



**YOU MAKE THE
MEDICINE, WE
PRESERVE THE
EFFICACY**



MULTISORB

Filtration Group®

Packaging Science that Preserves



THE POWER OF OUR PARTNERSHIP FROM SCIENCE TO SOLUTION

Our expertise in active packaging allow us to work with companies in the healthcare industry to:



Reduce chemical and physical degradation of drug products.



Get products to market faster by quickly diagnosing sorbent needs.



Extend product shelf and reduce loss from waste.



Increase productivity with industry-leading dispensers
Up to 300 Packets per Minute

SCIENCE

SOLUTION





SERVICE: 100+ Years of Collective R&D Experience

Multisorb brings **more than a century of combined R&D experience** to every partnership. We continuously **evolve and strengthen our existing portfolio** while investing in **new product development** to support our existing customers' changing packaging requirements, **ESG and sustainability initiatives, and operations efficiency goals.**

QUALITY: Performance Beyond Six Sigma

Multisorb is committed to **Six Sigma quality standards, with an estimated defect rate of fewer than 2 parts per 10 million.** Compared to the Six Sigma benchmark of 3.4 defects per million opportunities, Multisorb's performance reflects an exceptional level of manufacturing precision

For CMOs, CDMOs, and brand owners, this translates into:

- Reduced risk
- Greater production reliability
- Protection of product integrity
- Preservation of brand reputation

Preserve Validation Continuity: Investment & Total Cost Considerations

Partnering with **Multisorb reduces disruption.** Switching suppliers requires proving equivalency – introducing additional time, cost, and regulatory burden. **Validation costs** alone in regulated markets can range from **\$50,000-\$200,000 or more** per change.

Look beyond unit price and consider:

- Total output and line efficiency
- Risk mitigation
- Cost and complexity of switching
- Regulatory requalification requirements



SUSTAINABLE

Over 65% reduction in plastic material
when compared to traditional canisters

PRODUCT SPOTLIGHT | MULTIFORM® CSF



Designed to Reduce Plastic at Scale

Multiform CSF canisters reduce plastic usage by **up to 1.3 metric tons per million pieces** compared to traditional loose-fill canisters.

RUN THE NUMBERS.

Scan to calculate your savings
with Multiform CSF



WHAT EXACTLY IS CSF?

Multiform® CSF canisters are highly durable, moisture-adsorbing solutions designed to control humidity within sealed environments by actively drawing moisture from the air. They are available in multiple sizes, including 1 g, 1.5 g, 2 g, and 3 g.

Unlike traditional canisters filled with loose desiccant, Multiform CSF utilizes a unique compressed solid-form desiccant. Each canister is **laser printed and coated with pharmaceutical-grade HPMC, providing a non-dusting design** with secure, non-separating properties.

The Multiform Coated Solid Form (CSF) delivers a compact sorbent material with adsorption capacity comparable to traditional canisters, while **adsorbing moisture up to twice as fast as similarly sized loose-fill designs**.

These sustainability numbers do not include the decrease in plastic consumption for pails utilized as primary packaging of sorbents—Multisorb uses foil pouches and cartons—including that data would be an additional plastic reduction in final data.

2X more adsorption per unit volume
compared to loose fill canisters

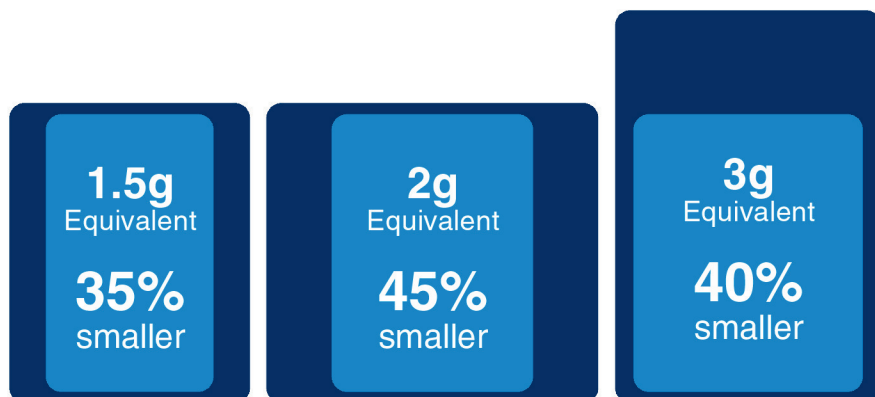


A Space Saver with Proven Performance

Delivering Improved Protection

- Higher absorption capacity per unit volume means **one canister can be used instead of two**
- One-piece **design eliminates possibility of loose desiccant spilling** on manufacturing line or contamination of product
- Universal dispensing **eliminates excessive dispenser tooling** changes and **increases productivity**
- **Better overall performance** at a comparable cost

*Multiform CSF Canisters are a **commercialized and proven solution** used in more than 200 million pharmaceutical packages.*



WANT TO LEARN MORE?
Connect with our experts—from science to solutions.

