

Cannabis Water Activity (aw) Measurement



novasina
The Art of Precision Measurement

LABSWIFT



Portable precision measuring devices for determination of water activity in food, cosmetics and pharmaceutical products. Very versatile with options for use in the laboratory or at the production line.

Novasina's electrolytic measuring sensor results in very accurate aw-value measurements, overcoming many drawbacks of the Dew Point and capacitive methods.

Large LC display with indication of aw, temperature, stability factor and stability. Very robust, stable and maintenance free.

The **LabSwift-aw** offers optimal cost efficiency and impresses with its measurement speed, accuracy and reproducibility. The optional battery allow for measuring directly at the production line. A data logging function with SD card records all measurement data and protocols.

Technical Data:

- Portable Model
- Low Calibration Cost
- Fast Accurate Results
- Adjustment Range: 0.11-0.90 aw +/-0.01
- Accuracy: +/- 0.01 aw

Calibration Salts Last for Years - No Need to Purchase Costly Consumables!

LABMASTER NEO



LABTOUCH



Scan to
Watch Video

The all new **LabTouch-aw**, with its ergonomic design and the touch screen, makes water activity measurements easier than ever before.

Semi temperature-control and active sample temperature measurements, by an integrate infrared sensor, provide the highest possible reliability of measurements.

Technical Data:

- Fast Accurate Results
- Low Calibration Cost
- Adjustment Range: 0.11-0.97 aw +/- 0.005
- Accuracy: +/- 0.005
- Semi-Temperature Control

Novasina's Quality Line of Water Activity Meters are Backed by Neutec Group's Outstanding Tech Support... a Great Combination!

LabMaster-aw Neo provides high-precision, fast reproducible results under accurately controlled temperature conditions for all types of food products. CFR21 Part11 compliant and easy to use!

The electrolyte sensor delivers essentially hysteresis-free measurements with excellent long-term stability.

The LabMaster-aw Neo is the only instrument that enables measurements under precisely controlled chamber temperature conditions, selectable in the following range: 0°C to 60°C, with a precision of 0.2C.

Technical Data:

- Complete Audit Trail - CFR Part11 Compliant
- Auto Calibration Recognition
- Reusable SAL-T Standards
- Temperature Control (0-60 C)

Measuring the water activity in a cannabis product is an excellent way to test how susceptible the product is to microbial contamination. The higher the measured water activity is in a product, the more freely water can be used by microbes as a food source or to support chemical and enzymatic reactions leading to spoilage.

In other words, the higher the water activity value, the more vulnerable cannabis products are to microorganism growth.

Water activity is a thermodynamic measurement that describes how tightly bound the water's available energy is. The results can range from 0.000, which would be the measurement of a dry sample devoid of water content, to 1.000, which would be the measurement of pure, liquid water.

To control spoilage, it is recommended to have a water activity value of less than 0.600.

Most enzymatic activity is inactive at values below 0.850, and values below 0.750 prevent the growth of most bacteria. But a water activity value below 0.600 greatly inhibits all growth and cellular activity, including yeast, molds, fungi, bacteria, enzymes and other chemical moieties that could lead to spoilage.

Some state regulators are currently establishing water activity limits for the cannabis industry. For example, California and Oregon limit flower products to a value of less than 0.650 water activity, while California has an additional cutoff of 0.850 for cannabis-infused edibles.

It's important to note that water activity is not to be confused with total water content (percent moisture), which is a measurement of the total amount of water present in a material. While a sample can have very low moisture content, the water activity can still be greater than 0.600 if the water is not energetically bound, making the sample susceptible to spoilage. This makes water activity more important and relevant to cannabis and food spoilage than total water content.








Neutec Group offers the most complete line of water activity meters designed to provide water activity measurement solutions for a broad ranges of Cannabis testing requirements:

LabMaster-aw Neo: Our Top Level Model offers a fully temperature-controlled chamber (0-60 C), auto calibration registration, and a complete audit trail ability that is CFR Part11 Compliant.

LabTouch-aw: Semi-temperature controlled measurement chamber, optimized for the an adjustment range of 0.11-0.97 +/- 0.005 and a measurement accuracy +/- 0.005 aW.

LabSwift-aw: Portable aw-meter with no sample temperature control, thus environmental (lab) temperature is the measurement temperature. Suitable for low to medium aw-measurement with an adjustment range of 0.11 to 0.90aw +/- 0.01 with a measurement accuracy +/- 0.01 aW.

LabStart-aw: Our Basic Entry Level Model. Portable aw-meter with no sample temperature control, thus environmental (lab) temperature is the measurement temperature. Suitable for low to medium aw-measurement with an adjustment range of 0.11-0.75 +/- 0.03 and a measurement accuracy +/- 0.03 aW with one calibration point (0.75).

 Water Activity meter Selection Guide	LabMaster-aw Neo 	LabTouch-aw 	LabSwift-aw 	LabStart-aw 
Temperature control	✓	✓	✗	✗
Audit trail—CFR 21 Part 11 compliant	✓	✗	✗	✗
aW calibration range and accuracy	0.000 to 1.000 +/- 0.003	0.010 to 0.970 +/- 0.005	0.110 to 0.900 +/- 0.010	0.33 to 0.75 +/- 0.03
Portable (battery operated)	✗	✗	✓	✗
Volatile protected filter option	✓	✓	✓	✓
aW Calibration points (salts provided)	6	4	3	1