

VACUUM PUMP FLUIDS - SANTOVAC

Over twenty years ago industry began using PCB's as the working fluids in diffusion pumps and vapor booster pumps. Their reasons were simple but important. The fluids were not only fire resistant. They were very stable under high temperatures. These properties gave users the ability to move large quantities of hot gas with safety from fire and explosion.

~~Until 1970 we did not segregate the sale of PCB's for vacuum use and we do not know how much was used. In 1970, however, to better control applications, PCB's for this market were renamed Santovac. Sales to date are as follows:~~

Product

Santovac

1970

11,280 lbs.

Thru 7/71

92,610 lbs. through 7/71

The major markets are vacuum melting and refining of metals; metallizing or coating plastics, glass and metal; welding or brazing metals; and chemical processing such as distillation and degassing. ~~We have chosen to stay in this market because the~~ ^{application} danger of environmental contamination is small and ~~because~~ withdrawing PCB's would work a major hardship on the users.

Since vacuum systems (in addition to using only very small quantities) are generally closed or contain liquid traps, the only environmental hazards are spillage and disposal. The pump manufacturers in many cases have designed their pumps to operate

on PCB's and they do not recommend alternate fluids. The users have established manufacturing systems based on being able to handle specific large volumes of gas. To withdraw PCB's would create additional fire hazards and could force purchase of new pumps or, if possible, redesign of old pumps and reduced manufacturing capacity.

In summary, there is a long history of PCB's in vacuum systems -- used both for safety and for the special properties of the fluid itself. Though there are other working fluids available, none are direct substitutes for the PCB's. Because of the ease with which the users can control the fluids, plus the increased danger and disruption to industry should we withdraw the fluids, we plan to continue selling Santovac.

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