# 2.B.5 - Carbide Production

### **Short description**

| Category Code           |                | d     |        | AD  |                  |          |                                 |     |     |     |       |      |       |       |       |         |             |       |  |  |
|-------------------------|----------------|-------|--------|-----|------------------|----------|---------------------------------|-----|-----|-----|-------|------|-------|-------|-------|---------|-------------|-------|--|--|
| 2.B.5                   | Т3             |       |        |     |                  |          | PS                              |     |     |     |       |      |       | PS    |       |         |             |       |  |  |
| Key Category            | <b>SO</b> 2    | NO×   | NH₃    | N   | муос             | CO       | BC                              | Pb  | Hg  | Cd  | Diox  | PAH  | НСВ   | TSP   | PM10  | PM2.5   |             |       |  |  |
| 2.B.5                   | -              | -     | -      |     | -                | -        | -                               | -   | -   | -   | -     | -    | -     | -/-   | -/-   | -/-     |             |       |  |  |
| <b>T</b> = key source b | oy Tr€         | end L | . = k  | ey  | sourc            | e by     | Lev                             | el  |     |     |       |      |       |       |       |         |             |       |  |  |
| Methods                 |                |       |        |     |                  |          |                                 |     |     |     |       |      |       |       |       |         |             |       |  |  |
|                         | <b>D</b> [     |       |        |     | Def              | Default  |                                 |     |     |     |       |      |       |       |       |         |             |       |  |  |
|                         | RA             |       |        |     |                  | Ref      | erer                            | nce | Арр | roa | ch    |      |       |       |       |         |             |       |  |  |
| <b>T1</b>               |                |       |        |     |                  | Tier     | Fier 1 / Simple Methodology *   |     |     |     |       |      |       |       |       |         |             |       |  |  |
|                         | <b>T2</b>      |       |        |     |                  |          | Fier 2*                         |     |     |     |       |      |       |       |       |         |             |       |  |  |
| <b>T3</b>               |                |       |        |     |                  | Tier     | Fier 3 / Detailed Methodology * |     |     |     |       |      |       |       |       |         |             |       |  |  |
| <b>C</b> (              |                |       |        |     | COF              | CORINAIR |                                 |     |     |     |       |      |       |       |       |         |             |       |  |  |
| CS (                    |                |       |        |     | Country Specific |          |                                 |     |     |     |       |      |       |       |       |         |             |       |  |  |
|                         | М              |       |        |     |                  | Мос      | -                               |     |     |     |       |      |       |       |       |         |             |       |  |  |
| * as described in       | the            | EME   | P/CO   | RIN | VAIR E           | miss     | ion                             | Inv | ent | ory | Guide | book | - 200 | 7, in | the g | roup sp | ecific chap | ters. |  |  |
| AD - Data Sour          |                |       | tivit  | ty  | Data             |          |                                 |     |     |     |       |      |       |       |       |         |             |       |  |  |
| NS National Stat        | nal Statistics |       |        |     |                  |          |                                 |     |     |     |       |      |       |       |       |         |             |       |  |  |
| RS Regional Sta         | tistic         | s     |        |     |                  |          |                                 |     |     |     |       |      |       |       |       |         |             |       |  |  |
| IS International        |                |       | 5      |     |                  |          |                                 |     |     |     |       |      |       |       |       |         |             |       |  |  |
| PS Plant Specifi        |                |       |        |     |                  |          |                                 |     |     |     |       |      |       |       |       |         |             |       |  |  |
| AS Associations         |                |       | -      |     |                  | s        |                                 |     |     |     |       |      |       |       |       |         |             |       |  |  |
| <b>Q</b> specific ques  |                |       | s, sui | rve | eys              |          |                                 |     |     |     |       |      |       |       |       |         |             |       |  |  |
| EF - Emission F         | acto           | ors   |        |     |                  |          |                                 |     |     |     |       |      |       |       |       |         |             |       |  |  |
| Default (EME            | P Gu           | idebo | ook)   |     |                  |          |                                 |     |     |     |       |      |       |       |       |         |             |       |  |  |
| C Confidential          |                |       |        |     |                  |          |                                 |     |     |     |       |      |       |       |       |         |             |       |  |  |
| CS Country Spec         |                |       |        |     |                  |          |                                 |     |     |     |       |      |       |       |       |         |             |       |  |  |
| PS Plant Specific       | data           | a     |        |     |                  |          |                                 |     |     |     |       |      |       |       |       |         |             |       |  |  |

During the German Reunification period, **calcium carbide** production took place mainly in the new German Länder. A short time later, production there was discontinued and only one producer remained in the old German Länder. In the period under consideration, this producer cut its production by about 50 percent.

According to the responsible specialised association within the VCI, **no silicon carbide** has been produced in Germany since 1993. Emissions from this process thus no longer occur.

### Method

#### Activity data

Since Germany has only one producer, the relevant data must be kept confidential. Only the data which consists of the amount of production in the former GDR was published, until 1989, by the country's central statistical authority. Those figures were used in combination with existing estimates for 1991 and 1992 to interpolate production in the new German Länder in 1990.

#### **Emission factors**

In covered furnaces, producers collect all the carbon monoxide produced from the process and recycle it for further use. Following such use as energy recovery – i.e., following its combustion to produce carbon dioxide – it serves as an auxiliary substance for production of lime nitrogen and secondary products. Reactions in these processes yield carbon dioxide in a mineral form, as black chalk. In this form, it is used in agriculture. Upon request, the relevant producer provides the German Environment Agency with the data of amounts produced.

The emission factor for TSP is provided by the producer and is also confidential.

## Recalculations

Because of a technical mistake, the EF of TSP,  $PM_{10}$  and  $PM_{2.5}$  are corrected for the year 2017.



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

### **Planned improvements**

No category-specific improvements are planned.