

Technical Data Sheet: Salicylic Acid Test Kit

Product Code: SS-SA-01

Brand: SURE Scientific

Application: Rapid detection of salicylic acid (preservative/anti-fungal) in food products.

1. PRODUCT OVERVIEW

The **SURE Scientific Salicylic Acid Test Kit** is a rapid, qualitative screening tool developed for on-site preliminary detection of prohibited salicylic acid preservatives in food matrices, including pickled vegetables, preserved fruits, and soaking water. The kit enables consumers, vendors, and health officers to ensure food safety through a straightforward colorimetric reaction that yields distinct visual results within minutes.

2. KEY FEATURES

- **Rapid Results:** Provides an almost instantaneous reaction, officially validated to read within 1–2 minutes.
- **High Sensitivity:** Tuned to a Limit of Detection (LOD) of approximately 25 ppm (mg/kg).
- **Field Optimization:** Requires zero specialized laboratory infrastructure or electrical power; designed entirely for ambient temperature operation.
- **Built-in Quality Control:** Includes a dedicated positive control solution to verify reagent performance on-site.

3. KIT COMPONENTS

Each kit package contains the necessary materials to perform the screening analysis:

- **Test Reagent** (1 Bottle): A proprietary, formulated complex solution engineered to react selectively with salicylic acid.
- **Positive Control** (1 Bottle): A standardized 1000 ppm salicylic acid solution used to verify kit efficacy.
- **Test Vessels:** Disposable plastic polystyrene spoons provided for containing and mixing the reaction.
- **Standard Color Chart:** A high-fidelity gradient reference chart printed directly on the exterior envelope packaging.
- **Instruction Manual:** Detailed user guide for field operation.

4. TECHNICAL SPECIFICATIONS

Parameter	Specification
Detection Method	Colorimetric (Visual)
Limit of Detection (LOD)	~25 mg/kg (ppm)
Testing/Reaction Time	1-2 minutes
Sample Matrix	Pickled foods, preserved fruits, soaking water
Operating Temperature	20-35°C (Ambient)
Shelf Life	12 months from manufacture (at 2-8 °C)

5. INSTRUCTIONS FOR USE

1. **Sample Preparation:** Collect the liquid sample or soaking water from the food matrix.
2. **Sampling:** Transfer approximately 0.2 mL of the soaking water or liquid sample into the provided plastic test spoon.
3. **Reagent Addition:** Add exactly 1 drop of the Test Reagent solution to the spoon.
4. **Mixing:** Gently mix the solution for 10–20 seconds.
5. **Incubation:** Allow the reaction to stand at ambient temperature for 1–2 minutes.
6. **Evaluation:** Read the result by comparing the final solution color against the standard color chart printed on the envelope.

6. RESULT INTERPRETATION

Results must be interpreted under a bright, natural, or white light source by matching the reaction color to the envelope chart:

- **NEGATIVE:** No significant color change observed; the sample retains a pale yellow or clear appearance. Salicylic acid is either absent or below the 25 ppm detection threshold.
- **POSITIVE:** The solution changes from a pale yellow appearance into a distinct brown-violet color. This indicates the likely presence of salicylic acid at or above the screening threshold.
- **IMPORTANT CONSIDERATIONS FOR ACCURACY**
- **Reaction Timing:** Results must be read within 1 to 2 minutes. Colors appearing after 10 minutes should be disregarded.

7. STORAGE AND STABILITY

- **Transport Status:** Stable at ambient temperatures during standard shipping transit windows.
- **Long-Term Storage:** Keep refrigerated at 2–8°C immediately upon arrival. Do not freeze.
- Keep away from direct sunlight and extreme heat to prevent reagent degradation.
- Ensure the caps of Reagent bottles are tightly sealed immediately after use to prevent evaporation and oxidation.

8. SAFETY AND HANDLING

- **First Aid:** In case of skin or eye contact, rinse immediately with plenty of water. If irritation persists, seek medical advice.
- **Disposal:** Dispose of used test spoons and chemical waste in accordance with local environmental regulations. Do not pour directly into domestic drains without dilution.

9. LIMITATIONS AND LEGAL DISCLAIMER

- **Presumptive Screening Only:** This kit serves exclusively as a qualitative screening tool for preliminary on-site detection. It is not a confirmatory analytical device and does not constitute admissible legal proof of contamination.
- **Technical Constraints & Matrix Interferents:** While engineered for high selectivity, visual readouts may be influenced by heavily pigmented food matrices or extreme concentrations of unrelated organic compounds. Additionally, users should note that certain fruits and vegetables naturally develop trace salicylates, though rarely at levels high enough to trigger the positive brown-violet response.
- **Required Action Compliance:** A positive screening result must be independently verified by a certified analytical laboratory utilizing definitive instrumentation (such as HPLC) before executing legal actions, destroying commercial inventory, or publicly accusing suppliers.
- **Liability Limitation:** SURE Scientific's commercial liability is strictly limited to product replacement or a refund of the kit's purchase price. The manufacturer explicitly assumes no responsibility for subsequent health outcomes, business losses, or legal ramifications arising from the deployment or interpretation of this tool.

MANUFACTURER INFORMATION

SURE Scientific Co., Ltd.

Contact/Support: www.facebook.com/mercurytestkit