



## User's Manual

# Melamine ELISA kit

REF

DEIABL452



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This product is for research use only and is not intended for diagnostic use.

For illustrative purposes only. To perform the assay the instructions for use provided with the kit have to be used.

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## PRODUCT INFORMATION

### Intended Use

The Melamine ELISA is an immunoassay for the quantitative and sensitive screening of Melamine. This test is suitable for the quantitative and/or qualitative screening of Melamine in various sample matrices (please refer to the appropriate technical bulletins for extraction/dilution procedures). If necessary, samples requiring regulatory action can be confirmed by HPLC, GC/MS, or other conventional methods.

### Principles of Testing

The test is based on the recognition of Melamine by antibodies. The calibrators, sample extracts, and Melamine HRP conjugate are pipetted into test wells coated with Melamine antibody to initiate the reaction. During the 30 minute incubation period, Melamine from the sample and Melamine HRP conjugate compete for binding to Melamine antibody. Following this 30 minute incubation, the contents of the well are removed and the wells are washed to remove any unbound Melamine and Melamine HRP conjugate. After washing with the diluted wash solution, a clear substrate is then added to the wells and any bound enzyme conjugate causes the conversion to a blue color. Following a 20 minute incubation, the reaction is stopped and the amount of color in each well is read using an ELISA reader. The color of the unknown samples is compared to the color of the calibrators and the Melamine concentration of the samples is derived. The concentrations of the samples are determined by interpolation using the standard curve constructed with each run.

### Reagents And Materials Provided

1. Microtiter plate (12 X 8 strips) coated with polyclonal anti-melamine antibody, in an aluminum pouch
2. Standards (6): 0, 20, 50, 100, 200, 500 ng/mL (ppb)
3. Melamine-HRP Conjugate, 7 mL
4. Wash Solution (5X) Concentrate, 100 mL. Must be diluted 1:5 with deionized water before use
5. Substrate (Color) Solution (TMB), 14 mL
6. Stop Solution, 14 mL (Handle with care)

### Materials Required But Not Supplied

1. Micro-pipettes with disposable plastic tips (50-200 µL)
2. Multi-channel pipette (50-250 µL) or stepper pipette with plastic tips (50-250 µL)
3. Microtiter plate washer (optional)
4. Microtiter plate reader (wave length 450 nm)
5. Shaker for microtiter plates (optional)
6. Deionized or distilled water
7. Paper towels or equivalent absorbent material
8. Timer

## Storage

The Melamine ELISA should be stored in the refrigerator (4–8°C). The solutions must be allowed to reach room temperature (20-25°C) before use. Reagents may be used until the expiration date on the box.

## Sensitivity

The detection limit for Melamine is 10 µg/L (mean of 6 blank determinations minus 3 standard deviations). The middle of the test (50% B/B<sub>0</sub>) is at approximately 150 µg/L. Determinations closer to the middle of the calibration curve give the most accurate results.

## Reproducibility

Coefficients of variation (CVs) for standards: <10%; CVs for samples: <15%.