

**SKILLS FRAMEWORK FOR ENERGY AND CHEMICALS
SKILLS MAP - APPLICATION CHEMIST**

Sector	Energy and Chemicals			
Track	Technical Services, Application and Product Development			
Occupation	Chemist			
Job Role	Application Chemist			
Job Role Description	The Application Chemist performs technical work for product development, and develops innovative application-specific solutions, in line with the organisation's business objectives as well as market needs. He/She documents notes for new product development, applications and formulations, for both internal and external customers. He evaluates new applications and/or products, employing suitable test methods and developing alternative or new methods, where necessary.			
	The Application Chemist supports the technical service team in troubleshooting technical issues reported by customers. He also provides product application-related training to internal customers. He conducts activity-based risk assessments and implements the Management of Hazardous Chemicals Programme (MHCP) in the laboratory, in compliance with Workplace Safety and Health (WSH) and Environmental Management System requirements.			
	The Application Chemist works in a team in the laboratory, and collaborates closely with the technical service, Research and Development (R&D), and sales and marketing teams. He is a good team player and has a creative and problem-solving mind-set. He can manage multiple projects effectively, and possesses strong technical writing and presentation skills.			
Critical Work Functions and Key Tasks	Critical Work Functions		Key Tasks	
	Administer Workplace Safety and Health (WSH) and Environmental Management Systems (EMS)	Comply with WSH and EMS systems		
		Conduct activity-based risk assessments		
		Implement the Management of Hazardous Chemicals Programme (MHCP)		
	Manage application and product development	Apply customer-relevant protocols for claim validation and non-standard methodologies		
		Conduct technical work and projects for product development and innovation		
		Develop innovative application-specific solutions and new analytical methods via technological know-how		
		Document product development, formulation and application notes for both internal and external customers		
		Identify opportunities to expand existing product lines, based on assessments of customer and market needs		
		Maintain up-to-date knowledge of market requirements and technical developments within the industry		
		Perform standard and customer-specific laboratory testing		
	Manage technical services	Review specific industry, regulatory and Intellectual Property (IP) standards for compliance		
Provide product application-related training to internal customers				
Support the execution of technical service, application and product development-related projects with customers				
Administer staff and organisational development	Support the technical service team in troubleshooting technical issues reported by customers			
	Adopt technologies to support virtual collaboration in remote locations			
Skills & Competencies	Technical Skills and Competencies		Generic Skills and Competencies (Top 5)	
	Change Management	Level 4	Creative Thinking	Intermediate
	Continuing Professional Development Management	Level 4	Lifelong Learning	Intermediate
	Continuous Improvement Management	Level 3	Communication	Intermediate
	Data and Statistical Analytics	Level 3	Teamwork	Intermediate
	Environmental Management System Framework Development and Implementation	Level 3	Problem Solving	Intermediate
	Laboratory Data Reporting and Analysis Management	Level 4		
	Laboratory Operations Management	Level 4		
	Materials Qualification	Level 3		
	Product Design and Development	Level 4		
	Product Testing Management	Level 4		
	Project Management	Level 4		
	Quality Control Management	Level 3		
	Sample Management	Level 4		
	Strategic Service Excellence Management	Level 4		
	Technical Presentation	Level 4		
	Technical Report Writing	Level 4		
	Technical Services Management	Level 4		
Workplace Safety and Health Framework Development and Implementation	Level 3			

Skills & Competencies	Workplace Safety and Health Hazard Identification and Risk Control Management	Level 3	
Programme Listing	For a list of Training Programmes available for the Energy and Chemicals sector, please visit: www.skillsfuture.sg/skills-framework/energyandchemicals		

The information contained in this document serves as a guide.