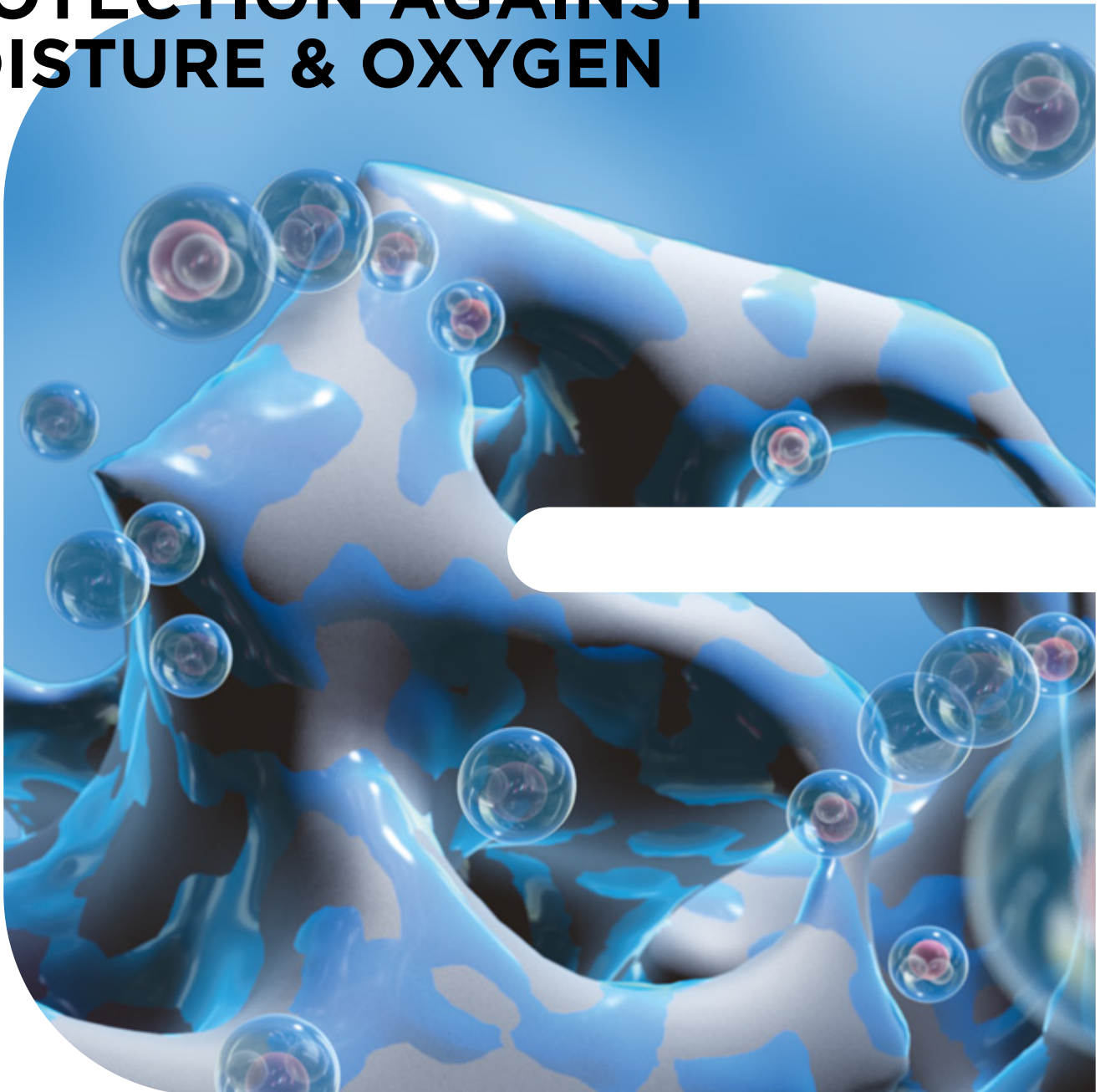


# Healthcare Packaging **PROTECTION AGAINST MOISTURE & OXYGEN**



what is precious to you?

# Maintaining product stability and shelf life for healthcare products with innovative controlled-atmosphere packaging



## EXPERTS IN ACTIVE PACKAGING FOR HEALTHCARE

Clariant Healthcare Packaging provides critical industries with innovative controlled atmosphere packaging, principally to protect products from moisture and oxygen. Clariant's desiccant and active packaging products help global and regional pharmaceutical, nutraceutical, and diagnostic companies maintain product stability and prolong shelf life.

We are innovators with decades of experience developing technologies that incorporate active agents into product packaging to address specific and demanding market requirements for highly-regulated companies. Working in partnership with customers, Clariant employs simulation and calculation methods that take into account all relevant application parameters to determine the ideal protective packaging solution.

Clariant's high speed manufacturing and injection-molding processes follow the company's rigorous operational excellence program – Clariant Excellence – which includes strong quality assurance, adherence to Good Manufacturing Practices, full traceability, and a strong commitment to the environment.

