Standard Operating Procedure

**Compressed Gases / Gas Cylinder Use**

Print a copy and insert into your
*Laboratory Safety Manual* and *Chemical Hygiene Plan*.
Refer to instructions for assistance.

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| **Department:** | Chemistry |
| **Date SOP was written:** | 3/10/2018 |
| **Date SOP was approved by PI/lab supervisor:** | 3/10/2018 |
| **Principal Investigator:** | Sarah Keller |
| **Location(s) covered by this SOP:** | *BAG 005, BAG 023* |
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| #1 Process (if applicable) | **Gas cylinders** (Inert)Use of compressed gas cylinders |
| #2 Chemicals | Compressed gas cylinder present hazards because of the volume of gas and the pressures involved. Leaking or vented inert gas can displace breathing air. This SOP is for N2, Ar, Air, and CO2. |
| #3 Personal Protective Equipment (PPE) | Wear goggles. Gloves, face shield, lab coat or apron and/or respirator may be required for personal protection depending on the gas and use. |
| #4 Environmental / Ventilation Controls | Fittings and connections must be properly tested for leaks using a soapy water, 'Snoop' or other appropriate test system or meter. Do not use an open flame. |
| #5 Special Handling Procedures & Storage Requirements | All cylinders should be properly identified and the specific hazards of each cylinder should be known. Cylinders must be fastened securely at all times whether in use, transit, or storage. Cylinder safety caps must be in place whenever cylinders are not in use for an extended period of time or during transport. Proper valves and/or regulators for the specific gas must be used. Store and use cylinders in ventilated areas away from heat or ignition sources. When not in use, separate flammables and oxidizers. Transport large cylinders only on an approved dolly or cart. A dolly or cart is located in the Chemistry Stockroom. |
| #6 Spill and Accident Procedures | If safe, turn the gas valve off. For cylinders that continue to leak, refer to the Laboratory Safety Manual section 9 or contact EH&S at 206-543-0467. |
| #7 Waste Disposal | Empty nontoxic or non-corrosive gas cylinders should be marked 'empty' and returned to the Chemistry Department Cylinder Storeroom. Empty gas cylinders that contained toxic or corrosive gases must be stored in a fume hood or well ventilated space for pickup by the supplier. For more information, see the Laboratory Safety Manual, section 3 Waste Management. |
| #8 Special Precautions for Animal Use (if applicable) | Not applicable |
| Particularly hazardoussubstance involved? |  YES: |  |
|  X NO: |  |

**NOTE**

Any deviation from this SOP requires approval from PI.

**Principal Investigator SOP Approval**

Print name Sarah Keller

Signature\_\_\_\_

Approval Date: 3/10/2018