

Solvent Spot Cleaners

Although plain water is often referred to as the universal solvent, water has virtually little to no influence on water insoluble oily and greasy stains and soils, which must be removed by either synergistic detergents that can emulsify these types of contaminants, or by solvents. The purpose of this Newsletter is to review solvent spot cleaners.

Solvent spot cleaners used to clean spots and stains on carpet include volatile dry solvents, citrus solvents, and non-volatile gel solvents. Each of these solvents are designed to remove a wide variety of lipophilic contaminants such as tar, asphalt, grease, cooking oil, motor oil, wax, ink, shoe polish, candle wax, nail polish, cosmetics (such as rouge, lipstick and mascara), gum, furniture, furnace oil, soot, filtration soils, copy toner, fresh paint, crayon and carpet adhesives. And each of these solvent spot cleaners is designed to meet certain needs that solvent-free spot cleaners are unable to address.

Before reading on, it is absolutely essential to know that conventional volatile dry solvents:

- **Must be used only in well-ventilated areas**
- **Must NEVER be used near open-flame sources**
- **Must NEVER be applied directly to the carpet**
- **Must be applied to a clean white absorbent cloth**
- **Require you to use safety gloves to protect against skin exposure**

Citrus solvents, which are bio-degradable solvents derived from natural orange oil extracts, are required whenever state or local laws do not permit the use of products that contain mineral oil, degreaser, and/or chlorinated solvents. Citrus APS is an example of this type product.

Volatile dry solvents, which is sometimes referred to as volatile paint remover, consists of lightweight, aromatic chlorinated solvents capable of removing very stubborn oily stains. Because of their highly volatile nature, considerable care must be taken to provide good ventilation in order to avoid potentially toxic vapors that can emanate from these solvents, protect your skin from exposure, and keep them away from combustible trigger forces such as smoking items and open-flame heating sources. Examples of readily available volatile dry solvents that can be found in hardware stores and many grocery stores include odorless *Mineral Spirits, paint, oil and grease removers, Acetone, and products like Carbona's Stain Devils Spot Remover #3 for Ink and Crayon™, and #4 for Fat, Grease and Oil™, and Bridgepoint's Avenge™ and Gel Break™. Products used by the carpet cleaning industry include Chemspec's Rx Dry Solvent Stain Remover™ Bane Clene's APS (non-flammable) and their Saf-T-Solv™ spot cleaner (non-flammable).

Gel solvents consist of powerful gelled, non-volatile, citrus solvents, wetting agents, and thickening agents. Gel solvents are designed so that their solvents will have sufficient dwell time to rapidly penetrate grease, oil, asphalt and other tough oil-based stains on a carpets face, while reducing the amount of solvent penetration to the carpet's backing and spreading of the stain. This is very important when trying to remove stubborn oil-based stains because more conventional solvent spotters either flash-off before having a chance to dissolve the stain, or, if used too aggressively, tend to penetrate into a carpet's backing, where they can destroy a carpet's latex backcoat, resulting in delamination of a carpet. Gel solvents are often used as the initial solvent spot cleaner, and are

thoroughly extracted after they have had ample dwell time. The use of more conventional solvent spot cleaners typically follows after the Gel solvent spot cleaner has been extracted in order to remove any lingering oily contaminants. Examples here include Bane Clene's Gel-Solv™, Pro-Choice's Power-Gel™, and Chemspec's LIQUA-Gel™.

Gel-solvents are commonly recommended and used to help remove filtration soils. Because Gel solvents are a specialized solvent cleaner, and because of their non-volatile nature they **MUST ALWAYS** be thoroughly extracted in order to remove any lingering trace solvent, and their use should be limited to only trained professional carpet care technicians.

Caveat emptor (let the buyer beware)! The use of solvent spot cleaners does not come without some risk to a carpet. It is always advisable to test-clean using the dry volatile solvent in an inconspicuous area of a carpet to insure colorfastness is not affected. However, because this type solvent fully evaporates it leaves no residue to consider if other spot-cleaning agents are required. Because solvents are so strong they can destroy both carpet backcoat adhesives and floor covering adhesives, it is absolutely essential that solvents never be applied directly to a carpet. Solvent spot cleaners should be used first whenever the content of a stain is unknown, and certainly on all oil-based stains. **When used correctly**, these spot cleaners are safe and effective on a wide-range of commonly encountered stains and soils.

* Non-volatile dry solvents are slow to evaporate & can require up to 2 days to thoroughly dry.

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