



## Agricultural Chemicals Testing Technologies

INDUSTRY	TESTING NEED	PURPOSE	AA	ICP-OES	ICP-MS	GC, GC/MS	LC/MS/MS	HPLC, HPLC/MS	Microscopy & Imaging	IR	UV/VIs
Fertilizers	Identify trace elements.	Purity analysis	X	X							
	Identify additives, and degradation products in raw materials and final products.	Purity analysis				X	X	X		X	
	Identify the components of process intermediates and final product.	Compositional analysis				X	X	X		X	
	Determine macronutrient, secondary nutrient, and micronutrient concentrations in test formulations and final products.	Compositional analysis					X	X			X
	Identify trace and ultra-trace levels of heavy metals in raw materials and final products.	Contaminant analysis	X	X	X						
	Identify organic contaminants in raw materials and final products.	Contaminant analysis				X	X	X	X	X	
	Determine the molecular structure of final product.	Molecular analysis				X	X			X	

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Agrochemicals	Confirm the identity and purity of raw materials.	Purity analysis				X	X				
	Identify organic residuals and contaminants in raw materials and final product.	Contaminant analysis				X	X	X			
	Identify trace and ultra-trace levels of heavy metals and other inorganic contaminants in raw materials and final product.	Contaminant analysis	X	X	X						
	Identify the components of process intermediates and final product.	Compositional analysis				X	X	X			
	Confirm concentration of each active in test formulations and final product.	Compositional analysis				X	X	X			
	Confirm concentration of each inert ingredient in test formulation and final product.	Compositional analysis				X	X	X			
	Determine the molecular structure of final product.	Molecular analysis				X	X				

\*Other analytical techniques are also utilized such as: XPS, EDX, XRF, XRD

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