Second Year Dental Students

Fire Safety Training 2015

Environmental Health & Safety

ehs.columbia.edu
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This is what we want to prevent
This is what we want to prevent!
Fire Safety Goals

• Prevent fire in Dental Labs and Patient areas
  – Inspect equipment before use.
  – Follow all CODM procedures.
  – Clear area of combustibles when working with open flame

• Know what to do if there is a fire/smoke condition.

• Know how to use a fire extinguisher

• Know what to do if you/or someone catch on fire
Alcohol Torches
Bunsen Burners - Gas Manifold Outlets

- Make sure hose is firmly on outlet.
- **Check hose** for cracking or stretching of hose.
- If you smell gas, close manifolds, check for burners, turn off surrounding burners.
- Close valve firmly when finished.
- O2 sensors – if they go into alarm, open windows, shut off manifolds, Evacuate.

NOTIFY: Public Safety at 305-8100 or Facilities HELP.

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Safe Use of Butane Torches
Safe Use of Butane Torches

Filling

1. Butane torches will be refilled, when necessary, in the wet lab (Room 8-218) across from the preclinical laboratory, following the manufacturer’s instructions as posted on wall, away from any heat or open flame. Be sure that the flame has been extinguished and allow torches to cool completely before refilling.

2. BUTANE TORCHES ARE NOT TO BE REFILLED IN THE PRECLINICAL LABORATORY

3. Butane torches and butane refill canisters will only be used in the preclinical laboratory or the clinical area of the College of Dental Medicine.
Filling Area

Copy of Torch Instruction Manual
**NEW & IMPROVED MICRO-TORCH INSTRUCTION MANUAL**

The Henry Schein Micro-Torch does not contain any butane when first purchased. Follow the gas filling instruction to make it operational.

**GAS FILLING Fig. 1**

1.1 Be sure the Torch is off & SAFETY LOCK is down before filling.
1.2 Insert container’s nozzle vertically down into the “GAS FILLING VALVE” (For best results use pumping action).
1.3 When gas starts to overflow pull nozzle out from opening (complete refilling takes approx. 20-30 seconds).

**IGNITION Fig. 2 & Fig. 3**

2.1 Be sure the small hole on the “AIR CONTROL SLEEVE” is properly aligned with the small hole on the “CONNECTING TUBE” Torch will not work without this alignment.
2.2 Raise the “SAFETY LOCK”
2.3 Move the GAS CONTROL LEVER Slowly to firing position (marked with “+”) The gas will flow with an audible hiss.
2.4 Press the “IGNITION” button to ignite flame.

**SHUT-OFF**

3.1 Move the “GAS CONTROL LEVER” until it contacts the right side of “COVER”, the flame will be extinguished.
3.2 Force the “SAFETY LOCK” downward.

**THERMAL POWER CONTROL Fig. 3**

4.1 Move the AIR CONTROL SLEEVE to the right or left, to set the required flame. NOTE: The highest temperature attainable will be about 2,370°F (1,300°C).

**FLAME LENGTH ADJUSTMENT**

5.1 Flame length can be adjusted from ½” to 1 ½” (12mm to 32mm).
5.2 Move the GAS CONTROL LEVER to the left (marked with “-”) to make the flame longer, to the right (marked with “+”) to make the flame shorter, and finally to shut it off.

Note: A satisfactory performance will not be achieved when:
A. The gas in the cylinder is too cool (surrounding temperature is too low).
B. The pressure in the cylinder is too low.

To Solve: Place cylinder in your hands to warm up.

To Solve: Refill the torch with gas.

**CAUTIONS**

1. Keep Out Of The Reach of Children
2. Do not touch “Flame Guard” when hot.
3. Butane gas is extremely flammable. Please handle with care.
4. Do not drop puncture, incinerate or expose to direct sunlight or temperature above 120°F.
5. Always point away from eyes and body when igniting or operating.
6. Do not continually use this tool for longer than 1 hour.
7. After use be sure the gas control lever is set for shut off position.
8. This is a precision tool. Handle with care and keep clean to maintain peak performance.

**SPECIFICATIONS**

- **Height:** 6” (155 mm)
- **Width:** 3 ½” (90mm)
- **Grip Diameter:** 1 ⅓” (35mm)
- **Dry Weight:** 6.3 oz. (180g)
- **Flame Adjustment:** ½”-1 ¼” (12mm to 32 mm)
- **Max Temp.:** 2,370°F (1,300°C)
- **Working Time:** Approx 90 Min.

**Distributed by**
HENRY SCHEIN INC.
Melville, NY 11747 USA
Henry Schein U.K. Holdings Ltd.
Gillingham ME8 6SB U.K.

Made in Taiwan.
Operation:

1. Inspect torches regularly for signs of leaks
2. Clean off any butane that may have leaked while filling
3. Be sure that the nozzle on the canister is not clogged or dirty
4. Be sure your work area is free of combustible materials
5. Secure loose clothing, hair, jewelry and other articles before lighting the butane torch
6. Light the torch according to your model-specific manufacturer’s instructions
7. Butane torches will be kept in the stand when in use in the laboratory
8. Keep the flame pointed away from you while in use
9. Butane torches on the laboratory bench must be extinguished when not in use
10. You are responsible for the maintenance, replacement and security of your butane torch and refill canisters
Storage

1. Torches and refill canisters will be stored in the locked, metal storage drawer at the work stations in the pre-clinical laboratory when not in use.

2. DO NOT STORE or LEAVE CANNISTER ON LAB BENCH AT ANY TIME.
Safe Use of Butane Torches

Disposal

1. EMPTY BUTANE REFILL CANISTERS ARE DISPOSED OF IN THE DESIGNATED LABELED CONTAINER (Treated as Hazardous Waste)

2. New butane refill canisters may be obtained from the Schein store
Do you know what a BLEVE is?
Boiling
Liquid
Expanding
Vapor
Explosion
FIRE SAFETY

In Case of Fire:
R - Rescue
A - Alarm
C - Confine
E - Extinguish
E - Evacuate

To use Fire Extinguisher:
P - Pull Pin
A - Aim Hose
S - Squeeze Handle
S - Sweep From Side to Side
To Use a Fire Extinguisher - PASS
ABC Fire Extinguisher

- Class ‘A’ = Ordinary Combustibles such as wood, paper and plastic.
- Class ‘B’ = Flammable liquids such as alcohol, paint, oil.
- Class ‘C’ = Electrical equipment, Computers, Copiers.
Fire Alarm Systems
To provide early detection and warning

**Automatic Alarm Systems**
- Smoke Detectors
- Heat Detectors
- Water Flow Alarms

**Manual Alarm System**
- Pull Alarms located at EXIT’s
Personal Fire Safety

- **If your clothes catch on fire**
  - Stop, Drop, Roll
  - Do not run - If colleague is running, may need to knock to ground
  - If clothing is burned onto skin - Do Not attempt to remove clothing
Trained?
Thank You

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