

L01 - METAL MELTING & CASTING, LEAD, CRUCIBLE OR POT FURNACE, UNCONTROLLED

CALCULATION METHODS

$E_a = \text{Melting (i.e. ducted)} + \text{Casting (i.e. fugitive)}$

$$E_a = [U_a \times E_{Fm} \times (1 - e_m)] + [U_a \times E_{Fc} \times (1 - e_c)] \times C_i$$

$$E_h = [U_h \times E_{Fm} \times (1 - e_m)] + [U_h \times E_{Fc} \times (1 - e_c)] \times C_i$$

NOTES:

- Annual (U_a) and maximum hourly (U_h) throughputs must be individually reported for each material charged.
- Emission factors are in units of (lbs / ton material charged).
- Site specific emission factors should be used where available.
- Default emission factors have been developed from AP-42. These values will be updated as additional information is generated.
- Combustion related emissions of NO_x, CO, SO_x, PIC's, etc. are assumed negligible but may be quantified separately using fuel combustion procedures.
- No data regarding the conversion rate of chromium to hexavalent chromium exists. At this time, the Cr+6 fraction of the PM10 total Chromium emissions is assumed to be 10% for all processes.
- Maximum hourly emissions assume a single charge and pour over a 1 hour period.

POLLUTANT	District Emission Factor	REFERENCE	TEST	(UNITS)	COMMENTS
	(lbs/ton charged)	DOCUMENT	LOCATION		
NOX					
CO					
SOX					
TOG					
ROG					Assumes;
TSP	= PM10				0.03 lbs PM10 /ton charged for ducted melting emissions.
PM10	=0.03 (melt) + 0.04 (cast)	Table12.11-2 AP-42 (1/95)	None		0.04 lbs PM10 /ton charged for fugitive casting emissions.
ALUMINUM					
ARSENIC					
BARIUM					
BERYLLIUM					
CADMIUM					
CHROMIUM HEXAVALENT					
CHROMIUM NONHEXAVALENT					
LEAD	=0.01 (melt) + 0.01 (cast)	Table12.11-2 AP-42 (1/95)			AP-42 factors are in units of lbs emitted per ton charged
* OTHER LISTED METALS *					Note: Do not speciate PM10 for lead processes.
ZINC					