5X

oxygen-absorbing
capacity of
competing solutions



StabilOx®



StabilOx® H-20 meets the need for oxygen absorption in low-water-activity drug formulations (≤ 0.2 aw) that **remain stable at approximately 20% RH**. In the same form factor, StabilOx H-20 **delivers up to 5X the oxygen-absorbing capacity of competing solutions**.

OXYGEN MANAGEMENT:

- Non-toxic, Inorganic-based, Iron Oxide-Forming Reaction
- High Oxygen Capacity Compared to Organic-based Absorbers
- Contain No Formaldehyde
 - Common “Blooming Agent” in Organic-based Absorbers
- Can be used with Standard HDPE Bottles
 - Expensive Multi-Layer, Non-Recyclable, EVOH Barrier Bottles Not Required
- Can Be Formulated to Match ERH Requirements of Drug Product

Oxygen
Absorber
Properties

Initial Headspace
Oxygen Concentration

Drug
Product
Not a
Meaningful
Source of
Oxygen

OTR
Through
HDPE Resin

FORMATS AVAILABLE:

StabilOx[®] Oxygen Absorbers are **available in a variety of formats and sizes** to meet your packaging needs, including **packets and canisters**. Our team of packaging and formulation experts can help ensure you **select the right StabilOx solution for YOUR application**.

Our Products

PROTECT YOUR PRODUCT WITH CONFIDENCE:

Accelerate time to market with Multisorb's proven portfolio of desiccants and oxygen absorbers, **available in both canister and packet formats.**



Desiccants/
Moisture Regulators

Oxygen
Scavengers



HOLDING OURSELVES TO A HIGHER STANDARD

CERTIFICATION & REGULATORY REQUIREMENTS

DELIVERING A PREMIUM PRODUCT

Multisorb's quality is second-to-none. Our customers know that **our packaging solutions protect their products and meet all regulatory requirements.** Our Regulatory Affairs staff are experts who make sure **our solutions conform to all regulatory guidelines.**

INDUSTRY CERTIFICATIONS

- ISO 9001:2015 Registered
- GFSI FCCS 22000 Certified
- 21 CFR Parts 210-211 (cGMP) Compliant
- Certified for EU 10/2011 on food contact

REGULATORY REQUIREMENTS

- US FDA Food Contact Status, USP, FCC Compliant
- Drug Master File (DMF) for all common products
- US FDA & Health Canada Approved
- EU Food Contact approved



We have **strict quality control** on incoming raw material, in-process checks, and finished goods to **prevent product defects.**



DISPENSING EQUIPMENT

By engineering our sorbent technologies with their APA dispensing systems, Multisorb delivers an integrated **science-to-solution platform** that seamlessly incorporates sorbent dispensing into pharmaceutical packaging lines—**helping manufacturers improve reliability, efficiency, and product protection.**

Modern APA Models Provide:

- ✓ Modern diagnostic tools for quick RCA
- ✓ Multilingual Interface Support
- ✓ On-Screen Visuals for Operator Guidance
- ✓ Long-term Servicability

If your equipment is 10+ years old, it may be time to evaluate your risk.



EQUIPMENT

Equipment and Support for Cost Effective and Turnkey Operations

More than equipment. Our customers receive dedicated, white-glove technical support. From installation to troubleshooting, the Multisorb **APA Technical Service Team** ensures your dispensing systems operate at peak performance.

Our team works directly with your operators and maintenance staff to **ensure equipment is set up correctly, teams are properly trained, and any issues are resolved quickly to minimize downtime.**



Professional Installation and Setup completed by our team to ensure optimal performance from day one.



Operator and Maintenance training during install of interface support and on-screen visuals



Rapid Support calls are prioritized and routed directly to our dedicated APA Service Team.



& SUPPORT



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