

REMOVAL OF POLYMER AND RESIN CONTAMINATION: SAFE ALTERNATIVES

Solvents are frequently used for certain types of cleaning, especially for the removal of synthetic contamination such as latex and resins. Also, they are still often used to remove pigment and dye residues. Many of the solvents used are volatile and highly inflammable. For years now, legislation has aimed to reduce the use of these solvents and encourage the use of alternatives.

Volatile substances have very effective cleaning properties and are capable of fast and efficient results. However, these substances have adverse characteristics that include low flashpoints and health hazards. One example of the latter is the sickness that can affect painters and other solvent users - organic psychosyndrome (OPS).

The alternatives available can be water-based systems or systems based on non-volatile organic materials. Various investigations have indicated that these alternatives may provide either better or less effective cleaning results. However, when some type of mechanical assistance is added to the cleaning process, there is virtually no difference between the use of solvent-based systems and more environmentally friendly alternatives*.

Products based on volatile organic solvents are still used for the removal of synthetic contamination such as resins, latex, polymer residues etc.

Vecom has developed a number of alternative products for cleaning various types of synthetic residue contamination.

LATEX REMOVER

Latex Remover is a strongly alkaline product based on alkalis, detergents, glycol ethers and surface-active substances and is especially developed for the removal of latex contamination from containers and other residuals from transport and storage tanks. For very stubborn contamination, Latex Remover is used in pure form and is ideal for circulation cleaning. Other types of cleaning are also possible using Latex Remover solutions. In most cases, the contamination floats on the liquid after cleaning, and is easy to remove. The

type and degree of contamination determines when the Latex Remover solution should be changed.

C-CLEAN ECO®

C-Clean Eco® is a very powerful cleaning product based on natural raw materials that are fully biologically degradable (TNO report V97.1049). Used as an emulsion in water, this product is often more effective than most concentrated solvents. C-Clean Eco® can be used for cleaning polymer residues such as latex, bitumen, rubbers, pigments etc. In addition to cleaning the internals of tanks and containers, C-Clean Eco® can be used in immersion baths with or without ultrasonic assistance.

RESIN CLEANER

Resin Cleaner is a powerful cleaning product based on biologically degradable esters and surface-active materials. These esters have powerful dissolving characteristics, equivalent to, and in some cases even better than conventional solvents. In addition these esters have a high flashpoint and can easily be regenerated by distillation. The special composition of Resin Cleaner makes it possible to use a safe material to remove difficult polymer residues such as resins and latex. The product is generally used in pure form for cleaning the internals of tanks. The safe Resin Cleaner can be easily used as a replacement



where traditionally the highly inflammable Methyl Ethyl Ketone (MEK) would have been applied for removing polymer residues.

Resin Cleaner contains no dangerous or harmful substances, and this means that the product does not have to be declared. A really safe alternative to volatile organic solvents for both mankind and the environment.

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Table: Properties and applications

Product	Density (20 °C)	Flash point	Used for removing:	Resistance	
				Alu.	Stainless Steel
Latex Remover	1,15	n/a	Resins, latex, residual adhesive, pigments	--	+
Resin Cleaner	1,09	> 100 °C	Latex, resins	+	+
C-Clean Eco	0,96	> 70 °C	polymer contam. rubbers, latex, pigments	+	+