

December 22, 2020 –REVISED Pfizer-BioNTech COVID-19 Vaccine Disposal Guidance (Brookfield, WI – December 21, 2020) PharmEcology Services, WM Sustainability Services

What do we know about the vaccine?

The ingredients¹ of the Pfizer-BioNTech COVID-19 Vaccine are not inherently hazardous in terms of either biohazardous risk or EPA RCRA hazardous waste designations. The ingredients include lipids (fats), potassium chloride, potassium phosphate, sodium chloride, and dibasic sodium phosphate dehydrate (salts), and sucrose (a sugar).

The active ingredient is 30 mcg of a nucleoside modified messenger RNA (modRNA) encoding the viral spike (S) glycoprotein of SARS-CoV-2. This is **not a live or inactivated virus** and is a template used to instruct the body's cells to create the spike on the corona virus which then stimulates the body to create antibodies against the virus.² The vaccine cannot "give you" Covid-19 although the body's reaction when creating antibodies may cause the person to feel sick for a couple of days.

How should full or partial vaccine vials be discarded?

PharmEcology recommendation: Disposal to a non-hazardous pharmaceutical waste container is ideal. Secondly, a hazardous waste pharmaceutical container is appropriate, but not required.

Pfizer recommendation: Disposal in a sharps container.

PharmEcology rational for difference in disposal recommendation: The sharps container will most likely only be autoclaved and landfilled instead of incinerated. Check your state regulations for stricter requirements. **Also check with your healthcare system emergency preparedness group for specific directions to assure operational conformity to policies and procedures.**

How should empty vaccine vials be discarded?

PharmEcology recommendation: While empty vials (vials where the vaccine has been removed to the extent possible using normal practices) could be acceptable in your solid waste stream, please verify with your solid waste service provider if empty vials are acceptable.

Pfizer recommendation: Disposal in a sharps container to prevent diversion. Reference the link below for Pfizer's disposal recommendations: <https://www.cvdvaccine-us.com/product-storage-and-dry->

¹ Pfizer SDS:

https://safetydatasheets.pfizer.com/MyDocuments/DownloadSingleFile?content=344EF438-FD24-499F-8D64-5F3B7FEDC7DE_PDF

² Understanding how mRNA vaccines work: <https://www.cdc.gov/coronavirus/2019-ncov/vaccines/different-vaccines/mrna.html>

[ice](#) . Also check with your healthcare system emergency preparedness group for specific directions to assure operational conformity to policies and procedures.

PharmEcology rational for difference in disposal recommendation: The cost of disposal to red sharps containers is much higher than solid waste. Management of empty vial waste can be done in a secure manner at the facility, especially where trash compactors are in operation.

How should syringes with needles used to administer the vaccine be disposed?

The syringe with needle should be disposed in a biohazardous sharps container and managed appropriately through autoclaving, incineration, or chemical treatment.

How should trays that held vials be disposed?

PharmEcology recommendation: Empty trays can be managed as solid waste.

Pfizer recommendation: Disposal of trays as biohazardous waste to prevent diversion.

PharmEcology rational for difference in disposal recommendation: The cost of disposal of all trays in red bags is higher than disposal as solid waste. Without vials, the risk of diversion appears minimal. **Also check with your healthcare system emergency preparedness group for specific directions to assure operational conformity to policies and procedures.**

How should dry ice be disposed? The dry ice should be allowed to sublimate to CO₂ vapor in a secured, well-ventilated area. The Pfizer safety data sheet for dry ice is available at https://safetydatasheets.pfizer.com/MyDocuments/DownloadSingleFile?content=107797DB-EA23-4918-884A-CE87C6E34344_PDF.

How should the thermal packaging the vaccine came in, be handled? The box that held the vial trays, the empty dry ice pod, foam lid, and the temperature monitoring device should be placed into the thermal shipping container, once no longer needed or within 30 days from shipment and be returned to Pfizer. The return shipping label provided by Pfizer should be placed over the original shipping label and a blank label placed over the hazard warning for dry ice. The carrier noted on the label should be notified and the container staged for pick up. Written instructions for return of the packaging can be accessed at website below:

https://www.cvdvaccineus.com/images/pdf/HH1114697_XXX_C20_PGS_Materials_ReturnInstructions.pdf.

Pfizer also has an excellent video on package return on their website at <https://www.cvdvaccine-us.com/product-storage-and-dry-ice>. You can also contact Pfizer for questions about return shipping at 701-540-4039 or Pfizer.logistics@controlant.com.

Additional information:

*Fact Sheet for Healthcare Providers: <https://selfservehosteu.pfizer.com/pfrrdownload/file/fid/77056>

*Fact Sheet for Recipients and Caregivers: <https://www.fda.gov/media/144414/download>

*Use of Pfizer-BioNTech COVID-19 Vaccine: Clinical Considerations: CDC



<https://www.cdc.gov/vaccines/acip/meetings/downloads/slides-2020-12/slides-12-12/COVID-03-Mbaeyi.pdf>

For more information on compliant disposal of Rx and OTC drugs, contact us today at 877-247-7430 or info@pharmecology.com.