

PRE-MIXED, NEVER POWDER

PATENT PENDING

MADE IN THE USA

## PRODUCT DESCRIPTION

A ready-to-use graphene coolant in deionized water for closed cooling loops: a complete fill, not a top-off. Graphene is supplied pre-mixed in a liquid carrier, never as a dry powder.

## WHAT IT'S FOR

**Typical uses:** Indoor data center loops (CDU, direct-to-chip, rear-door heat exchangers); also designed for closed-loop HVAC systems such as chilled-water and hydronic heating and cooling loops where freeze protection is not required.

## CARRIER

Deionized water. No glycol and no freeze package.

## KEY PROPERTIES

|                         |                                                                                                                                                          |
|-------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>Form</b>             | Ready-to-use graphene nanofluid in deionized water. A complete fill, not a top-off.                                                                      |
| <b>Graphene loading</b> | 0.05–0.20 wt%, stated on the certificate of analysis (COA).                                                                                              |
| <b>Freeze point</b>     | 0 °C (32 °F). Not a freeze fluid: loops that need freeze protection should stay on a glycol fluid.                                                       |
| <b>Electrical</b>       | Electrically conductive (aqueous). Not a dielectric. Never use it to immerse live electronics.                                                           |
| <b>Materials</b>        | Corrosion coupons go in with every pilot. Not a substitute for an inhibited glycol's inhibitor package (e.g. DowFrost LC25) until coupon results return. |

## HVAC USE

ThermaGraph is also designed for closed-loop HVAC systems, such as chilled-water loops and hydronic heating and cooling loops, where freeze protection is not required. It may help improve heat transfer in these loops, but GI has not yet measured HVAC results, so confirm performance, materials compatibility (all loop metals) and compatibility with your water-treatment program in a pilot in your own system.

## HOW TO USE

1. If the loop holds glycol (for example DowFrost LC25), drain it first. ThermaGraph is a new fill, not a top-off.
2. Record a baseline:  $\Delta T$ , pump power, thermal conductivity, viscosity and particle count.
3. Install corrosion coupons, mix the container well, then fill the clean closed loop.
4. Repeat the measurements at 7, 14 and 30 days, then inspect coupons and filters.

## TESTED PERFORMANCE (DATA CENTER)

**Data center loops: 6–18% higher convective heat transfer coefficient than a glycol baseline, in internal pumped-loop lab tests (lab data, not field data). Modeled: 20–58 kW saved per 1 MW of data center load at PUE 1.30 (engineering model, not measured).**

These results are for data center cooling loops only. No HVAC-specific figures have been measured; HVAC performance should be confirmed in a pilot in your own loop.

## NOT A FIT TODAY

- Loops that need freeze protection (stay on glycol).
- Outdoor or unconditioned loops.
- Two-phase boiling systems.
- Immersion of live electronics (use ThermaGraph-D for single-phase immersion).

## PACK SIZES

| SKU          | Size         |
|--------------|--------------|
| GI-TG-5GAL   | 5 gal pail   |
| GI-TG-55GAL  | 55 gal drum  |
| GI-TG-275GAL | 275 gal tote |

Quote only. Online pricing is coming soon. Bulk quantities on request.

## STORAGE AND HANDLING

- Keep the container tightly closed until use.
- Mix or stir well before use.
- Avoid contact with eyes and skin. Keep out of reach of children.
- See the Safety Data Sheet (SDS) for full safety information.

## ORIGIN AND COMPLIANCE

- Patent pending.
- Made in the USA by Graphene Integrations, LLC, Charlotte, NC.
- Contains no carbon black.

**Questions, samples or a quote?** Graphene Integrations, LLC • Charlotte, NC, USA • [frans@grapheneintegrations.com](mailto:frans@grapheneintegrations.com) • +1 (704) 659-3682 • [grapheneintegrations.com](https://grapheneintegrations.com) • Buy: <https://grapheneintegrations.com/store/graphene-thermagraph>

The information in this data sheet is believed to be accurate as of October 23, 2026. Results vary with formulation, materials, dose and process; users should test and confirm suitability for their own application. This data sheet does not replace the Safety Data Sheet. Graphene Integrations, LLC • TDS rev. October 23, 2026.