

# Ensuring product use within the correct lifespan

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, testing, production and product use.

In every sector of the life sciences industry there will be challenges that you face in carrying out your work:

- Integrity and effectiveness of results
- Producing a satisfactory outcome for your patient, client or customer
- Risk management
- Safety
- Stock Control
- Budgets
- Quality control and audit

One of the factors that may affect all of these issues is the shelf life of products. Many products 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
- May be at risk of contamination or infection

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.

Patient comfort and safety may be affected by the need for equipment or products used in their care to be changed at regular intervals to ensure that they perform in the most effective way.

It is sometimes difficult to monitor these dates and times and a handwritten record is often used. Handwriting can sometimes be difficult to read, ink may become smudged or the label become torn resulting in loss of the recorded date. The information may also be interpreted differently by different people.





## 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 recognised 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 carer 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

Timeframes are pre-set at the point of manufacture using microfluidic technology. This can be from minutes to hours, days, weeks and months. The label can also be set to longer periods, 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 organisations including: PWC Scotland, Barclays, NESTA, SMART Scotland and Scottish Enterprise.

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## Wide ranging benefits

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

- 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
- Improved customer satisfaction
- Improved patient care, treatment and comfort