containers, so it was not practical for the manufacturer to register and re-label them all.
- As a result, the products needed to be disposed of.
- It was determined that the product would be eligible for the industrial ethyl alcohol exemption if it could be sent to a facility that could reclaim the alcohol.
- The product in inventory in all the Big Lots stores was sent to the distillation facility operated by Clean Harbors in Hebron, OH.



Connecticut Case #2

- disinfeX Brand Sanitizing Wipes.
- Manufacturer had 4,000 pallets of wipes stored at Pixior, a contract warehouse in Milford, CT.
- There were also smaller amounts of these wipes at some retailers and end user sites. Some had been donated to Goodwill, who recognized that they weren't labeled correctly.
- The pre-moistened wipes contain an aqueous solution containing various quaternary amine disinfectants.
- Because of the disinfectants used, the wipes are regulated as a pesticide under FIFRA. They are not saleable because they had not been properly registered, marked and labeled in accordance with FIFRA requirements. The wipes were in small containers so it was not practical to register and re-label such a large quantity of them.
- The warehouse facility had filed a lien against the manufacturer and wanted them removed from his facility.
- The manufacturer was having financial troubles.



Connecticut Case #2 (cont.)

- The wipes were tested and determined to be non-hazardous.
- The manufacturer first explored the option of disposing of the wipes at a waste-to-energy facility in Bridgeport, CT.
- However, later it was proposed that they be shredded (DEEP Pesticide Program required this to render them unusable) and disposed of at a solid waste landfill.
- Material is still stuck at the warehouse.
- 4/5/2021 Region 2 EPA Advisory Letter to Edward Roberts, LLC advising that the disinfeX branded products are not in compliance with FIFRA and explains in detail why.

Where Are These Wastes Generated?

- Manufacturers - have excess inventory or inventory they can't legally sell (e.g., Beacon and DisinfeX).
- Warehouses (manufacturer, retailer or third-party).
- Retailers get stuck with excess inventory or inventory they can't legally sell (e.g., Big Lots).
- Users that purchase more than they need or can use (e.g., Harvard University).
- Charities that accept the products as donations (e.g., Goodwill).



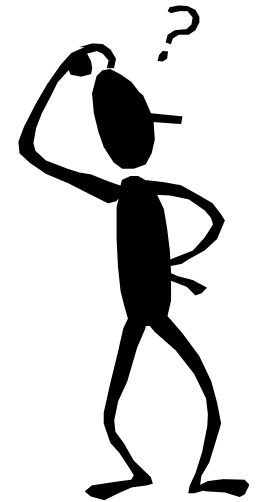
How Are These Wastes Generated?

- FDA recalled products (methanol-contaminated, etc.).
- Non-FDA or non-FIFRA compliant, unsalable products (Beacon and disinfeX).
- Expired products.
- Excess or overstock material that is not longer needed (e.g., Harvard Univ.).
- Non-RCRA-empty containers generated by non-residential users.



How Must These Wastes Be Managed?

- Hand and surface sanitizer products can come in various forms:
 - Free-flowing liquids.
 - Foaming liquids.
 - Gels.
 - Pre-moistened wipes.
- Often have a FP below 140 F (ignitable hazardous waste).
- Can sometimes be recycled:
 - Reclaimed (e.g., distilled) to recover ethanol:
 - Exempt under [40 CFR 261.2\(c\)\(3\)](#) .
 - Only exempt if reused to make new alcohol products.
 - Not exempt if the reclaimed alcohol is burned for energy recovery.
 - Clean Harbors facility in Hebron, OH recovers ethanol (bulk product).
 - Also facility in Reidsville, NC (“squeezer” for small containers).



Recycling Options (cont.)



- Burned for energy recovery (e.g., fuel blended):
 - Subject to full regulation pursuant to [40 CFR 261.2\(c\)\(2\)](#).
 - Not eligible for “fuel to fuel” exemption because hand sanitizer is not a fuel.
- Ignitability exemption for aqueous solutions - [40 CFR 261.21\(a\)\(1\)](#).
 - Probably won’t apply because must be less than 24% alcohol by volume.
- Industrial ethyl alcohol exemption ([40 CFR 261.6\(a\)\(3\)\(i\)](#)).
 - The exemption is not clear about the materials it applies to. Just spent alcohol vs. alcohol-based products? Alcohols that are regulated by BATF?
 - Facility would have to be licensed by BATF for this activity, in addition to having any required RCRA TSDF permits.
 - Clean Harbors Hebron, OH facility has both TSDF and BATF licenses to reclaim industrial ethyl alcohol.
- DSW Rule:
 - Only an option if both the generation and receiving state have the rule.

What if They Can't Be Recycled?

- Distillation facilities may not want products with foaming agents in them (disrupts distillation process).
- May also have difficulty processing small containers.
- If they can't be recycled, they would have to be disposed of.
 - Fully regulated hazardous waste.
 - Problem: incinerator backlog, and associated burden on fuel blending capacity.



What CT Did

- Posted “alert boxes” at the top of our HW, SW, and recycling pages regarding recalled hand sanitizers.
- Also developed a page specific to agency-wide issues raised due to COVID.
- Dealt with the specific cases mentioned above.



What EPA Did

- 6/24/2021 EPA HQ letter ([ROL 14949](#)) in response to an inquiry from USDA about RCRA compliance issues arising from the handling and disposal of hand sanitizer.
 - Has information about the composition and RCRA ignitability of hand sanitizer products.
 - Cautions against drain or trash disposal.
 - Reclamation and fuels blending are legitimate options.
 - References EPA “approved recall strategy.”
 - Could be a pharmaceutical under Subpart P regs.



What EPA Did (cont.)

- 2/11/2022 EPA HQ letter ([ROL 14941](#)) to National Association of Chemical Distributors re FDA withdrawal of temporary guidance for alcohol-based hand sanitizers.
 - As a result, effective 12/31/2021 companies manufacturing under this temporary guidance have to cease production.
 - Manufacturers may not sell or distribute hand sanitizers that were produced before 12/31/2021 after 3/31/2022 (does not mention use or sale by people other than the manufacturer).
 - Manufacturers stuck with excess inventory could handle it as an episodic event under the GIR provisions.
 - Provided information about exempt recycling methods (e.g., reclamation of CCPs).
- EPA HQ is in the process of generating a memo about the reclamation of hand sanitizers.
 - Final memo under review now, expected soon.

Outstanding Questions



- How much material is still out there?
- What is the point of generation, especially when hand sanitizer is “generated” at a third-party warehouse?
 - When the “owner” of the material decides to dispose of it?
 - When it is removed from storage for disposal or recycling?
 - At the “expiration date?”
- Who is the generator when hand sanitizer is generated at a third-party warehouse?
 - The entity that owns the material?
 - The third-party warehouse?
 - Are they co-generators?

Outstanding Questions (cont.)



- If the hand sanitizer must be disposed of or is burned for energy recovery, who should get the EPA ID Number and sign the manifest?
- Would a third-party warehouse have to comply with LQG requirements and submit a biennial report?
- What to do if this stuff starts showing up on tipping room floors at waste-to-energy plants?

Questions/Discussion



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