

	Standard Operating Procedure Liquid Mixing Tank		SOP Number B-401	Revision 2
			Effective Date 04/11/23	Page Page 1 of 3
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1.0 Purpose

The purpose of this procedure is to define the process for the setup, operation, and cleaning of the liquid mixing tanks.

2.0 Scope

This procedure applies to the liquid mixing tanks in operation at Ion Labs, Inc.

3.0 Responsibility

- 3.1 It is the responsibility of Production (Blending) personnel to follow this procedure.
- 3.2 It is the responsibility of the Department Supervisor/Manager to implement this procedure and to ensure that the procedure is being followed
- 3.3 It is the responsibility of Production and/or Maintenance & Engineering to keep this procedure aligned with current practices.

4.0 Definitions

- 4.1 **DI Water** – Deionized Water
- 4.2 **PPE** – Personal Protective Equipment

5.0 References

- 5.1 B-111, SOP, Cleaning of Manufacturing/Production Areas and Equipment
- 5.2 B-103, SOP, Small Parts Cleaning and General Sanitation

5.3 B-105, SOP, Preparation of Cleaning and Sanitizing Chemicals for Production

6.0 Procedure

6.1 Setup and Operation

- 6.1.1 Inspect the entire mixer to ensure that it has been cleaned and sanitized before use.
- 6.1.2 If the tank has mixing components inside of it, ensure that they are cleaned and sanitized. If the tank does not have the mixer components inside of it, a portable mixer, shaft, and impeller can be mounted at the top and attached to the wall of the tank. Ensure if a portable unit is added, that all components are also cleaned and sanitized before adding.
- 6.1.3 Attach the discharge valve to the tank with a gasket and a tri-clover clamp. Ensure the valve, gasket, and clamp are cleaned and sanitized. Also ensure the gasket is in good condition with no rips/tears in it and that the clamp tightens as it should.
- 6.1.4 The discharge valve is an open/close sanitary ball valve. The ball valve should be in the closed position before charging raw materials into the tank.
- 6.1.5 Closely follow the mixing instructions in the BPR and ensure all the proper components are being added. Be sure that is water is needed, the DI water is used.
- 6.1.6 Once the blend is complete and signed off by the QC laboratory, a clean and sanitized hose is tri-clamped to the tank ball valve and transferred to a either a holding tank or directly to the liquid filler machine.

6.2 Cleaning

- 6.2.1 Prepare cleaning agents as outlined in SOP B-105 Preparation of Cleaning and Sanitizing Chemicals for Production.

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6.2.2 Follow SOP B-111 Cleaning of Manufacturing/Production Areas and Equipment and SOP B-103 Small Parts Cleaning and General Sanitation to ensure proper cleaning and sanitization are performed for this type of equipment and that these activities are properly documented.

6.2.3 There are no disassembly requirements or unique cleaning steps for this piece of equipment.

7.0 Revision History

Revision	Date	Description of Changes	CCR #	By
0	06/22/15	New	15-0219	M. Wienke
1	01/14/19	Scheduled review: Removed obsolete definitions. Added reference to SOP B-111 and SOP B-103. Revised section 6.2.	19-0045	K. Burris
2	03/07/23	Additional operational notes added. Changed responsibilities section. Changed cleaning section and added SOP references. Updated logo and format.	CC-23-0111	M. Busse