



# The Best Solution to the Struggles of HPLC Solvent Waste Containment

Choosing the right system to protect your people and your lab property

## Overview

Without a doubt, waste containment is a big issue when it comes to HPLC. Solvents and aqueous solutions from column washes, equilibrations, and separations can produce significant waste which requires collection and proper handling for responsible disposal. Despite this need, HPLC labs often struggle with best practices to efficiently deal with the problem.

The right system should provide safe waste containment to avoid direct contact with users and equipment. The system should also eliminate the escape of hazardous VOC vapors, thereby protecting the health of lab personnel. Such an ideal solution to the waste containment challenge will allow you to focus on the success of your HPLC operations knowing that your lab property and people are safe.

## Sources of Waste

HPLC produces a range of chemical waste depending on the application. This can vary from aqueous buffers to solvents, acids, and volatiles. Considering the chemical constituents, the mixture is considered hazardous and must be contained and disposed of properly. Most institutions have Hazardous Waste Management and Waste Disposal Standard Operating Procedures that must be followed. Typically, hazardous waste containers must be properly and clearly labelled. Training is often required to be prepared to handle spills and regulations dictate hazardous waste areas must be inspected on a regular basis.

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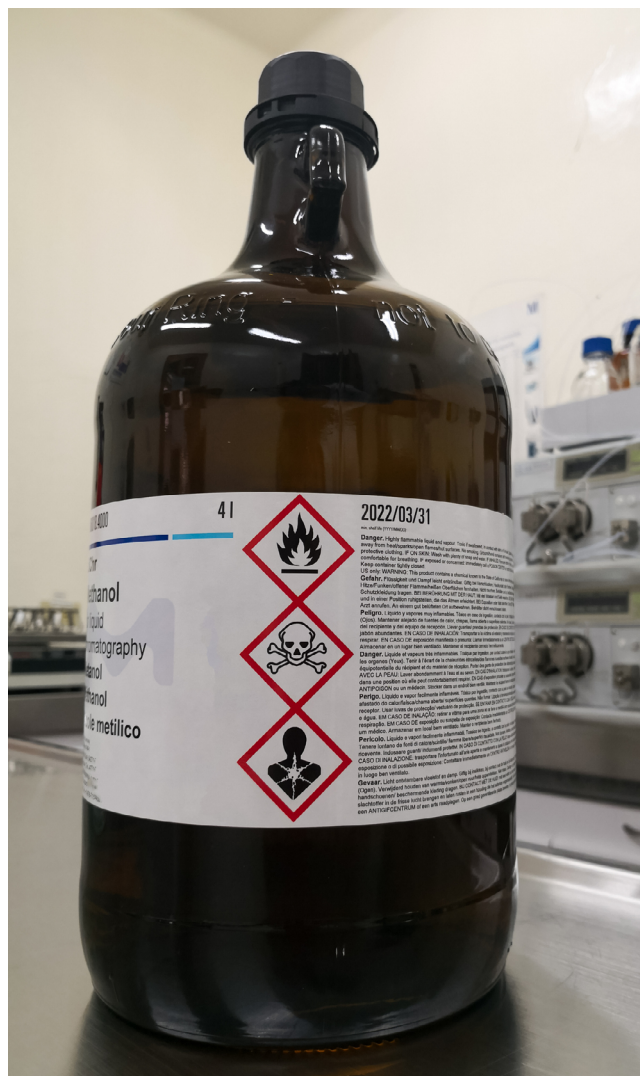
## The Problem

Although institutions require containment of HPLC waste, labs often struggle with the use of inadequate containment vessels. Lacking the proper equipment, labs sometimes choose to use the 4 L amber bottles which previously contained stock HPLC solvents. HPLC waste tubing is inserted into these bottles with Parafilm sometimes wrapped around the neck in an attempt to seal the bottle. This setup, however, is problematic on several fronts.

