CONTROL STATE NEWS

IA: Pauli to lead Iowa Alcoholic Beverages Commission

News Release
Iowa ABC
June 28, 2019

(ANKENY) – John Pauli, an engineer from Carroll, was elected Chairperson of the Iowa Alcoholic Beverages Commission effective July 1, 2019. He succeeds Des Moines businesswoman Rachel Eubank and will serve one year as Chairperson.

“I am grateful for the opportunity to lead this important commission,” said Pauli. “Iowa’s alcoholic beverages marketplace continues to grow and evolve, and the Commission will play a role in ensuring there is a competitive business environment balanced with public health and public safety considerations.”

During his time as Chairperson, the Commission will be providing critical oversight of the Iowa Alcoholic Beverages Division’s recent partnership with the Ruan Transport Corporation for the warehousing and distribution of spirits products to over 1,600 private retailers across the state. The Commission will also be facilitating a refresh of administrative rules governing alcohol.

Pauli is a process/project engineer with Pella Corporation in Carroll. He is a graduate of the University of Wisconsin-Platteville, and received his MBA from Drake University. He was appointed to the Iowa Alcoholic Beverages Commission by former Governor Terry E. Branstad and began his first term on May 1, 2016. He is eligible for a second five-year term.

The Iowa Alcoholic Beverages Commission partners with the administrator of the Iowa Alcoholic Beverages Division to provide insight and advice regarding public policy and business decisions. Commissioners are appointed by the governor and must be approved by the Iowa Senate. Commissioners serve five-year terms with the possibility of being reappointed for a second, five-year term.

About the Iowa Alcoholic Beverages Division

The Iowa Alcoholic Beverages Division serves Iowans through responsible and efficient licensing, regulation and distribution of alcohol. For more information about ABD, visit https://abd.iowa.gov

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MS: Mississippi museums seek Prohibition items for exhibition

SFGate
June 30, 2019

JACKSON, Miss. (AP) — The Mississippi Department of Archives and History is seeking items to tell the story of when liquor was illegal.

An exhibition titled "Mississippi Distilled: Prohibition, Piety, and Politics" will open in March at the Museum of Mississippi History and the Mississippi Civil Rights Museum in Jackson.

Prohibition lasted in Mississippi from 1907 until 1966, but the exhibition will cover a longer period.

The department says in a news release that it's seeking Prohibition enforcement items, such as a uniform or badge from an officer involved in a raid.

Collections director Nan Prince says museum officials are interested in "anything related to alcohol consumption and production in Mississippi," including photos of taverns and saloons. They are also seeking artifacts related to temperance activists.

To contribute, call 601-576-6930 or email collections@mdah.ms.gov.
DE: Delaware Lawmakers Make Underage Alcohol Possession Civil Offense, Decriminalize Marijuana For Juveniles

By CBS3 Staff
June 30, 2019

DOVER, Del. (CBS/AP) – Delaware lawmakers have approved two measures that will decriminalize underage possession or consumption of alcohol and simple possession of marijuana to juveniles. Both bills are headed to Democratic Gov. John Carney for his signature.

House lawmakers voted 34-to-7 for the bill decriminalizing simple possession of marijuana to juveniles.

Possessing an ounce or less of marijuana is currently a civil violation for anyone over 21 but a criminal misdemeanor for those under 18. Nineteen and 20-year-olds currently are subject to a civil violation for a first offense but misdemeanor charges for a second or subsequent offense.

The bill makes possession of an ounce or less of pot a civil violation for a first offense in all cases. A third or subsequent offense would subject anyone under 21 to a misdemeanor criminal charge.

The Senate unanimously passed the bill making underage possession or consumption of alcohol a civil offense rather than a crime.

The Senate approved the measure after the House added an amendment making possession or consumption of alcohol by a person under 21 a civil offense only for the first and second offenses. This amendment also removes driver’s license revocation as a penalty for a violation.

A violation of the statute would carry a $100 fine for the first offense and not less than $200 for a subsequent offense.

Information concerning a civil offense violation would not appear on an individual’s certified criminal record.

MA: For craft brewers, four-packs of cans become the norm

By Allison Hagan, Globe Correspondent
June 30, 2019

Browse the beer coolers at any liquor store and you’ll notice the traditional six-pack is being downsized. Craft brewers increasingly are opting to sell their products in four-packs of 16-ounce cans.

