

# Standard Operating Procedure (SOP)

## Glassware Handling and Maintenance

This SOP provides detailed guidelines for **glassware handling and maintenance**, covering proper techniques for safe handling, cleaning procedures, inspection for damage, storage protocols, and disposal methods. The aim is to ensure the longevity and safety of glassware, prevent accidents, and maintain contamination-free laboratory or workplace environments through standardized practices.

### 1. Purpose

To establish standardized procedures for handling, cleaning, inspecting, storing, and disposing of glassware, ensuring safety and operational integrity in the workplace.

### 2. Scope

This SOP applies to all personnel utilizing glassware within the laboratory/workplace environment.

### 3. Responsibilities

- **All Staff:** Follow procedures herein when handling and maintaining glassware.
- **Supervisors:** Ensure staff are trained and procedures are up to date.

### 4. Materials & Equipment

- Protective gloves and eyewear
- Laboratory detergents and brushes
- Distilled water supply
- Drying racks or cabinets
- Inspection area and proper lighting
- Waste containers for glass disposal
- Storage shelves or cupboards

### 5. Procedures

#### 5.1 Safe Handling

- Always examine glassware for cracks or damage before use.
- Wear gloves and safety glasses when handling, washing, or transporting glassware.
- Transport glassware one piece at a time unless using a designated carrier or tray.
- Do not apply excessive force to glass stoppers and ground joints.

#### 5.2 Cleaning Procedures

- Rinse glassware immediately after use with tap water to prevent residues from drying.
- Use appropriate brushes and laboratory detergent to scrub interior and exterior surfaces.
- Rinse thoroughly with tap water, then finish with distilled water to prevent mineral deposits.
- Air-dry glassware on racks or use a drying oven as appropriate. Do not towel dry.

#### 5.3 Inspection for Damage

- After cleaning, inspect glassware for chips, cracks, scratches, or other signs of wear.
- Remove and dispose of any compromised items immediately.
- Document recurrent issues or repeated breakage to supervisors.

#### 5.4 Storage Protocols

- Store glassware upside down where appropriate or as designed.
- Arrange by size and function, ensuring items are not crowded to avoid contact damage.
- Label storage areas clearly and maintain a clean environment to prevent contamination.

## 5.5 Disposal Methods

- Place broken or compromised glassware in puncture-resistant, clearly labeled disposal bins.
- Do not place laboratory glassware in regular waste; follow institutional or regulatory guidelines for hazardous glassware disposal.

## 6. Records & Documentation

- Maintain logs of damaged/disposed glassware and report patterns of breakage.
- Keep cleaning schedules and inspection checklists up to date.

## 7. References

- Institutional Laboratory Safety Manual
- Manufacturer instructions for glassware care
- Local and national safety regulations

## 8. Revision History

Date	Version	Description	Author
2024-06-22	1.0	Initial issue	SOP Team