Although these bottles may act as catch vessels, often they fall short of protection against spills and leakage. Labs often insert collection tubing into these bottles without regard to safety. They may fail to use fittings to connect the tubing into the container, which increases the risk of the tubing falling out if bumped.

Another issue involves the volatile nature of organic waste. Vapors can be flammable and hazardous to humans if inhaled. Therefore, containing waste is not sufficient, it is essential to trap the volatile emissions as well. The use of Parafilm – a gas permeable film - to seal the tops of collection bottles provides little to no protection from the escape of harmful volatiles. A proper container should include a cap to create a closed system while allowing proper heat dissipation to prevent flashback ignition during emptying.

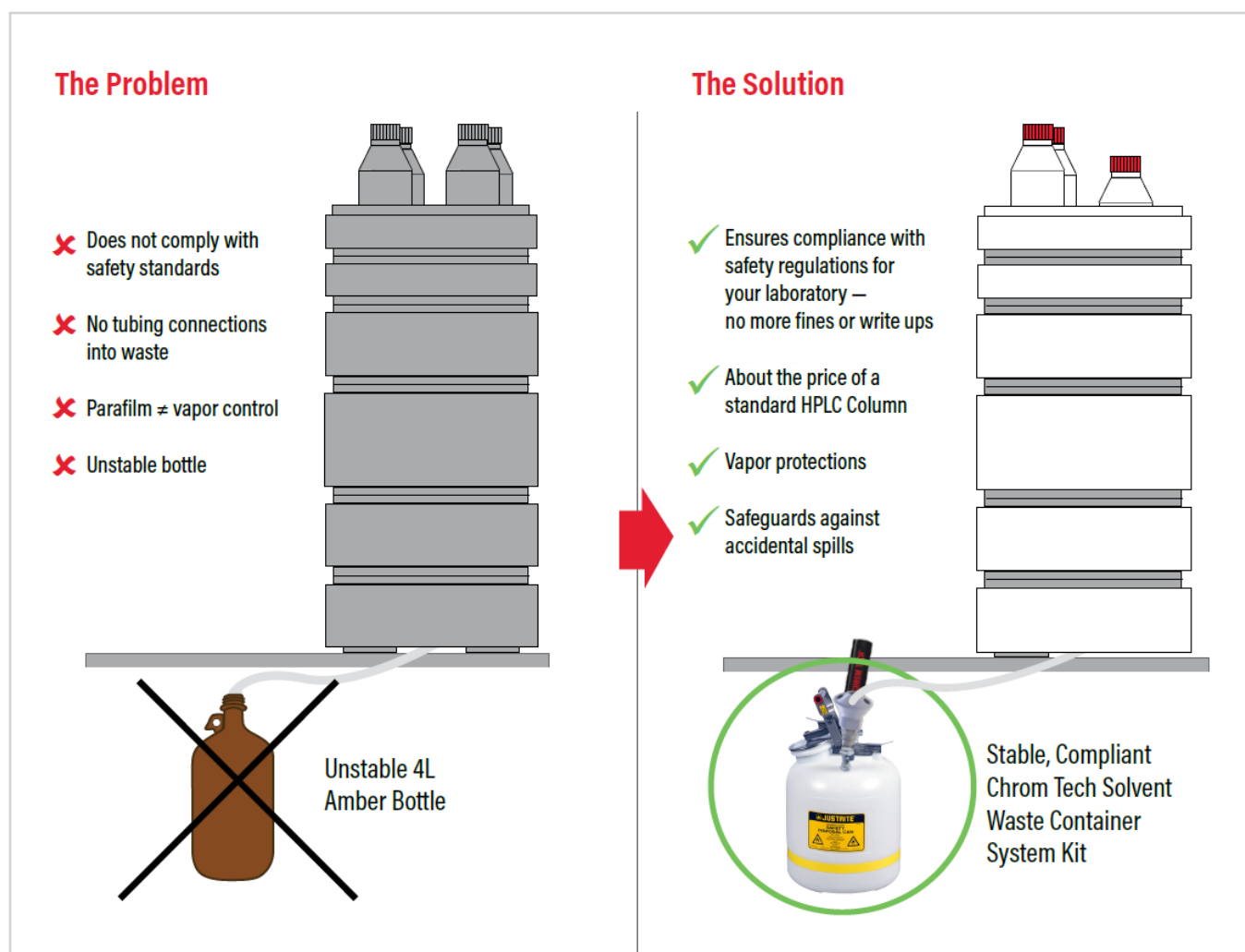
Failure to comply with proper containment regulations can lead to violations or fines. Although labs may be aware of these consequences, they may not know how to fix the problem. As a result, labs often continue to use the same outdated practices, endangering the safety of the lab and running the continual risk of violations and fines.