It’s the latest evolution of a trend that started about five years ago when more craft beer drinkers started reaching for aluminum cans instead of glass bottles.

“Even if it’s a good, quality beer, it won’t sell if it’s sitting on the shelf in the six-pack format instead of the 16-ounce four-packs,” said Rob Vandenabeele, cofounder of local craft beer website Mass. Beer Bros.

Brewers started to adopt the four-pack after a few influential beers popularized the packaging, said Bart Watson, chief economist of the Brewers Association, a Colorado-based trade group. Some trace the four-pack’s rise to 2013, when craft beer fanatics were lining up outside Vermont brewery The Alchemist to buy its Heady Topper IPA, one of the first beers sold in 16-ounce four-packs, he said.

“One of the more notable examples of the four-pack’s rise was The Alchemist’s Heady Topper,” Watson said.

People point to The Alchemist and Heady Topper as almost setting the standard among consumers of this expectation that juicy, hazy New England IPAs belong in 16-ounce four-packs,” said Michael Oxton, cofounder of Everett-based Night Shift Brewing. “It became this really sought-after gold standard format.”

Small brewers are also seeking to differentiate themselves from mainstream competitors’ traditionally popular six-packs, Watson said. Think Budweiser or Coors.

It’s also a way to stand out visually. A 16-ounce-size can offers “a bigger canvas for artwork and brand design,” he said, helping to attract consumers’ attention.

Four-packs are on the shelves of stores across the country, but they are most popular in New England, Oxton said. Night Shift’s distribution arm, which operates out of Chelsea, partners with out-of-state breweries to sell their beer in Massachusetts. When brewers from other regions try to enter the market with traditional six-packs, the company recommends they adopt the four-pack format to match the local competition, he said.

Some may worry larger containers could lead consumers to drink too much, but they can actually decrease consumption — a single pint often satisfies people who would otherwise open a second 12-ounce can, Watson said.

Overall, the ongoing shift from bottles to cans — 16- or 12-ounce — shows no sign of easing up. Jack’s Abby Craft
Lagers in Framingham bottled all of its beer during the company’s first four years in operation, and only began canning in 2016, cofounder Sam Hendler said. But by the end of 2017, all of its beer was being put in cans, except for some low-volume limited releases.

“Cans are pulling faster off the shelves,” said Hendler, who sits on the board of the Massachusetts Brewers Guild. “Consumers want cans and brewers want to put their product in a package that’s going to see the highest rates of sale.”

In the past two years alone, sales of canned craft beer have grown by 33 percent, while bottle sales have declined 12 percent, according to Nielsen Holdings, a New York information and data company.

Last summer, the rising demand for cans caused delayed shipments of aluminum to area breweries, Hendler said.

The Can Manufacturers Institute, a Washington, D.C. trade association, reported a 3 percent increase in sales for aluminum containers — including non-alcoholic beverages — during the first quarter of 2019.

“The aluminum beverage can, due to its functionality and sustainability attributes, is becoming the package of choice for beer and soft drink fillers across the country,” said Robert Budway, the organization’s president.

The increased popularity of cans has made the price of production lines more affordable, Night Shift’s Oxton said. Brewers can also hire mobile canning trucks if they don’t want to invest in an in-house system.

Cans also offer logistical advantages for brewers. Jack’s Abby, for instance, says a truckload of beer-filled cans contains four times the amount of liquid as a truck loaded with bottled beer. Using fewer trucks helps the company save on packaging and labor, and creates less carbon emissions, Hendler said.

Another environmental factor that favors cans: They tend to get reused more frequently than glass. The Environmental Protection Agency has reported that only about a quarter of recycled glass is repurposed, but more than half of all aluminum cans are eventually reused.

Canning also helps protect the quality of the product from its two enemies, light and oxygen, he said. A can shields the liquid from light more efficiently than glass, he explained, and air can leak into a bottle through the cap.

Oh, and today’s canned beer tastes a lot better than it used to. “The technology has changed substantially,” Vandenabeele said. “A lot of the metallic taste people may have noticed back in the day is pretty much gone.”

**INTERNATIONAL NEWS**

**Asia: Brewers move upmarket in China as thirst for beer wanes**

*Domestic leaders China Resources and Tsingtao battle AB InBev for supremacy*

Nikkei Asian Review
By Shin Watanabe, Nikkei staff writer
July 1, 2019

DALIAN, China -- Competition is intensifying in China's premium beer market, with two domestic producers moving to solidify their positions, while Anheuser-Busch InBev, the world's biggest brewer, is aggressively going after market share.

