

# Secetar

-ice tartar for testing the safety of alcoholic drink

## WHAT IS SECETAR

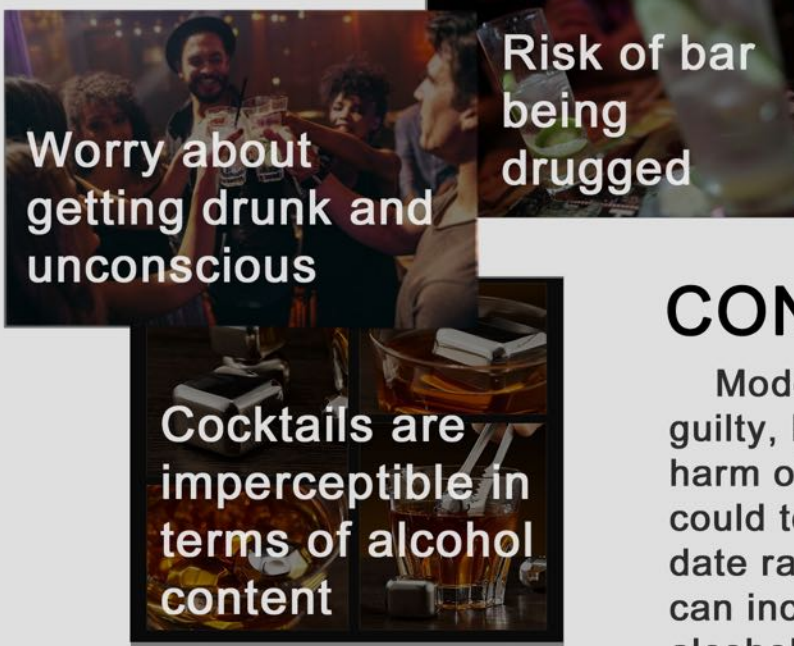
Secetar is designed to **test the alcohol level of alcoholic drink and whether it contains date rape drugs**, aiming to **make sure that alcoholic drink is safe** for people, especially women.

The surface of it could **reflect different colors of light** depending on the alcohol level. It will **sound an audible alarm** when date rape drugs are detected.



