**THIS IS A TEMPLATE/BASIC STARTING POINT. CUSTOMIZE THIS TEMPLATE WITH INFORMATION PERTINENT TO YOUR SETUP AND THE PROCEDURE YOU WILL BE USING/YOUR GROUP’S PERSONAL USE.**

STANDARD OPERATING PROCEDURE

|  |  |
| --- | --- |
| **Procedure Title** | Use of Drying Oven |
|  |  |
| **Dept** |  |  | **Bldg/Rm** |  |  | **Supervisor** |  |

**Health and safety information for materials used:**

DO NOT use the oven in the presence of flammable or combustible materials, explosive gases, pressurized or sealed containers, or heat any substance above a temperature which will cause it to emit toxic fumes. Fires or explosion may result, causing death or severe injury. The heating of Molecular Sieves is permitted, provided that they are uncontaminated by other chemicals.

Remember that hot glass looks identical to cold glass!

**Hazard Control Measures**

(Lab coat, eye and hand protection, and closed toe/heel shoes must be selected as required by Section D of the ISU Laboratory Safety Manual.)

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| --- | --- | --- | --- | --- | --- | --- | --- |
| **[x]**  | Thermal gloves | [ ]  | Insulated gloves | [ ]  | Face shield | [ ]  | Respirator |
| **[x]**  | Nitrile gloves | [x]  | Safety glasses | [ ]  | Lab coat | [ ]  | Fume hood |
| **[ ]**  | Neoprene gloves | [ ]  | Vented goggles | [ ]  | Apron | [ ]  | Biosafety cabinet |
| **[ ]**  | Vinyl gloves | [ ]  | Splash goggles | [ ]  | Dust mask | [ ]  | Glove box |
| **[x]**  | Fully enclosed shoes | [ ]  | Flame resistant lab coat |

**Methods:**

1. To operate the drying oven, turn on the power switch and set it to the desired temperature. Allow the oven to reach its maximum set temperature and stabilize.
2. Most likely, you will find the electrical oven on; it should be left on at all times during normal operation. Be courteous and ask others in the group if you can change the temperature of the oven before doing so.

Drying Glassware:

1. Remove as much residual liquid as possible from glassware by shaking the vessel or drying with a cloth or stream of gas. This will reduce vapors and speed drying.
2. For thorough drying, allow the glassware to remain in the oven for at least 2 hrs. It is preferable to leave glassware in overnight.

1. Remove hot glassware with oven mitts, grips or tongs.

**First Aid Procedures**

Treat small burns with ice, cold water, and/or burn ointment from the first aid kit.

**Using Substances Requiring Special Procedures?** No [ ]  Yes [ ]

(If Yes; identify authorized personnel, designate a use area and specify specialized safety precautions here. Refer to Section B in the ISU Laboratory Safety Manual for details.)

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| --- | --- | --- | --- | --- |
| **Written By** |  |  | **Date** |  |
|  |  |  |  |  |
| **Approved By** |  |  | **Date** |  |

 (PI or Lab Supervisor)

**HAZARD ASSESSMENT**

Use the hierarchy of controls to document the hazards and the corresponding control measure(s) involved in each step of the procedure.

Consider *elimination or substitution* of hazards, if possible.

***Engineering Control(s):*** items used to isolate the hazard from the user (i.e. fume hood, biosafety cabinet).

***Administrative Control(s****):* policies/programs to limit the exposure to the hazard (i.e. authorizations, designated areas, time restrictions, training).

***Required PPE***: indicate PPE including specific material requirements if applicable (i.e. flame resistant lab coat, type of respirator or cartridge).

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| --- | --- | --- | --- | --- |
| **Task** | **Hazard** | **Engineering Control(s)** | **Administrative Control(s)** | **Required PPE** |
| Putting items into or removing from oven | Burns | Ensure appropriate temperature on the oven. | Complete training. Use tongs or mitts to remove hot items. | Thermal gloves, lab coat, eye protection. |
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1. **TRAINING RECORD**

Use the following table to record the training associated with this Standard Operating Procedure.

|  |  |  |  |
| --- | --- | --- | --- |
| **Print Name** | **Signature** | **Trained By** | **Date** |
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