

SHELF LIFE/STABILITY STUDY

Shelf life is the length of time that food, drink, medicine and other perishable items are given before they are considered unsuitable for sale or consumption. In some regions, a "best before", "use by" or "freshness date" is required on packaged perishable foods.

Shelf life is different from "expiration date": the former relates to food quality, the latter to food safety.

The quality of most foods decreases over time and there is the natural need to evaluate for how long these products will maintain its commercial value. In shelf life testing one or more quality criteria which constitute sample failure are defined. Sample failure is the condition of the product which exhibits either physical, chemical, microbiological or sensorial characteristics that are unacceptable to the consumer, and the time required for the product to exhibit such conditions is the shelf life of the product. The quality parameters chosen must be monitored periodically for as long as the test is conducted. Normally such tests are conducted lasting at least as long as the required shelf life of the product.

A food that has passed its shelf life is still safe, but optimal quality is no longer guaranteed.

Under some circumstances, the shelf life is critical to health. Some medicines begin to deteriorate (eg, in potency) or begin to accumulate toxic breakdown products immediately after manufacture or packaging. Depending on the material involved, this can be dangerous to life. Bacterial contaminants are ubiquitous, and foods left unused too long will often acquire substantial amounts of bacterial colonies and become dangerous to eat. Food poisoning is the result, and can be fatal.



Shelf life is most influenced by five primary events: light transmission, gas transmission, heat transmission, humidity transmission, or mechanical stresses. Product quality is often mathematically modeled around a single parameter: the concentration of a chemical compound, a microbiological index, or a physical parameter.

At Consolab, we could assist you to comply with regulatory requirement. We offer real-time and accelerated product shelf life determination using state-of-the-art stability chamber.

Purpose of Analysis:

To comply with regulatory requirements.

Methodology:

Analytical methods employed at Consolidated Laboratory have been adopted from recognized official sources and validated internally.

Instrumentations:

Humidity Chamber, HPLC, UV-VIS Spectrophotometrics, GC, AAS, ICP-OES, and etc.

With the above state-of-the-art modern technologies and more importantly the highly qualified and experience laboratory analysts and supporting staff, we in Consolab could offer you the above testing solutions. For enquiries kindly contact us.

Your One Stop Testing Solutions