

Solvex™ HD

vapor degreasing solvent for Medical Manufacturing



Banner Chemicals Group UK
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What is SOLVEX HD?

SOLVEX HD is a unique, patented environmentally & operator friendly vapor degreasing solvent that originates from the United Kingdom. It is currently being used for high-end precision cleaning in medical, aerospace, electronics and automotive applications.

SOLVEX HD can be used in existing vapor degreasing equipment with simple adjustments to temperature settings and optimization of process times.

SOLVEX HD is non-flammable and does not become flammable during boiling or evaporation. The material has been found to have low toxicity. Please consult the Safety Data Sheet for more details.



Solvex HD vapor degreasing solvent

A perfectly clean part is essential whether it comes to the final step in the medical manufacturing process, before coatings or before the packaging of the product. In addition, during medical device manufacturing and packaging it is essential that the parts are dried completely to avoid the growth of bacteria. When devices are packaged with residual moisture bioburden microbes can form that contaminate the product. Solvent-based systems, such as those in vapor degreasers, are hostile to the growth of bacteria. Parts exiting the vapor degreaser come out immediately dry and ready for packaging, further deterring from the formation of bioburden. Cytotoxicity testing on medical parts cleaned in vapor degreasing solvents such as Solvex HD decreases the quantities of biologically harmful extractables.

Parts cleaned in vapor degreasing system usually exhibit better material biocompatibility than medical parts cleaned in water-based systems. Aqueous cleaning for medical device and tool manufacturing is not a good fit. Water-based cleaners increase the chance for rust and oxidation on sensitive parts. The warm moist atmosphere in aqueous systems also set up the perfect medium for biological contamination to flourish. Finally, the complex and tight geometry of many medical parts makes it difficult for aqueous cleaning systems to clean the entire part both inside and out. Delicate features including blind holes and channels with very small diameters often make it impossible for water to enter and exit tight areas and then can leave residual moisture behind. Solvex HD vapor degreasing is a waterless cleaning process that avoids all of these issues.

SOLVEX HD is a waterless cleaning system so rust and oxidation is unlikely to occur. SOLVEX HD has an extremely low surface tension so it easily flows in and out of tight geometries including blind holes. Solvex HD dries quickly and completely so parts exit the cleaning equipment dry and immediately dry and ready for packaging. This deters the formation of bioburden.

Particulate is another issue for medical device manufacturing. Because particulate is not soluble in either solvent or water, it must be physically pushed off the surface and suspend in the liquid to be effectively removed from the surface. At 1.25kg per liter Solvex HD is very dense. It can easily knock off and suspend particulate. Water on the other hand is on 1.0 kg per kg so it lacks the density to remove particulate.

