

# Greenhouse Gas Verification Statement

The inventory of Greenhouse Gas emissions in year 2022 of

## San Fu Chemical Co., Ltd.

No. 340, Xiaoxinying, Xiaoxin Vil. Shanhua Dist.,  
Tainan City, Taiwan

has been verified in accordance with ISO 14064-3:2006 as  
meeting the requirements of

## ISO 14064-1:2018

Direct emissions

**5,003. 2552** tonnes of CO<sub>2</sub>e

Indirect emissions

**24,871. 9284** tonnes of CO<sub>2</sub>e

Direct emissions and indirect emissions

**29,875. 184** tonnes of CO<sub>2</sub>e



Authorized by

Stephen Pao

Knowledge Deputy General Manager

Date: 20 March 2023

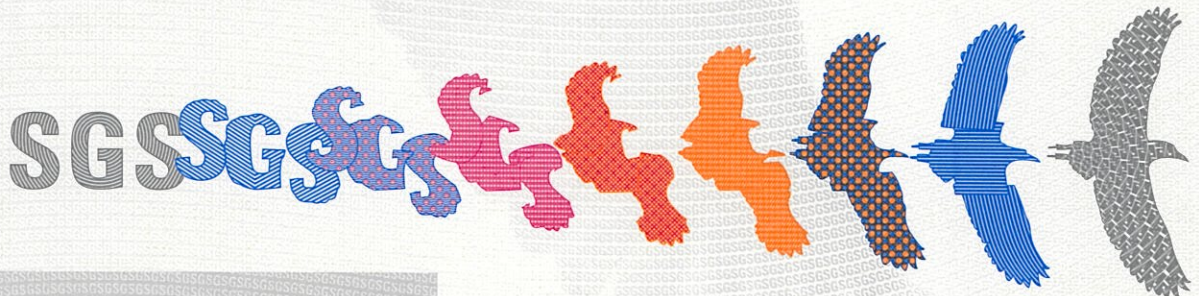
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SGS Taiwan Ltd.

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The emission of each category is described as below:

Unit: tonnes of CO<sub>2</sub>e

Reporting Boundaries		GHG Emissions
Inventory categories	Description	
Direct emissions		5,003.2552
Indirect emissions	Imported energy	20,344.3292
	Transportation	—
	Products used by an organization	4527.5992
	Associated with the use of products from the organization	—
	Other sources	—
Direct emissions and indirect emissions		29,875.184

The emission of each site is described as below:

Unit: tonnes of CO<sub>2</sub>e

Site	Direct emissions	Indirect emissions	Total GHG emissions
ShanHua Plant	4,811.3139	20,462.8723	25,274.186
Liuying Plant	185.5717	2,330.0880	2,515.660
Kaohsiung Plant	6.3696	2,078.9681	2,085.338

SGS has been contracted by San Fu Chemical Co., Ltd. (hereinafter referred to as “San Fu Chemical”), No. 340, Xiaoxinying, Xiaoxin Vil. Shanhua Dist., Tainan City, Taiwan for the verification of direct and indirect Greenhouse Gas emissions in accordance with

**ISO 14064-3:2006**

as provided by San Fu Chemical Co., Ltd. (hereinafter referred to as “San Fu Chemical”), No. 340, Xiaoxinying, Xiaoxin Vil. Shanhua Dist., Tainan City, Taiwan, in the GHG Assertion in the form of GHG report covering GHG emissions of the period 01 January 2022 to 31 December 2022.

**Roles and responsibilities**

The management of San Fu Chemical is responsible for the organization’s GHG information system, the development and maintenance of records and reporting procedures in accordance with that system, including the calculation and determination of GHG emissions information and the reported GHG emissions.

It is SGS’s responsibility to express an independent GHG verification opinion on the GHG emissions as provided in the GHG Assertion for the period 01 January 2022 to 31 December 2022.

SGS conducted a third-party verification of the provided GHG assertion against the principles of ISO 14064-1:2018, ISO 14064-3:2006 in the period 03 February 2023 to 23 February 2023. The verification was based on the verification scope, objectives and criteria as agreed between San Fu Chemical and SGS on 01 November 2022.

**Level of Assurance**

The level of assurance for category 1 and category 2 agreed is that of reasonable assurance. Category 3 till category 6 agreed is that of limited assurance.

**Scope**

San Fu Chemical has commissioned an independent verification by SGS Taiwan of reported GHG emissions of San Fu Chemical arising from Basic chemical materials manufacturing activities, to establish conformance with ISO 14064:2018 principles within the scope of the verification as outlined below.

This engagement covers verification of emission from anthropogenic sources of greenhouse gases included within the organization’s boundary and is based on ISO 14064-3:2006.

