

**Specification of Competency Standards**  
**for the Automotive Industry**  
**Unit of Competency**

Functional Area - Common Competency

Title	Formulate management procedure for dangerous chemicals, pollutants and waste
Code	108808L4
Range	This unit of competency is applicable to general mechanical workshops, vehicle body and painting workshops, LPG vehicle service workshops, testing sites; car cleaning shops, car parks for new/used cars and new/used parts warehouses in the automotive industry. Practitioners should be able to conduct risks assessments on typical dangerous chemicals, pollutants and waste. They should also be able to formulate management procedure and provide a safe working environment.
Level	4
Credit	6 (For Reference Only)
Competency	<p>Performance Requirements</p> <p>1. Knowledge (Definition, characteristics and related regulations on dangerous chemicals, pollutants and waste)</p> <ul style="list-style-type: none"> <li>• Master the application, labelling system and characteristics of typical chemicals used in the organisation.</li> <li>• Good understanding of the definitions and categories of dangerous chemicals, pollutants and waste.</li> <li>• Good understanding of statutory requirements on the delivery, transportation, utilisation, recycling and disposal of dangerous chemicals, pollutants and wastes as well as the content in the Safety Data Sheet (SDS).</li> <li>• Good understanding of the potential risks of various kinds of pollutants in the organisation and related regulations.</li> <li>• Good understanding of different waste treatment methods employed by the organisation.</li> <li>• Good understanding of the responsibilities of employers and employees stipulated in the Occupational Safety and Health Ordinance.</li> </ul> <p>2. Performance (Formulate working instructions and management plans)</p> <ul style="list-style-type: none"> <li>• Formulate storage management system, delivery procedure, application guidelines, monitoring systems, disposal and recycling procedure for related dangerous chemicals, such as: <ul style="list-style-type: none"> <li>○ Conduct assessment on the dangerous chemicals in the organisation, such as paints, fuel, organic solvent, strong acids, engine lubricants, automatic gearboxes lubricants, various types of hydraulic oil, pressurised cylinders, refrigerants, coolants, etc. List out the categories, inventory level, storage methods, storage places, consumption level and application locations for all dangerous chemicals</li> <li>○ Verify that the storage of all dangerous chemicals can fulfil the statutory requirements in terms of inventory level and storage specifications of different dangerous chemicals</li> <li>○ Collect the Material Safety Data Sheet (MSDS) for each type of dangerous chemical and establish relevant database.</li> <li>○ Draw up a simple map that listing out the storage, delivery routes and the locations of those dangerous chemicals in use</li> <li>○ Assess the risks involved in various kinds of dangerous chemicals such as the time exposed to dangerous chemicals, the frequency of respective procedure and analyse the consequences of failure in rectifying the danger upon occurrence of incidents</li> </ul> </li> </ul>

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	<ul style="list-style-type: none"> <li>○ Formulate emergency and contingency plans in accordance with the storage, consumption, delivery, recycling and disposal of dangerous chemicals; and determine the responsibilities by posts, such as implementation of evacuation procedure, contact of emergency service departments and the provision of first-aid services.</li> <li>● Formulate handling procedure and monitoring system for typical pollutants, such as vehicle emission, dusts, effluent, polluting waste.</li> <li>● Formulate procedure to ensure that recoverable waste such as waste tyres, waste batteries, waste oil, waste paper, refrigerants, plastics, metals and polluting waste, etc. are separated for recycling; and temporary storage of those non-recyclable wastes for collection.</li> <li>● Draw up training mechanism to equip staffs with the knowledge of the established management policies on dangerous chemicals, pollutants and wastes.</li> <li>● Establish management systems on equipment to ensure that relevant resources are adequate and appropriate, such as personal protection equipment, instruments required for first-aid as well as emergency and contingency measures, equipment required for handling pollutants, facilities for temporary storage, disposal and waste recycle.</li> <li>● Ensure that the various procedures and instructions formulated are synchronised with organisational operation and meet vehicle manufacturer's standard as well as the statutory requirements of fire prevention, environmental protection, occupational safety and health and related regulations.</li> </ul>
Assessment Criteria	<p>The integrated outcome requirements of this unit of competency are that the practitioner being assessed shall prove that he/she is:</p> <ul style="list-style-type: none"> <li>● Capable of formulating management systems and working instructions on the delivery, transportation, consumption, recovery and monitoring of dangerous chemicals used in the organisation; drawing up working instructions as well as emergency and contingency plan by various posts; and ensuring that management systems and working instructions can comply with the requirements of Dangerous Goods Ordinance, Factories and Industrial Undertakings (Spraying of Flammable Liquids) Regulations as well as Factories and Industrial Undertakings (Dangerous Substances) Regulations;</li> <li>● Capable of formulating the handling procedure and monitoring system for typical pollutants and waste according to the requirements of environmental protection and waste disposal ordinances;</li> <li>● Capable of establishing management system for related devices to ensure adequate supply of resources; and</li> <li>● Capable of establishing training mechanisms to equip staffs with the knowledge of the operation of dangerous chemicals, pollutants and wastes as well as deriving emergency and contingency plan in their own working unit.</li> </ul>
Remark	<p>The relevant legislations involved in this unit of competency are as follows:</p> <ul style="list-style-type: none"> <li>● Factories and Industrial Undertakings (Dangerous Substances) Regulations</li> <li>● Dangerous Goods Ordinance</li> <li>● Factories and Industrial Undertakings (Asbestos) Special Regulations</li> <li>● Occupational Safety and Health Ordinance</li> <li>● Waste Disposal Ordinance</li> <li>● Factories and Industrial Undertakings (Spraying of Flammable Liquids) Regulations</li> </ul>