

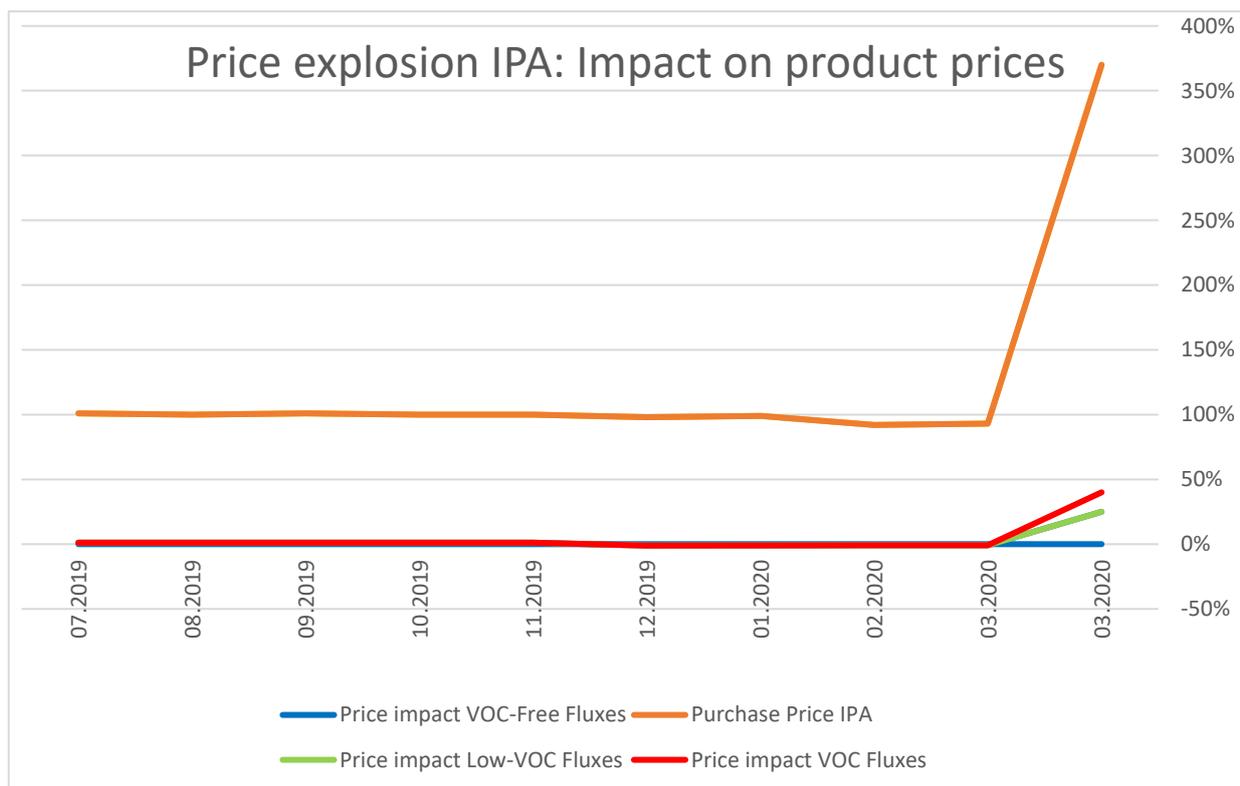
VOC-fluxes price increases due to Corona crises -suggested alternative solutions

In VOC free flux technologies for wave and selective soldering processes the main carrier system used is DI-water (De-ionized water). Commercially this gives two major benefits. Firstly, water is a lower cost compared with alcohols like Isopropyl alcohol (IPA) and Ethanol, this in turn will lead to lower manufacturing costs and as a result lead to lower prices.

Secondly the price of DI-water is very stable and has almost no effect on the final manufacturing cost, whilst alcohols can have large variations in situations as we are currently facing. With a solvent content of 98% to 94% the solvent has a major contribution to the final price. In 2019 the prices of Isopropyl alcohol only had small variations and just recently (March 2020) the IPA contract price suddenly went up by 370% in a few days because of the Corona virus, as IPA is a major requirement in hospitals and the major ingredient for anti-bacterial hand washes.

Unlike alcohol-based products water-based products do not suffer the same fluctuations and the price is more stable over a longer period.

Since we have no influences on the price and availability of VOC solvents Balver Zinn would suggest an alternative such as Low-VOC or VOC-free fluxes. This is a good opportunity to save money wherever Low-VOC or VOC-free fluxes are used.



We offer a wide product range of alternative fluxes in order to reduce the price impact of IPA with similar reliability properties of the residues left on the assembly.

The price impact on Low-VOC products such as the organic 95-DRX-M+ or the resin based high rel. flux 95-RXZ-M is reduced by approximately 60% because the water content is approximately 40% in both products.

Another option to reduce production costs due to the IPA price situation is the change over from Low-VOC to VOC-free technologies.