In China, the world's largest beer market, China Resources Beer is the top player, followed by compatriot Tsingtao Brewery and Belgium-based AB InBev. The value of beer sales in the world's most populous country is surging due to the growing popularity of premium products.

China Resources Beer has formed an alliance with Netherlands-based Heineken, the world's second-biggest brewer, and has started selling Heineken brand products exclusively. Tsingtao Brewery has fired up a new production line at a plant in the northeastern city of Qingdao.

AB InBev, meanwhile, has applied to list its Asian subsidiary in Hong Kong as it tries to expand its footprint in the Chinese market.

China Resources completed its capital tie-up with Heineken at the end of April, with the Dutch company buying a 40% stake in the Chinese brewer's parent, for 24.3 billion Hong Kong dollars ($3.1 billion).

In exchange, China Resources took over Heineken's operations in China. The move is part of its effort to cultivate the premium beer market in the country. China resources has grown rapidly by selling its mainstay Snow brand and other products cheaply. But this has hurt its image with China's increasingly sophisticated drinkers.

When China Resources launched a high-priced brand of its own, it intentionally left off the company's name. The alliance allows the Chinese brewer to produce and market products exclusively in China under the well-known Heineken brand.
At a news conference announcing China Resources financial results, CEO Hou Xiaohai said the company would sell four to five Heineken brand products in China simultaneously. Hou made it clear that China Resources would expand the marketing of Heineken brand products.

China Resources exports to Southeast Asia and Australia, but exports account for less than 1% of the brewer's total sales. Although the brewer plans to boost overseas shipments using Heineken's sales network, it will give top priority to lifting domestic sales first.

"The Chinese market is huge. Overseas expansion is not that important," said Hou.

Tsingtao Brewery put into a new production line into operation at its third plant in Qingdao on May 7. According to Chinese media reports, the plant's annual capacity has been raised by around 20% to 900,000 kiloliters.

Tsingtao spent about 80 million yuan ($11.5 million) on the new production line. The brewer has repeatedly invested to increase the third plant's capacity since the 2000s. The latest expansion is believed to be the fifth.

Although Tsingtao has not disclosed what products the third plant makes, the plant is expected to increase output of midrange and high-end products.

At a financial report announcing its financial results for fiscal 2018, the company stressed that it would be able to grow by strengthening its production capacity and improving its products, saying that "the Chinese beer market has potential."

China Resources and Tsingtao are focusing on the expanding midmarket and premium segments, rather than the low end, which is in decline as younger people turn to other products.

China Resource's sales totaled 31.8 billion yuan in the financial year ended December, up 7% on the year, while Tsingtao Brewery's sales reached 7.9 billion yuan in the January to March quarter of 2019, up 11% from a year earlier.

AB InBev, which is best known for its Budweiser brand, announced on May 10 that it had applied to list its Asia-Pacific subsidiary on the Hong Kong stock exchange.

If the flotation materializes, AB InBev is expected to raise more than $5 billion. The brewer is expected to use the money to beef up its sales efforts and acquire peers in China. CEO Carlos Brito has said the listing is aimed at making the brewer the "champion" in the region.

According to U.K. research specialist Euromonitor, the volume of beer sales in China totaled around 45 million kiloliters in 2018, down about 10% from 2013. In value terms, however, beer sales in China surged nearly 40% over the same five-year period to about $93 billion, thanks to rising unit sales prices, driven by the growing popularity of premium beers. Competition at the top end of the market, primarily among the three biggest players, is likely to continue.

Philippines: DOF studying tax for ‘alcopops’

Manila Bulletin  
By Chino S. Leyco  
June 30, 2019

The Department of Finance (DOF) is studying the proposal to create a separate tax for light alcoholic flavored beverages that are becoming the preferred drinks of millennials.

Finance Assistant Secretary Antonio Joselito G. Lambino II said they are looking at the possibility of separating the new alcoholic drinks commonly known as “alcopops” from distilled spirits under the government sin tax regime.

Lambino said the proposal on alcopop drinks was raised during a meeting of the DOF and the Department of Health (DOH) where they discussed their proposed measure for the 18th Congress that will raise the excise taxes on alcoholic beverages.