- Title or description activities: GHG verification for San Fu Chemical in year 2022
- Location/boundary of the activities:
  - ShanHua Plant : No. 340, Xiaoxinying, Xiaoxin Vil. Shanhua Dist., Tainan City, Taiwan
  - Liuying Plant : No.1,Sec, 1,Huanyuan E.Rd., Liuying Dist., Tainan City, Taiwan
  - Kaohsiung Plant : 45, Chung-Heng St, Hsiao Kang Dist, Kaohsiung City, Taiwan
- Physical infrastructure, activities, technologies and processes of the organization: Basic chemical materials manufacturing.
- GHG sources, sinks and/or reservoirs included: Sources as presented in the inventory spreadsheet provided by San Fu Chemical
- Types of GHGs included: CO<sub>2</sub>, CH<sub>4</sub>, N<sub>2</sub>O, HFCs, PFCs, SF<sub>6</sub>, NF<sub>3</sub>
- The IPCC 2021 AR6 GWP values are applied in this inventory.
- Emission factor:
  - Direct emissions: Greenhouse Gas Emission Factor Table (6.0.4), EPA.
  - Indirect emissions:
    - Electricity emission factor is 0.509 kgCO<sub>2</sub>e/kwh (Announced by Bureau of Energy, Ministry of Economic Affairs in 2022).
- The secondary database has Carbon Footprint Information Platform
- Directed actions: NA
- GHG information for the following period was verified: 01 January 2022 to 31 December 2022
- The version of inventory sheet:

ShanHua Plant	20230216
Liuying Plant	20230222
Kaohsiung Plant	20230223

- The version of GHG assertion:

ShanHua Plant	20230216
Liuying Plant	20230222
Kaohsiung Plant	20230223

- Intended user of the verification statement: Private

## Objective

The purposes of this verification exercise are, by review of objective evidence, to independently review:

- Whether the GHG emissions are as declared by the organization's GHG assertion
- The data reported are accurate, complete, consistent, transparent and free of material error or omission.

**Criteria**

Criteria against which the verification assessment is undertaken are the principles of ISO 14064-1:2018.

**Materiality**

The materiality required of the verification was considered by SGS to 5%, based on the needs of the intended user of the GHG Assertion.

**Conclusion**

San Fu Chemical provided the GHG assertion based on the requirements of ISO 14064-1: 2018. The GHG information for the period 01 January 2022 to 31 December 2022 disclosing emissions of 29,875.184 metric tonnes of CO<sub>2</sub> equivalent and 0.0000 metric tonnes of direct CO<sub>2</sub> emissions from the combustion of biomass are verified by SGS to a reasonable level of assurance, consistent with the agreed verification scope, objectives and criteria.

The emission of each category is described as below:

Unit: tonnes of CO<sub>2</sub>e

Reporting Boundaries			GHG Emissions
Inventory categories	Description		
Direct emissions	This direct GHG emissions are the sum of owned or controlled by the organization within the organization.		5,003.2552
Indirect emissions	Imported energy	Input power Input steam	20,344.3292
	Transportation	Undisclosed	—
	Products used by an organization	Energy upstream Resource upstream Waste disposal	4527.5992
	Associated with the use of products from the organization	Undisclosed	—
	Other sources	Undisclosed	—
Direct emissions and indirect emissions			29,875.184

The emission of each site is described as below:

Unit: tonnes of CO<sub>2</sub>e

Site	Direct emissions	Indirect emissions	Total GHG emissions
ShanHua Plant	4,811.3139	20,462.8723	25,274.186
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SGS's approach is risk-based, drawing on an understanding of the risks associated with reporting GHG emissions information and the controls in place to mitigate these. Our examination includes assessment, on a test basis, of evidence relevant to the amounts and disclosures in relation to the organization's reported GHG emissions.

We planned and performed our work to obtain the information, explanations, and evidence that we considered necessary to provide a reasonable level of assurance that the GHG emissions of category 1 and category 2, and limited level of assurance of category 3 till category 6 for the period 01 January 2022 to 31 December 2022 are fairly stated.

We conducted our verification with regard to the GHG assertion of San Fu Chemical which included assessment of GHG information system, monitoring and reporting plan/protocol. This assessment included the collection of evidence supporting the reported data, and checking whether the provisions of the protocol reference, were consistently and appropriately applied.

In SGS's opinion the presented GHG assertion

- is materially correct and is a fair representation of the GHG data and information, and
- is prepared in accordance with ISO14064-1:2018 on GHG quantification, monitoring and reporting.

**Confidentiality**

The reports and attachments may contain relevantly confidential information of the clients. In addition to being submitted as governmental application or certification documents, the reports and attachments are not allowed to be edited, duplicated, or published without the clients' agreement in written form.

**Avoidance of Conflict of Interest**

The reports and attachments are completely complied with the standards and procedures that related authorities established. The reports and attachments of auditing process are conduct with fairness and honesty. If not, the auditing institution not only has to bear the relevant compensation duties, but also to receive legal charge and punishment.

This statement shall be interpreted with the GHG assertion of San Fu Chemical as a whole.

**Verifier Group**

Above statements coincide with auditing process with fairness and impartiality and aim at the emission of year 2022 of clients.

Lead Verifier: *Carol Chen*

Verifier: *Royal Lo*                      *Ocean Wu*

*John Chiang*

Note: This Statement is issued, on behalf of Client, by SGS Taiwan Ltd. ("SGS") under its General Conditions for Greenhouse Gas Verification Services available at [http://www.sgs.com/terms\\_and\\_conditions.htm](http://www.sgs.com/terms_and_conditions.htm). The findings recorded hereon are based upon an audit performed by SGS. A full copy of this statement, the findings and the supporting GHG Assertion may be consulted at San Fu Chemical Co., Ltd., No. 340, Xiaoxinying, Xiaoxin VII, Shanhu Dist., Tainan City, Taiwan, This Statement does not relieve Client from compliance with any bylaws, federal, national or regional acts and regulations or with any guidelines issued pursuant to such regulations. Stipulations to the contrary are not binding on SGS and SGS shall have no responsibility vis-à-vis parties other than its Client.