Perfluoropolyether and Dichloromethane Solubility Test Results Report

Precision Inspection, Lubrication with Confidence.



Contents of this Detection

MISCIBILITY TEST
PERFLUOROPOLYETHER
& DICHLOROMETHANE

1. Experiment Purpose

BY WALLIMORE QUALITY ASSURANCE CENTRE

This experiment aims to meet customer requirements by conducting a compatibility test on perfluoropolyether and dichloromethane. The goal is to explore their mutual solubility under mixed conditions.

2. Compatibility Test

By thoroughly mixing 50 mL of perfluoropolyether with 50 mL of dichloromethane in a conical flask, and then transferring the mixture to a 100 mL graduated cylinder, we observed that, after standing still for 1 minute, the two substances rapidly separated into two phases while maintaining a clear state. At this point, the volumes of the two phases remained at 50 mL each, and no apparent macroscopic mutual solubility phenomenon was observed.

Mixed static state



Throughout the mixing process, neither emulsification nor significant volume changes in either of the 50 mL samples were observed. Even after vigorous mixing, the two substances were able to quickly separate without evident mutual solubility.

3. Conclusion

Based on the experimental results, the conclusion can be drawn that perfluoropolyether and dichloromethane do not exhibit macroscopic mutual solubility. This finding provides essential clues for a deeper understanding of their interactions and valuable information for relevant applications and processes.



"LUBRICATION PROTECTION UNDER HARSH CONDITIONS"

