

2.C.2 - Ferroalloys Production

Short description

Category Code	Method					AD					EF				
2.C.2	T1					IS					CS				
Key Category	SO ₂	NO _x	NH ₃	NM VOC	CO	BC	Pb	Hg	Cd	Diox	PAH	HCB	TSP	PM ₁₀	PM _{2.5}
2.C.2	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

Source category *Ferroalloys Production* is of minor significance and not a key source.

Ferroalloys are nonferrous metal aggregates that are alloying agents for the steel production. Germany has five producers of ferrochrome, silicon metal and ferrosilicon; these materials are used as alloying agents in stainless-steel production. The only process in use in Germany since 1995 is the electric arc process, a process that releases only small amounts of process-related emissions, with such releases occurring in electrode consumption. Until 1995, the blast-furnace process, which produces relatively higher emissions, was used to some extent.

Method

Activity data

The activity data for the years 1990 through 1994 have been taken from official production statistics of the Federal Statistical Office. Since 1995, data of the British Geological Survey (Brown et al., 2019) have been used instead, because the official production statistics no longer contain usable data for this context. The currently available activity data are from 2018, and they have been carried forward into 2019. An activity rate figure of 53,258 t has been used for the year 2019 (adjusted value of 2018 statistical data), a recalculation will be made when updated statistical data are available in General every two years.

Emission factors

The emission factor for TSP (0.1 kg/t for the current year and back to 1998) and the splitting factors for PM₁₀ and PM_{2.5} are determined in a research project (UBA, 2007) ^[Lit. 1]. There were higher but decreasing EF for the period 1990 -1997 due to the technology change.

Recalculations

Recalculations were necessary due to updated activity data for the years 2017 and 2018.



For more information on recalculated emission estimates for Base Year and 2018, please see the pollutant specific recalculation tables following chapter [8.1 - Recalculations](#).

Planned improvements

At the moment, no category specific improvements are planned.

Bibliography

Lit. 1: UBA, 2007: Jörß, Wolfram; Handke, Volker; Lambrecht, Udo and Dünnebeil, Frank (2007): Emissionen und Maßnahmenanalyse Feinstaub 2000 – 2020. UBA-TEXTE Nr. 38/2007. Dessau-Roßlau: Umweltbundesamt. URL: <https://www.umweltbundesamt.de/publikationen/emissionen-massnahmenanalyse-feinstaub-2000-2020>.

Lit. 2: BRITISH GEOLOGICAL SURVEY, WORLD MINERAL PRODUCTION;
<https://www2.bgs.ac.uk/mineralsUK/statistics/worldStatistics.html>