

BCOP – Ocular Irritation Alternative Test – Adopted by OECD

Excerpt taken from NTP UPDATE: ICCVAM-recommended Non-animal Ocular Safety Testing Methods Accepted as OECD Test Guidelines

“The National Toxicology Program Interagency Center for the Evaluation of Alternative Toxicological Methods (NICEATM) and the Interagency Center on the Validation of Alternative Methods (ICCVAM) are pleased to announce that two ICCVAM-recommended non-animal safety testing methods have been officially adopted as Health Effects Test Guidelines by the 30 member countries of the Organization for Economic Co-operation and Development (OECD). These methods, the bovine corneal opacity and permeability (BCOP) and isolated chicken eye (ICE) test methods, can now be used around the world for identification of substances that may cause severe irritation or permanent damage to eyes without the use of live animals.”

The new test guideline, which has been designated **Test Guidelines 437 (BCOP)**, was formally adopted by the OECD Council on September 7, 2009.

The final version of Test Guidelines 437 is now available on the NICEATM-ICCVAM (<http://iccvam.niehs.nih.gov/>) and **OECD** (<http://www.oecd.org>) websites.

More information about the NICEATM-ICCVAM evaluation of the BCOP test method and links to the test guidelines can be found on the NICEATM-ICCVAM website at:
[“http://iccvam.niehs.nih.gov/methods/ocutox/ivocutox/OECD.htm”](http://iccvam.niehs.nih.gov/methods/ocutox/ivocutox/OECD.htm)



Bovine Cornea mounted in special holder.



Rinsing Bovine cornea.

The **Bovine Corneal Opacity and Permeability Test (BCOP)** can be used to evaluate samples that may not be suitable for tissue culture or colormetric assays.

The BCOP evaluates the response of an excised bovine cornea (a waste byproduct of food production) by measuring light transmission and fluorescein permeability. Since the cornea is of primary interest in assessing ocular irritation, the BCOP provides a useful parallel for possible human exposure.

Combined with results from other alternative ocular irritation test methods, such as the Chorioallantoic Membrane Vascular Assay (CAMVA), which evaluates the changes in vascularized membranes, these assays provide a very complete analysis of potential for ocular irritation.

Standard Protocols are available.

Experience You Can Count On.....

- BCOP validated at MB Research in 1994.
- Over 3,000 BCOPs conducted for chemical, cosmetic and personal care product industries.

- ▶ REACH
- ▶ OECD
- ▶ COLIPA
- ▶ 7th Amendment, Cosmetic Directive