“We’re studying whether it [alcopops] should be part of the proposal or if we should maintain the status quo as these products are already being taxed as distilled spirits,” Lambino told reporters late Friday.

Currently, the national government imposes a 20 percent ad valorem tax on the net retail price per proof of distilled spirits and another P20 per proof liter specific tax.

Alcopops are ready-made carbonated and bottled alcoholic cocktails that are mainly mixtures of different types of spirits and liquors like vodka or rhum and flavoring.

Based on several researches, this new segment of alcoholic beverages is becoming popular among millennials, which is also eating up the market share of fermented drinks like beer in the local industry.

To recall, Finance Secretary Carlos G. Dominguez III said the DOF was keen on pushing the increase in excise tax
rates on alcoholic beverages under the Duterte administration’s comprehensive tax reform program (CTRP).

In the 17th Congress, the DOF had proposed for an increase in the tax rates on all types of alcoholic beverages, including distilled spirits, wines, and fermented liquors.

However, the proposed higher taxes on alcoholic beverages was not included in the recently passed Senate bill 2233 that, once signed into law by President Duterte, will raise the excise levies on tobacco products including heat-not-burn, electronic and vape cigarettes. Earlier, the DOF and DOH said the approval of higher excise taxes on tobacco products will provide the government with the necessary revenues to fully fund the universal health care (UHC), which will require as high as P1.44 trillion combined from 2020 to 2024.

PUBLIC HEALTH NEWS

Alcohol causes significant harm to those other than the drinker

News Release
Source: Journal of Studies on Alcohol and Drugs
July 1, 2019

PISCATAWAY, NJ - Each year, one in five U.S. adults -- an estimated 53 million people -- experience harm because of someone else's drinking, according to new research in the Journal of Studies on Alcohol and Drugs.

Similar to how policymakers have addressed the effects of secondhand smoke over the last two decades, society needs to combat the secondhand effects of drinking, the authors state, calling alcohol's harm to others "a significant public health issue."

According to the study -- an analysis of U.S. national survey data -- some 21% of women and 23% of men, an estimated 53 million adults, experienced harm because of someone else's drinking in the last 12 months. These harms could be threats or harassment, ruined property or vandalism, physical aggression, harms related to driving, or financial or family problems. The most common harm was threats or harassment, reported by 16% of survey respondents.

The specific types of harm experienced differed by gender. Women were more likely to report financial and family problems, whereas ruined property, vandalism, and physical aggression were more likely to be reported by men.

There is "considerable risk for women from heavy, often male, drinkers in the household and, for men, from drinkers outside their family," the authors write.

Additional factors, including age and the person's own drinking, were also important. People younger than age 25 had a higher risk of experiencing harm from someone else's drinking. Further, almost half of men and women who themselves were heavy drinkers said they had been harmed by someone else's drinking. Even people who drank but not heavily were at two to three times the risk of harassment, threats, and driving-related harm compared with abstainers. Heavy drinking was defined as drinking five or more drinks at a time for men or four or more drinks for women at least monthly.

To conduct the study, researchers led by Madhabika B. Nayak, Ph.D., of the Alcohol Research Group, a program of the Public Health Institute in Oakland, Calif., analyzed data from two telephone surveys conducted in 2015 -- the National Alcohol's Harm to Others Survey and the National Alcohol Survey. The current research, funded by the National Institute on Alcohol Abuse and Alcoholism, looked at data from 8,750 respondents age 18 and older and provides support for alcohol control policies, such as taxation and pricing to reduce alcohol's harm to persons other than the drinker.

"[T]he freedom to drink alcohol must be counter-balanced by the freedom from being afflicted by others' drinking in ways manifested by homicide, alcohol-related sexual assault, car crashes, domestic abuse, lost household wages, and child neglect," writes Timothy Naimi, M.D., M.P.H., of the Boston Medical Center in an accompanying commentary. Naimi advocates for increased taxes on alcoholic beverages, noting that there is strong evidence that increased alcohol taxes decrease excessive drinking and reduce the harms to people other than the drinker.

In a second commentary, Sven Andréasson, M.D., of the Karolinska Institutet of Stockholm, Sweden, writes, in a similar vein, that setting minimum prices for alcohol is important for reducing the harms caused by drinking.

