



## AccuDip™ Melamine Test Strip User Guide

(Product No. AAF-11102)

### General Description

Melamine is a trimer of cyanamide with the chemical formula  $C_3H_6N_6$ , and the IUPAC name 1,3,5-triazine-2,4,6-triamine. It is widely used in manufacturing of plastics, dyes, fertilizers, and textile. Like cyanamide, it is 66% nitrogen by mass, which leads to the practice in various countries of adding "melamine scrap" to animal feed, pet food, or milk in order to give the appearance of increased protein content. This practice can potentially contaminate animal products intended for human consumption like dairy products. Animal and human consumption of melamine could lead to kidney stones and renal failure, causing severe consequences including possible death.

The AccuDip™ Melamine test strip provides a convenient test to screen milk samples. It allows for **fast** (result shown in 10 minutes), **simple** (direct analysis for milk without pretreatment or dilution), **sensitive** and **reliable** detection of melamine contamination in milk, with sensitivity at 1 ppm of melamine in milk. If necessary, samples requiring regulatory action can be confirmed by HPLC, GC/MS, or other conventional methods.

### Intended Use

The AccuDip™ Melamine test strip is a competitive lateral flow strip test for the qualitative analysis of melamine in milk. The sensitivity of test is 1 ppM (1 ug/ml).

### Safety Instructions

To receive complete safety information on this product, contact AccuAffinity, Inc. and request Material Safety Data Sheet.



## **Assay Principles**

AccuDip™ Melamine test strip is based on a competitive immunoassay principle. An anti-melamine monoclonal antibody is conjugated to colloidal gold and placed on conjugate pad. Colloidal gold provides red color to visualize antibody-antigen binding. Melamine-protein conjugate is immobilized on nitrocellulose membrane. Test sample is loaded onto sample pad, and will subsequently mix with gold-antibody conjugate and migrate along the membrane. If the sample contains no melamine or melamine amount lower than detection limit, antibody conjugated to colloidal gold will bind melamine immobilized on membrane and present a red colored band on detection line on membrane. If melamine concentration is higher than detection limit in test sample, it will compete with immobilized melamine on binding to the antibody, preventing the red test line from showing up. A non-specific protein is immobilized on membrane in a separate line (control line) to ensure the validity of each strip test.

## **Reagents and Materials in each pack**

- a) 1 strip of Melamine test
- b) 1 disposable transfer pipette

## **Test Procedure**

- Equilibrate test strip at room temperature (20-25°C)
- Equilibrate test sample at room temperature (20-25°C)
  1. Use disposable transfer pipette to take milk sample.
  2. Add 4 drops to sample loading well.
  3. After loading, read result in 10 minutes. Result is valid for up to 30 minutes.



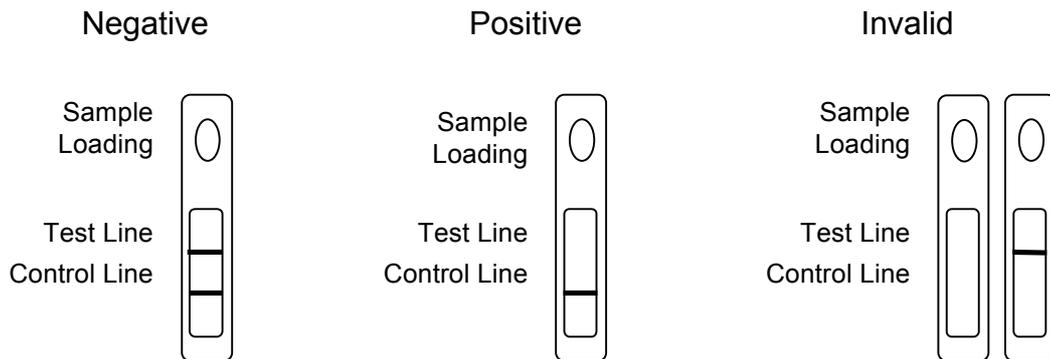
## Result Interpretation

Test result is interpreted by observing test line and control line shown in result window.

Negative: test line and control line present.

Positive: no test line, control line present.

Invalid test: no control line present.



## Precautions

1. Test strip should be stored at room temperature (20-25°C) and avoid freezing conditions.
2. Test strip is for one time use.
3. Test is performed at room temperature (20-25°C). After open package, use the strip on the same day.
4. Test samples should be equilibrated to room temperature before being loaded to strip.

## Storage and Expiration Date

Storage: room temperature (20-25°C).

Expiration Date: 12 months after manufacturing date.



AccuAffinity, Inc.  
4062 Fabian Way, Suite 3B  
Palo Alto, CA 94303

Tel: (408) 368-1364  
Web: [www.accuaffinity.com](http://www.accuaffinity.com)  
Email: [contact@accuaffinity.com](mailto:contact@accuaffinity.com)

---

## **Technical Assistance**

For ordering or technical assistance regarding this product, or for additional information about AccuAffinity products, please email [support@accuaffinity.com](mailto:support@accuaffinity.com) or call (408) 368-1364.

## **General Limited Warranty**

AccuAffinity, Inc. warrants its manufactured products against defects in materials and workmanship when used in accordance with the applicable instructions for a period not to extend beyond a product's printed expiration date. AccuAffinity makes no other warranty, expressed or implied. There is no warranty of merchantability or fitness for a particular purpose. The warranty provided herein and the data, specifications and descriptions of AccuAffinity products appearing in published catalogues and product literature may not be altered except by express written agreement signed by an officer of AccuAffinity. Representations, oral or written, which are inconsistent with this warranty or such publications are not authorized and, if given, should not be relied upon.

In the event of a breach of the foregoing warranty, AccuAffinity Inc.'s sole obligation shall be to repair or replace, at its option, any product or part thereof that proves defective in materials or workmanship within the warranty period, provided the customer notifies AccuAffinity promptly of any such defect. The exclusive remedy provided herein shall not be deemed to have failed of its essential purpose so long as AccuAffinity is willing and able to repair or replace any nonconforming AccuAffinity product or part. AccuAffinity shall not be liable for consequential, incidental, special or any other indirect damages resulting from economic loss or property damage sustained by a customer from the use of its products. However, in some states the purchaser may have rights under state law in addition to those provided by this warranty.

*For research use only*