

Time sensitive testing in the laboratory

Commercial life science is a high precision, high cost and highly risk conscious industry that requires robust risk mitigation and certainty at every stage of the research and testing process.

In your laboratory or research facility, there will be challenges that you face in carrying out your work:

- Integrity of results
- Safety
- Stock Control
- Budgets
- Quality control and audit

One of the things that may affect all of these issues is the shelf life of products. Many products that you use in the laboratory will have an expiry date. The expiry date may be printed on the packaging supplied by the manufacturer and will be the recommended time by which the product should be used by or disposed of. The reasons for this may be that the product:

- May change potency over time and become ineffective
- Contents may decompose or evaporate
- Contents may be light-sensitive
- Constituent chemicals can become unstable over time or produce gas build-up posing an explosion hazard or increased toxicity
- Integrity may be affected

Once a product has been opened, activated, decanted, diluted or mixed then it may have a new expiry or use within period that should be stated on the product.

Samples, cultures, tests etc. being worked upon in the laboratory may be time-sensitive for interpretation of results at each stage of testing, reading, analysis, and recording. These dates/times are written or recorded on labels or the container directly.

Minimizing the risks with time sensitive products and laboratory work can be difficult. Manufacturers print dates on packaging, which can be confusing as is it could be the date of manufacture or the date of expiry. Hand written or printed labels can be torn, smudged or simply illegible.

Consider the damage and frustration caused by running a test with out-of-date reagents and the costs associated with having to re-run a full trial because of this single component.





Find out how UWI can help you

- ✓ reduce risk
- ✓ reduce cost
- ✓ improve stock control

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Real-time solution

Working alongside your current processes the UWI Label offers an innovative and accurate approach to monitoring the time that a product is safe to use or a test meets the required criteria. Simply applied at the time of packaging or use, the label clearly gives a universally recognized indicator of the time of expiry for the product.

User-friendly concept

The UWI Label incorporates an embedded, elapsed-time indicator strip which is automatically activated when the product is opened ; progressively changing from green to red according to a pre-set time period. Red alerts the user or caregiver that the product may no longer be safe.

Alternatively the label can be activated when it is peeled from a sheet and applied to a product as it is reconstituted, diluted, decanted from a bulk storage container or mixed.

Unique technology

Designed using microfluidic technology, the patented smart label comprises three parts; the fluid, the microfluidic channel and the flexible material substrate. Many years of rigorous scientific and technical development is behind its successful performance.

Tailored timescale

The required time period is set in advance ranging from a few minutes, to hours, days, weeks and months. Longer periods are subject to further UWI Technology research and development and validation.

Broad application

Made from flexible, paper-like, composite materials, the UWI Label is suitable for application on a wide variety and size of jars, bottles, packs, devices, surfaces, containers and tubes. It is consistently reliable across refrigerated and ambient products.

Versatile design

The size of the UWI Label can be adjusted according to its intended use and artwork developed to align with product or facility branding.



Founded in 2009 by CEO and inventor of the UWI Label, Pete Higgins, UWI Technology has since won a raft of awards in recognition of its technical and commercial developments from organizations including: PWC Scotland, Barclays, NESTA, SMART Scotland and Scottish Enterprise.

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Benefits

The UWI Label gives a clear indication of when a product is still safe and suitable to use, which means:

- Reduced risk of false results caused by diminished efficacy of products used in testing
- Reduced waste as there will be less likelihood of doubt about using a product or discarding it
- Reduced costs because of the reduction in waste and repeat work
- Improved stock control
- Improved quality and audit procedures
- Support for the risk management strategy
- Improved safety
- Improved confidence in the products used and the results generated from the laboratory