

RESEARCH USE ONLY. Laboratory explainer for qualified scientific settings. Not for human or veterinary use, consumption, injection, or administration.

Answer. Keep the unopened supplier vial lyophilized, closed, dark, and dry at the labeled temperature — commonly -20°C , or -80°C if the laboratory SOP requires it — until the experiment needs solvent. Most avoidable damage happens from moisture on a cold cake, or from treating one reconstituted vial as a working bottle.

Before the vial is opened

Control	Laboratory practice	Why it matters
Temperature	Store at the labeled condition in a controlled freezer, not a frost-choked door shelf.	Freeze–thaw of the unopened vial is still a temperature cycle.
Moisture	Keep caps closed. Open only after the vial has approached room temperature in a dry box or desiccator.	Condensate on a cold cake starts hydrolysis and clumping.
Light and air	Dark storage. Minimize time with the cap off.	Oxidation of Met, Cys, and Trp begins at the headspace.
Location	Assigned freezer ID in the lot file. Quarantine bin until CoA and label match. Record the lot as ET-###-XX.	A verified lot that cannot be found is not a verified lot.
Opened vs unopened	Do not open a vial “to check” the cake as a receiving step.	Receiving inspects the closed container, the label, and the documents.
Lot identity	Match vial lot to CoA lot before storage assignment. Example: ET-003-RT.	ET = Emerald Tides; ### = production run; XX = production code.

Lot format: ET-###-XX (example ET-003-RT). ET = Emerald Tides. ### = production run number. XX = production code.

Hierarchy after the laboratory decides to use the lot

- Keep unused vials lyophilized at the labeled condition.
- Reconstitute only what the work requires, or split immediately into single-use frozen aliquots.
- Freeze once per aliquot. Thaw once. Do not refreeze.
- Working solutions stay on ice or at bench only for the length of the assay.

What this page does not specify

This page does not assign a universal shelf life after reconstitution, a multi-puncture calendar, or a product-specific solvent volume. Those belong in the laboratory’s SOP and notebook, not on a supplier explainer. See also ET-LAB-04 (temperature excursion) and ET-LAB-05 (aliquot log).

Short questions

Is a melted shipper automatic rejection?

No. It is an excursion note. Keep the vial closed and decide with the lot file.

Should receiving labs store opened working stocks in the refrigerator for weeks?

Not as a default. Prefer single-use frozen aliquots.