

## Judelson Lab Standard Operating Procedure For Work With Bleach (Sodium Hypochlorite Solution)

### 1. Potential Hazards:

- Corrosive. May irritate or damage eyes, skin, and respiratory tract.
- Incompatible with many chemicals/agents. Hazardous gases (including chlorine and chloramines) may be released if bleach is mixed with an incompatible material. Exposure to these gases can cause coughing, shortness of breath, irritation to eyes, nose, and throat, chest pain, wheezing, fluid in the lungs, and nausea.
- Strong oxidizer. May initiate or promote combustion in other materials.

### 2. Engineering Controls:

- An eyewash/drench hose unit must be available in the immediate work area.

### 3. Work Practice Controls:

- Protect others: Label containers holding bleach to inform others of its presence. Do not pour if someone else is standing nearby.
- ALWAYS check the Safety Data Sheet of a chemical/agent before mixing it with bleach to ensure compatibility. Bleach is incompatible with acids, ammonia, and oxidizers. NEVER mix with an unknown substance.
- Work with the smallest practicable amount and lowest practicable concentration (dilution to 5-10% is normal).

### 4. Personal protective equipment (PPE):

Wear a buttoned lab coat, safety glasses (or goggles or face shield if splashing may occur), and gloves.

### 5. Transportation and Storage:

- Transport concentrated solution in secondary containment, preferably a polyethylene or other non-reactive acid/solvent bottle carrier.
- Store in a break-proof (and nonmetallic) bottle, below eye level but not on the floor unless in secondary containment.
- Never store in a squeeze bottle or sprayer.

### 6. Waste Disposal:

If bleach is at or below common household concentration (maximum 10% concentration sodium hypochlorite) it can be discharged in the sink with ample water. Leave water running for 5 minutes to help dissipate vapors.

### 7. Exposures/Unintended contact:

- Flush exposed eyes or skin with water for at least 15 minutes, then seek medical attention if needed
- Call EHS or 911 in case of emergency.

### 8. Spills and Emergency Procedures:

If you have mixed bleach with another compound and notice an odor or any gases /bubbles forming, move the container to a fume hood (if this can be done safely) and leave the area. If the reaction is occurring rapidly/violently, call 911.

### 9. Training of personnel:

- All personnel are required to complete the online General Lab Safety session thru the EH&S website.
- All personnel shall read and fully adhere to this SOP.