



Ecotoxicology Expertise

SGS France – Laboratoire de Rouen

For over 25 years, the SGS Rouen laboratory has been a trusted partner for ecotoxicology and biodegradability studies, applied to a wide range of environmental matrices such as industrial wastewater, waste, sediments, and contaminated soils. Our services also support the evaluation of chemical substances – whether raw materials, innovative compounds in R&D, or substances subject to environmental labelling or registration (CLP/REACH). Our expertise covers a broad spectrum of specific and/or difficult-to-test substances, including poorly water-soluble, highly volatile and/or colored compounds.

WHERE WE CAN STEP IN:	
PURPOSE/Framework	
Environmental sample	Effluent quality and potential impact on receptor environment – <i>Acute or chronic toxicity, Biodegradable DOC</i>
	Monitoring industrial wastewater discharges (IED - BREF CWW - BREF TXT)
	Sediments/soil quality – <i>e.g. HP14 criterion on sediment (MEEDDM protocol), acute/chronic toxicity on plants or earthworms...</i>
	Fertilizing products and compost quality
	Waste classification – <i>HP14 criterion on waste (Guidance Ineris - 227377 - 2711251 - v2.0)</i>
	ADR classification UN 3077 & UN 3082
	Seawater, marine sediments or impact on marine environment – <i>e.g. embryo-larval toxicity test on bivalves, acute toxicity test on amphipods...</i>
	Impact on wastewater treatment systems – <i>Inhibition of respiration and nitrification</i>
Test substance / product	Substances evaluation in compliance with REACH regulation
	GHS (Global Harmonized system) regulation and CLP (1272/2008/EC)
	Plant Protection Products regulation (1107/2009/EC)
	Biocidal Products Regulation (EU No 528/2012)
	OSPAR regulation to offshore chemical product notification (HOCNF) – <i>Ecotoxicity tests on marine organisms</i>
	Detergent regulation (648/2004/EC)
	European Ecolabels for Detergents / NF Environment Standard – <i>Assessment of a raw material, fragrance, or dye for use in formulations</i>
	Environmental Risk Assessment (ERA) of medicinal products for human use – Phase II Risk Assessment
	EU Regulation 2023/2055 on Microplastics – <i>Biodegradability testing</i>

ECOTOXICOLOGY & BIODEGRADABILITY TESTING

TYPE OF STUDY	REFERENCE DOCUMENT/METHOD
Effect on Aquatic Organisms <u>Freshwater</u> Acute or chronic toxicity to daphnids Acute or chronic toxicity to fish Inhibition of algae and duckweed growth Activated sludge, respiration inhibition test EASZY assay (Detection of Endocrine Active Substances) Determination of chronic toxicity to <i>Ceriodaphnia dubia</i> in 7 days Microtox® (inhibition of luminescence of <i>Aliivibrio fischeri</i>) Acute or chronic toxicity to a rotifer (<i>Brachionus calyciflorus</i>) <u>Marine</u> Algae, growth inhibition test (<i>Phaeodactylum tricornutum</i>) Oyster, embryo-toxicity test (<i>Magallana gigas</i>) Copepod, acute lethal toxicity test (<i>Acartia tonsa</i>) Calanoid copepod early-life stage test with <i>Acartia tonsa</i> Amphipod, acute toxicity test in sediment-water system (<i>Corophium sp.</i>) Fish acute toxicity test (<i>Dicentrarchus labrax</i>)	OECD 202 / ISO 6341 and OECD 211 / ISO 10706 OECD 203 / ISO 7346, OECD 210, 212, 215 and 236 OECD 201 / ISO 8692 and OECD 221 / ISO 20079 OECD 209 / ISO 8192 OECD 250 ISO 20665 ISO 11348-3 ToxKits® / ISO 20666 ISO 10253 ISO 17244 / EPA-850-1055 ISO 14669 ISO 16778 ISO 16712 / OSPAR OSPARCOM according to OECD 203
Effect on Non-Target Plants and Terrestrial Organisms Terrestrial plant test: seedling emergence & growth, vegetative vigour Acute or chronic toxicity to earthworm (<i>Eisenia fetida</i>) Reproduction test in soil (Predatory mite, Collembola) Soil microorganisms: nitrogen transformation test Mycorrhizal fungi, spore germination test (<i>Funnelliformis mosseae</i>) Effects on Pollinators <u>Laboratory conditions</u> Honey bee / Bumble bee / Solitary bee <u>Semi-field conditions</u> Honey MRL (with optional mortality and flying activity monitoring) Effects on other Beneficial Arthropods (Lab & Extended Lab) (<i>Aphidius</i> , <i>Typhlodromus</i> , <i>Pardosa</i> , <i>Coccinella</i> , <i>Chrysoperia</i> , <i>Orius</i> , etc.) Side-effects of Plant Protection to NTA under open field conditions (Earthworms, Micro-arthropodes, NTA Full fauna)	OECD 208 and OECD 227 OECD 207 and OECD 222 OECD 226 and OECD 232 OECD 216 ISO 10832 OECD 213, 214, 237, 239, 245, 246, 247 and 254 OECD 509 IOBC / WPRS 2000 ISO 23611-1 / 11268-3, ISO 23611-2 and Guidance documents (de Jong et al., 2006/2010; Candolfi et al., 2000)
Biodegradability Ready biodegradability Inherent biodegradability Biodegradability in seawater Biodegradability of organic chemicals in soil Anaerobic biodegradability in digested sludge Ultimate aerobic biodegradability of plastic materials	OECD 301A / ISO 7827, OECD 301D / ISO 10707, OECD 301E / ISO 7827 and OECD 301F / ISO 9408 OECD 302B / ISO 9888 OECD 306 / ISO 16221 ISO 11266 OECD 311 / ISO 11734 ISO 14851 / ISO 17556 / ISO 18830

Other ecotoxicity tests and tailor-made studies can be performed on request.

For GLP studies, or when necessary, **analytical monitoring** of exposure solutions from ecotoxicity tests is carried out on site, including the upstream implementation and validation of specific analytical methods, in accordance with **SANTE/2020/12830**; non-specific analytical monitoring – such as determination of organic carbon – is also possible.

If your project requires additional studies or other types of analyses (e.g., **physico-chemical tests, toxicological studies**, etc.), we can also offer you a comprehensive service, thanks to the expertise of professionals across the SGS global network of laboratories.

ACCREDITATION AND RECOGNITION

ISO 17025 COFRAC accreditation (No 1-6464, scope available on www.cofrac.fr): LAB GTA 23 "Microbiological analysis of water"	GLP recognition – Expertise areas: GLP 1. Physical-chemical testing GLP 4. Environmental toxicity studies on aquatic and terrestrial organisms GLP 5. Studies on behaviour in water, soil and air; bioaccumulation GLP 6. Studies on residues GLP 8. Analytical and clinical chemistry methods
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CONTACT

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When you need to be sure