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# Laboratory Safety Essentials Worksheet

## Acid in the Eye

- 1. What caused the egg white to turn white once it was exposed to hydrochloric acid?
- 2. Why did the egg white not return to its original consistency or appearance after it was rinsed with water?

#### **Grease Fire**

- 3. Why does adding water to a grease fire cause the fire to spread?
- 4. Describe two effective means of putting out a grease fire.

## **Flaming Vapor Ramp**

- 5. What physical properties allowed the hexanes solution to evaporate so easily?
- 6. Why did the hexane vapors (C<sub>6</sub>H<sub>14</sub>) travel down the ramp when they were poured out of the flask, instead of just dispersing into the air? *Hint:* Keep in mind that the molecular weight of oxygen is 32 g/mol.
- 7. What does this demonstration teach you about using flammable liquids in the laboratory and at home?

## **SDS** Challenge

- 8. Given the fact that the mystery chemical was ignited after the flask had been filled with water, which chemical could be immediately eliminated based on its density?
- 9. What additional information included on the SDS allowed the identification between the last two possible choices for the mystery chemical? *Hint:* Remember that only 2 mL of the mystery chemical was present in 500 mL of water.

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