



TOXICOLOGY, ENVIRONMENTAL AND CHEMISTRY TESTING AND CONSULTING

Toxicology Testing and Consulting Services

Our toxicology group can perform descriptive toxicology studies (acute, subchronic, reproductive testing and neurotoxicity screening) as well as more specialized investigations, including medical material testing (Class I–VI), whole-body autoradiography, pharmacokinetics, metabolism, image analysis, biochemical and *in vitro/in vivo* dermal absorption evaluations. We have experience with all routes of test material administration, including whole-body and nose-only inhalation exposures. We also have or are developing the capabilities to perform *in vitro* studies such as eye and skin irritation and sensitization studies utilizing the localized lymph node assay (LLNA).

We are expanding our capabilities to perform endocrine screening assays such as the rat uterotrophic assay and Hershberger assay, as well as a full complement of receptor binding and activation assays. Our methods will be implemented and validated according to U.S. Environmental Protection Agency (EPA) and/or Organisation for Economic Co-operation and Development (OECD) recommendations and guidance. Recently, we have moved to performing the classical OECD 422 reproductive studies with neurobehavioral screening and are moving toward expanding this capability to two-generation reproductive studies with neurobehavioral evaluations following standard U.S. EPA guidelines.

Our facility consists of several testing laboratories distinguished by testing protocols. It houses a surgical suite that allows for the implantation of test articles

in compliance with the USP testing regime.

Nonprimate test species (mice, rats, rabbits) are exclusively utilized. The facility has been accredited by the Association for Assessment and Accreditation of Laboratory Animal Care (AAALAC) International since 1972 and maintains standards that meet or exceed the Animal Welfare Act.



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Descriptive Research

- Acute testing (oral, dermal and inhalation routes)
- Sub-chronic testing (oral, dermal and inhalation routes)
- Chronic testing (oral, dermal and inhalation routes)
- Medical materials testing
 - USP, ISO, ASTM
 - Implantation studies
 - 7, 30 and 90 days
- Genetic testing using typical test methods
- Immunological testing
 - Guinea pig skin sensitization
 - Mouse local lymph node assay

Fundamental Research

- Fate testing
 - Absorption
 - Disposition
 - Whole-body autoradiography
 - Metabolite identification
 - Physiologically-based pharmacokinetic modeling
- Mechanistic testing
 - Enzyme induction
 - Cell proliferation
 - Receptor binding
 - Hormone evaluation
- Alternative testing
 - *In vitro* dermal penetration
 - Skin irritation/corrosivity (Corrositex assay)

Specialized Research

- Endocrine screening
 - Rat uterotrophic assay (RUA)
 - Hershberger assay
 - Estrogen/androgen receptor binding/activation
 - Hormone evaluation
- Immunohistochemical evaluation
- Radioimmunoassays
- Components within studies
 - Neurotoxicity/neurobehavioral (screening)
 - Reproductive/developmental



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Or to obtain more information, please visit our website at www.dowcorning.com/ehs.

Consulting

- Study design/protocol development
- Report review
- Manuscript preparation
- Interpretive summaries
- Risk assessments
- Complex program management
 - HPV (high production volume) chemicals
 - REACH (Registration, Evaluation and Authorization of Chemicals)
- Contract laboratory monitoring

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