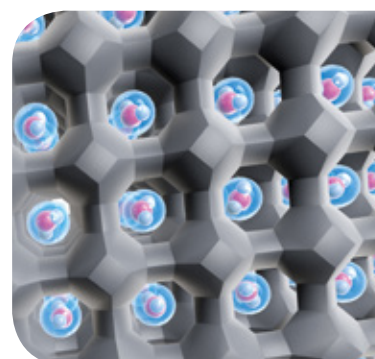
## OPERATIONAL EXCELLENCE

- Operating under 6-sigma, 5S and continuous improvement methodologies
- Offering USP <670> compliant desiccants
- Flagship plants in Belen, U.S. and Romorantin, France ISO 15378 (cGMP) certified
- Global footprint includes major production plants in the U.S., France, China, and India as well as regional customer service sites allowing for close attention to customer needs and Business Continuity Planning (BCP)



## ENGINEERED SORBENT SYSTEMS

- **Desiccants** and moisture adsorption systems include high quality silica gel and molecular sieve
- **EQ-PAK®** and **EQ-CAN®** provide calibrated humidity regulation
- **Oxygen scavenging systems** designed for use in low-RH packaging environments
- **Odor adsorption** via activated carbon
- **Combination** options available: 2-in-1 moisture/odor; moisture/oxygen
- **Advanced Desiccant Polymer (ADP®)** directly embedded into plastic material of packaging



# Dropped-In

## EFFICIENT AND STANDARD ACTIVE AGENTS

Active agents, in the form of canisters, capsules, and packets are designed to be dropped directly and efficiently into healthcare packaging. Innovative design and construction allow these components to be inserted automatically at high rates of speed.



### CANISTERS

- High speed insertion
- Desiccants and odor adsorbers



### CAPSULES

- High speed insertion
- Desiccants
- Equilibrium sorbents (EQ-CAN®)
- Oxygen scavengers



### PACKETS & BAGS

- Automatable
- Hole punch detection
- Desiccants and odor adsorbers
- Equilibrium sorbents (EQ-PAK® & EQ-BAG™)

# Integrated **ACTIVE AGENTS BUILT-IN AND STREAMLINED**

When the active agents are integrated into a closure or the bottom of a container, the need to insert a desiccant is eliminated and the packaging process is streamlined. This method is widely used to package effervescent tablets and diagnostic strips. Tubes and Desiccant Stoppers include a line of Handy Active Tubes (HAT®) that feature ergonomic flip-top functionality. For bottles, Clariant's Integrated Desiccant Closure (IDC®) is ideal.



#### **TUBES & DESICCANT STOPPERS**

- Ideal for effervescent tablets, lozenges, and tablets
- Stoppers available with desiccant, tamper evidence, spiral compensator, hinge cap (HAT® SNAP), or hot stamping
- 6-color offset tube printing



#### **DESICCANT WASHERS & INSERTS**

- Snapped into bottom of bottle caps
- Available separately or pre-assembled to a cap



#### **INTEGRATED DESICCANT CLOSURE (IDC®)**

- Several critical functionalities integrated into one container-closure system
- Built-in desiccant, tamper evidence, child resistance, and ergonomics

# Embedded PROTECTION MOLDED DIRECTLY INTO PLASTIC

Clariant's Advanced Desiccant Polymer (ADP®) and unique multi-layer molding capabilities provide increased protection from within the container or device itself. ADP® technology embeds desiccant directly into plastic material and is deployed within diagnostic vials or in test kit or delivery system components. High barrier copolymers like EVOH are molded within multi-layer systems to greatly enhance oxygen protection.



#### ADP® COMPONENTS

- Can be molded into any functional part of a device or assembly
- Unlimited number of shapes possible to fit in tight spaces



#### DIAGNOSTIC VIALS

- HAT-IN® vials lined with ADP® for uniform protection
- Both standard vials and customization available



#### OXY-GUARD® BARRIER BOTTLES

- 6-layer extrusion blow-molded (EBM) bottle providing high barrier to oxygen and moisture
- Barrier material based on Ethylene Vinyl Alcohol (EVOH)



## Packaging with a purpose:

41 Bluestone Circuit,  
Seventeen Mile Rocks, Qld, 4073  
Phone: +61 7 3376 0188  
Email: sales@alchemypp.com.au

[www.alchemypp.com.au](http://www.alchemypp.com.au)

CLARIANT INTERNATIONAL LTD  
HEALTHCARE PACKAGING

[healthpack@clariant.com](mailto:healthpack@clariant.com)



[WWW.CLARIANT.COM/HEALTHPACK](http://WWW.CLARIANT.COM/HEALTHPACK)

This information corresponds to the present state of our knowledge and is intended as a general description of our products and their possible applications. Clariant makes no warranties, express or implied, as to the information's accuracy, adequacy, sufficiency or freedom from defect and assumes no liability in connection with any use of this information. Any user of this product is responsible for determining the suitability of Clariant's products for its particular application. \* Nothing included in this information waives any of Clariant's General Terms and Conditions of Sale, which control unless it agrees otherwise in writing. Any existing intellectual/industrial property rights must be observed. Due to possible changes in our products and applicable national and international regulations and laws, the status of our products could change. Material Safety Data Sheets providing safety precautions, that should be observed when handling or storing Clariant products, are available upon request and are provided in compliance with applicable law. You should obtain and review the applicable Material Safety Data Sheet information before handling any of these products. For additional information, please contact Clariant.® Trademark of Clariant registered in numerous countries.

\* For sales to customers located within the United States and Canada the following applies in addition:  
**No express or implied warranty is made of the merchantability, suitability, fitness for a particular purpose or otherwise of any product or service.**

© 2016 Clariant International AG, Rothausstrasse 61, 4132 Muttenz, Schweiz.

®™ Product and service marks protected by Clariant: Sorb-it®, Tri-Sorb®, 2-IN-1 PAK®, 2-IN-1 CAN®, EQ-BAG™, EQ-PAK®, EQ-CAN®, HAT® (HAT®-IN; HAT®-SNAP), Oxy-Guard®

