



General Cleaning Fluid

For the removal of both organic and inorganic soils; including cutting oils, drawing oils, rosin and no-clean flux residues.

Introduction

Tergo General Cleaning Fluid (GCF) is an azeotrope-like mixture of trans 1,2-dichloroethylene, HFE and ethanol. It is ideally suited for use in vapor degreasing equipment. It offers improved solvency for both conventional oils and polar soils, such as salts and no-clean fluxes. It is a superior solvent compared to neat fluorocarbons, while maintaining excellent compatibility with most plastic, ceramic, and metal components. Typical applications include precision and specialty cleaning of components with mixed soils and/or mixed substrates.

Tergo GCF has “zero” ozone depletion potential, and low global warming potential. It can replace hydrofluorocarbons (HCFs), TCE and nPB in many applications. The components in *Tergo* GCF are accepted by the U.S. Environmental Protection Agency under the Significant New Alternatives Program (SNAP) program, as a substitute for ozone-depleting substances.

Its unique properties (Table 1) include a high density, low viscosity, and low surface tension for effective removal of a variety of soils.

Table 1: Physical Properties

Property ¹	Value
Boiling Point, °C (°F)	42 (107)
Liquid Density, g/cc (lb/gal)	1.35 (11.2)
Vapor Pressure, kg/cm @20C	0.49
Surface Tension, dyn/cm	18
Freezing Point (°F)	-58
Heat of Vaporization (at boiling point), cal/g	47.8
Viscosity, cPs @ 22C	0.46
Flash Point Closed Cup ² Open Cup ³	None None
Vapor Flammability in Air, vol% Lower Limit Upper Limit	None None

¹ At 25°C (77°F), except where indicated.

² Setflash Closed Cup Tester (ASTM D 3278)

³ Tag Open Cup Tester (ASTM D 1310)

Cleaning Process

Vapor degreasing should be used for optimum cleaning effectiveness and economy. Modern vapor containment technology is recommended for both batch and in-line equipment. These systems have higher freeboard and a secondary set of low temperature (–29°C [–20°F]) condenser coils to greatly reduce vapor losses.

Plastic and Elastomer Compatibility

Most plastics and elastomers can be safely cleaned in *Tergo* GCF. Tables 2 and 3 summarize test results on short-term exposures of unstressed plastics and elastomers simulating a typical cleaning cycle.

Long-term exposure data simulating exposure of vapor degreaser construction materials is available upon request.

Elastomer swelling and shrinking will, in most cases, revert to within a few percent of original size after air drying. Swell, shrinkage, and extractables are strongly affected by the compounding agents, plasticizers, and curing used in the manufacture of plastics and elastomers. Therefore, prior in-use testing is particularly important.

Table 2: Plastic Compatibility

Compatible	
HDPE	PTFE / Teflon
LDPE	FEP
PP	Liquid Crystal Polymer
Polyester	PFA
PET	PVDF
PBT	PEEK
Acetal	Phenolic
Nylon	

Table 3: Elastomer Compatibility

Compatible	
High Density NBR	Butyl Rubber
Neoprene	Polyurethane
Kalrez	Viton®

Metals and Other Compatibility

Tergo GCF is compatible with common metals and most alloys. Initial compatibility testing on non-production parts is always recommended when using a new cleaning fluid.

Contact with highly basic process materials, pH 10 or above, is not recommended.

Safety / Flammability

Tergo GCF exhibits no closed cup or open cup flash point, and is not classified as a flammable liquid by NFPA or DOT.

Recovery

This product is easily recoverable by off-line or in-line distillation equipment such as a vapor degreaser or still. The presence of soil, however, may alter the characteristics of the material during the recovery operation. Recovery should be closely monitored to ensure operating levels are maintained. Contact your MicroCare representative for assistance.

Storage/Handling

Tergo GCF is thermally stable and does not oxidize or degrade during storage. Store in a clean, dry area. Protect from freezing temperatures. If solvent is stored below –10°C (14°F), mix by agitation prior to use. Do not allow stored product to exceed 44°C (111°F) to prevent leakage or potential rupture of container from pressure and expansion.



Consideration should be given to retrofit of existing, or purchase of new vapor degreasing equipment to provide vapor containment technology that enables safe and economical use of Tergo GCF.

Drum pumps are recommended to dispense *Tergo* GCF from its container. Refer to the Safety Data Sheet for specific handling precautions and instructions.

Specifications

All ingredients are listed in the TSCA inventory

Packaging and Availability

Part Number	Package		Weight	Size
MCC-TGCFP	Steel Pail		50 lb	15.7 L
MCC-TGCFD	Steel Drum		500 lb	157 L

NOTE:

Products sold by weight, not volume.



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