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## The Solution

The Chrom Tech Solvent Waste Containment Kit is the right solutions to solve your HPLC needs. Beyond safely providing waste containment, the system eliminates the escape of hazardous VOC vapors -- protecting your property and your people and allowing you to focus on the success of your operations.



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### Features of the Solvent Waste Container System Kit

The Chrom Tech Solvent Waste Containment System Kit is designed to adhere to fire and safety protocols, providing a solution that is both safe and economical.

Containment vessels are available in 2- or 5-gallon sizes to suit the needs of your lab. All vessels are available with Polypropylene or Stainless-Steel fittings. The Polyethylene containment vessels have a wider base than typical amber bottles providing better stability and protection against spills. Also, the larger capacity vessels will not need to be emptied as frequently compared with smaller amber bottles.

The kit includes a reusable and replaceable Organic Vapor Filter constructed of activated carbon and silica desiccant within a polypropylene housing. The filter removes harmful gases and protects lab personnel from adverse health effects. In addition, the Organic Vapor Filter includes a built-in 3-month timer. Simply pressing the button on the strip activates the countdown. The color indicator progresses along the time markings in the viewing window, providing a clear visual reminder of when to replace the filter for optimal performance.

A 6-port waste collection manifold can accommodate multiple HPLC systems per collection vessel. The manifold allows HPLC Waste tubing to be connected to the system via compression fittings (for hard walled tubing) or barbed fittings (for soft wall tubing).

### Summary

The challenges of how to safely contain HPLC waste are real. Many labs settle for using make-shift collection vessels, unaware that there is a superior solution to ensure waste is dealt with safely, efficiently, and in-line with hazardous waste storage regulations. The Solvent Waste Container System from Chrom Tech is designed to satisfy the needs for HPLC waste containment while helping to meet safety requirements and the welfare of users in the lab.

Whether you're just starting out or a experienced professional, it is important to know that there is a solution to an ever-present challenge in the HPLC lab that affects us all.



Quick connects are compatible with PP or SS tubing according to your reversed phase or normal phase separations needs. In addition, tubing connectors are available in several sizes and plugs are available to close any unused ports.

The Solvent Waste Container System is also equipped with a Stainless Steel Flame Arrester. This feature allows the reliable heat dissipation and the prevention of flashback ignition when the container is emptied.

**At Chrom Tech, we have spent decades talking with people just like you, and have come up with a solution that works in about 99% of chromatography labs.**

The [Chrom Tech Solvent Waste Container System Kit](#) is our answer to easily getting compliant - and reducing risk for your people and property.

**But as your chromatography consultative team, we're here to help you solve problems.** Whether you know exactly what you want to buy or if you have no clue, you can rest assured that we'll give you a straightforward and honest answer from a real person.

Not looking for reversed phase solutions? Speak to a sales rep who can guide you through a normal phase chromatography kit, solutions for a larger operation, and more.

Call [Chrom Tech](#) and you'll speak with a real person. We respond to chat/email inquiries within 24 hours. If we don't know the answer right away, your question will get escalated until we've resolved it.

With Chrom Tech, nothing can stand in your way of changing lives through science. Our team of chromatography specialists will ensure you have the materials you need to stay compliant, keep your people and property safe, all in the time you need them.