





PRODUCT ID

Formula	CO ₂	CAS nr.	124-38-9
Molecular weight (g/mol)	44.01	EC nr.	204-696-9

VISUAL CLASSIFICATIONS

Market	Energy demand	Maturity	Price
			

KEY MARKET DATA

Market size (ton/year)	5 millions	Estimative for the Netherlands in 2020
Product price (€/ton)	50-80	
Production cost (€/ton)	30	Purification + compression
CO ₂ uptake potential (ton/ton product)	1	
CO ₂ uptake potential (ton/year)	5 millions	5,9 reference CEMCAP plants 0.5% capture target (1.05Gt/year)
State-of-the-art production technology	Combustion of natural gas to produce CO ₂ (and heat)	

CCU ROUTE

TRL = 9	CO ₂ capture + purification + compression
Temperature	30°C
Pressure	30 bar

STANDARDS FOR THE OCAP CARBON DIOXIDE PIPELINE (THE NETHERLANDS)

Component	Concentration	Limit in the greenhouse atmosphere
CO ₂	99 vol% min.	5000 ppmv (human health)
Moisture	40 ppmw max.	-
Total HCs	1200 ppmv max.	-
Aromatics	0,1 ppmv max	1 ppmv (human health)
Carbon Monoxide	1,1 ppmv max	25 ppmv (human health)
NO and NO ₂	2,5 ppmv max. each	0.04 ppmv (crop growth)
Volatile organic compounds	1,2 ppmv max.	40 ppmv (human health)
Total S	5 ppmv	1,6 ppmv (human health)
Ethene	1 ppmv	0,01 (crop growth)
HCN	20 ppmv max	0,9 ppmv

For sources and definitions, please consult the original report at the [CEMCAP WEBSITE](#)

