

## 2.C.2 - Ferroalloys Production

### Short description

Category Code	Method					AD					EF				
2.C.2	T1					IS					CS				
Key Category	SO <sub>2</sub>	NO <sub>x</sub>	NH <sub>3</sub>	NM VOC	CO	BC	Pb	Hg	Cd	Diox	PAH	HCB	TSP	PM <sub>10</sub>	PM <sub>2.5</sub>
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. Activity data can be obtained from the national official statistics for 2001 to 2006 and from the British Geological Survey (BGS) [\[Lit. 2\]](#) for 1990 to 2007 - with the latter being almost 50% higher. Due to consistency of time series, available data from the BGS are used for the whole time period 1990 - 2015. In addition, 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

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 PM<sub>10</sub> and PM<sub>2.5</sub> 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.

#### Uncertainties

### 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.

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