"There is now a growing literature on the effects of national alcohol policies to reduce not only consumption but also some of the secondhand harms from alcohol, notably the effects of price policies on all forms of violence -- assaults, sexual violence, partner violence, and violence toward children," Andréasson writes. "Recent research on the effects of minimum pricing is particularly relevant in this context, where studies in
Canada find reductions in violence after the introduction of minimum pricing."

Nayak agrees. "Control policies, such as alcohol pricing, taxation, reduced availability, and restricting advertising, may be the most effective ways to reduce not only alcohol consumption but also alcohol's harm to persons other than the drinker," she says.

By Paul Candon


To arrange an interview with Madhabika B. Nayak, Ph.D., please contact Diane Schmidt at dschmidt@arg.org or 510-898-5800.

Support for this research was provided by the National Institute on Alcohol Abuse and Alcoholism (NIAAA) under awards R01AA022791 (Greenfield and Karriker-Jaffe), R01AA023870 (Greenfield, Bloomfield, and Wilsnack), and P50AA005595 (Years 31-35, Greenfield; Years 36-40, Kerr). The content is solely the responsibility of the authors and does not necessarily represent the official views of the NIAAA or National Institutes of Health.

The Journal of Studies on Alcohol and Drugs is published by the Center of Alcohol Studies at Rutgers, The State University of New Jersey. It is the oldest substance-related journal published in the United States.

To learn about education and training opportunities for addiction counselors and others at the Rutgers Center of Alcohol Studies, please visit https://education.alcoholstudies.rutgers.edu.

For sixty years, the Alcohol Research Group (ARG) has been actively engaged in critically needed alcohol- and other drug-related public health research. We study drinking and other drug use and how these and other factors such as gender, race/ethnicity, sexual identity, socioeconomic disparities, and environmental differences affect health. ARG is also home to the NIAAA-funded National Alcohol Research Center and training program. Please visit http://www.arg.org.

ARG is a program of the Public Health Institute, an independent nonprofit organization, dedicated to promoting health, well-being and quality of life for people throughout California, across the nation and around the world. Please visit http://www.phi.org.

**INDUSTRY NEWS**

**Budweiser applies for a trademark on “the official beer of esports”—here’s what it means**

*It seems like Budweiser wants to be the sole esports beer choice.*

DOT Esports
By Cole Ricke
June 30, 2019

As esports has grown over the last decade to dizzying heights, more and more corporate entities have wanted to get a piece of the gaming pie. And earlier this week, the Anheuser-Busch brewing company applied to trademark a phrase that would make it a leading proprietor of alcoholic beverages within the industry.

Budweiser applied to trademark the phrases “the official beer of esports,” “the official beer of gaming,” and “the official beer of gamers.” These trademark applications were seen on the official United States Patent and Trademark Office website.

This isn’t the first time a beer company has tried to enter the scene, however. MillerCoors sponsors Complexity Gaming and also paid for streamers to sponsor its products and advertise for the company on avenues of exposure, like Twitch streams.

But MillerCoors, more specifically Miller Lite, didn’t try to trademark a phrase or anything of the sort. It seemed like the company wanted to support esports growth while, at the same time, appealing to a demographic that mostly had no prior experience with alcohol, especially as the age demographic for esports becomes lower and lower.

So, what does Budweiser applying for this trademark mean for the average gamer?

Well, it certainly doesn’t bode well. While trademarking a phrase is usually meant for advertising purposes, the inclusion of the word “official” could lead to trouble within the industry.

Budweiser is partnered with the Overwatch League and Monumental Sports & Entertainment, two companies that are very big in esports. But this is a far cry from...
having such a command of the demographic that the word “official” could be applicable. This means advertising may confuse consumers into thinking more companies sponsor the drink or are partnered with it simply because of the phrase, which could lead to trouble if other alcohol companies want to partner up with esports organizations.

This process is still in the early stages, though—the application has yet to be approved. There are already warning signs that fans need to take heed of, however. Don’t let a catchphrase decide your drinking habits, and as always, be sure to drink responsibly.

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**DAILY NEWS**

**Alcohol Beverage Authorities in United States, Canada, and Puerto Rico**

TTB Newsletter

June 28, 2019

In the United States, each state has the authority to regulate the production, sale, and distribution of alcohol within its borders. This means state and local jurisdictions may have their own requirements in addition to federal requirements. State laws and regulations vary widely from state to state and may be more restrictive than federal regulations.

You must meet all state and local requirements in any state where you plan to do business (unless federal law preempts the state law). If you plan to do business in a state, you must contact its appropriate authorities for more information about the state and local requirements.

