Press release

Laupheim, May 18, 2021

Maximizing vaccine supply: Uhlmann solution monitors the cold chain for COVID-19 vaccines

A maximum of 48 hours in 14 days: That is the time frame for which one of the new COVID-19 vaccines is permitted to be out of the cold chain during the filling and packing process. This makes an efficient cold chain tracking system – like the one Uhlmann Pac-Systeme GmbH & Co. KG has set up for an international pharmaceuticals packager – all the more important. It monitors the cold chain throughout the entire process – from delivery of the vaccine to the final freezing of the packed vials.

Cold Chain Tracking helps increase vaccine availability

There is significant time pressure in the pharmaceutical industry – and never more so than for COVID-19 vaccines. Producers need to build supply chains for millions of doses within the shortest possible time frame. Alongside this, many vaccines require a cold chain to be maintained – some even need deep freezing at times. Today's processes are not yet fully developed for this. "For some manufacturers, the cold chain has to be monitored manually using a paper-based device, as no digital solutions are available yet. Given the speed and the volumes at which the COVID-19 vaccines are being produced, it is highly inefficient. Furthermore, the active ingredients can degrade if the cold chain is broken for too long. With our digital Cold Chain Tracking, we are helping to ensure the maximum number of vaccine doses can be provided," explains Georg Schick, Global Product Manager Track & Trace at Uhlmann.

Monitoring from goods receipt right through to shipping

The digital Cold Chain Tracking solution operates as follows: The vaccine batches are registered when they are received. From this point, the system records every time they are checked into the cold chain and checked out for filling or packing. This is achieved by printing the vials in the filling station with a UV code which can then be read by the VisioRead camera system. The Uhlmann Control Terminal T1 prepares and records the serialization data and the aggregation. A central server collects all the data together. This is where the batches to be monitored are created and finalized, and where the reports and documentation are produced.

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Traffic light system to maximize productivity

The system documents withdrawals from and time spent in the cold chain. In parallel, this is compared to the maximum time permitted outside of the cold chain. The cold chain status is displayed at every checkpoint via a traffic light system. If the cold chain is broken when a processing step takes too long, the system triggers an alarm. This allows the packaging process to be controlled accordingly, and the largest possible number of vaccine doses to be "rescued" using digital Cold Chain Tracking.

Digital trumps manual

A digital Cold Chain Tracking system offers significant advantages compared to a manual process: Digital monitoring of the cold chain is much more precise and provides real-time reporting. It can be used to detect critical batches early, allowing them to be given preferential treatment or at least be removed as soon as possible. The reporting can be viewed at any time, even from outside of production. In addition, Uhlmann's Cold Chain Tracking can be integrated into an existing Track & Trace process and can extend this process accordingly. This is an essential part of the pharmaceutical production process to ensure extensive counterfeit protection, product safety and process reliability. "The project demonstrates how digital solutions lead to improved safety, efficiency and productivity throughout the entire process. Track & Trace is often the entry point for digitalization in the pharmaceutical sector and medical technology. As part of its Digital Solutions business area, Uhlmann develops practical solutions for current and future requirements," states Georg Schick.

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ABOUT UHLMANN

Uhlmann Pac-Systeme GmbH & Co. KG is a global leader in providing systems for packing pharmaceuticals in blister packaging, bottles and cartons. In addition to its innovative packaging lines, Uhlmann offers consultation, project management, extensive services and digital solutions from a single source. The company is part of the Uhlmann Group, which achieved turnover of €434 million in the 2019/20 business year with around 2500 employees. Other companies in the Uhlmann Group are KOCH Pac-Systeme, Cremer Speciaalmachines, Wonder Packing Machinery, and Axito.

Find out more at: www.uhlmann.de and at www.uhlmann-group.com
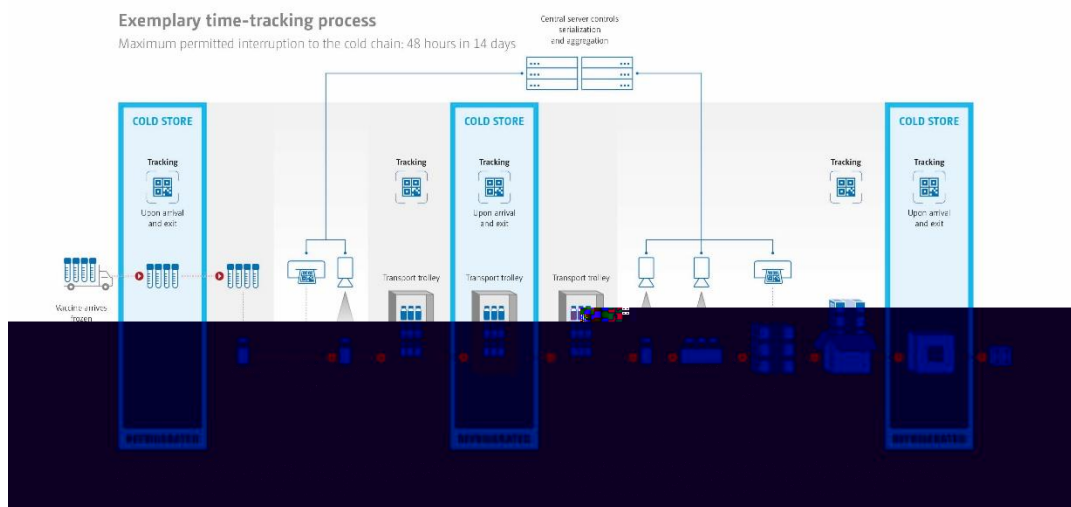
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PRESS IMAGES

"Cold Chain Tracking from Uhlmann is an example of the added value digital solutions can offer to the pharmaceutical sector and medical technology," explains Georg Schick, Global Product Manager Track & Trace at Uhlmann Pac-Systeme GmbH & Co. KG. (Source: Uhlmann)

The filling and packaging process for COVID-19 vaccines consists of cold chain phases (blue) and process steps outside of the cold chain (gray). Cold Chain Tracking from Uhlmann ensures that the maximum permitted time outside of the cold chain is not exceeded. (Source: Uhlmann)

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