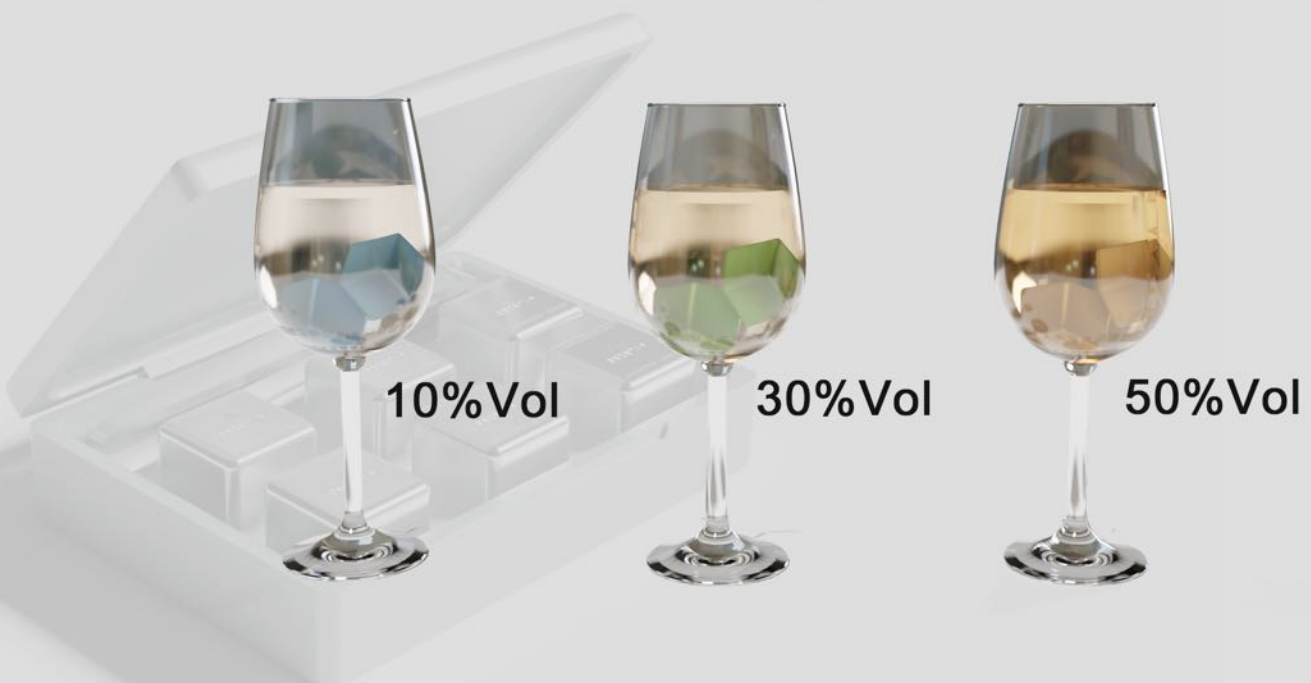
## BACKGROUND

Many young adults aim for a state of tipsiness or semi-drunk. But due to the current situation highly alcoholic drinks are often hidden in inconspicuous packaging. Plus, it's hard to prevent drink spiking. Alcohol and date rape drugs are the most frequently used drugs in drink-spiking incidents. Young women are common targets of drink spiking and the harms resulting include sexual assault, robbery, and unsafe sex. A survey shows that 35% of women say they have either had a drink spiked themselves or know someone who has or both.



