



Sossego Concentrates

Sossego Concentrates are a clean product, with high liquidity due to its typical spec characteristics, including Cu/S/Fe ratio.

- Clean concentrate, with low amounts of deleterious elements.
- Typical Cu percentage 29% (26–34% range).
- Usual level of 6g/t of Au and 18g/t of Ag.
- Sulphur at 34% also acts as a reduction of cost for heating in the smelter furnace.
- Produced in compliance with ISO 9001 and ISO 14001.

Typical Analysis

| | Typical | Range | | Typical | Range |
|------------------------------------|---------|----------|-----------|---------|------------|
| Cu | 29% | 26–34% | As | 10 ppm | <100 ppm |
| Au | 6 g/t | 3–10 g/t | Mo | 100 ppm | <300 ppm |
| Ag | 18 g/t | 5–30 g/t | Sb | 50 ppm | <200 ppm |
| Fe | 29% | 26–33% | Se | 50 ppm | <150 ppm |
| S | 34% | 29–37% | Bi | <50 ppm | <50 ppm |
| SiO₂ | 4% | <7.0% | Te | 1 ppm | <10 ppm |
| MgO | 1% | <2.0% | F | 255 ppm | <300 ppm |
| CaO | 1.5% | <4.0% | Cl | 600 ppm | <1,000 ppm |
| Al₂O₃ | 0.5% | <1.5% | Hg | <1 ppm | <3 ppm |
| Ni | 0.25% | <0.40% | Pb | 60 ppm | <500 ppm |
| Co | 0.07% | <0.10% | Zn | 100 ppm | <300 ppm |
| | | | Cd | 10 ppm | <150 ppm |

Vale’s Sossego Concentrates are produced in the mineral-rich region of Pará, Brazil.

For more information visit vale.com or contact your regional sales representative.



Carbon intensity is 2.99 tCo_{2e} / t Cu equivalent. This calculation includes downstream emissions¹ along with both scopes 1 and 2.

1st quartile position in the carbon intensity curve of the industry.

Low Scope 2 emissions due to hydroelectric power and relatively high grade copper.

Photo: Sossego rock.

Disclaimer: The product descriptions and specifications contained in this document are made in accordance with our analyses and the methods used to produce Vale’s copper products. While these descriptions and specifications are reflective of normal production lots, rather than each individual cargo, such descriptions and specifications shall in no event be deemed or interpreted as any representation, warranty or commitment by Vale in connection with Vale’s copper products quality. Vale’s copper products quality shall be determined only in accordance with the corresponding contract terms for each transaction agreed between Vale and Vale’s customer and the quality related certificate issued under such contract.

¹ Downstream emissions are emitted after a product or service leaves the company’s control/ownership.

HS Code

- 26030090 – Copper ore and concentrates

Form

- Industry-standard copper concentrates
- Moisture/humidity level: 8.5%

Logistics

Truck transport from Sossego operational area to Parauapebas Terminal; Railway to Itaqui Port in Maranhão, Brazil.

- Voyage to Europe: ~4 weeks
- Voyage to China: ~7 weeks