

Product Sheet

PHARMAKEEP®

CLARIANT 

HUMIDITY NEUTRAL
OXYGEN
SCAVENGERS



PharmaKeep® is an innovative line of polymer-based oxygen scavenging capsules and packets, developed and distributed jointly by Clariant and Mitsubishi Gas Chemical Company, Inc. (MGC). PharmaKeep® oxygen scavengers extend the shelf life and efficacy of pharmaceutical and nutraceutical products by protecting against oxygen degradation and oxidative reactions in low relative humidity package environments.

- **Humidity neutral:** Iron based oxygen scavengers are normally not suitable for most dry pharmaceutical applications due to their need for the presence of moisture to scavenge oxygen. PharmaKeep is humidity neutral, absorbing oxygen at either low or high relative humidity levels, and can be used in conjunction with a desiccant.
- **High speed insertion:** Due to their rigidity, PharmaKeep capsules can be inserted at high rates of speed using standard desiccant canister insertion equipment. Packets can also be automated.
- **Full protection:** PharmaKeep can be paired with Clariant's Oxy-Guard® oxygen barrier bottles for an ideal package solution
- **Degradation avoidance:** With PharmaKeep, the chemical and physical degradation of drug products can be mitigated, sometimes visible in extreme color change

With protection



Without protection



Oxidative degradation – besides moisture – is one of the major pathways for degradation of pharmaceuticals, probiotics and other healthcare products during production, isolation processes and storage. When evaluating drug properties during formulation of pharmaceuticals, the need to address suboptimal physiochemical properties, such as susceptibility to oxidation, can extend development time and costs.

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Clariant offers various configurations of PharmaKeep canisters and packets to accommodate different packaging needs. Capsules are rigid and cylindrical in design and are ideal for automatic, high-speed insertion into pharmaceutical and nutraceutical packaging, typically feeding 300 to 600 capsules per minute.

PharmaKeep packets have the same absorbing function as PharmaKeep canisters. Capsules (CD) and packets (KD) are available in two-in-one moisture and oxygen absorbing configurations.

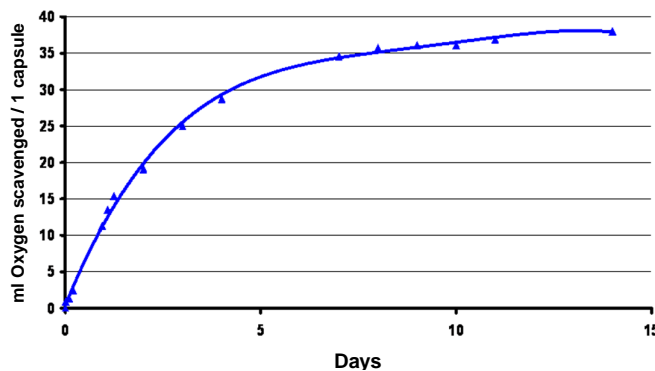
Specified Performance of PharmaKeep products

(evaluated at 25°C, 75%RH, 7 days; refer to measurement method of Pharmakeep® performance)

Capsule CD-1G & packet KD-10S: >10ml oxygen & >0.07g moisture.

Capsule CD-2.15G & packet KD-20: >20ml oxygen & >0.15g moisture.

Packet KD-400: >400ml oxygen & > 3g moisture.



PharmaKeep® oxygen scavengers are available in capsule and packet configurations.

Oxygen absorption capacity is specified at 20 ml of O₂ per CD-2.15g capsule at 7 days. Because of the variability of normal usage conditions, capacity is often much higher in normal conditions

Pharmakeep® canisters & packets comply with FDA & EU regulations for use in pharmaceutical applications and are registered in a Drug Master File.

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