

ADVANTAGES/DISADVANTAGES OF STERILIZATION METHODS

Method	Pros	Cons
Moist heat	<ul style="list-style-type: none"> Commonly used and familiar to regulators Safe and effective Inexpensive Penetrates well 	<ul style="list-style-type: none"> High temperatures can't be used for all items Not for items sensitive to moisture
Dry heat	<ul style="list-style-type: none"> Widely accepted as effective Good for moisture sensitive items Can depyrogenate Inexpensive 	<ul style="list-style-type: none"> Few materials can withstand the heat Longer cycle time than moist heat
Ethylene Oxide (ETO)	<ul style="list-style-type: none"> For heat and moisture sensitive materials Inexpensive Can be used for electronic components Sporicidal 	<ul style="list-style-type: none"> Requires gas permeable pkg. Long sterilization cycles Toxic, carcinogenic and explosive No standard cycle parameters
Radiation	<ul style="list-style-type: none"> Available commercially No harmful emissions 	<ul style="list-style-type: none"> Expensive, specialized equipment; performed by outside contractor Degrades some plastics, rubber and Teflon
Vaporized Hydrogen Peroxide (VHP)	<ul style="list-style-type: none"> Useful for special applications like isolators Inexpensive For heat-sensitive materials 	<ul style="list-style-type: none"> Can be corrosive to materials Respiratory irritant No standard cycle parameters
Filtration	<ul style="list-style-type: none"> Used for heat-sensitive liquids 	<ul style="list-style-type: none"> Relies on good operator aseptic technique to maintain sterility Filters can retain active ingredients