



## The advantages of using fluorinated solvents for your vapour degreasing process

Fluorinated solvents, also known as fluorocarbon solvents, offer several advantages in various industrial and scientific applications, including being highly suited for vapour degreasing. Here are some of the key advantages of using fluorinated solvents:

### **Environmental Compatibility:**

Fluorinated solvents are often chosen as alternatives to more hazardous solvents due to their relatively low impact on the environment. They have low ozone depletion potential (ODP) and negligible global warming potential (GWP). Additionally, they have low toxicity and are not classified as hazardous air pollutants (HAPs).

### **Chemical Stability:**

Fluorinated solvents exhibit excellent chemical stability, making them highly resistant to degradation and reactions with other chemicals. They are compatible with a wide range of materials, including metals, plastics, and elastomers. This stability allows for their use in challenging environments and with reactive substances.

### **Solvency Power:**

Fluorinated solvents have strong solvency power, meaning they can dissolve a wide range of organic and inorganic compounds. This property makes them effective in applications such as cleaning, degreasing, and precision cleaning, where the complete removal of contaminants is crucial, such as cleaning to oxygen standard.

### **Nonflammability:**

One of the significant advantages of fluorinated solvents is their non-flammable nature.

Under testing to ASTM D 93 they will not flash and therefore do not support combustion, making them safer to use compared to many traditional solvents. This property reduces the risk of fire hazards in various industrial processes and applications.

**Dielectric Properties:**

Fluorinated solvents have excellent dielectric properties, making them ideal for applications that require electrical insulation and heat transfer. They are commonly used in electronic and electrical industries for tasks such as cleaning electrical components, cooling electronics, and as a dielectric fluid in transformers and capacitors.

**Thermal Stability:**

Fluorinated solvents can withstand a wide range of temperatures without decomposing or losing their properties. This thermal stability allows them to be used in high-temperature applications, including heat transfer fluids, lubricants, and as coolants in various industrial processes.

**Surface Tension Control:**

Fluorinated solvents have the ability to modify the surface tension of liquids, enabling them to spread evenly and improve wetting. This property makes them useful in applications such as coatings, adhesives, and printing, where uniform and controlled wetting is required.



**Zero Ozone Depletion Potential (ODP) and very low Global Warming Potential (GWP) solvent cleaner for high performance vapour degreasing**

*ProSolv®5408e* has been developed to provide superior critical cleaning performance for manufacturers of electronic and electrical components. High Solvency (KB Value 98) for removal of organic residues, compatible with organic and synthetic oils and most plastics and metals.

*ProSolv®5408e* is a high-performance solvent cleaner used for sustainable and future proof vapour degreasing. It has a GWP of less than 1, with a 100

year Integrated Time Horizon (ITH). Soft on the environment and safe for users, it offers improved cleaning at lower costs.

*ProSolv®5408e* ticks all the boxes and is the perfect profile for a modern vapour degreasing solvent. Exceptionally low surface tension to penetrate micron sized holes and close contact surfaces. Sustainable and secure for the future. Non-carcinogenic, low boiling point, economical with energy with low solvent losses, faster production, reduced costs, easy handling.

## *ProSolv*<sup>®</sup>5408e **BENEFITS**

### **EFFICIENT AND ECONOMICAL**

- Fast precision cleaning with short cycle times.
- Can be used in any vapour degreasing equipment, lower energy consumption and lower maintenance.
- Ideal replacement for Trichloroethylene (TCE) and n-Propyl Bromide (nPB).
- Stable with no additives, no testing required.
- Improved productivity, parts exit the machine cool, dry and spot-free with no drying required.
- Minimal non-volatile residue (>10ppm).
- High density solution, excellent for ultrasonic cleaning.
- Mid-range temperature operation, easier handling, mid-range boiling point, processed components easily handled (48°C).
- Very low surface tension for penetration into the micron level crevices and holes, efficient cleaning in tight to reach places and complex geometries.
- Easy process monitoring with minimal effort and minimal waste generation, easy reclamation for reuse.
- High Solvency (KB Value 98) for a variety of contaminants.
- Compatible with a broad range of substrates.
- Compatibility with a wide range of sensitive components (some components or products are sensitive to the high pressures of water-based cleaning, the heat of washing and/or drying, or surface residues after drying).

### **SAFE FOR USERS AND THE ENVIRONMENT**

- Safe for the environment, zero Ozone Depletion Potential (ODP).
- Very low Global Warming Potential (GWP)
- GWP of less than 1, AR4 100yr Integrated Time Horizon (ITH).
- Non-hazardous for transportation.
- Non-flammable (No Flash Point).
- Not classified as a carcinogen.

Listed above are some of the benefits from using *ProSolv*<sup>®</sup>5408e, a sustainable vapour degreasing solvent for cleaning and defluxing in the electronics and electrical components industry and an economical and efficient replacement solution for vapour / vapour liquid cleaning systems using older legacy solvents, which are now either banned or being phased out. EnviroTech Europe have many years of experience and our experts are available to guide you through your solvent cleaner changeover procedures or to advise on equipment.

## FURTHER INFORMATION

*ProSolv<sup>®</sup>5408e* vapour degreasing solvent is manufactured in the United Kingdom and available on short delivery times through our dedicated team of distributors worldwide.

Please visit our website <https://www.envirotech-europe.com> for information about all our products and further information on *ProSolv<sup>®</sup>5408e*. For more advice, please telephone us on +44 (0) 20 8281 6370 or use our website contact form.

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