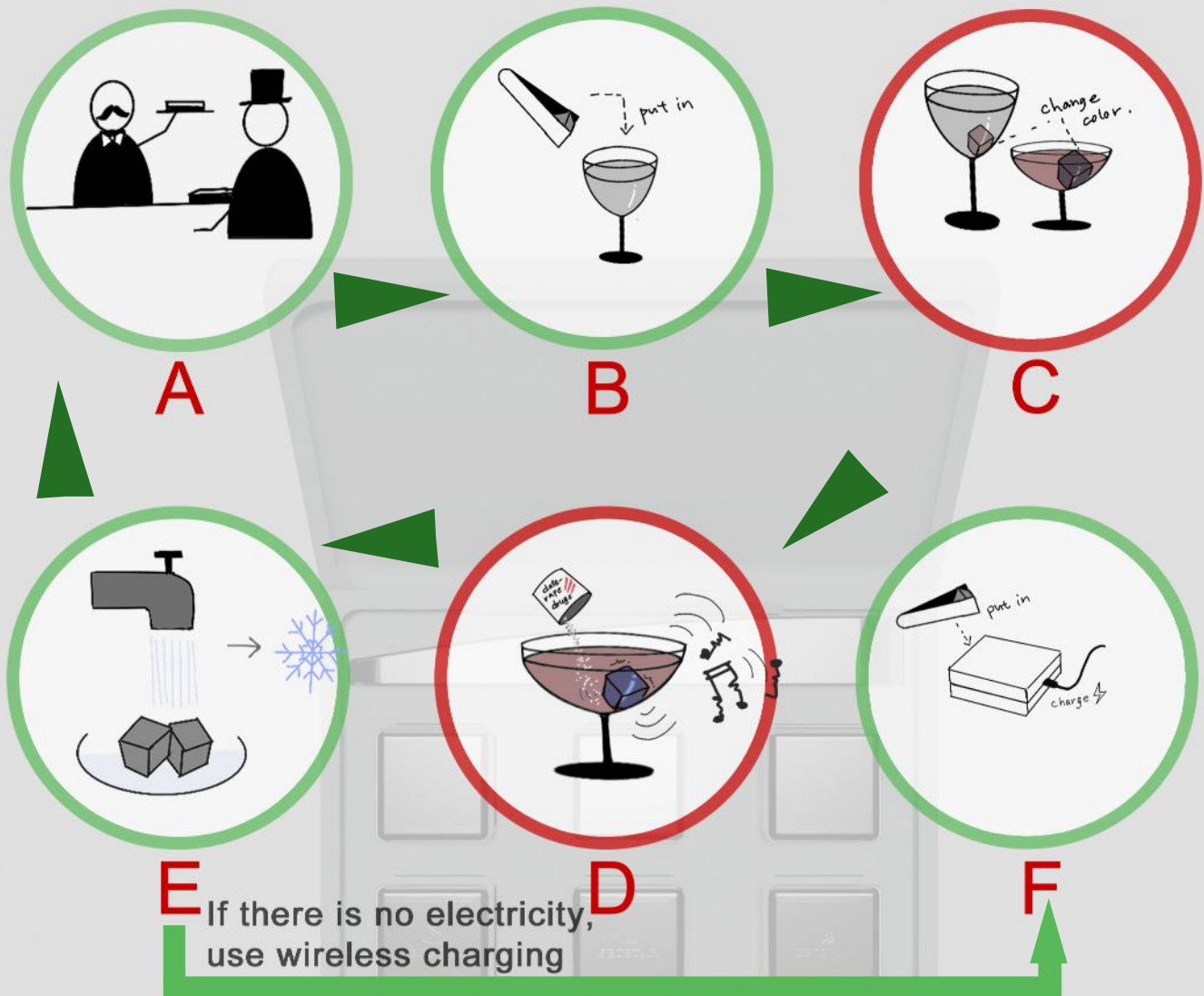
## CONCEPT

Moderate drinking itself is not guilty, but those who use it to harm others are guilty. Secetar could test for alcohol level and date rape drugs. That means it can increase the safety of alcohol, to create a safer drinking environment. While allowing drinkers to drink at ease, it also serves as a warning to wrongdoers.



# HOW TO USE

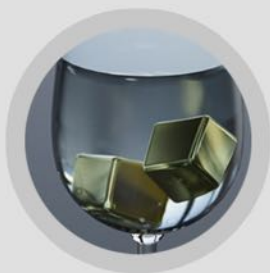
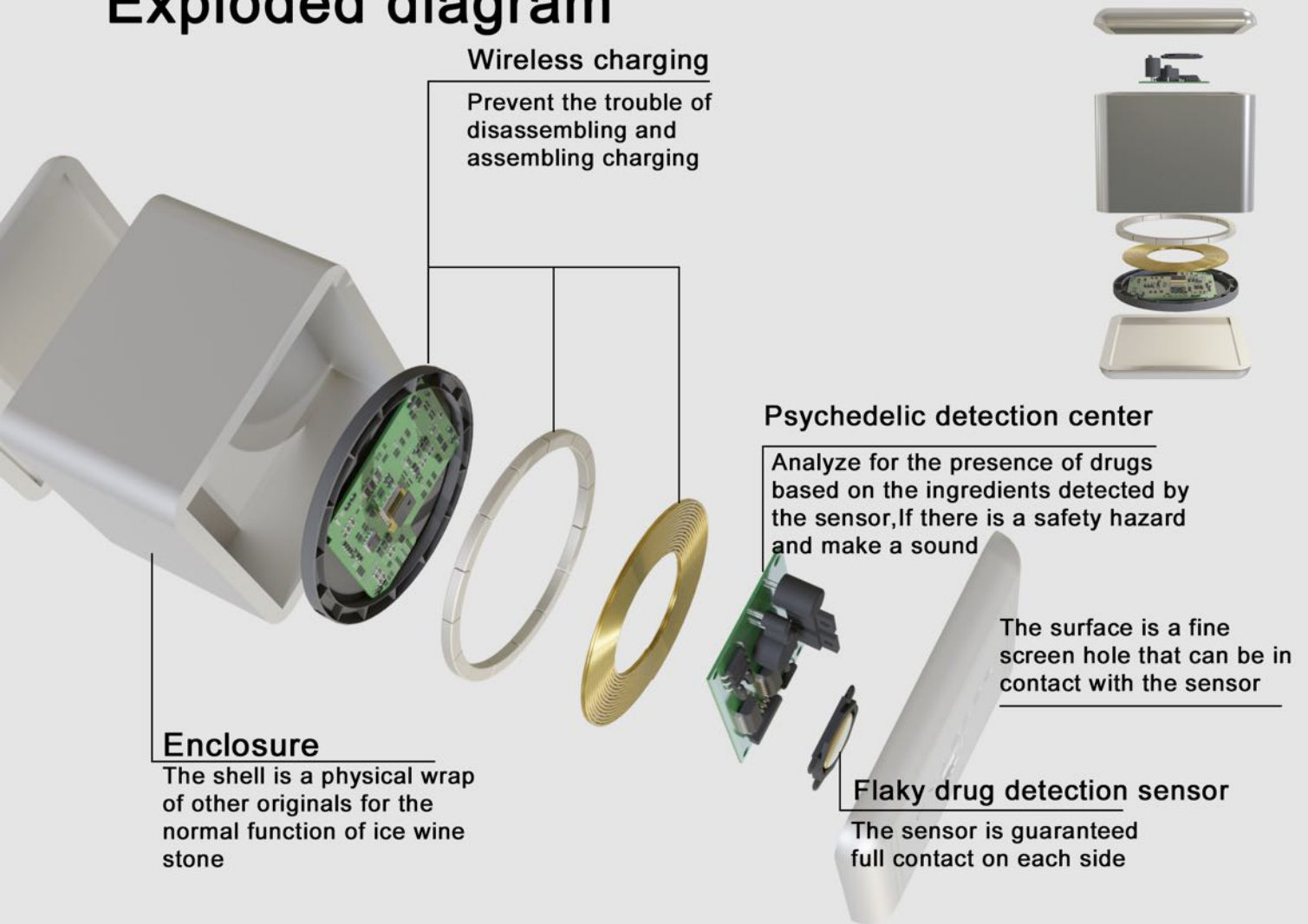
## Secetar



