

# Responsible Plastics

GOliner bags are as environmentally responsible as we know how to make them. GOfermentors eliminate nearly all wash water and associated labor. A ton of grapes uses one GOliner 10-lb. fermentation bag. Pomace is readily transported for use as compost or animal feed.

All plastics are not alike. The leftover GOliner bag has no plasticizers or UV blockers and rapidly disintegrates in a solid waste landfill. You may find a used syringe, plastic water bottle or Styrofoam cup floating up on the beach, but you will never see an intact GOliner bag.

General concern about plastics includes considerations of biodegradability, petrochemical origins, massive accumulations in oceans and hazards to animals on land and sea. Without question, our lives abound with inappropriate use of plastics in clamshell packaging, Styrofoam cups and packing materials, throwaway water bottles and many other needless excesses. A tiny package of black pepper from Amazon is surrounded by huge volumes of Styrofoam peanuts. Why? The pepper will be gone in a month, but the peanuts last millennia.

Without question, abuses in plastics have gone from bad to worse. Twenty years ago, water came from a faucet and you used a glass. Purchases were made in stores rather than home delivery, with far less packaging and packing.

Nevertheless, it's important to understand that plastics are necessary in many applications – among them medical, sanitary, food preservation, and waste disposal. We all consume and generate waste. We cannot have a zero footprint. All we can do is minimize our overall impact.

Without plastics, modern life would not be possible. Single-use disposable plastics have become the preferred environmental alternative in many applications. The whole purpose of the garbage bag is to contain waste so that it does not contaminate the kitchen or make foul odors. It makes it easy to transport waste so that it can be collected and disposed of safely. Of course, the greenest solution would be to collect the garbage in pails and take it to your compost heap every day. This was the norm in the 19<sup>th</sup> Century but today is no longer practical in our increasingly urban society. Imagine NYC without garbage bags!

Single-use plastics have revolutionized medical and pharmaceutical applications. Twenty years ago, syringes were made of glass and were washed, boiled and reused. Risk of contamination due to equipment failure or human error make this unthinkable today. Tracking of re-used medical supplies coming into contact with infectious agents is cost-prohibitive and unreliable. So severe are the consequences of poorly sanitized medical supplies are that today nearly everything that touches the patient is single-use.

Diapers used to be washed and reused, a practice that involved collection difficulties, health risk and great expense. Today, almost everyone uses disposable diapers.

Yesterday	Today
Boiled glass syringes	Sterile plastic syringes
Washed hands	Disposable plastic gloves
Autoclaved glass containers	Plastic IV Bags
Cloth diapers	Disposable diapers
Washed Pails	Garbage bags
Glass bottles/glasses	Plastic water bottles
Washed and sterilized tanks	Disposable bags

## Washing and water

Another misconception is that recycling and reuse are free. Failure to correctly wash contaminated equipment has consequences – people get sick, wine is ruined, and so on. Millions of tons of detergents and other chemicals used for washing pollute billions of gallons of drinking water.

Municipalities are beginning to understand these consequences. When I applied for a winery license in Bedminster, NJ in 2014, I was told that that this would not be possible since waste water discharge to surface waters is forbidden. I nonetheless obtained a license once I demonstrated that the GOfermentor process with single-use plastics does not generate significant waste water.

We can make plastics from corn, but water is our true irreplaceable resource. Counties in California are demanding that wineries control their waste water discharges. All the water on this planet has been here since the planet was created. Water never made nor destroyed – just polluted.

GOliner customers are welcome to ship their used GOliner (washed and clean of course) to us UPS ground. We will happily credit them the shipment cost on their next GOliner order, re-use any recyclable components, and dispose of the rest in an environmentally responsible manner.