

SOP: Sanitization Process for Equipment and Machinery

This SOP defines the **sanitization process for equipment and machinery**, detailing the steps for thorough cleaning, disinfecting, and maintenance to prevent contamination and ensure operational efficiency. It covers the selection of appropriate cleaning agents, cleaning schedules, safety precautions, and verification methods to maintain hygiene standards and prolong equipment lifespan in various industrial and manufacturing environments.

1. Purpose

To establish a standardized procedure for sanitizing equipment and machinery to maintain hygienic conditions, prevent cross-contamination, and ensure operational integrity.

2. Scope

This SOP applies to all equipment and machinery used in production, processing, or packaging areas within the facility.

3. Responsibilities

- **Sanitation Staff:** Execute cleaning and sanitization as per this SOP.
- **Supervisors:** Ensure adherence to the SOP and verify cleaning effectiveness.
- **Quality Assurance:** Review records and conduct audits on sanitization processes.

4. Materials and Equipment

Item	Description/Purpose
Approved Cleaning Agents	Detergents and disinfectants suitable for use on equipment/machinery
Cleaning Tools	Brushes, cloths, scrapers, etc.
Personal Protective Equipment (PPE)	Gloves, goggles, aprons, masks, as required
Sanitizer Sprayers	For application of disinfectants
Validation Tools	ATP test swabs, visual inspection tools

5. Procedure

5.1 Preparation

1. Inform relevant personnel of scheduled sanitization activities.
2. Ensure equipment is powered down and, if required, disconnected from utilities.
3. Wear appropriate PPE.
4. Assemble all cleaning materials and agents.
5. Display warning signage to indicate cleaning in progress.

5.2 Cleaning Steps

1. **Remove Loose Debris:** Gently brush or wipe away any loose material from the equipment.
2. **Pre-Rinse:** Use clean, potable water to rinse accessible surfaces and loosen residues.
3. **Apply Cleaning Agent:** Prepare and apply the selected cleaning agent according to manufacturer's instructions.
4. **Scrub Surfaces:** Use appropriate brushes or cloths to scrub all crevices and surfaces.
5. **Rinse:** Thoroughly rinse with clean, potable water to remove all cleaning agent residues.
6. **Inspect:** Visually inspect for remaining soil. Repeat steps as necessary.

5.3 Disinfection

1. Apply approved disinfectant evenly to all required surfaces.
2. Allow contact time as specified by the disinfectant manufacturer (typically 10–15 minutes).

- 3. If required, rinse with potable water to remove disinfectant residues.

5.4 Drying and Reassembly

- 1. Air dry or wipe down equipment with clean, lint-free towels.
- 2. Reassemble parts as per manufacturer's guidelines.
- 3. Ensure all tools and materials are removed from the area.

6. Cleaning Schedule

Equipment Type	Frequency
Production Line Machinery	Daily/end of shift
Conveyors and Belts	After each batch or as needed
Storage Tanks	Weekly or as specified
General Tools	After each use

7. Safety Precautions

- Use PPE as specified for each cleaning agent and process.
- Adhere to the safety data sheets (SDS) for all chemicals.
- Ensure adequate ventilation in working area.
- Dispose of waste and contaminated materials in designated bins.
- Immediately report injuries or incidents to supervisors.

8. Verification and Record-Keeping

- 1. Complete cleaning log/checklist after each sanitization session.
- 2. QA personnel conduct random visual inspections and/or swab testing (e.g., ATP tests) as required.
- 3. Maintain records for regulatory review and internal audits for at least [specify duration].

9. References

- Manufacturer's equipment manuals.
- Local regulations and guidelines on sanitation and safety.
- Company health & safety policies.

10. Revision History

Version	Date	Description	Approved By
1.0	[YYYY-MM-DD]	Initial version	[Name/Title]