SUGGESTION

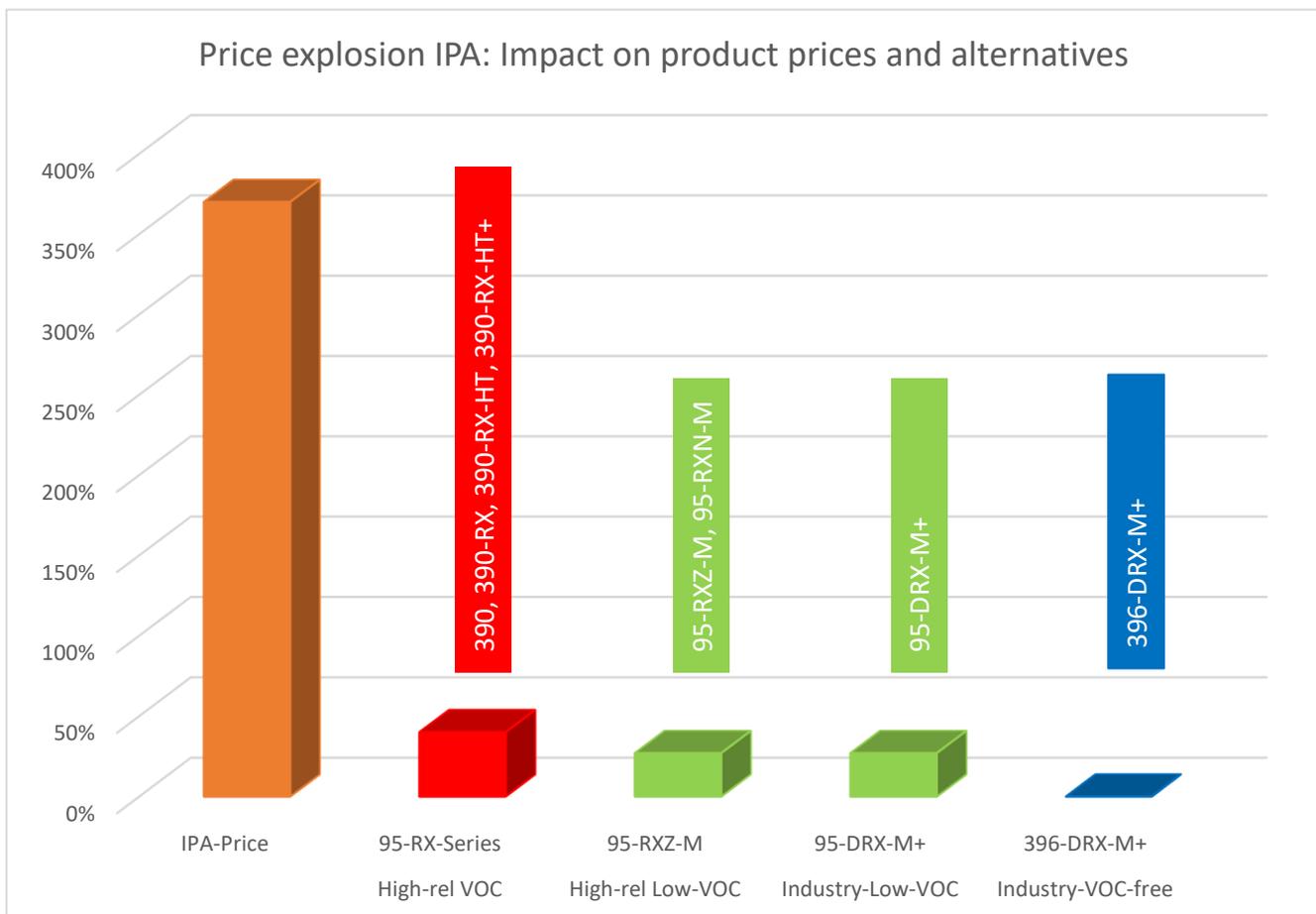
95-DRX-M+ (40% water) has the same activator system as the VOC-free 396-DRX-M+. It could be worth considering 396-DRX-M+ whenever your process/preheating system allows higher (approx. 110°C on the top side of your PCB) preheating temperatures.

Additional cost savings are given by the freight costs as VOC-free fluxes are not classified as dangerous good and the transportation costs are much lower.

Transportation / Storage

Water (VOC-free) fluxes are considered as a non-hazardous material and with a high percentage of DI-water in the VOC free fluxes these can be transported and stored without taking extra safety precautions. The VOC-free fluxes can be stored in normal storage conditions or even in production environments, whilst alcohol-based fluxes can be limited in volumes and require extra safety storage like explosion and fire delaying cabinets.

Finally, transportation of VOC-free products is categorized as standard transport. Alcohol based materials require a special ADR transport which is always more expensive.



Please contact the technical support team for additional details and recommendations.