Diversified CPC Int'l

Specialty Fluids

Specialty Solvents

Today's aerosol, vapor degreasing, and industrial cleaning industries demand product formulations that meet precise performance objectives and lessen environmental impact. Diversified CPC offers solvents that are designed to create an array of blends that are engineered to meet desired levels of various attributes, including efficacy, toxicity, and solvency.

1, 2 trans Dichloroethylene (DCE)	This is the workhorse of the DCPC solvent line. With a KB value of 117, trans DCE is equivalent to Methylene Chloride, Trichloroethylene, Perchloroethylene, and n-Propylbromide for solvency and cleaning. trans DCE is flammable, but flammability can be suppressed by blending the solvent with XF or PF.	• Solvency: KB 117 • Boiling Point (an indicator of evaporation rate): 48C • GWP: Low; ODP: No; VOC: Yes
Honeywell Solstice® PF	With a KB value of 25 and a GWP of 1, PF is a good solvent with excellent environmental credentials. PF is also a fast evaporator and can reduce drying time when using slower evaporating solvents. It is non-flammable and can be used to reduce or eliminate the flammability of solvent blends.	• Solvency: KB 25 • Non-flammable • Boiling Point (an indicator of evaporation rate): 19C • GWP: 1; ODP: No; VOC: No (final approval pending in Calif.)
Chemours™ Vertrel™ XF	Vertrel™ XF has been successfully used to formulate solvent blends to meet the requirements in numerous applications. Vertrel™ is non-flammable, has a low KB value, which is required for critical plastic-safe applications, and will suppress the flammability in blends with flammable solvents.	• Solvency: KB 9 • Non-flammable • Boiling Point (an indicator of evaporation rate): 55C • GWP: 1650; ODP: No; VOC: No (except for Calif.) • Safe for most plastics
Solvay Solkane® 365 mfc	The go-to HFC when cost is critical. With a low KB value, it can be blended with DCE to lower the KB value and increase the plastic-safe characteristics. In addition, it can be combined with other higher cost solvents to reduce the overall package cost. It is flammable but flammability can be suppressed with non-flammable solvents.	• Solvency: KB 13 • Boiling Point (an indicator of evaporation rate): 40.2C • GWP: 804; ODP: No; VOC: No (except for Calif.) • Safe for most plastics

KB = Kauri-Butanol is a measured value of solvent power; the higher the value, the more aggressive the solvent
GWP = Global Warming Potential // ODP = Ozone Depleting Potential
100-Year GWP values are cited from the Fifth Assessment Report of the Intergovernmental Panel on Climate Change (2013)
ODP values are based on the EPA's Significant New Alternatives Policy (SNAP)

Attribute Matrix

Solvents are listed in descending order according to attribute.

Flammability	Solvency	Evaporation	Environment	Cost
Vertrel™ XF (non-flammable)	trans DCE (highest solvency)	Solstice® PF (fastest rate)	Solstice® PF (most friendly)	trans DCE (most economic)
Solstice® PF (non-flammable)	Solstice® PF	Solkane® 365	trans DCE	Solkane® 365
trans DCE	Solkane® 365	trans DCE	Solkane® 365	Solstice® PF
Solkane® 365	Vertrel™ XF	Vertrel™ XF	Vertrel™ XF	Vertrel™ XF

Formulated for Results

Diversified CPC has the expertise to recommend and create customized blends by pragmatically identifying the solvents and ratios that will yield the required results. Working in conjunction with a manufacturer's formulation and marketing teams, we rely on our specialty solvent line, industry know-how, and experience to create the optimum solvent blend for any application.

Working Example: Replacing 141b

Objective: Substitute 141b, which is used as the primary solvent in a given solution.

To achieve optimum results, the attributes of 141b are identified: KB: 56; BP: 32C; Non-Flammable. Using 141b's characteristics as a guide, a formula is created by blending a variety of solvents with similar attributes.

Solution: Vertrel® XF = 30%; Solstice® PF = 31%; Trans DCE = 39%

This blend closely compares to 141b and could be further modified based on performance and marketing goals. For example, to reduce costs, Solkane® 365 could be substituted for portions of PF and XF while maintaining key characteristics.

Diversified CPC has participated in successful conversions replacing Methylene Chloride, Trichloroethylene, Perchloroethylene, 141b, 225, and we can assist in alternative solutions for NPB formulations.

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Essential. Pure. Hydrocarbons.

DCPC/SLVC/3.16