

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