

2.G(b) - Other Product use: Tobacco

Short description

In this sub-category of 2.G(b) - Other product use: Tobacco Germany reports NO_x, NH₃, NMVOC, TSP, PM₁₀, PM_{2.5}, Cd, Co, Cu, Ni, Zn, Benzo(a)pyrene (B[a]P), Benzo(b)fluoranthene (B[b]F), Benzo(k)fluoranthene (B[k]F), Indeno(1,2,3-cd)pyrene (I[1,2,3-c,d]P), PAH 1-4 and PCDD/F emissions from the smoking of cigarettes and cigars.

NFR-Code	Name of Category	Method	AD	EF
2.G(b)	Other Product use: Tobacco	T2	NS	CS/D

Method

Activity data: Statistical data from the tax registration of sold tobacco¹⁾, cigarettes and cigars are used as **activity data**.

Emission factors: For the **emission factors**, a study was made and published in October 2016 "Entwicklung von Methoden zur Berechnung von Emissionen von Luftschadstoffen aus der Verwendung von Holzkohle, Tabak, Feuerwerk und Kerzen sowie aus dem Entfachen von Brauchtumsfeuern" from Nicola Toenges-Schuller et al., AVISO GmbH, for the Umweltbundesamt Germany. Based on this study, most of the EFs are an average value from different studys.

Table 1: Applied emission factors

	Value	Unit	Data source
NO _x	1.8	kg/t tobacco	EMEP/EEA 2013
NMVOC	9.56	kg/t tobacco	average value
NH ₃	5.33	kg/t tobacco	average value
CO	112.51	kg/t tobacco	average value
TSP/PM10/PM2.5	18.85	kg/t tobacco	average value
BC	0.074	kg/t tobacco	average value
Cd	0.0054	kg/t tobacco	EMEP/EEA 2013
Cu	5.4	g/t tobacco	EMEP/EEA 2013
Ni	2.7	g/t tobacco	EMEP/EEA 2013
Zn	2.16	g/t tobacco	average value
PCDD/F	0.1	µg/t tobacco	EMEP/EEA 2013
B[a]P	0.21	g/t tobacco	average value
B[b]F	0.26	g/t tobacco	average value
B[k]F	0.26	g/t tobacco	average value
I[1,2,3-c,d]P	0.42	g/t tobacco	average value

Recalculations

So far for the calculation of the activity data the production, import and export of cigarettes, cigars and tobacco products was used. But because of double counting of tobacco amounts the activity data were overestimated. As new data source for the activity data the sold amount of tobacco registered for the taxes is used.

	Subm2020	Subm2021	Difference
	Activity data	Activity data	
	t	t	t
1990	408.171	169.724	-238.447
1991	435.441	169.724	-265.717
1992	430.880	158.243	-272.637
1993	438.902	147.181	-291.721
1994	452.966	153.485	-299.481
1995	435.306	152.618	-282.688
1996	390.828	155.226	-235.602

