

Automotive Engines 10th

Chapter 3 Environmental and Hazardous Materials

SHORT ANSWER. Write the word or phrase that best completes each statement or answers the question.

1. How should used engine oil be disposed?
2. What are five common automotive chemicals or products that may be considered hazardous materials?
3. What methods need to be used when handling products that may contain asbestos?
4. The Resource Conservation and Recovery Act (RCRA) controls what types of automotive waste?
5. What precautions are needed to be taken when handling an airbag?

Answer Key

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1. After collecting used oil in an appropriate container, such as a 55-gallon steel drum, the material must be disposed of in one of two ways.

1. Shipped offsite for recycling
2. Burned in an onsite or offsite EPA-approved heater for energy recovery

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2. Five common automotive chemicals or products include asbestos, used oil, used brake fluid, used coolant, and batteries.

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3. Tests have determined that asbestos levels can easily be kept below the recommended levels by using a liquid, like water, or a special vacuum.

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4. Paint and body repair products waste

Solvents for parts and equipment cleaning

Batteries and battery acid

Mild acids used for metal cleaning and preparation

Waste oil, and engine coolants or antifreeze

Air-conditioning refrigerants and oils

Engine oil filters

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5. Airbag safety should include the following precautions:

1. Disarm the airbag(s) if you will be working in the area where a discharged bag could make contact with any part of your body. Consult service information for the exact procedure to follow for the vehicle being serviced.

2. If disposing of an airbag, the usual procedure is to deploy the airbag using a 12-volt power supply, such as a jump-start box, using long wires to connect to the module to ensure a safe deployment.

3. Do not expose an airbag to extreme heat or fire.

4. Always carry an airbag pointing away from your body.

5. Place an airbag module facing upward.

6. Always follow the manufacturer's recommended procedure for airbag disposal or recycling, including the proper packaging to use during shipment.

7. Wear protective gloves when handling a deployed airbag.

8. Always wash your hands or body well if exposed to a deployed airbag. The chemicals involved can cause skin irritation and possible rash development.

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