

For nearly 50 years, MB Research Laboratories has provided **eye hazard identification** services to the specialty chemical, agrichemical, pharmaceutical, and consumer product industries. Since 1989, MB Research has been leading the development and promotion of alternative and *in vitro* assays, inventing, adopting, and adapting non-animal replacements. Modernize Today!

THE HUMAN EYE

Cornea

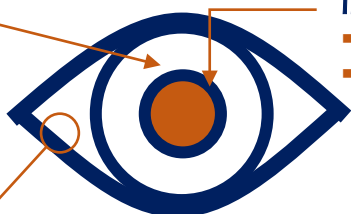
- BCOP
- PorCORA

Iris

- No Alternatives
- Nor *In Vitro* Assays

Conjunctiva

- HET-CAM
- CAMVA



Ocular Irritation

- EpiOcular™ EIT
- Irritection®

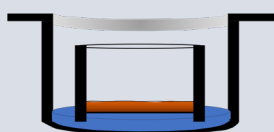
IN VITRO METHODS

Eye Irritation Test (EIT)

OECD TG 492

MTT Viability Method
RhCE 3D Tissue Model
GLP

Human Tissue Model
Irritant vs. Non-Irritant
Concurrent Positive Control
Concurrent Negative Control
4 Days in Duration



EIT

Ocular Irritection® Assay System

OECD TG 496

IVI Method
Keratin and Collagen Matrix
GLP

Ocular Irritation
GHS/EPA Classification
2 Days in Duration



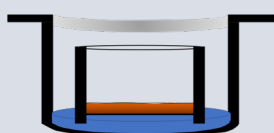
Irritection

Time-Course Eye Irritation Test

Non-Guideline

MTT Viability Method
RhCE 3D Tissue Model
GLP

Human Tissue Model
Range of Responses
Time-Based Exposure
Calculation of ET₅₀
4 Days in Duration



MatTek EpiOcular™

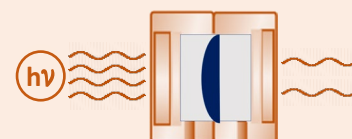
ALTERNATIVE METHODS

Bovine Corneal Opacity and Permeability

OECD TG 437

Opacity Measurement
Fluorescein Measurement
Concurrent Controls
GHS Category
1 Day in Duration

Gautheron & Sina Method
Waste Bovine Corneas
GLP



BCOP

HET-CAM

Non-Guideline

Time-Based Assay
Effects on Chorioallantois
1 Day in Duration

INVITOX Method
Embryonated Chicken Eggs
GLP



HET-CAM

Chorioallantoic Membrane Vascular Assay

Non-Guideline

Concentration-Based Assay
Improved HET-CAM
Effects on Chorioallantois
1 Day in Duration

Bagley et al. Method
Embryonated Chicken Eggs
GLP



CAMVA

Porcine Corneal Opacity Reversibility Assay

Non-Guideline

Healing/Reversibility Assay
Sodium Fluorescein Assessment
Observe Culture through Day 21
Concurrent Controls
21 Days in Duration
Rapid Results Report

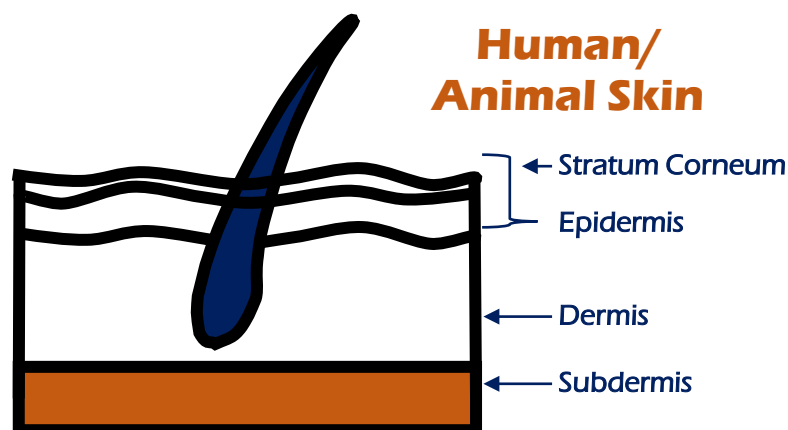
Proprietary Method
Waste Porcine Corneas
GLP



PorCORA

MB Research Laboratories has provided **dermal hazard identification** services to the specialty chemical, agrichemical, pharmaceutical, and consumer product industries for nearly 50 years. For over 30 years, MB Research has been leading the development and promotion of alternative and *in vitro* assays, inventing, adopting, and adapting non-animal replacements. Modernize Today!

SKIN IRRITATION/CORROSION MODELS



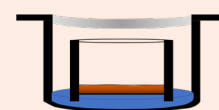
IN VITRO METHODS

Skin Irritation Test (SIT)

OECD TG 439

Human Tissue Model
Irritant vs. Non-Irritant
Concurrent Positive Control
Concurrent Negative Control
4 Days in Duration

MTT Viability Method
RhE 3D Tissue Model
EpiDerm™
GLP

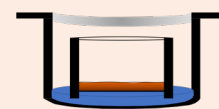


Skin Corrosion Test (SCT)

OECD TG 431

Human Tissue Model
Corrosive vs. Non-Corrosive
Concurrent Positive Control
Concurrent Negative Control
4 Days in Duration

MTT Viability Method
RhE 3D Tissue Model
EpiDerm™
GLP



TRADITIONAL METHOD

Traditional Rabbit Study

OECD TG 404
Draize Method
NZW Rabbits
GLP

3-Min, 60-Min, 4-Hour Exposures
Irritation and Corrosion
GHS/EPA Classification
UN Packing Group Assignment
14 Days in Duration

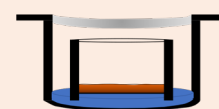


Time-Course Skin Irritation Assay

Non-Guideline

Human Tissue Model
Compare Multiple Materials
Time-Based Exposure
Calculation of ET₅₀
4 Days in Duration

MTT Viability Method
RhE 3D Tissue Model
EpiCS®, EpiDerm™, EpiSkin™
GLP



Dermal Irritation® Assay System

Non-Guideline
IVI Method
Keratin and Collagen Matrix
GLP

Skin Irritation
GHS/EPA Classification
2 Days in Duration



IN CHEMICO

Corrositex®

OECD TG 435

Time-Based Assay
Corrosive vs. Non-Corrosive
UN Packing Group Assignment
2 Days in Duration

IVI Method
Collagenous Bio-Barrier
GLP



IN CHEMICO