

DRAFT FOR REVIEW — Not Doctor-approved for training. VERIFY items must be cleared before competency use.



IN-HOUSE LABORATORY

Cypress & Katy, TX

Document ID: SOP-LAB-001

Version 0.1 DRAFT | Target effective 09/10/2026

Resin Handling, IPA, Waste & PPE

Shared resin / IPA / waste / PPE controls for SprintRay lab workflows

Smile Avenue Family Dentistry — In-House Laboratory

SprintRay shared lab ops (all resins / all stations)

Document ID	SOP-LAB-001
Version	0.1 DRAFT FOR REVIEW
Effective (target)	09/10/2026
Owner	Lab Technician (process) / Doctor (clinical release)
Stack	Pro 2 · ProWash S · NanoCure
Status	DRAFT FOR REVIEW — do not train from this until Doctor sign-off

Related: SOP-LAB-010 (Pro 2), SOP-LAB-011 (ProWash S), SOP-LAB-012 (NanoCure); product SOPs (020/030/...)

1. Purpose

Standardize safe handling of uncured SprintRay resins and isopropyl alcohol (IPA), lot traceability, spill response, and waste disposal so every Smile Avenue lab case uses the same PPE, solvent grade, and cure-before-dispose rules.

2. Scope

In scope: Receiving resin bottles; shaking/mixing; pouring into Pro 2 tanks; filtering/reuse; IPA ≥91% use at ProWash S and wipe stations; PPE; minor spills; SDS access; liquid resin and IPA waste handling.

Out of scope: Product-specific print/wash/cure parameters (see product SOPs and each resin IFU); chairside clinical use; hazardous-waste vendor contracting (**VERIFY** practice waste vendor / pickup cadence).

3. Who

Role	Responsibility
Lab Technician	Day-to-day resin/IPA handling, lot logging, spill cleanup, waste curing, SDS lookup
Trainer / Lead Lab Technician	Competency observation; escalate chronic PPE or lot-log gaps
Doctor	Clinical release of SOPs; remake / patient-safety decisions; authorize disposal program changes
Clinical Assistant / Office	Does not handle open uncured resin bottles unless trained under this SOP

Position titles only — no named individuals.

4. Safety

- Uncured SprintRay resins are generally classified as **sensitizers**. Work in a **well-ventilated** area.
- Required PPE when handling uncured resin, IPA, grinding, or polishing: **nitrile gloves**, protective clothing (lab coat/gown), **eyewear**, and **face protection** as needed for splash/grind (per resin IFU language).
- Skin contact with uncured resin: wash thoroughly with soap and water. If sensitization or dermatitis persists, stop use and seek medical assistance per IFU/SDS.
- Eyes: rinse per SDS; seek care as directed.
- Inhalation of high vapor/mist: move to fresh air per IFU.
- Ingestion: contact poison control per IFU.
- Never place incompletely cured resin in the mouth. Never bag an under-cured appliance.
- IPA is flammable. Keep away from ignition sources. Do not flush IPA or liquid resin down drains.
- Do not use expired resin. Store resins per IFU (typically **15–25 °C / 60–77 °F**, away from direct sunlight; bottle closed / tank lid on when idle).
- Do not invent or claim FDA clearances beyond the labeling on the specific resin IFU in use.

5. Materials

Item	Spec / notes
SprintRay resins	Only resins validated for Smile Avenue Pro 2 / ProWash S / NanoCure paths
IPA	≥ 91% (SprintRay recommendation for wash and wipe; 99% OK but ProWash S level sensors may need several cycles to recognize)
Soft shop towels / lint-free wipes	For tank/platform/optical wipe-downs
Mesh / paint filter	~ 200 micron or finer when returning resin to bottle (SprintRay resin-tank guidance)
Clear disposable container	For curing liquid waste resin before disposal
Spill kit	Absorbent pads, IPA, gloves, eyewear, waste bags — VERIFY kit contents and location
SDS binder / digital SDS	Current SprintRay SDS for each resin on shelf; VERIFY primary lookup path
Lot log	Bottle lot / expiry recorded to case or resin log — VERIFY exact form (SEAZONA field vs separate resin log)

6. Steps

6.1 Receiving & lot tracking

1. Inspect bottle for damage, seal integrity, shade/SKU, **lot number**, manufacturing date, and **use-by / expiry**.
2. Do not put expired resin into production.
3. Log **lot number**, resin name/shade, open date, and expiry in the practice lot-tracking location (**VERIFY**).
4. File or confirm SDS is available for that SKU before first open.

