

Butane Hash Oil (BHO) extraction techniques have been widely used by cannabis manufacturers seeking to produce high-quality concentrates. Innovators in BHO extraction have created an impressive variety of products with different textures and terpene- or cannabinoid-rich chemical profiles, spurring the continued growth in the concentrate marketplace.

Recently, cannabis entrepreneurs working with BHO have started to use a new backend technique called color remediation column (CRC). As an addendum to BHO extraction methodology, CRC can, in some instances, produce a cleaner, purer, more satisfying product. This is especially true if the plants used for extraction are fresh and contain a healthy mixture of cannabinoids and terpenes.

But like many powerful things, CRC BHO techniques can be used for good or ill. They can be used to manufacture good-quality cannabis extracts, or be used to mask poor-quality extracts and trick buyers into thinking they're getting something purer, safer, and more ingredient-rich than they actually are—and that is why the merits of color remediation column technology are being hotly debated.

BHO Basics

[Butane Hash Oil](#), which is also known as Butane Honey Oil, is a high-quality extract known for its dense cannabinoid and/or terpene profile. The extracts are created with heat and pressure in a closed-loop system, using butane as the solvent.

Butane processing of cannabis was once considered risky. Butane is a flammable gas, and since it is heavier than oxygen, it will sink after being released into the atmosphere. This means it can collect on the floor and in reasonably significant quantities if the person making BHO isn't careful and doesn't follow the proper safety procedures.

In the past, people who lacked experience with BHO techniques often failed to realize the nature of the risks they were taking in working with such potentially volatile chemicals. Many fires resulted from careless or reckless practices, and there were some fatalities traceable to these [butane-fueled conflagrations](#).

Thankfully, improvements in extraction equipment quality have now minimized the danger. This (along with its cheap cost) has helped cement butane's place as the most commonly used solvent in the cannabis extraction industry.

The same extraction practices that made butane hash oil production safer also improved its quality, purity, and diversity. BHO extracts can be created with a broad range of chemical profiles and textures, allowing BHO producers to appeal to more niche markets.

BHO products are sold as oil, sap, budder, crumble, wax, pull and snap, and shatter, all of which are rich in compounds that deliver a pleasurable consumer experience. Even more specialized

products can also be created from BHO extraction procedures, such as live resin, a honey-colored, high-terpene content syrupy mixture made from freshly cut, flash-frozen buds.

At their most advanced, BHO extraction techniques can be used to create potent cannabis sauces known as HTFSE (high terpene full spectrum extract) and HCFSE (high cannabinoid full spectrum extract). Each is produced using slow vacuum purging techniques that can take weeks to complete. The result is HCFSE comprised of up to 90 percent THC and HTFSE with terpene levels between approximately 13 and 25 percent, both of which are high.

The Trouble with BHO Extraction

With its impressive capacity to produce flavorful and potent extracts, it isn't hard to understand why BHO techniques are so popular with manufacturers and consumers alike. The problem with BHO extraction is that even at its most refined and sophisticated, the final product may still be contaminated with small amounts of butane, a harsh chemical that no one would knowingly consume.

Despite the improvements in processing methodology that promise relatively minuscule levels of contamination, the use of butane as a solvent has caused continuing controversy. Understandably, some cannabis users remain a bit squeamish about the thought of consuming even trace amounts of a chemical like butane, causing them to seek out a solvent-less alternative.

On the production side, some manufacturers of medicinal cannabis products, in particular, refuse to use butane at all. Their anti-butane stance is based on worries that butane could accumulate in the body if consumed frequently, which might cause medical complications (it is theorized) in users whose immune systems have been compromised by illness or weakened by chemotherapy.

From the perspective of BHO producers, such fears create marketplace concerns that CRC was developed to alleviate. Color remediation column refers to an additional filtering process that is designed to remove any remaining impurities, including butane and other potential contaminants, that might persist after the original BHO refinement has been completed.

Remediation Column Technology—and its Downside

In CRC processing, three substances are tightly packed into a filtering column. Those three substances are T5 bentonite clay, silica gel, and Magnesol, which is also known as frying oil filter powder. Working together, these products demonstrate a prodigious capacity to strip impurities from BHO extract, which can be forced through the filtering column for collection on the other side.

When high-quality cannabis flowers are subjected to this additional processing, what will be produced is a golden-yellow, terpene-rich oil that can be safely used for dabbing or smoking. But beyond its purifying efficiency, CRC processing has another effect on cannabis extract that can confuse consumers purchasing BHO products that have been filtered in this way.

In addition to its purifying capacity, color remediation column filtering does precisely what the 'color remediation' part of the name suggests: change the extract's color. Specifically, change it to an attractive, translucent yellow-gold, similar to the color of live resin extract products. The problem is that it will do this regardless of how dark and brownish the original cannabis material might be.

Dark brown cannabis flowers are generally old or of poor quality. Yet CRC filtering techniques applied to their extracts will create consumables that look fresh, tasty, and superior, even if they are the exact opposite. When evaluating extracts, people tend to associate a lighter color with better quality, but that standard may no longer apply for those who get their products from suppliers using CRC technology (and the list of those who do is growing fast).

Quality control remains a thorny issue in cannabis production in both the recreational and medicinal markets. The arrival of CRC could enable a cannabis version of counterfeiting, where the low-quality product is passed off as a high-quality product to unsuspecting consumers.

To what extent this has happened already is unknown. But the threat is undeniably real. Given [the potent nature of extracts in general](#), any unexpected variations in their chemical characteristics could be troublesome for consumers.

Avoid Getting Scammed

Color remediation column filtering is cheap, effective, and easily adopted by manufacturers (including those who make BHO extract in their own homes). It is not hard to find enthusiasts online bragging about the quality of extract they've been able to produce using CRC technology.

But CRC is controversial because it seems to leave extract users open for exploitation. The challenge for the consumer of CRC BHO products is to find sources they can trust, which of course, isn't always easy in the cannabis marketplace where most entrepreneurs haven't been in business for all that long. BHO products of low quality should undoubtedly be avoided whenever possible since they may be overly astringent and can irritate or even injure the throat and lungs if smoked or inhaled.

Probably the best way to proceed is to purchase products made by manufacturers with an established reputation. The reputations of these producers and their affiliated retailers would be damaged if they tried to deceive their customers by mislabeling poor-quality oil as premium.

Regardless of whom they obtain their CRC BHO extracts from, buyers should adopt a skeptical, 'buyer beware' attitude, and they shouldn't be afraid to look elsewhere if they're even a little dissatisfied with their consumption experience.