

# TMC-45 SPECIALTY FLUID

A PFAS-free, hydrofluoroolefin (HFO).

## PRODUCT INFORMATION

TMC-45 Specialty Fluid is a new HFO-based mixture of 1,2-trans-dichloroethylene and proprietary fluorinated compounds. It was designed with no HFC or HFEs, for cleaning applications as a direct substitute for solvents like nPB, Chemours Vertrel®, 3M Novec®, HCFC-225, and others. The proprietary compound of TMC-45 is not a PFAS substance as defined by USEPA or OECD.

## APPLICATIONS

- Precision Cleaning Solvent
- Vapor Degreasing
- Cold Wipe Cleaning
- Heat Transfer

## FEATURES

- PFAS Free
- Non-Flammable
- No Flash Point
- No HFC or HFEs
- Low Surface Tension
- Low Viscosity

## MATERIALS COMPATIBILITY

TMC-45 is compatible with most polymers and elastomers typically encountered during cleaning and vapor degreasing of precision parts, electronics, etc.

### Compatible Materials

|                               |                   |
|-------------------------------|-------------------|
| Polyethylene                  | Polypropylene     |
| Polyvinylchloride (PVC, CPVC) | Acetal            |
| Polyester (PET, BET)          | Epoxy             |
| Polyimide (PI, PEI, PAI)      | PTFE, Teflon      |
| Polyetherketone (PEK)         | Polysulfone (PSO) |
| Polyaryletherketone (PEEK)    | Phenolic          |
| Polyarylsulfone (PAS)         | Ionomer           |
| Polyphenylene Sulfide (PPS)   | EPDM              |

### Incompatible Materials

|                           |                 |
|---------------------------|-----------------|
| Polystyrene               | Epichlorohydrin |
| Polyphenylene Oxide (PPO) | Silicone        |
| Polycarbonate             | Natural Rubber  |
| ABS                       | Acrylic         |



## PHYSICAL & ENVIRONMENTAL PROPERTIES

| PROPERTY  | UNITS             | TMC-45    |
|---|-------------------|-----------|
| <b>Form</b>   | —                 | Liquid    |
| <b>Color</b>  | —                 | Colorless |
| <b>Odor</b>   | —                 | Odorless  |
| <b>Boiling Point</b>                                  | °C                | 45.5      |
| <b>Pour Point</b>                                     | °C                | <-72      |
| <b>Freezing Point</b>                                 | °C                | <-80      |
| <b>Water Solubility</b>                               | mg/L              | 1.0       |
| <b>Specific Gravity</b>                               | g/mL              | 1.27      |
| <b>Vapor Pressure @ 37.8°C</b>                        | psi               | 9.93      |
| <b>Evaporation Rate Relative to Butyl Acetate = 1</b> | —                 | 34.1      |
| <b>Kauri-butanol (Kb) Value</b>                       | —                 | 113       |
| <b>Kinematic Viscosity @ 40°C</b>                     | cSt               | 0.24      |
| <b>Kinematic Viscosity @ 100°C</b>                    | cSt               | 0.18      |
| <b>Vapor Density (Air = 1)</b>                        | —                 | 3.78      |
| <b>Average Molecular Weight</b>                       | g/mol             | 109.6     |
| <b>Density by Hydrometer Method (15.6°C)</b>          | g/cm <sup>3</sup> | 1.2835    |
| <b>Flash Point</b>                                    | —                 | None      |
| <b>Lower Explosion Limit</b>                          | LEL               | 9.70%     |
| <b>Upper Explosion Limit</b>                          | UEL               | 12.80%    |
| <b>Global Warming Potential</b>                       | GWP               | <1        |
| <b>Ozone Depletion Potential</b>                      | ODP               | 0         |

Not for specification purposes. All values @ 25°C unless otherwise specified.

## PACKAGING

TMC-45 is available in the following sizes and weights:

- **1 Gallon Jug** — 10 lb / 4.5 kg
- **5 Gallon Pail** — 50 lb / 22.7 kg
- **55 Gallon Drum** — 550 lb / 250 kg
- **Sample** — 2.2 lb / 1 kg
- **275 Gallon Tote** — Available Upon Request

## SHELF LIFE & STORAGE

Shelf life is 5 years from the date of manufacture when stored in the original packaging materials and stored under normal conditions. TMC will re-certify material every 5 years up to 20 years.

## DISPOSAL & RECYCLING

This fluid can be recycled and reused. Help protect the environment and don't pay for expensive disposal services.

TMC Industries can reclaim your used fluorinated fluids, restoring them to like-new condition, and save you up to 50% in replacement fluids while protecting the environment.

TMC Reclaimed Fluids are tested to meet new product specifications. It will be clear and odorless, and a Certificate of Analysis is issued with every order.

TMC Industries offers a **100% satisfaction guarantee** on all our reclaimed fluids. We back this up with a no-questions-asked refund policy. To learn more, [click here](#).

## EXTERNAL DOCUMENTS

- [TMC Used Fluid Reclamation Service Brochure](#)

**Safety and Handling:** Before using this product, please thoroughly read the current product SDS and label, following all applicable safety precautions described therein (e.g., recommended storage and safe handling, appropriate exposure controls and personal protective equipment (PPE), addressing accidental spills, disposal considerations, etc.).

**Safety Data Sheet:** Consult Safety Data Sheet before use.

**Regulatory:** For regulatory information about this product, contact your TMC representative.

**Technical Information:** The technical information, recommendations and other statements contained in this document are based upon tests or experience that TMC believes are reliable, but the accuracy or completeness of such information is not guaranteed.

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