# 2.A.2 - Lime Production

# Short description

Category Code	Method					AD					EF				]			
2.A.2	T1			AS					CS									
Key Category	SO₂	NO×	NH₃	ΝΜν	' <b>OC</b>	20	BC	Pb	Hg	Cd	Diox	PAH	HCB	TSP	PM10	PM2 5		
2.A.2	-/-	-/-	-	-/-		-	-	-	-/-	-	-	-	-	-/-	-/-	-/-	1	
<b>T</b> = key source b	y Tre	end L	. = ke	ey soi	urce	by	Lev	el										
Methods																		
	D			0	Default													
	RA	L			F	Reference Approach												
	Т1				٦	Fier 1 / Simple Methodology *												
	Т2				٦	Fier 2*												
<b>T3</b>			Fier 3 / Detailed Methodology *															
<b>c</b> C			CORINAIR															
	CS				0	Cou	ntry	Sp	ecif	ic								
	Μ					/od	-											
* as described in						niss	on	Inve	ento	ory (	Guide	book	- 200	7, in	the g	roup sp	pecific chap	ters
AD - Data Sour			tivit	ty Da	ta													
NS National Stat																		
RS Regional Statistics																		
IS International Statistics																		
	PS Plant Specific data																	
AS Associations			-		ions													
<b>Q</b> specific ques			s, sur	rveys														
EF - Emission F	acto	ors																
Default (EME	P Gu	idebo	ook)															
C Confidential																		
CS Country Spec																		
PS Plant Specific	dat	а																

The statements made below regarding source category 2.A.2 refer solely to the amounts of burnt lime and dolomite lime produced in German lime works. Other lime-producing processes are included in NFR 2.C.1 and 2.H.2.

Because of the wide range of applications covered by the sector's products, lime production is normally more isolated from economic fluctuations than is production of other mineral products such as cement. Production has fluctuated relatively little since the end of the 1990s. Dolomite-lime production, of which significantly smaller amounts are produced, basically exhibits similar fluctuations.

# Methodology

The pertinent emissions level is obtained by multiplying the amount of product in question (quick lime or dolomite lime) and the relevant emission factor.

#### Activity data

The German Lime Association (BVK) collects the production data for the entire time series on a plant-specific basis, and makes it available for reporting purposes. Production amounts are determined via several different concurrent procedures; their quality is thus adequately assured (Tier 2). Most companies are also required to report lime-production data within the framework of  $CO_2$ -emissions trading. The EU monitoring guidelines for emissions trading specify a maximum accuracy of 2.5%. It is additionally assumed that 2% of the burnt lime is separated as dust in all years of the reporting period from 1990

onwards via appropriate exhaust gas purification systems and is not returned to the production process. This is taken into account by a potential 2% increase in activity rates.

#### **Emission factors**

Table 1: Emission factors for quick-lime production

pollutant	Name of Category	EF	unit	Trend
NOx	quicklime	0.59	kg/t	falling
<b>SO</b> <sub>2</sub>	quicklime	0.12	kg/t	falling
NMVOC	quicklime	0.041	kg/t	constant
TSP	quicklime	0.050	kg/t	falling
<b>PM</b> 10	quicklime	0.038	kg/t	falling
PM2.5	quicklime	0.023	kg/t	falling
Hg	quicklime	2.62	mg/t	falling

Table 2: Emission factors for dolomite production

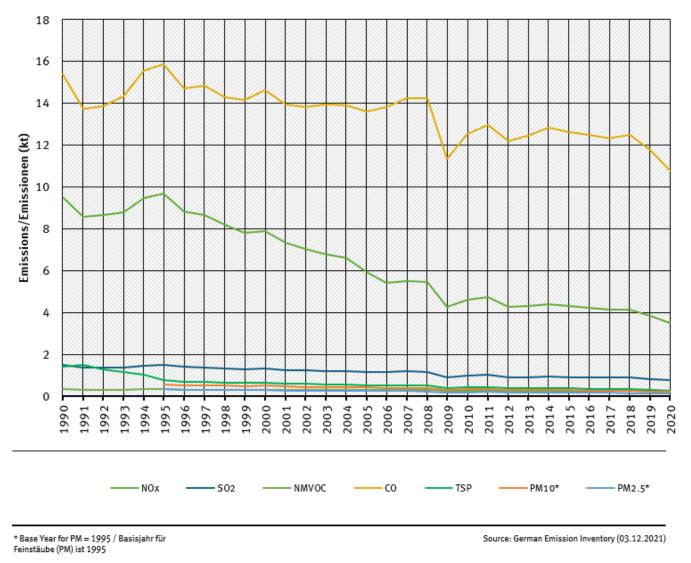
pollutant	Name of Category	EF	unit	Trend
NOx	dolomite	1.73	kg/t	falling
<b>SO</b> <sub>2</sub>	dolomite	0.58	kg/t	falling
NMVOC	dolomite	0.041	kg/t	constant
TSP	dolomite	0.034	kg/t	falling
PM10	dolomite	0.026	kg/t	falling
PM2.5	dolomite	0.015	kg/t	falling
Hg	quicklime	2.63	mg/t	falling

### **Trends in emissions**

All trends in emissions correspond to trends of emission factors in table above. No rising trends are identified.

#### trends of emissions of lime industry

Emissions by pollutant / Emissionen nach Schadstoff



**Emission trends in NFR 2.A.2** 

# Recalculations

With **activity data** and **emission factors** remaining unrevised, no recalculations have been carried out compared to last year's submission.



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**

At the moment, no category-specific improvements are planned.