

# SORBATECH<sup>®</sup>

The Preferred Solution for Moisture Control and  
Product Protection for Healthcare Applications





# Do you want timely custom solutions and excellent technical service support?

At Flow Dry, your success is our success. Since 1946, Flow Dry has provided adsorbent solutions for a wide variety of healthcare applications. Our industry experts take pride in having a deep understanding of our customers'

requirements. With locations in the United States, Hungary and China, Flow Dry also offers the global scale needed for top companies to compete in today's global markets.

Let's identify the enemies that our customers face...

## MOISTURE



## ODORS



## GASES



If any of the above contaminants enter a product's packaging, it can result in reduced freshness, stability and shelf life.

Many products can be damaged by the presence of moisture, odor and gases, including:

- **Pharmaceuticals (both NDAs and ANDAs):** Drugs in capsule and tablet form, and housed in plastic or glass bottles, blister packaging and pouches/bags
- **Nutraceuticals and Dietary Supplements:** Vitamins, minerals, probiotics, amino acids, plant extracts
- **Medical Devices:** Syringes, test strips, needles
- **Diagnostic Kits:** Pregnancy, urine, blood, DNA tests

## Protecting Your Products

SorbaTech® products contain adsorbents that have the capability to pull moisture, odor and gases away from the product and keep them contained. The most popular adsorbents/desiccants are:

- Silica Gel
- Activated Clay
- Molecular Sieve



# The SorbaTech® Solution

While the adsorbent/desiccant does the hard work of preventing any moisture, odor or gas from affecting the packaged product, it must also be packaged to keep the adsorbent material properly contained. That's where the cover-stock material that is used to house the adsorbent/desiccant plays a crucial role. Flow Dry's technical experts will propose the best cover-stock material or method of packaging. A possible solution is Tyvek,® from DuPont, which has been accepted as the industry standard because it is:

- Tear and puncture resistant (even after becoming wet)
- Highly permeable for water, odor and gas molecules
- Adsorbent dust remains inside the packet
- Made of non-woven, high-density polyethylene (HDPE) *NOTE: the same material that is used to make many drug bottles*
- Approved for direct contact with drugs and food



## SorbaTech® Adsorbent/Desiccants are sold in three forms:

1. **Single packets:** for individual insertion into packaging or in lot testing for drug companies
2. **Strip-form packets:** (also known as Strip-Packs) for high-volume, high-speed dispensing into packaging
3. **Unit Bags:** for intermediate storage prior to packaging of finished goods

SorbaTech® packets have been proven to offer a high level of performance, as packaged:

### RESIDUAL MOISTURE

based on LOD /loss-on-drying oven  
temperature of 575°C / 1067°F)

3% or less residual moisture for silica gel packets

2% or less residual moisture for molecular sieve

3% or less residual moisture for clay

### MOISTURE ADSORPTION CAPACITY

(at temperatures of 25°C / 77°F  
and relative humidity of 80%)

Not less than 25% moisture adsorption capacity  
for silica gel packets

Not less than 20% moisture adsorption capacity for the  
desiccant in clay or molecular sieve packets

To guarantee their integrity, SorbaTech® packets are shipped in vacuum-sealed foil and/or poly bags. The packet shelf life depends on a number of factors, including the packaging type used and the user's storage conditions. Typical poly-bag packaging will have a 12-month shelf life while foil-bag packaging will have a 24-month shelf life.



# Flow Dry's Assurance of Quality & Technical Service

SorbaTech® Adsorbent/Desiccant Products give the user peace of mind by meeting a number of regulatory requirements and certifications including:

- U.S. Food & Drug Administration CFR 21 compliance
- U.S. Food & Drug Administration Drug Master File (DMF) No. 23893 / NOTE: A letter of authorization must be requested to view the DMF file
- Current Good Manufacturing Practice (CGMP) standards
- Certification to ISO9001 and compliance with ISO14000 quality manufacturing-system standards
- As required, compliance with European Union standards for pharmaceutical- and food-manufacturing standards
- All packets electronically tracked by lot number, manufacturing date and manufacturing location

With sales, manufacturing and service operations in the United States, Hungary and China, Flow Dry offers:

- Expert technical support to design custom adsorbent solutions for your application
- Design and manufacture of products for your application using specialty adsorbents
- Responsive on-call customer service
- Global, scale-able operations



## Flow Dry's Strip-Pack Dispensing System Technical Support Service

For those customers who wish to use Strip-Pack products, Flow Dry can offer support related to dispensing-system solutions. Packet-dispensing systems typically operate at three speeds, depending on the user's needs:

- **Low speed:** 120 bottles per minute
- **Mid-speed:** 175 bottles per minute
- **High speed:** 260 bottles per minute

Flow Dry's Technical Support Services are available to advise customers in the selection of the best dispensing solution to meet specific needs.

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