Replacing HCFC-225 in Manufacturing in Mexico

The phase-out of the last major ozone-depleting solvent, HCFC-225, finally has begun. HCFCs were a “transitional chemistry” to ease industry’s conversion from old-style ozone-depleting solvents to ozone-safe cleaners. Made by Asahi, HCFC-225 is marketed under names including “AK-225” and “AsahiKlean.”

AK-225 is widely used as a carrier fluid, a defluxer, a metal degreaser, and to purge oxygen systems. It can clean PCBs, medical devices, metal parts and for cleaning optics, photonics and lasers. The fluid evaporates completely and leaves no residues. Most cleaning is performed in a vapor degreaser. Alternative solvents can be used in the same equipment with the same methodologies. Temperature settings and process times may need some adjustment but a capital investment should not be necessary as long as the cleaning machine is in good working order.

HCFC-225 only is made in Japan and production there has shut down. In most of the world, HCFC-225 can no longer be imported or sold. Stockpiles may be used until supplies are exhausted. Users outside of the U.S. should investigate local regulations.

Better Alternatives

Most companies will find the easiest transition to be an ozone-safe, nonflammable solvent:

Customers using AK-225 should evaluate MicroCare® HDS Heavy Duty Degreasing Solvent, MicroCare® CCA General Purpose Degreaser, DuPont™ Vertrel® SDG Degreaser or DuPont™ Vertrel® MCA Plus.

Companies using AK-225AES, AK-225AMS or AK-225T, will find replacements like DuPont™ Vertrel® XM Rinse, DuPont™ Vertrel® XP10 Drying Fluid or MicroCare® CMS Deflexer.

Lastly, if the factory was using HCFC-225ATE, AK-225ATMS, or AK-225TM, take a look at MicroCare® HDS Heavy Duty Degreasing Solvent, the MicroCare® CCA General Purpose Degreaser, DuPont™ Vertrel® SFR Defluxer, DuPont™ Vertrel® SDG Degreaser or DuPont™ Vertrel® MCA (this is particularly for cleaning liquid oxygen systems).

Overall, DuPont™ Vertrel® SDG Degreaser seems to be the best starting point for most conversions. MicroCare is the DuPont™ authorized source for Vertrel® fluids in North America.

How to Convert

MicroCare will help companies switch from HCFC-225/AK-225. The MicroCare team will ask questions about the current cleaning process, standards, materials of construction, soils, equipment, people, training, safety, throughput and other details. MicroCare then recommends a replacement. MicroCare provides liters for preliminary testing and large-scale testing at the MicroCare lab. Uniquely, MicroCare offers an unconditional guarantee that the recommended cleaning fluid will deliver the promised results.

If you have questions about HCFC-225 or the new ozone-safe alternatives, contact your local MicroCare representative.

About MicroCare

MicroCare Corporation is the manufacturer of the cost-effective, environmentally-sensitive chemical products and tools used for critical cleaning, coating and lubrication. Since 1983, MicroCare has been helping customers to improve their products and processes in industries as diverse as electronics, metal finishing, transportation, medical devices and aerospace. MicroCare constantly innovates to help companies lower their costs and improve their cleaning processes.