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PRACTICE PAPER - ANSWER BANK

Assessors Note:

This answer bank should be used as the primary resource when marking students work. However, responses to some questions may be subjective and tutors are advised to exercise their professional judgement when making assessment decisions.

OUTCOME ONE

Demonstrate knowledge of materials that constitute hazardous waste in the motor industry

1. a) Name three hazardous materials that can be toxic if inhaled or absorbed

Chemicals, solvents, petrol/oil, adhesives, cleaning materials, lead dust, asbestos dust, acids

b) Name three hazardous materials that can cause environmental harm

Chemicals, solvents, petrol/oil, adhesives, cleaning materials, rags, lead dust, masking materials, plastic materials, CFCs, acids

c) Name three hazardous materials that can cause burns or skin irritations

Chemicals, solvents, petrol/oil, adhesives, cleaning materials, deployed air bag, acids

d) Name three hazardous materials that are flammable

Paint, chemicals, solvents, petrol/oil, adhesives, cleaning materials, rags, masking materials, plastic materials,

2. What is the main purpose of the Ozone Layer Protection Act

The main purpose of the act is to phase out the use of all ozone depleting substances. It controls the manufacture, import and export of all ozone depleting substances in New Zealand

3. Briefly describe why hazardous materials are used in automotive workshops

Because they are designed by manufacturers to perform specific tasks. To give the products properties and qualities to perform the task sometimes very toxic and flammable ingredients are used in the product

4. What is the purpose of material data safety sheets?

They outline the characteristics of the hazardous substance and the appropriate measures to take when handling, storing, using, transporting and disposing of the substance.

5. Name one possible consequence of not storing hazardous materials in their original containers

If acid is not stored in an acid resistant container it will leak out
The substance could be used for something else if it is not labelled.
People may not realise it is a hazardous substance if it is not in its original container

6. Why is it important to wear protective clothing when handling rubbish from the workshop?

When dealing with rubbish it is important for safety and personal hygiene reasons to wear protective clothing. All rubbish should be disposed of in a suitable container to prevent further hazards.

7. Explain why it is important to prevent hazardous materials from going into the atmosphere

Although many of these may be invisible they can have serious effects on human health and on the environment. They can contribute to the depletion of the ozone layer and the increase in greenhouse gases leading to earth overheating and the polar ice caps melting which in turn could result in a gradual flooding of the earth's surface.

8. Name any material used in the automotive industry that can cause damage to the water system

Chemicals, Solvents, Petrol, Oil, Adhesives, Cleaning materials, acids, detergents, coolant, paints, grease, lubricants, diesel

9. If a chemical spill cannot be identified what steps should you take?

Inform your colleagues and supervisor and evacuate the area. Contact the fire service and provide as much information as possible about the chemical and the scale of the spill

OUTCOME TWO

Demonstrate knowledge of using and storing hazardous materials in the motor industry.

1. Identify the potential hazards that Leroy the apprentice creates in each of the following scenarios.

Leroy is not wearing a respirator when cleaning dust off the brakes
Brakes may produce an asbestos dust that if inhaled can be cancer causing

While carrying oil soaked rags to the disposal bin Leroy decides to light a cigarette
Danger of the rags catching alight and causing a fire. Oil soaked rags are highly flammable

When Leroy returns the cleaning agents he was using to the storage area he has not made sure that the lids are on securely
May spill causing environmental and health problems if inhaled or in contact with skin

2. List two characteristics a dangerous goods store should have

A dangerous goods store must be fire proof and well ventilated, it should have a low step down to prevent spills leaking out from under the door. A fire extinguisher should be located nearby. Typically they are made using concrete walls and fire resistant doors that can withstand a fire for at least four hours.

3. When storing hazardous materials containers explain why it is important that the containers are labelled correctly

The substance could be used for something else if it is not labelled.
People may not realise it is a hazardous substance if it is not in its original container

4. For each of the following statements please indicate whether the statement is true (T) or false (F) by entering T or F in the box as appropriate.

T Under the Ozone Layer Protection Act 1996 it is illegal to release refrigerant into the atmosphere

- F** Hazardous substances can be stored in a wooden framed building.
- T** A dangerous goods store should be fire proof and well ventilated
- T** Small quantities of hazardous substances can be stored in sealed lockable metal cabinets (no more than 100 litres in total)
- F** Heavy items should be stored on the top shelves of a steel rack

5. List three personal safety equipment/clothing items that should be worn when using fillers and hardeners

Protective gloves, eyewear and overalls

6. If a material is labelled toxic what does that indicate with regards to handling and usage?

These substances can be deadly if inhaled, ingested or come into contact with skin. Extreme care must be taken when using these substances

7. How do workshops prevent fuels and oils from entering the waterways?

Workshops have traps installed into their drainage systems to catch and contain any fuels or oils that are spilt or washed into the drainage system. The trapped waste is removed at regular intervals and taken away to be recycled or properly disposed of.

8. Outline the correct disposal method for each of the following substances

Solvents

Put in a labelled drum with a sealed top to stop evaporation. Get the drum removed by a solvent recycling company

Paint

Pour into a labelled drum with a sealed top to stop evaporation. Get the drum removed by a solvent recycling firm.

Filler Dust

Any filler dust should be swept or vacuumed up and disposed of in a sealed container.

9. Explain why it is important to store oxidising substances away from flammable substances

Oxidising substances can cause fire or significantly add to the intensity of a fire. Avoid use near open flames or other sources of ignition. Do not store near flammable substances

10. Information about what to do in the event that a poison has been swallowed can be obtained on the Poisons line 0800 POISON

True