

**A05 - STERILIZER, 10% ETHYLENE OXIDE & 90% HCFC, ACIDIC SCRUBBER CONTROLS (99% EFFICIENCY FOR ETO), CHILDRENS' HOSPITAL**

**CALCULATION METHODS**

$E_a = U_a \times EF$  (lbs/lb sterilant gas used)

$E_h = U_h \times EF$  (lbs/lb sterilant gas used)

**NOTES:**

- Annual gas usage ( $U_a$ ) = (Gas usage per load, lbs/yr) x (Loads per year, loads/yr).

- Max. hourly gas usage ( $U_h$ ) = Gas usage per load, lbs/yr

- Operating parameters (i.e. gas usage, gas composition, control efficiency requirements) must be identified in the database to correctly calculate emissions. Emission factors are "controlled" (after the control device).

- Control efficiency for EtO are determine by Rule 1203 requirements - 99.0% efficiency for facilities using < 600 lbs EtO/yr or 99.9% efficiency for facilities using > 600 lbs EtO/yr.

- Emission quantification assumes all sterilant gas injected into the chamber is vented to the control device (i.e. no EtO reacts, no sterilant gas leaks, no fugitive emission, negligible emissions from aerators).

<b>POLLUTANT</b>	<b>District Emission Factor</b>	<b>EPA REFERENCE</b>	<b>ARB</b>	<b>(UNITS)</b>	<b>COMMENTS</b>
	<b>(lbs/lbs sterilant gas used)</b>	<b>DOCUMENT</b>	<b>FACTOR</b>		
NOX					
CO					
SOX					
TOG	0.901			(lbs/lb sterilant gas used)	
ROG	0.001			(lbs/lb sterilant gas used)	
TSP					
PM10					
BENZENE					
HYDROCHLORFLUOROCARBONS	9.00E-01			(lbs/lb sterilant gas used)	
ETHYLENE OXIDE	1.00E-03			(lbs/lb sterilant gas used)	

Last Updated on 8/24/99  
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