- A.** The bar offers Secetar, or drinkers bring their own
- B.** Place it into the drink
- C.** Its surface reflects different colors of light depending on the alcohol level
- D.** It sounds like an audible alarm when date rape drugs are detected.
- E.** Wash and refrigerate it for the next use
- F.** Put it in the box to wirelessly charge the internal audible alarm



# Exploded diagram



## A. **Strong visual interaction.**

Color changes directly reflect the alcohol level.



## C. **Wireless charging.**

The internal date rape drug detector can be recharged wirelessly.



## B. **Audible alarm.**

Secetar alerts drinkers and warns wrongdoers by the



## D. **Portable packaging.**

The box packaging is easy for drinkers to carry.



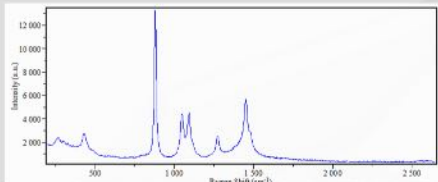
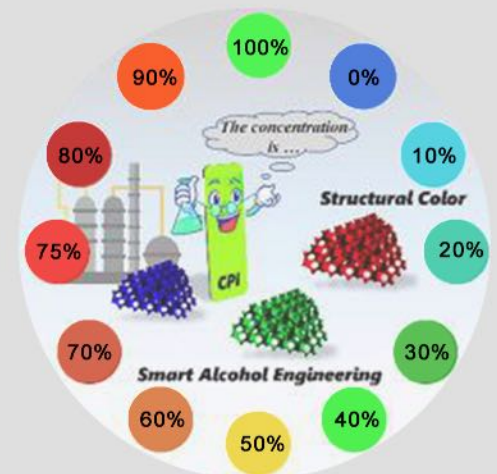
# More about the technology of the product

Alcohol content color change table

## How does Secetar change color:

**Portable colorimetric photonic indicator** for ethanol concentration sensing

The novel portable colorimetric photonic indicator (CPI) that can distinguish alcohol with concentrations from 0 to 100 % was ingeniously fabricated by bridging the copolymer capable of autonomic solvent control with porous structure via shape memory photonic crystals (PCs). **CPI shows an ultrafast color response (<1 s) to the perception of ethanol concentration and outputs structural colors from blue to red**, with reflection covering 477 to 628 nm.



## How does Secetar test for date rape drugs:

**Spectroscopy** is used to **analyze the molecular components of beverages**. If common drug ingredients are detected, an electronic sensor sends a signal to an audible alarm, causing it to sound an alarm.

## How to charge Secetar wirelessly:

A certain frequency of alternating current in the primary coil produces a certain current in the secondary coil through electromagnetic induction. This transfers energy from the transmitter to the receiver.

