# Risk Assessment Form (3)

**Must be completed before experimentation.**

Student's Name(s) Soyoun Moon, Lakxshanna Raveendran

Title of Project The effect of sulfur dioxide on the olfactory memory of Western Honeybees (Apis mellifera)

**To be completed by the Student Researcher(s) in collaboration with Designated Supervisor/Qualified Scientist:**
(All questions must be answered; additional page(s) may be attached.)

1. List all hazardous chemicals, activities, or devices that will be used; identify microorganisms exempt from pre-approval (see Potentially Hazardous Biological Agent rules).

   Approximately 10 ml of diluted sulfuric acid(l) will be dripped onto approximately 8g of sodium sulfite(s), which will generate a dry gas, sulfur dioxide(g). We will use the sulfur dioxide in our experiment.

2. Identify and assess the risks involved in this project.

   Sulfur dioxide can cause severe skin burns and eye damage, toxic if inhaled.
   Honeybees have the potential to sting.

3. Describe the safety precautions and procedures that will be used to reduce the risks.

   Sulfur dioxide should be handled only in a well- ventilated area, preferably a hood with forced ventilation. Personnel handling sulfur dioxide should wear chemical safety goggles and/or plastic face shields, approved safety shoes, and rubber gloves. Honeybees would be handled with caution by placing container in freezer before handling to avoid stinging. Once knocked out, they will be tethered to their apparatus for testing. Gloves will be worn at all times throughout the experiments.

4. Describe the disposal procedures that will be used (when applicable).

   In cases of a spill: approach suspected leak areas with caution, remove all sources of ignition. Toxic, corrosive vapor can spread from the spill. Ventilate area or move container to a well-ventilated area. Disposal: do not attempt to dispose of residual or unused quantities. Return container to supplier.

5. List the source(s) of safety information.

   Safety data sheet for chemicals
   Chemical hygiene and safety training by teachers

**To be completed and signed by the Designated Supervisor (or Qualified Scientist, when applicable):**
I agree with the risk assessment and safety precautions and procedures described above. I certify that I have reviewed the Research Plan/Project Summary and will provide direct supervision.

Dr. Daniel Kramer — Designated Supervisor's Printed Name

Daniel J. Kramer — Signature

6/12/2019 — Date of Review (mm/dd/yy)

Science Educator, Commack High School — Position & Institution

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Ph.D. Industrial Chemist — Experience/Training as relates to the student's area of research