Alcohol-Filled Container

Requires isopropanol

- Replace alcohol every 5 uses
- Keep track of number of uses
- Pre-cool alcohol in refrigerator

CoolCell[®] Container

No alcohol

- No fluids
- No pre-cooling required

 Inconsistent freeze rate Alcohol degradation induces variability Two circles of wells – different freeze rates for each 	 No variability All vials have uniform freeze rate Radially symmetric design ensures consistency
Approximately \$350/yearChange alcohol weeklyDisposal of hazardous waste	No on-going costNo alcohol purchase or disposal
Difficult to handleScrew cap difficult to remove when frozenFrozen unit is slippery and cold to touch	 No stuck lids Lid comes off easily when frozen Not cold to the touch when removing from the -80°C freezer
 Wait between runs Takes >1 hour for device to return to room temperature for re-use 	Quick re-use timeReady to use again after five minutes
 Large thermal mass impacts local freezer area Large heat capacity removed from alcohol impacts nearby samples 	 Low impact on freezer 1/3 the heat impact on freezer compared to alcohol-filled units

