

This is a translation of the certificate BR23/00000178

The management system of

# LIGAS DE ALUMINIO SA LIASA

AV. DR. JOSE PATRUS DE SOUSA, nº 1000, DISTRITO INDUSTRIAL, 39.270-000, PIRAPORA – MG, Brasil.

has been assessed and certified as meeting the requirements of

## ISO 14064-1:2018 and GHG Protocol

For the following activities

Silicon metal production.

Containing total emissions of 17,894.023 metric tons of CO<sub>2</sub> equivalent (S1 + S2 Market-Based)

lead auditor: Ludmila Luna Silva

This certificate is valid from 19 July 2023 until 18 July 2024 and remains valid subject to satisfactory surveillance audits.

Issue 1. Certified since 19 July 2023



Authorised by  
Thiago Doretto

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SGS Was Hired by LIGAS DE ALUMINIO SA LIASA, here called "Customer", Av. Dr. José Patrus de Sousa, 1000. Distrito Industrial - Pirapora/MG CEP: 39274-012, for the verification of the Emissions of CO<sub>2</sub>e Direct and Indirect of Gases of Effect Greenhouse of agreement with:

### **ISO 14064-3: 2019 & Report GHG Protocol**

According to the willing in the Declaration of Gases of Effect Greenhouse in form of inventory documented What Coversthe Emissions of GHG of the 01/01/2022 to 12/31/2022.

### **Functions and Responsibilities**

The client is responsible for the organization's GHG information system, development and maintenance of records and reporting procedures under that system, including the calculation and determination of Emissions of GHG and The report of the Emissions of GHG.

Is responsibility of SGS express one opinion verifiable independent of the Emissions of GHG according to the willing in the Declaration of GHG.

SGS Made one Verification of Third party of the declaration of GHG Provided against the Principles of .ISO 14064-1:2018 and ISO 14064-3:2019 and the GHG Protocol Report in the period of 2022. The verification was based on the scope of the verification Objectives and criteria Agreed between the Customer and SGS at the period of the 06/22/2023 to 06/23/2023.

### **Level reliable**

Verification with level of confidence reasonable

### **Scope**

The client has requested an independent verification by SGS do Brasil LTDA of the GHG emissions report to establish compliance with ISO 14064 principles within the verification scope as indicated below. The data and information supporting the GHG declaration was calculated based on monitored and historical data.

This commitment includes verification of anthropogenic source emissions of greenhouse gases included in organizational boundaries and is based on ISO 14064-3:2019.

- The organizational boundary has been set following the operational control approach.
- Title or description of activities: Production of Silicon Metal.
- Location/boundary of activities: With headquarters and production process located in the city of Pirapora/MG Av. Dr. Jose Patrus de Sousa, 1000 Distrito Industrial CEP: 39274-012 LIASA also has 01 administrative unit at Rua Matias Cardoso, 169. 8th floor. Santo Agostinho, Belo Horizonte/MG CEP: 30170-050.
- Physical infrastructure, activities, technologies, and processes of the organization: Steel Industry, Administrative Sector, Facilities, Maintenance, Rural properties, Reforestation, and Conservation Areas.
- GHG sources, sinks or reservoir included: Stationary combustion; Mobile combustion; Fugitive emissions; Electricity (purchasing choice approach); Agriculture activity, Land use change (reforestation and conservation areas).
- Type of GHGs considered: CO<sub>2</sub>, CH<sub>4</sub>, N<sub>2</sub>O and HFCs (HFC-134a, HFC-125, HFC-32).
- Targeted Actions: N/A.
- The GHG information for the following period has been verified: Base Year 2022.
- Intended users of the verification statement: LIGAS DE ALUMINIO SA LIASA

## Objective

The objective of Verification is the revision of the Evidence Objective and A review independent for determine:

- Yes the Emissions of GHG are Compliant to the declaration of the organization.
- Yes the data Reported are Correct Complete Consistent Transparent and free of Errors or omissions.

## Criteria

The verification herself Made low the Principles of the .ISO 14064-3:2019 and the GHG Report Protocol.

## Materiality

The materiality required for verification was considered by SGS as 5%, according to the need for the declaration of Gases of Effect Greenhouse.

## Uncertainty

Since more than 95% of the organization's scope 1, scope 2 emissions come from of sources whose calculation parameters have low or very low levels of uncertainty, qualitatively, Considered What The level of uncertainty of this inventory is low.

## Conclusion

The client provided the GHG declaration based on the requirements of ISO 14064-1:2018 and the GHG Report Protocol. GHG information for the period 2022, which contains the emissions presented in the tables to continuation has been Verified by SGS with one level of confidence reasonable of agreement with the scope of verification the Objectives and the criteria Agreed.

## Emissions Absolute Total LIGAS DE ALUMINIO SA LIASA:

Metric tons of CO2 equivalent [tCO2e]			
Category	Scope 1	Scope 2	Total
Stationary Combustion	14,766.969		14,766.969
Mobile Combustion	355.798		355.798
Fugitive emissions	194.495718		194.495718
Agricultural activity	1,435.343		1,435.343
Electricity (purchase choice approach)		1,141.417	1,141.417
			17,894.023

Biogenic CO2 emissions (t)		
Category	Scope 1	Total
Stationary Combustion	28,6705.219	28,6705.219
Mobile Combustion	54.012	54.012
		28,6759.230

Biogenic CO2 removals (t)		
Category	Scope 1	Total
Change in land use	329,537.293	329,537.293
		329,537.293

SGS's approach is based on understanding the risks associated with reporting GHG emissions information and controls to mitigate them. Our review included the evaluation of relevant evidence-based evidence Related with the Amounts and the information envelope the Emissions of GHG Informed by the organization.

We our work of verification for get the information the Explanations and the Tests What we consider necessary to obtain a reasonable level of confidence that GHG emissions for the period 2022 herself Established reasonably.

We perform our verification in accordance with the GHG declaration of LIGAS DE ALUMINIO SA LIASA, including verification of the system of information monitoring and account of GHG. This verification Included What the Provisions of the protocol of reference herself Applied of way consistent and adequate.

In opinion of SGS, the declaration of GHG Presented

- Is materially correct and is one representation joust of the data and the information of GHG, and
- It was prepared in accordance with ISO14064-1:2018 on GHG quantification, monitoring and reporting and GHG Protocol

- .This declaration Must Interpreted together with the declaration of GHG of LIGAS DE ALUMINIO SA LIASA.

**Note:** This statement is issued on behalf of the client by SGS do Brasil Ltda ("SGS") in accordance with its General Conditions for Verification of Gases of Effect Greenhouse Available in [http://www.sgs.com/terms\\_and\\_conditions.htm](http://www.sgs.com/terms_and_conditions.htm). The results Reported herself Based in the audit Performed by SGS. One copy complete of this declaration the results and the declaration of GHG of backrest herself Can consult with **LIGAS DE ALUMINIO SA LIASA**. This declaration No Exempts to the customer of the compliance of the charter and Regulations Federal National or Regional or of any directive Issued of conformity with These Regulations. The definitions in contrary No are Binding for SGS and SGS No Have no responsibility forehead to his Customer.