



# Powdered Alcohol: An Encapsulation

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On April 8, 2014 the United States Alcohol and Tobacco Tax and Trade Bureau (TTB) approved seven labels for a product called Palcohol, a combination of the words powdered and alcohol. Less than two weeks later, TTB stated that the label approvals were [issued in error](#). The Palcohol manufacturer [surrendered the labels](#) in response. On March 11, 2015, TTB approved four Palcohol labels, which allowed the product to be available for sale [within months](#).

From Washington to the states, the ramifications of this product have come to the forefront and made news headlines regarding public health and safety concerns. There is no return to anonymity for powdered alcohol.

### What is Powdered Alcohol?

The name ‘powdered alcohol’ is somewhat misleading and some reports about the product have been inaccurate. The powdered substance is not freeze-dried and is not always in a powdered form. Alcohol is absorbed by a sugar derivative and through the encapsulation process, capsules of powdered alcohol are created. The sugar derivate used, dextrin, can hold 60 percent of its own weight in alcohol.

The capsule of powdered alcohol can be put into water to make a liquid alcoholic beverage but may also be taken orally as a pill. According to food research and flavor designers Bompas & Parr, the scientific process is similar to creating flavor release in chewing gum.

### Background and History

The origins of powdered alcohol can be traced to the 19<sup>th</sup> century. In 1877, William Clotwoethy was issued a patent for an [“improvement in flavoring-powders”](#) to be used in “foods and luxuries of the table.” That patent was referenced in a filing made in 1964 by Harold Bode of the Sugar Research Foundation for an [“alcoholic dry beverage powder”](#) to be used in “novel food products.” Bode’s patent states a methodology similar to modern powdered alcohol, using



dextrin or carbohydrates. This patent was finally approved in 1969. In the early 1970's, Japanese company Sato Foods began to sell alcoholic capsules as a food additive. Up to this point, the concept of powdered alcohol was geared toward the food industry and had not yet emerged as a method to creating alcoholic beverages.

In 1976, General Foods was granted a patent for an [“alcohol-containing dextrin powder”](#) with the hope of using it both in food and as “a high ethanol-containing powder which can be used as a base for alcoholic beverages." The patent application included examples of tests combining powder with different temperatures and amounts of water to see the reactions. Despite receiving approval, this product was never used.

It was during this period that the first states began to address powdered alcohol. California [Regulation 2557](#) went into effect in 1978 and refers to “powdered distilled spirits.” It created rules on trade practices, and the conversion of powdered alcohol weight to volume as measured in wine gallons. Alaska followed in 1980 with a statute that prohibited the sale of an alcoholic product “unless in liquid form.” This law was updated in 1995 to specifically denote the prohibition of alcohol [“in powdered form.”](#)

#### Recent Trends: Foreign and Domestic

Buzz about powdered alcohol laid low for decades until 2005 when a German company began selling a product online and later at stores called Subyou. This product had 4.8% alcohol by volume and was geared specifically to teen drinkers [according to media reports](#). Despite early success, Subyou has [virtually disappeared](#) along with its website. In 2007, Dutch students developed a product known as Booz2Go. It was reported they were [looking for a manufacturer](#) but to date, this creation has not been in the marketplace. Pulver Spirits asked TTB for approval in 2010 for an alcoholic powder but decided not to proceed due to [“regulatory hurdles.”](#)

The 2014 temporary Palcohol approval started a wave of concern among lawmakers at every level of government. United States Senator Charles Schumer [called on the Food and Drug Administration](#) to investigate Palcohol. When they would not investigate, Senator Schumer announced he would introduce legislation to [ban the product](#). This legislation was introduced in 2014 and again in 2015 but was never considered by the Senate.

