

**LOCAL JOINT HEALTH AND SAFETY COMMITTEE
DEPARTMENT OF BIOMEDICAL SCIENCES
STANDARD OPERATING PROCEDURE**

1. SAFE USE OF THE PORTABLE PROPANE BURNER

Effective Date: July, 2002

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Purpose: To promote the safe handling and use of Propane Burners in the lab

Approvals Required: Faculty Supervisor, Local JHSC, EHS

2. DEFINITIONS:

Propane Burner: The propane burner has replaced the natural gas Bunsen burner in the laboratory for purposes such as heating beakers of water and flaming microbiological loops. This open flame device is a potential hazard and should be used with care and respect for health and safety.

3. REQUIREMENTS:

Applicable Legislation: Occupational Health and Safety Act (OHSA), R.S.O. 1990, Sections. 25-28, 36-38 and 42

Ontario Regulations 860, R.R.O 1990, - WHMIS

Ontario Fire Code (Ontario Regulations 388/97, Part IV)

Ontario Fire Code, O. Reg. 388/97, section 5.6

UoG Safety Policy 851.08.05 and 06

Persons handling flammable compressed gases shall be WHMIS trained with yearly WHMIS reviews.

4. HAZARDS:

Physical Properties: PROPANE (dimethylmethane, propyl hydride) is a constituent of natural gas and of crude petroleum. It is an odorless gas when purified and burns with a luminous, smoky flame.

Toxic Properties: PROPANE may be narcotic when inhaled in high concentrations.

5. DESCRIPTION OF THE TASK:

- ***Wear an all cotton or fire retardant lab coat as the basic personal protective item of clothing when handling flammable gases.***

- ***Wear safety glasses.***

- Screw the propane cylinder into the torch attachment finger tight. **Do not over tighten or use wrench.**

- With the torch valve closed, test for leaks around the cylinder threads by immersing the cylinder in cold water so that the threads are under the water but not the torch. Dry off the cylinder.

- Transfer the assembled burner to the location where it is to be used. ***This area should be well ventilated, away from shelving, flammable chemicals and equipment, and uncluttered with Class A flammable material such as paper, books and cardboard.***

- Place the burner on its support cradle or v-prop under which is a fire retardant pad. ***Never use the burner free-standing on the cylinder base. Before lighting the burner keep long hair tied back and lab coat cuffs rolled up.***

- Light the burner at the assigned location only by opening the torch valve and using a Sparking

Igniter. Adjust the flame size by opening or closing the valve. **DO NOT attempt to light the burner from another lit burner or carry a lit burner to another location.**

NEVER ATTEMPT TO DISASSEMBLE A LIT BURNER!

- Avoid working over the burner flame.
- Extinguish the burner flame by closing off the torch valve.
- *When not in use, store the burner away from open flame or spark, away from sunlight, and away from sources of heat. The cylinder may explode at temperatures above 49 °C.*

6. CONTINGENCY PLAN AND REPORTING:

Know the location and use of the First Aid Kit.

Know the location and use of fire extinguishers.

Know the procedure in case of fire.

Know the location of the nearest fire alarm pull station.

In an emergency phone ext. 52000 for assistance.

Report problems to immediate supervisor and if necessary fill out and submit an Injury/Incident Report form.

7. WASTE MANAGEMENT:

Empty propane cylinders are picked-up for recycling by EHS on request.

8. REFERENCES:

Material Safety Data Sheets

WHMIS Regulations

Occupational Health and Safety Act

Ontario Fire Code, Part 4

UoG Safety Policy 851.08.05 and 06

9. DISTRIBUTION OF COPIES:

Technicians, Graduate Students, Project Students, other University of Guelph employees working in the lab.

Dr. _____, Faculty Supervisor

Environmental Health and Safety

Local JHSC, Department of Biomedical Sciences

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Authorization: Faculty Supervisor

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