

Viale Lombardia 20
20021 Bollate (Milan) -Italy

Bollate, 10 October '05

TO WHOM IT MAY CONCERN

SUBJECT: USE OF GALDEN HT FLUIDS IN VAPOR PHASE SOLDERING

Solvay Solexis understands that Galden® HT Grades are used as Soldering Fluids in Vapor Phase Soldering Equipment. These fluids have a wider molecular weight distribution and are designed for use as Heat Transfer and working fluids in closed systems. They consist of a mixture of elements belonging to the same chemical family of perfluoropolyethers having varying boiling points, including those with boiling points lower than the nominal values. These low boiling components preferentially evaporate during the operation of the Vapor Soldering Machines. This phenomenon leads to higher losses of the fluids as well as a shift towards higher vapor temperature with time – temperature shift.

As a result, the cost of the vapor phase soldering process and the fluid emissions to the environment increase. The latter defeats the purpose of moving towards lower environmental friendly lead-free soldering.

We believe that Vapor Phase Soldering produces the best quality soldered joints. In addition, it is the most economical, environmental-friendly and the safest soldering process compared to other technologies such as convection ovens that operate at higher temperatures due to the poor heat transfer efficiency of air and other gases.

The Galden® LS and HS fluids are specifically designed with very narrow molecular weight distribution for the Vapor phase Soldering process by a stricter control of the molecular weight distribution during their production. This eliminates the above mentioned problems.

In addition, in order to improve the performance of the Galden® HT grades in closed loop systems, Solvay Solexis has decided to modify the specifications of Galden® HT grades with emphasis on the properties specific to these uses, such as viscosity.

This would make the Galden® HT grades even less suitable for use in Vapor Phase Soldering Process. Solvay Solexis will not be guarantee to provide technical assistance



to problems arising out of the wrong use of our Galden® HT grades in Vapor Phase Soldering Equipment.

At the same time Solvay Solexis will be at our customer disposal to make the transition from Galden® HT grades to Galden® LS and Galden® HS grades as smooth as possible.

Solvay Solexis also guarantees the supply of the Galden® LS and HS grades for current and future requirements..

We request you to kindly inform your customers of these changes and help them to move to a better process with lower fluid losses and lower emissions.

Best Regards,