States have already stepped in to prevent the product from appearing on shelves. The following states enacted powdered alcohol bans by legislative statute since the original 2014 TTB label approvals: [Vermont](#), [South Carolina](#), [Louisiana](#), [Virginia](#), [Indiana](#), [Tennessee](#), [North Dakota](#), [Utah](#), [Washington State](#), [Nebraska](#), [Nevada](#), [Georgia](#), [Kansas](#), [Alabama](#), [North Carolina](#), [Ohio](#), [Hawaii](#), [Oregon](#), [Illinois](#), [Maine](#), [Connecticut](#), [New York](#), [Michigan](#), [New Jersey](#), [Rhode Island](#), [Massachusetts](#), [Pennsylvania](#), [Idaho](#), and [California](#). The states of [Maryland](#) and [Minnesota](#) passed temporary bans to review the long-term impact of powdered alcohol prohibition including public health concerns and business considerations. As of the second quarter of 2016, legislators in Kentucky and California are considering statutory bans with legislators in other states considering the introduction of bills to ban powdered alcohol.

Under alcohol control models where the state itself has the authority to approve or disapprove the listing of alcoholic beverages to be sold, legislative action is not wholly necessary for a ban on an alcoholic product to be implemented. Michigan and New Hampshire, both control jurisdictions, passed statutory changes to ensure that state alcohol agencies had regulatory authority over powdered alcohol. Following this decision, the New Hampshire Liquor Commission published an [order](#) in September 2015 that state retail outlets will not carry powdered alcohol products for sale nor will powdered alcohol be allowed for direct shipment into the state. Montana implemented a law effective November 2015 giving agency discretion regarding the sale of powdered alcohol.



Legislation prohibiting the manufacture, sale, use, and possession of powdered alcohol has also been defeated in certain jurisdictions. Colorado [approved an excise tax](#) on the product, levied at the same rate as liquid distilled spirits. Powdered alcohol will not sit on store shelves in the state until a regulatory scheme is approved.

### Risks

Public health and safety experts and government officials have expressed concern over what they see as the potential risks of using powdered alcohol.

In June 2016, the American Medical Association (AMA) announced its support for the federal and state bans of powdered alcohol. Board Member Jesse Ehrenfeld noted the product's "potential to cause serious harm to minors."

Bruce Anderson, Director of the Maryland Poison Center, encouraged the state to ban the product following the 2015 approval. He emphasized that it may pose a "major public health problem" and shared the concern that if legal for use in Maryland, the Poison Center hotline would receive a growing amount of calls.

The encapsulating process does not prevent a consumer from removing the powder from the capsule and using it in manners for which the product was not designed. This would include snorting it as well as putting it in foods and combining it with other alcohol-infused products such as alcoholic whipped cream. The Palcohol website addresses the potential for snorting by stating that it is "painful to snort" and "impractical" due to the length it would take to snort vs. putting it into a liquid for use.

The easy concealment of powdered alcohol and its potential use by someone on an unsuspecting victim may also occur. This is an issue that Senator Schumer raised as part of his objections to Palcohol receiving government approval. Law enforcement has also expressed

serious concerns regarding this issue. Not only are there public health and safety consequences to this, but also economic ones for restaurants and bars.

In addition to misuse, the potential for overuse of the product exists. Palcohol had four flavors approved in 2015. A consumer could combine one or more of these flavors with something other than water, such as a liquid spirit or energy drink. There is no scientific evidence on how potent the alcoholic beverage created would be so it is not possible to compare the consequences of this product to alcoholic beverages already in the marketplace.

Further, a major concern is easier youth access to powdered alcohol versus liquor or marijuana. [South Carolina State Senator Larry Martin noted](#) when introducing legislation to ban the product, “If we don’t act, literally alcohol could be sold to children and that’s not acceptable.”

### Conclusion

The history of powdered alcohol may date back to the American Reconstruction period, but at no point has this product been at the center of more scrutiny. Proponents will say the convenience outweighs the consequences and it is no more dangerous than regular alcohol. Opponents continue to assert that the health and safety issues related to powdered alcohol have not been addressed in a satisfactory manner and it is far more dangerous than liquid spirits. While the future of this controversial product is unclear, it is certain that the actions of TTB have put powdered alcohol into the spotlight from its shadowy past and there is no turning back.



