



Salobo Concentrates

Salobo Concentrates are a complex product, with high levels of Copper and Gold.

- Complex concentrate due to F level.
- Blending potential when used alongside other complex and clean products in the furnace charge.
- Low levels of As.
- Produced in compliance with the ISO 9001 and ISO 14001 quality standard.

Typical Analysis

	Lower Limit	Typical	Higher Limit		Typical	Higher Limit		Typical	Higher Limit
Cu	35%	37.5%	42%	Au	19.3 g/t	25 g/t	V	21 ppm	28 ppm
Fe	13.7%	15.0%	20.0%	Ag	83 g/t	110 g/t	Cr	38 ppm	50 ppm
C	2.0%	4.5%	8.5%	F	2,200 ppm	4,000 ppm	U	60 ppm	82 ppm
S	13.5%	20.0%	25.0%	Cl	1,200 ppm	1,500 ppm	Th	8 ppm	20 ppm
Al₂O₃	1.5%	2.5%	3.5%	Hg	0.013 ppm	0.10 ppm	Se	50 ppm	80 ppm
CaO	0.5%	0.8%	1.0%	As	150 ppm	400 ppm	Sb	0.5 ppm	0.7 ppm
MgO	0.5%	0.7%	1.0%	Mo	0.18%	0.25%	Zn	30 ppm	50 ppm
SiO₂	9.0%	14.0%	18.0%	Bi	140 ppm	200 ppm	Ba	50 ppm	90 ppm
Na₂O	0.05%	0.07%	0.12%	Ni	90 ppm	200 ppm	Pb	78 ppm	124 ppm
K₂O	0.4%	0.5%	0.7%	Co	150 ppm	300 ppm	Mn	0.3%	0.5%
				Cd	1 ppm	3 ppm	Sn	8 ppm	12 ppm
				Ti	0.1%	0.15%	P	0.04%	0.07%

Vale's Salobo 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 2.3 t CO₂e/t Cu, including scopes 1, 2, and 3 (upstream) emissions as of the most recent assessment year (2023)¹. Carbon intensity is reassessed on a regular basis.

Salobo benefits from hydroelectric power and by-product gold and silver.

Photo: Salobo 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.

¹Independent third-party limited assurance to the general principles of ISO 14064-3 has been provided by Intertek Health Sciences Inc. Emissions allocated by economic value.

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HS Code

- 26030090 – Copper ore and concentrates

Form

- Hi-Cu complex concentrate
- Moisture/humidity level: 9.5%

Logistics

Transported by road from the mine to Vale's existing rail terminal in Parauapebas (Pará), and by train on the Carajás railroad to the Itaqui Port (Maranhão).

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