

# 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 ( $C_6H_{14}$ ) 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.