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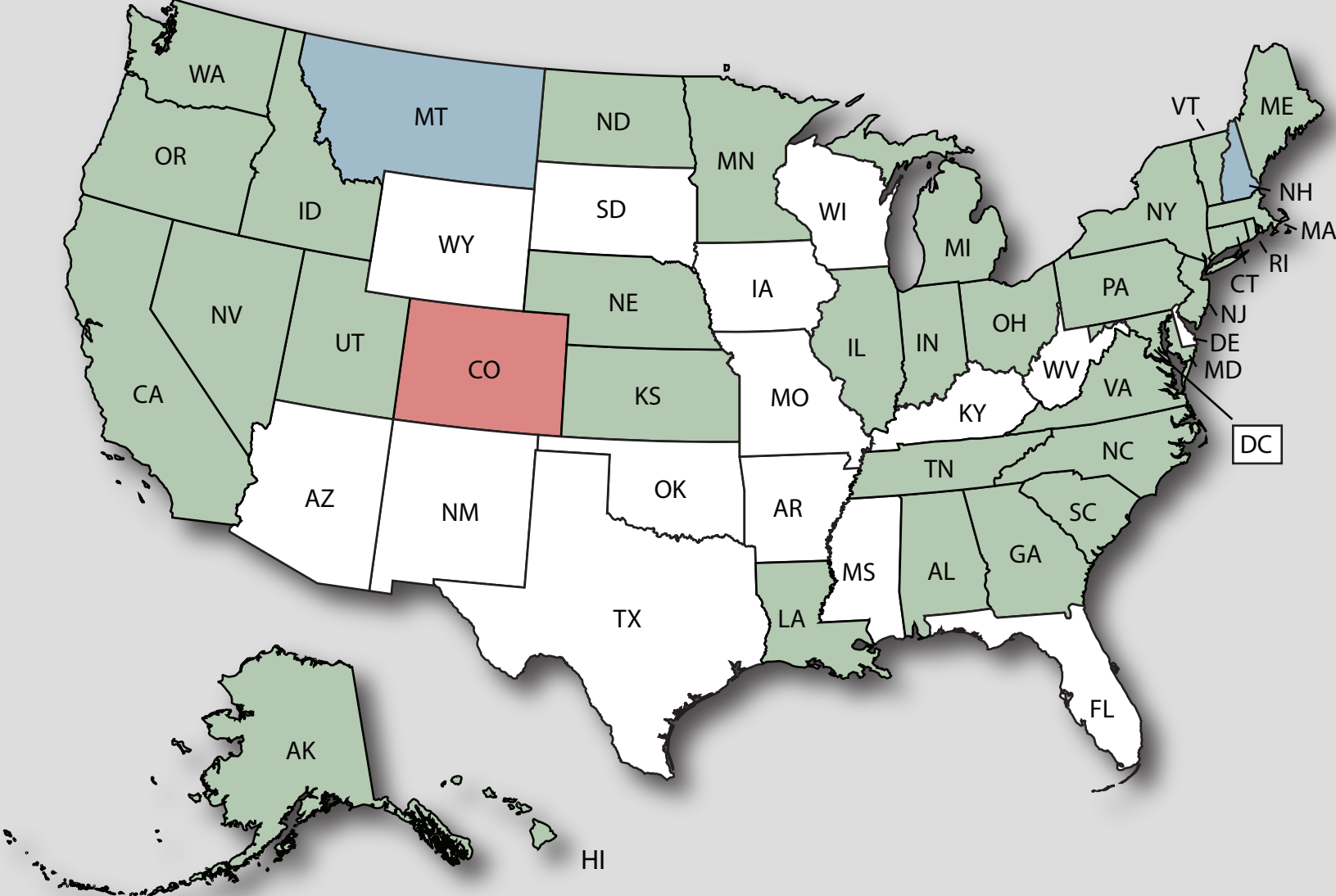
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# Powdered Alcohol

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■ Statutory Powdered Alcohol Bans      ■ Powdered Alcohol Bans via Agency Policy      ■ Powdered Alcohol Allowance Laws

Statutory Powdered Alcohol Bans	Powdered Alcohol Bans via Agency Policy	Powdered Alcohol Allowance Laws
<a href="#">Alabama</a>	<a href="#">New Hampshire</a>	<a href="#">Colorado</a>
<a href="#">Alaska</a>	<a href="#">Montana</a>	
<a href="#">California</a>		
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