6.2 Shake / mix before print

1. Don PPE.
2. **Shake the resin bottle thoroughly for one minute** before pouring (SprintRay resin IFUs — e.g., OnX Tough 2, Apex Flex, NightGuard Flex 2 / Firm 2).
3. Pour into the assigned Pro 2 resin tank to at least the **min** fill line and not above **max**.
4. Assign the correct material/shade on the Pro 2 for that tank.
5. Prefer **one tank per resin type/shade**. Do not “swap resins” in the same tank without full clean and practice approval (**VERIFY** if any dual-use tanks are ever allowed — SprintRay recommends one tank per resin type).

6.3 Reuse / filter

1. Remaining liquid resin in the tank may be reused if filtered back into the **same** original bottle (IFU material-reuse language).

2. Use a **~200 µm or finer** mesh strainer so cured particles do not re-enter the bottle.
3. Work quickly; protect from UV/ambient cure light.
4. Keep bottle closed and/or tank lid secured when not printing.

6.4 IPA use

1. Use **IPA ≥ 91%** for ProWash S reservoirs and for wipe-cleaning platforms, tanks (on towel — never pour IPA into the resin tank), and optical surfaces per device SOPs.
2. Close ProWash S reservoir lids after fill/inspect to limit evaporation.
3. Never pour IPA into the ProWash S **wash chamber** (reservoir only).

6.5 Spill response (minor lab spill)

1. Stop work; keep others clear; don PPE.
2. Contain with absorbent; wipe uncured resin with IPA-moistened towels as appropriate.
3. Collect contaminated wipes as hazardous until resin is cured or disposed per practice waste rules (**VERIFY** wipe disposition).
4. For large spills, skin sensitization events, or eye exposure: stop, follow SDS, escalate to Doctor; call SprintRay Support if equipment contamination is severe.
5. **VERIFY** practice emergency eye-wash location and spill drill cadence.

6.6 Waste — cure before dispose (resin)

1. Liquid (uncured) resin is treated as hazardous until solidified.
2. Per SprintRay IFU disposal language: pour waste liquid resin into a **clear container** and **cure completely** (direct sunlight until hardened **or** a post-cure device) before disposing with regular trash **once fully cured**, and always follow federal/state/local rules (US reference cited in IFUs: 40 CFR 261.3).
3. Do **not** dispose of liquid resin uncured.
4. Used IPA: store in labeled waste containers; **never flush**; dispose via hazardous-materials collection per local law (SprintRay ProWash S guidance). **VERIFY** Smile Avenue IPA waste pickup vendor and labeling.

7. QC

Check	Pass criteria
Lot on case / log	Lot + expiry recorded before print
Shake	Bottle shaken ~1 min before pour
Fill	Between tank min and max
IPA grade	Label shows ≥91%
PPE	Gloves + eyewear + protective clothing in use at open-resin / IPA steps
Waste	No liquid resin in regular trash; cured solid only

8. Troubleshooting

Issue	Action
Print failures / chunks in tank	Filter resin; clean tank (SOP-LAB-010); do not return debris to bottle
Shade inconsistency	Inadequate shake/mix or post-cure — re-shake; confirm cure profile
Skin irritation	Stop exposure; soap/water; SDS; escalate to Doctor if persists
Wrong resin in tank	Quarantine prints; clean tank fully; one-tank-per-resin rule
Missing SDS	Do not open new SKU until SDS available

9. Escalate

Escalate to	When
Doctor	Patient-contact risk, under-cured appliance concern, sensitization event, disposal-policy change, clinical remake
SprintRay Support — 1-800-914-8004	Equipment contamination after spill, unclear IFU/SDS interpretation for SprintRay hardware, persistent resin failures after correct handling

10. Sources (cite — do not invent)

- SprintRay resin IFUs (local library /workspace/sprinray-ifu/), e.g. IFU-020 OnX Tough 2; IFU-029 Apex Flex; IFU-023/024 NightGuard Flex 2 / Firm 2 — shake 1 min; PPE; IPA ≥91%; cure liquid waste before disposal; lot symbol on bottle.
- SprintRay Support — Resin Tank Maintenance: https://support.sprinray.com/en_US/pro-maintenance/resin-tank-maintenance- (IPA 91%+ on towel; 200 µm filter; one tank per resin).
- SprintRay Support — ProWash S IPA Care and System Cleaning: https://support.sprinray.com/en_US/prowash-s-maintenance/prowash-s-maintenance-ipa-care-and-system-cleaning

11. VERIFY list (practice confirmation required)

1. Exact lot-tracking location (SEAZONA field vs resin log sheet).
2. SDS primary access path (binder shelf vs digital).
3. Spill kit contents and location; eye-wash location.
4. Hazardous IPA / resin waste vendor and pickup cadence.
5. Whether any tank may ever be shared across shades after deep clean (SprintRay prefers one tank per resin type).
6. Face-shield vs safety-glasses rule for grind station.

