

REACH Testing Services and Support

Smithers Viscient performs trusted studies that satisfy all major regulatory requirements. Since 1969, Smithers Viscient has served as a contract research organisation (CRO) for the agricultural, pharmaceutical, and chemical industries.

Our regulatory expertise and laboratory experience enable us to provide a comprehensive range of testing for the Registration, Evaluation, Authorisation and Restriction of Chemicals (REACH), including analytical support, safety assessment, and registration solutions. We specialise in applying integrated testing strategies for studies in ecotoxicology and environmental fate.

A CRO Partnership for Dependable Support

Smithers Viscient has the knowledge and experience to conduct testing and provide scientific support to our clients:

- Our company acts as an extension of your organisation, for a unique collaborative partnership.
- Our staff work closely with your experts to assess product chemistry, design studies and conduct appropriate tests.
- We have the resources and capacity to assist you with REACH deadlines and procedures. While this cooperative effort helps secure a continued revenue stream from the European market for your products, we believe that meeting global regulatory requirements increasingly depends on such partnerships.

Meeting the REACH Objective

Smithers Viscient assists companies to ensure the chemical safety of products through the supply chain. Our understanding of the relationship between testing and exposure scenarios under REACH, and the resulting downstream impact, maximises long-term savings for our customers.

The next European chemicals Agency (ECHA) registration deadline in May 2018 applies to all substances produced or imported into the EU supplied at quantities greater than 1 tonne per annum per manufacturer or importer.

Technical Capabilities

With our own laboratories in the United Kingdom and North America, and with our trusted partners, Smithers Viscient can support all your REACH registration requirements:

- Use of QSAR databases such as OECD Toolbox for in-silico modelling
- Analytical chemistry, with supporting method development and spectral analysis/characterisation using UV, IR, NMR, and Mass Spec
- Physico-chemical parameters
- Toxicological endpoints, in vitro and in vivo methods, short- to long-term studies
- Ecotoxicological studies, ranging from acute to chronic
- Environmental fate assessment, including degradation pathways & metabolism
- Preparation of robust study summaries (IUCLID)

REACH Data Requirements According to Production / Import Tonnages in Metric Tons (t)

Study	OECD Method	Annex VII (1-10 t/y)	Annexes VII VIII (10-100 t/y)	Annexes VII IX (100-1000 t/y)	Annexes VII X (≥1000 t/y)
Physicochemical Properties					
State of Substance		✓	✓	✓	✓
Melting / Freezing Point	102	✓	✓	✓	✓
Boiling Point	103	✓	✓	✓	✓
Relative Density	109	✓	✓	✓	✓
Vapour Pressure	104	✓	✓	✓	✓
Surface Tension	115	✓	✓	✓	✓
Water Solubility	105	✓	✓	✓	✓
Partition Coefficient n-Octanol/Water	107, 117, 123	✓	✓	✓	✓
Flash Point		✓	✓	✓	✓
Flammability		✓	✓	✓	✓
Explosive Properties		✓	✓	✓	✓
Self-Ignition Temperature		✓	✓	✓	✓
Oxidising Properties		✓	✓	✓	✓
Granulometry		✓	✓	✓	✓
Stability in Organic Solvents and Identity of Relevant Degradation Products				✓ (If warranted)	✓ (If warranted)
Dissociation Constant	112			✓	✓
Viscosity	114			✓	✓
Toxicological Information					
Skin Corrosion	430, 431 or 435	✓ (in vitro)	✓	✓	✓ (in vitro)
Skin Irritation	439	✓ (in vitro)	✓	✓	✓ (in vitro)
	404		✓	✓	✓ (in vivo)
Eye Irritation	437, 438	✓ (in vitro)	✓	✓	✓ (in vitro)
	405		✓	✓	✓ (in vivo)
Skin Sensitisation	442C, 442D, 406 or 429 (if warranted)	✓ (in vitro and in vivo)	✓	✓	✓ (in vivo)
Mutagenicity	471,473	✓ (in vitro)	✓ (in vitro)	✓ (in vitro)	✓ (in vitro)
Acute Oral Toxicity	420, 423 or 425	✓ (in vivo)	✓	✓	✓ (in vivo)
Acute Dermal Toxicity	402				✓ (in vivo)
Acute Inhalation Toxicity	403 or 436				✓ (in vivo)
Repeat Dose Oral Toxicity (28-day)	407				✓ (≥12 months, if warranted)
Sub-chronic Toxicity	411, 413			✓ (90-day)	✓
Repro/Developmental Screen	421, 422			✓ (Reproductive, if warranted)	✓ (Reproductive, if warranted)
Developmental Toxicity	414			✓ (Prenatal)	✓
Reproductive/2-Gen Repro	416			✓ (If warranted)	✓
Toxicokinetics	417		✓ (if available)	✓ (if available)	✓ (if available)
Carcinogenicity	451				✓ (If warranted)
Ecotoxicological Information					
Acute Daphnia Toxicity	202	✓	✓	✓	✓
Algal Growth Inhibition	201	✓	✓	✓	✓
Acute Fish Toxicity or Zebrafish Embryo Toxicity (FET) test (alternative)	203, 236		✓	✓	✓
Activated Sludge Respiration Inhibition	209		✓	✓	✓
Daphnia Long-term Toxicity (reproductive)	211			✓	✓
Ready Biodegradation	301	✓	✓	✓	✓
Degradation (Biotic)	307, 308, 309			✓	✓
Abiotic Degradation- hydrolysis f (pH)	111		✓	✓	✓
Identification of Degradation Products				✓	✓ (If warranted)
Soil Adsorption/Desorption Screening Test	106		✓	✓	✓
Long-term Toxicity on Fish	210, 212, 215			✓	✓
Bioconcentration in Fish	305			✓	✓
Effects on Terrestrial Organisms: • Short term toxicity to invertebrates • Effects on soil organisms • Short-term toxicity to plants • Avian dietary toxicity test	207, 208, 216, 217, 205			✓ (If warranted)	
Long-term Effects on Terrestrial Organisms: • Invertebrates • Plants • Soil organisms • Reproductive toxicity to birds	220,222,208, 218, 206				✓ (If warranted)
Sediment Dwelling Organisms	218, 219, 225, 233				✓