View the directory of alcohol beverage authorities in the United States, Canada, and Puerto Rico.

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**Schumer: Feds should boost probe into Dominican Republic deaths**

KKT

By Michael Balsamo, Associated Press

June 30, 2019

NEW YORK (AP) — The Senate’s top Democrat said Sunday that the U.S. government should step up efforts to investigate the deaths of at least eight Americans in the Dominican Republic this year.

Sen. Chuck Schumer, D-N.Y., wants the Bureau of Alcohol, Tobacco, Firearms and Explosives to get involved in the investigation into tourist deaths in the Dominican Republic.

CNN reports that 10 tourists have died.

The Bureau of Alcohol, Tobacco, Firearms and Explosives should lend support to the FBI and local law enforcement, said Sen. Chuck Schumer, D-N.Y., noting the agency has offices in the Caribbean and the technical and forensic expertise that could aid the investigation.

Family members of the tourists who died have called on authorities to investigate any possible connections. Relatives have raised the possibility that the deaths may have been caused by adulterated alcohol or misused pesticides.

ATF spokeswoman April Langwell said the Treasury Department primarily handles investigations involving potentially tainted alcohol. But she said ATF has offered its assistance and would work with other law enforcement agencies to keep Americans safe.

"Given that we still have a whole lot of questions and very few answers into just what, if anything, is cause for the recent spate of sicknesses and several deaths of Americans in the Dominican Republic, the feds should double their efforts on helping get to the bottom of things," Schumer said in a statement to The Associated Press.

The ATF primarily investigates firearms-related crimes but is also charged with regulating alcohol and tobacco.

Francisco Javier García, the tourism minister in the Dominican Republic, said earlier this month that the deaths were not part of any mysterious series of fatalities but a statistically normal phenomenon lumped together by the U.S. media. He said autopsies show the tourists died of natural causes.

Five of the autopsies were complete as of last week, while three were undergoing further toxicological analysis with the help from the FBI because of the circumstances of the deaths.

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**Using liquor bottles for decoration can be harmful**

*Think before using liquor bottles for decoration, it causes harm.*

Deccan Chronicle

ANI

July 1, 2019

Washington: We all love to preserve the well-decorated liquor bottle. However, it comes with its own risk. Glass
and enamelled decoration on bottles of beer, wines, and spirits contain harmful levels of the poisonous element including lead and cadmium, suggests a study.

The study published in the journal 'Environmental Science and Technology' analysed both the glass and enamelled decorations on a variety of clear and coloured bottles readily available in shops and supermarkets.

"It has always been a surprise to see such high levels of toxic elements in the products we use on a daily basis. This is just another example of that, and further evidence of harmful elements being unnecessarily used where there are alternatives available. The added potential for these substances to leach into other items during the waste and recycling process is an obvious and additional cause for concern," Dr Andrew Turner, Associate Professor (Reader) in Aquatic Geochemistry and Pollution Science.

The researchers showed that cadmium, lead, and chromium was all present in the glass, but at concentrations where their environmental and health risks were deemed to be of low significance.

However, the enamels were of greater concern, with cadmium concentrations of up to 20,000 parts per million in the decorated regions on a range of spirits, beer and wine bottles, and lead concentrations up to 80,000ppm in the decor of various wine bottles. The limit for lead in consumer paints is 90ppm.

The study also showed the elements had the potential to leach from enamelled glass fragments, and when subjected to a standard test that simulates rainfall in a landfill site, several fragments exceeded the United States Model Toxins in Packaging Legislation and could be defined as 'hazardous'.

For the current research, bottles of beer, wine and spirits were purchased from local and national retail outlets between September 2017 and August 2018, with the sizes ranging from 50 ml to 750 ml.

They were either clear, frosted, green, ultraviolet-absorbing green (UVAG) or brown with several being enamelled over part of the exterior surface with images, patterns, logos, text and/or barcodes of a single colour or multiple colours.

Out of the glass from 89 bottles and fragments analysed using x-ray fluorescence (XRF) spectrometry, 76 were positive for low levels of lead and 55 positives for cadmium. Chromium was detected in all green and UVAG bottles, but was only in 40 per cent of brown glass and was never in clear glass.

Meanwhile, the enamels of 12 products out of 24 enamelled products tested were based wholly or partly on compounds of either or both lead and cadmium.