

# One Stop Centre for Agrochemical Testing Services & Regulatory Submissions

(EU-REACH, EPA, UK-REACH,  
Turkish REACH, South Korea REACH,  
CIBRC, PMRA and others.)



Early Discovery & Development



Alternatives to Animal Studies



Genetic Toxicology



General Toxicology



Reproductive Toxicology



Endocrine Disruptor



Neurotoxicology



Eco-toxicology



Analytical Development



Physico-chemical Properties



Environmental Fate & Metabolism



Residue Studies

**600,000**

Sq.ft Modern  
Lab Space

**90,000**

Sq.ft State of  
the Art Vivarium

# Our Services

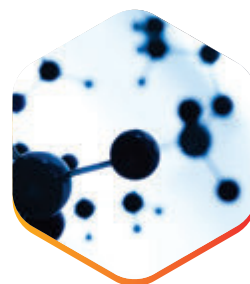


## Analytical Development

- » Test item characterization
- » Purity verification
- » Impurity profiling and 5 – batch analysis
- » Method development and validation
- » Stability studies
- » Container content compatibility
- » Persistence in soil, water & plant
- » Residue analysis in different crops
- » Residue analysis studies in soil & water
- » Concentration verification, stability and homogeneity in formulation

## Physical/Chemical Properties

- » Physical state, appearance
- » UV-Visible spectrum
- » Melting point, boiling point
- » Specific gravity, density, Bulk density
- » Solubility in water, organic solvents
- » Solubility as a function of pH
- » Vapour pressure
- » Biodegradability studies
- » E-fate studies
- » Partition coefficient, pH
- » Surface tension
- » Viscosity (kinematic and dynamic)
- » Oxidizing properties
- » Corrosive properties
- » Photolysis
- » Hydrolysis
- » Dissociation constant

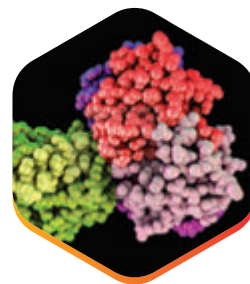


## Genetic Toxicology

- » Bacterial reverse mutation test (Ames test) (Salmonella typhimurium, Escherichia coli)
- » Mammalian cell gene mutation test (mouse lymphoma L5178Y tk +/-cells HPRT)
- » *In vitro*/*In vivo* mammalian
- » Chromosome aberration test
- » *In vitro*/*In vivo* micronucleus test
- » *In vitro*/*In vivo* comet assay

## General Toxicology

- » Acute toxicity studies: Oral, dermal, inhalation, dermal irritation/corrosion, eye irritation/corrosion and skin sensitization tests
- » Maximum tolerable/dose range finding studies
- » Sub-acute/Sub-chronic toxicity studies
- » Chronic toxicity studies
- » Combined chronic toxicity & carcinogenicity studies
- » Carcinogenicity studies



## Development and Reproductive Toxicology

- » Neonatal / juvenile toxicity studies
- » Extended one-generation reproductive toxicity studies (EOGRT)
- » Combined repeated dose with reproduction/developmental toxicity screening studies
- » Reproduction / developmental toxicity screening studies
- » Teratology studies / developmental toxicity studies
- » Multigeneration reproduction toxicity studies
- » Developmental neurotoxicity studies



## Endocrine Disruptor Testing

- » Steroidogenesis - human cell line (H295R)
- » Uterotrophic assay
- » Hershberger assay
- » Female pubertal assay
- » Male pubertal assay

## Special Toxicology Studies

- » Local tolerance
- » Immunotoxicology
- » Neurotoxicology
- » Phototoxicology (NRU)
- » Metabolism studies



## Eco-toxicology Studies

Ecotoxicology studies will be conducted as per the requirements of global regulatory test guidelines

- » Alga
- » Lemna
- » Daphnia
- » Fish
- » Earthworm
- » Birds
- » Honeybees

## Environmental Fate & Metabolism

- » Adsorption / desorption on soil
- » Rate and route of degradation on soil (aerobic and anaerobic)
- » Rate and route of degradation on sediment systems
- » Hydrolysis
- » Tissue distribution studies
- » Direct and indirect aqueous photolysis
- » Photolysis on soil surface
- » High Temperature hydrolysis
- » Mineralization in Surface Water
- » Mobility in soil
- » Ready biodegradability



## Residue and Persistence

- » Persistence studies in plant (field), soil (field and lab) and water (lab)
- » Capabilities to work at exceptionally low residue concentration levels
- » Dedicated laboratories for low concentration analysis to avoid cross contaminations
- » Dedicated storage areas for residue samples
- » High-end GC-MS/MS and LC-MS/MS systems
- » ICP-MS and microwave digestion systems for analysis of metal residues at extremely low concentration levels

## Alternatives to Animal Studies

- » In silico - QSAR
- » ADME studies
- » Cytotoxicity
- » Phototoxicity/Photo mutagenicity
- » Dermal absorption studies
- » Skin irritation and skin corrosion
- » Sensitisation (DPAR assay)
- » Murine local lymph node assay



# About Vimta

Vimta offers a full gamut of testing services for actives (AIs), end-use products (EUPs) and generics. We partner with our customers to provide data to support a variety of needs, including product discovery and development, pre-clinical safety evaluation and risk assessment. We have collaborated in the development and registration of new and existing active ingredients and formulations with particular expertise in the design of tailored study programs to meet the regulatory needs of new products and their intended markets. Our studies meet all international GLP standards and are suitable for submission to OECD, EFSA, Japan, EPA, CIB & RC.

Vimta has been collaborating with clients around the globe in the development and registration of new and existing active ingredients and formulations with expertise in the design of tailored study programs as per internationally recognized guidelines. We characterize xenobiotics in the context of toxicological hazard identification and risk assessment.



## Accreditations & Certifications



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