

Automotive Technology 7th Edition
Chapter 64: Refrigerants and Refrigerant Oils
Short Answer Quiz

Name:

Date:

1. Describe the process by which chlorofluorocarbon molecules break apart in the atmosphere and its impact on the ozone layer.

2. Explain the significance of the Global Warming Potential (GWP) number and how it relates to the heat-absorbing ability of gases.

3. What is the chemical formula for HFO-1234yf, and why is it significant for vehicles by the 2021 model year?

4. Discuss the potential hazards of refrigerants and the precautions technicians should take when handling them.

5. How does the depletion of the ozone layer affect ultraviolet radiation from the sun reaching Earth's surface?

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6. Describe the Montreal Protocol and its relation to the Clean Air Act signed in 1990.

7. What is the ozone layer, and why is it crucial for life on Earth?

8. Explain the difference between symmetrical and asymmetrical molecules using R-12 and R-134a as examples.

9. What are the potential dangers of CFCs like R-12 or R-22 coming into contact with a flame or heated metal?

10. Discuss the greenhouse effect and its relation to global warming. How do CFC and hydrocarbon gases contribute to this phenomenon?