## **Complex/Miscellaneous Exercises**

1. A chemical company in Spain is preparing to ship a consignment of Tripropylamine by train to Poland in a freight container. The shipment will consist of two pallets of 20 non-UN certified boxes each containing 4 x 5L jerricans and 20 x 1000L IBCs. What labels and marks should be applied to the boxes and IBCs? What plates and/or placards must be visible on the transport unit moving the container from the shipper to the railway terminal? 2. You are asked to send 7,500 L of 60 % perchloric acid from Ireland to a customer in Poland. Some of the journey on the continent will be by rail as it is more cost effective. Your tank provider has available a 10,000 L single-compartment non-baffled T10 tank or a twin compartment 15,000 L T19 tank. Which tank would you select and why? Your manager advises that a second order for 6,000 L of 70% perchloric acid has just come in and that if you were going to use the 15,000 L tank then the two orders could be shipped together in the one tank. How would you respond? How should the tank be marked and labelled? Show how the goods should be described in the transport document The carrier arrives with a FL approved vehicle to pick up the tank. Is this acceptable?

On checking the safety equipment on the vehicle it is observed that a drain seal and breathing apparatus are not present. Is this acceptable? Describe the plates that should be shown on the front of the vehicle. The driver taking the tank on the final leg of the journey from the rail terminal to the customer has to rest has he is approaching the limit of his tacograph hours. What are his options in terms of where he can leave the vehicle while resting? – it is not a sleeper cab On emptying the customer will send the tank to a cleaning station. How should the tank be described in the transport document? Miscellaneous Questions 1. By definition what types of goods are restricted in a Category C tunnel? 2. To what packing group are explosives and organic peroxides assigned? 3. What regulations govern the transport of dangerous goods by air? 4. What labels and marks would need to be applied to packages containing the pure self reactive substance 4-nitrosophenol? What additional information must be included on the transport

document?

5. What labels and marks would need to be applied to packages containing a 60% solution of the organic peroxide tertr-butyl peroxyacetate?

