

## VAPOR SORPTION ANALYZER



### COMPLETE MOISTURE ANALYSIS

# High Resolution Isotherm in Two Days

The way a product behaves as humidity changes can reveal important insights. This type of measurement is called an isotherm (we change humidity as temperature stays the same). Isotherms hold the key to understanding hidden details of food and pharmaceutical products.

Here are a few examples:

#### Formulate Intelligently

A pharmaceutical manufacturer wants to formulate a production version of a drug that has just finished clinical trials. Isotherms show them which excipients can be combined with the API to create a stable

product. Vapor sorption also shows them how the pill will perform under abuse conditions.

#### What's New

If isotherms are so useful, why doesn't everyone make them? Making isotherms by hand takes too much time and effort.

Historically, instruments that do this were much too expensive for most R&D departments. Also, both approaches were overly complex. The AquaLab Vapor Sorption Analyzer changes this—it's simple to use, affordable, and performs both static and dynamic vapor sorption analysis with ease. ■

## AquaLab VSA

#### ■ Set Specifications —

Determine the most stable water activity for your food product and predict reactions and textural changes that end shelf life.

#### ■ Guide Formulation —

Map out how an ingredient or recipe will respond as you change formulation.

#### ■ See Details —

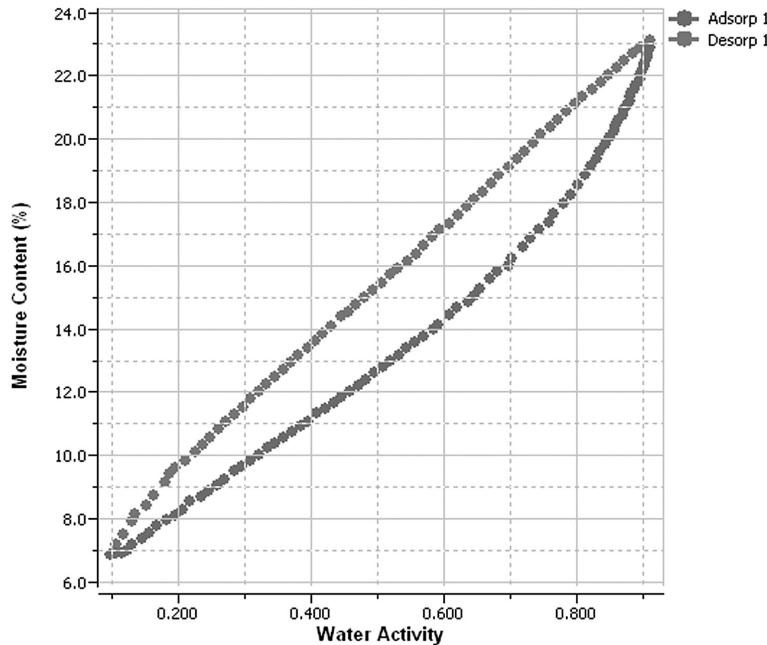
Typical isotherms have fewer than a dozen points. AquaLab Vapor Sorption Analyzer generates over 100 for each isotherm curve.

#### ■ Measure Shelf Stability —

Predict how abuse conditions like high humidity will affect shelf life.

**AQUA<sup>®</sup>**  
**LAB**  
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AquaLab VSA can deliver over a hundred points in as little as 48 hours.

AquaLAB VSA, an affordable isotherm generator, uses the chilled-mirror technology. The Dynamic Dew Point Isotherm (DDI) method gives you full sorption isotherm curve development—hundreds more data points in days instead of weeks. An easy to use software program simplifies data collection and analysis, including BET and GAB determination, and shelf life prediction.

## AquaLab VSA Specifications

### Water Activity

#### Accuracy

$\pm 0.005 a_w$

#### Repeatability

$\pm 0.003 a_w$

#### Range

0.03 to 0.95  $a_w$

### Temperature Control

#### Range

15 to 60 °C

### Temperature Adjustment

#### Increment

0.1 °C

### Sample Weight

500 to 5,000 mg

### Mass Resolution

0.5 mg

### Sample Cup Volume

15 ml full

### External Gas

If required, no more than 7PSI.

### Size (Footprint)

38.1 x 26.7 x 30.5 cm

### Weight

33 lbs

### Power

110 V to 220 V AC, 50/60 Hz

### Data Communication

USB



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