

Fabrisolv™ XL
US Patent 6,660,701
It's really that simple



Description

Fabrisolv™ XL is a dry-cleaning fluid especially engineered to replace PERC in dry-cleaning application; it is *non-hazardous, non-flammable, user friendly, and environmentally sound.*

Best of all, **Fabrisolv™ XL** will work in your existing PERC machine. Empty your machine from PERC, make a few simple adjustments (with the help of your machine service person), fill it up with **Fabrisolv™ XL** and you're good to go.

Fabrisolv™ XL has no flash-point, has lower boiling-point than PERC and higher solvency. These characteristics significantly reduce energy consumption, shorten wash cycle time (more loads per machine per day).

For many years the Dry-Cleaning industry has been looking for ways to “go green”, finding an environmentally-responsible solvent while remaining profitable at the same time. Some opportunities have appeared, but most of them are simply not practical.

Up until now, all of the alternative dry-cleaning processes have asked dry cleaners to sacrifice something- certain solvents require longer cycles, certain solvents require expensive machinery, and certain solvents simply don't clean as well.

Unlike the other alternatives, **Fabrisolv™ XL** was specifically designed to replace PERC. It handles like PERC everywhere it is needed, and in many places – even better!

Applications

Fabrisolv™ XL was engineered to replace PERC in dry-cleaning applications. It will work in existing PERC machines after adjustment of the distillation (“cooking”) temperatures (reducing of the steam pressure from current 80-85 psi to 15-20 psi), reducing the drying temperatures and changing the wash cycle. All of this means saving of labor and machine time, energy and money.

TECHNICAL DATA SHEET

Physical Properties

An evaluation and comparison between **Fabrisolv™ XL** and PERC:

	Fabrisolv™ XL	PERC
Boiling Point	70°C (158°F)	121°C (250°F)
Specific Gravity, @ 25°C	1.32	1.62
Viscosity, <i>cps</i> @ 25°C	0.49	0.75
Surface Tension, <i>dynes/cm</i> @ 20°C	25.9	32
Vapor Pressure, <i>mmHg</i> @ 20°C	110	13
Specific Heat <i>cal/gm</i> @ 25°C	0.27	0.25
Latent Heat, <i>cal/gm</i>	58.8	50.1
Solubility in Water, <i>w%</i>	0.24	0.15
Flash Point, ASTM-D-56 TCC	None	None
Flammability limits, <i>v% in air</i>	4-7.8	None
Kauri Butanol (KB) Value	125	90
Life Span in air	2 weeks	6 months
Total Hazard Value (IIRCHS)*	9.2	37.5

***Total Hazard Value.** There are various aspects of evaluating safety in the use of solvents. They are classified mainly by indices which are measuring the impact of a chemical on the environment such ODP (Ozone Depletion Potential), GWP (Global Warming Potential), HAP (Hazardous Air Pollutant), VOC (Volatile Organic Compounds) and indices which were developed to measure the impact on the person which is in contact with the chemical (usually working place), these are PEL, TLV, TWA, AEL and others. The [Clean Manufacturing Technology and Safe Materials Institute \(CMTI\)](#) at Purdue University have developed a rating system called the Indiana Relative Chemical Hazard Score (IIRCHS) as an attempt at an all-inclusive health and safety index.

Cleaning Cycle Time (in minutes)

	Fabrisolv™ XL	PERC
Wash	<10 Min	10 Min
Dry	8	18
Fill	2	2
Extract	2	2
Cool Down	8	8
Total Cycle Time	30	40

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Regulatory Status

	Fabrisolv™ XL	PERC
US EPA SNAP Approved	Yes	No
Ozone Depletion Potential	Insignificant	Insignificant
NESHAP	Not-Regulated	Yes (air pollutant)
DOT	Not-Regulated	CL 6.1 (PG-III)
RCRA	Not-Regulated	Hazardous Waste U210
<i>Carcinogen Classification</i>		
NTP (suspected cancerous)	No	Yes
ACGIH (suspected cancerous)	No	Yes (A3)
IARC (suspected cancerous)	No	Yes (Group 2A)

Compatibility

Various metals and other substances have been tested for compatibility with **Fabrisolv™ XL**, in accordance with Mil-T-81533A. The metal corrosion test - 24 hours exposure to boiling solvent, has yielded no sign of corrosion on the following metals: Aluminum, Brass, Carbon steel, Copper, Inconel, Magnesium, Monel, Stainless Steel, Titanium and Zinc.

Plastics and Elastomers have been tested in extreme conditions of immersion in boiling solvent for 15 minutes followed by 1 minute drying time. The results are as follows:

<i>Compound</i>	Compatible	<i>Compound</i>	Compatible
ABS	No	Nylon 6/6	Yes
ABS/PVC	No	Peek (Polyetheretherketone)	Yes
Acetal	Yes	PET (Polyethylene Terphthalate)	Yes
Acrylic/PVC (Kydex)	No	PETG	Marginal
CPVC	No	Polyamide-imides (Torlon)	Yes
CTFE	Yes	Polycarbonate	Marginal
Delrin	Yes	Polyetherimide (Ultem)	Yes
Delrin (Glass filled)	Yes	Polyphenylene Oxide (Noryl)	Yes
ETFE (Tefzel)	Yes	Polypropylene	Yes
FEP	Yes	Polysulfone	Marginal
HDPE	Yes	PTFE	Yes
LDPE	No	PVC (Type I)	No
Nylon 6/12	Yes	PVDF (Kynar)	Yes

TECHNICAL DATA SHEET

Benefits

Fabrisolv™ XL benefits over PERC in dry cleaning are numerous, enormous and clear-cut:

1. Shorter wash cycles means more machine time. Every day each machine will put out 25% more loads than with PERC.
2. Save energy; you have to heat the distillation unit to 158° instead of 250°F.
3. Save energy; during dry cycle 110-120°F will be enough. The heater will work less the cooling systems will work less.
4. Save spotting time; **Fabrisolv™ XL** is stronger than PERC. Stains will come out faster.
5. Save time; **Fabrisolv™ XL** is superior to PERC, it will keep dye in suspension better, no re-deposition issues, and no need for carbon filter. Try to by-pass the carbon filter. **Fabrisolv™ XL** will actually clean carbon filters from dye which has accumulated during the PERC processes.
6. Save money, save the fabric; use detergent without bleach, **Fabrisolv™ XL** is stronger than PERC and you will notice less graying of fabric, re-deposition will be a thing of the past.
7. Save money; **Fabrisolv™ XL** has 30% less surface tension than PERC, it wet the fabric faster, better and deeper. It doesn't need the help of additional wetting agents and you need less detergent.
8. Save money; **Fabrisolv™ XL** has 30% lower viscosity than PERC. It penetrates the fiber like a bullet compare to PERC. Lower viscosity ► higher efficiency ► shorter cycle ► less mechanical action ► Less lint, less wrinkles, less static ► LONGER fabric's life ► whiter whites ► HAPPIER customers ► Smiling banker.

Safety

Before using **Fabrisolv™ XL**, refer to the MSDS.

Packaging

Fabrisolv™ XL is available in 55 gal. drums, 5 gal. pails and 1 gal. bottles. Bulk shipments are available upon request.

The product should be stored in the original containers in a cool, dry and ventilated place. Do not expose to temperatures higher than 120°F.

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