

**SKILLS FRAMEWORK FOR SEA TRANSPORT
TECHNICAL SKILLS AND COMPETENCIES (TSC) REFERENCE DOCUMENT**

TSC Category	Workplace Safety and Health					
TSC	Dangerous Goods Management					
TSC Description	Perform specialised services covering dangerous goods operations for regulatory compliance and customer requirements					
TSC Proficiency Description	Level 1	Level 2	Level 3	Level 4	Level 5	Level 6
		STP-WSH-2012-1.1-1	STP-WSH-3012-1.1-1	STP-WSH-4012-1.1-1		
		Support implementation of dangerous goods handling in line with compliance measures	Review compliance and handling of dangerous goods through process assessments	Drive compliance and handling of dangerous goods through clear process steps and industry experience		
Knowledge		<ul style="list-style-type: none"> • Singapore Standards SS 586 • Marking and labelling of dangerous goods • Principles of Globally Harmonised System (GHS) labels • Handling procedures for dangerous goods • Concepts of Material Safety Data Sheet (MSDS) • International Conventions for dangerous goods 	<ul style="list-style-type: none"> • Referencing International Conventions, European Union (EU), United Nations (UN) systems for dangerous goods • Usage of different Material Safety Data Sheet (MSDS) formats • Shipper declaration forms • Dangerous Goods Regulations (DGR) manual • Measurements of toxic materials and threshold limits • Vessel and storage requirements • Globally Harmonised System (GHS) labels 	<ul style="list-style-type: none"> • Threshold limits of dangerous goods • Laws and regulations for dangerous goods management • Vessel, cargo and warehouse insurance • Strengths and weaknesses of maritime transportation and storage of dangerous goods • Emergency response plans 		

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<p>Abilities</p>		<ul style="list-style-type: none"> • Support dangerous goods stowage management • Support preparation of dangerous goods documentation by identifying and labelling according to GHS criteria • Enhance vessel loading, transportation and storage processes based on customer requirements • Apply MSDS to ensure safety compliance • Support implementation of vessel and storage regulatory requirements • Support interpretation of requirements from International Conventions for dangerous goods 	<ul style="list-style-type: none"> • Implement processes to apply appropriate labelling, documentation and stowage for dangerous goods • Maintain compliance of dangerous goods documentation by conducting regular checks • Implement relevant and efficient MSDS formats • Implement efficient vessel and storage regulatory requirements • Deploy user reference guides on shipper declaration forms using DGR manual • Maintain safety standards for toxic materials threshold limits used in the industry • Implement appropriate requirements or thresholds limits for vessel storage • Maintain compliance of GHS standards and labelling 	<ul style="list-style-type: none"> • Lead operations in dangerous goods management by providing inputs to safety aspects that apply to maritime transportation, handling and storage • Provide guidance on laws and regulations required for different categories of dangerous goods classification • Drive implementation of dangerous goods operational procedures in accordance to regulatory or customer requirements • Review cargo and warehouse insurance policies and enhance operational processes if required • Develop transportation and storage methods to handle different classes of dangerous goods • Develop emergency response plans covering range of contingencies including fires and explosions, power failures, chemical spillages and leakages 		
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