

TSC Category	Research and Development Management					
TSC	Product Testing Management					
TSC Description	Develop product testing protocols and procedures based on product specifications to test and determine the full characteristics of product profiles					
TSC Proficiency Description	Level 1	Level 2	Level 3	Level 4	Level 5	Level 6
		ECM-RND-2004-1.1	ECM-RND-3004-1.1	ECM-RND-4004-1.1	ECM-RND-5004-1.1	
		Apply product testing protocols and procedures to perform product testing	Interpret product testing protocols and procedures to analyse test results based on product specifications and requirements	Establish product testing protocols and procedures to supervise product testing and validate specific tests based on product specifications and requirements	Formulate product testing programme structures to define product design and profiles	
Knowledge		<ul style="list-style-type: none"> Relevant regulations, safe work practices and procedures required for performing product testing Product testing processes and procedures Types and functions of a range of laboratory equipment Materials and products handling procedures 	<ul style="list-style-type: none"> Product testing processes and procedures Test results data extraction methods and tools Product specifications Fundamentals of product preparation and testing Test structure, procedures and practices 	<ul style="list-style-type: none"> Principles of product design Test result and method validation Principles and methodologies of testing equipment and systems Different record types used to identify each test data stored Principles of statistics for sampling plans Troubleshooting methods 	<ul style="list-style-type: none"> Product test programme structures and formulations Product specifications parameter setting Advanced laboratory equipment Advanced data analytical methods Methods of developing test summary reports Software tools used in extracting and analysing test data 	
Abilities		<ul style="list-style-type: none"> Apply product testing protocols and procedures Apply health and safety regulations and practices in product testing Apply Standard Operating Procedures (SOPs) for product testing and analysis procedures Operate a range of common laboratory 	<ul style="list-style-type: none"> Interpret product testing protocols and procedures Support the development of laboratory Standard Operating Procedures (SOPs) and test control procedures Operate a range of advanced laboratory equipment for sample analysis testing for non-routine testing 	<ul style="list-style-type: none"> Establish product testing protocols and procedures Identify different test methodologies Supervise product tests in accordance with product specifications and procedures Validate specific tests based on product requirements and specifications 	<ul style="list-style-type: none"> Formulate product test programme structures Define product design and specifications Identify test data required Perform test data extraction Evaluate results from extracted test data Recommend corrective actions for product specifications, production processes, 	

**SKILLS FRAMEWORK FOR ENERGY AND CHEMICALS
TECHNICAL SKILLS AND COMPETENCIES (TSC) REFERENCE DOCUMENT**

		<p>equipment for sample testing</p> <ul style="list-style-type: none"> • Identify abnormalities • Prepare data in required formats 	<ul style="list-style-type: none"> • Apply product testing protocols • Analyse product testing results and identify deviations or quality issues with products • Analyse frequency and severity of product defects or quality lapses • Release product testing results 	<ul style="list-style-type: none"> • Develop sampling plans for products to be tested • Troubleshoot testing problems • Review testing results against specifications and make relevant recommendations 	<p>product testing programmes and relevant laboratory testing equipment</p>	
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