

Greenhouse Gas Verification Opinion

The inventory of Greenhouse Gas emissions in year 2023 of

NAN PAO RESINS CHEMICAL CO. LTD.

No. 519, Zhongshan Rd, Xigang Dist.,
Tainan City 723, Taiwan



has been verified in accordance with ISO 14064-3:2019 as
meeting the requirements of

ISO 14064-1:2018

Direct emissions

7,053.6940 tonnes of CO₂e

Indirect emissions

175,196.0549 tonnes of CO₂e

Direct emissions and indirect emissions

182,249.749 tonnes of CO₂e

Authorized by

Stephen Pao

Business Assurance Director

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Version 1

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SGS Taiwan Ltd.

No. 136-1, Wu Kung Road, New Taipei Industrial Park, Wu Ku District,
New Taipei City 24803, Taiwan

t (02) 22993279 f (02)22999453 www.sgs.com



The emission of each category is described as below:

Unit: tonnes of CO₂e

Reporting Boundaries			GHG Emissions
Inventory categories		Description	
Direct emissions		Direct emissions from stationary combustion	6,340.4798
		Direct emissions from mobile combustion	204.6974
		Direct process emissions and removals from industrial processes	-
		Direct fugitive emissions arise from the release of GHGs in anthropogenic systems	508.5168
		Direct emissions and removals from land use, land use change and forestry	-
Indirect emissions	Imported energy	Imported electricity	10,054.9440
	Transportation	<ul style="list-style-type: none"> Emissions from upstream transport and distribution for goods(Direct materials account for 80% of the purchase amount, Packaging materials items whose purchase amount accounts for more than 65%, Wooden pallets (commonly purchased specifications 100*120 (122) and 114*114)) Employee commuting emissions 	1,565.4163
	Products used by an organization	<ul style="list-style-type: none"> Energy-Related Activities (Not Included in category 2)(imported electricity, steam, gasoline, diesel fuel, natural gas) Goods purchased(Direct materials account for 80% of the purchase amount, Packaging materials items whose purchase amount accounts for more than 65%, Wooden pallets (commonly purchased specifications 100*120 (122) and 114*114)) Emissions from the disposal of solid and liquid waste(include transported) 	163,575.6946
	Associated with the use of products from the organization	-	-
	Other sources	-	-
Direct emissions and indirect emissions			182,249.749

SGS has been contracted by NAN PAO RESINS CHEMICAL CO. LTD. (hereinafter referred to as "NAN PAO Group"), No. 519, Zhongshan Rd, Xigang Dist., Tainan City 723, Taiwan for the verification of direct and indirect Greenhouse Gas emissions in accordance with

ISO 14064-3:2019

as provided by NAN PAO RESINS (hereinafter referred to as "NAN PAO RESINS"), No. 519, Zhongshan Rd, Xigang Dist., Tainan City 723, Taiwan, in the GHG Statement in the form of GHG report.

Roles and responsibilities

- The management of NAN PAO RESINS 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.
- The verification was based on the verification scope, objectives and criteria as agreed between NAN PAO RESINS and SGS on 03 May 2024.
- Verification Criteria: ISO 14064-1:2018
- Verification Period: 07 June 2024 to 11 July 2024.

Scope

- GHG information for the following period was verified: 01 January 2023 to 31 December 2023
- Location/boundary of the activities:
 - No. 519, Zhongshan Rd, Xigang Dist., Tainan City 723, Taiwan
 - No. 521, Zhongshan Rd, Xigang Dist., Tainan City 723, Taiwan
 - No. 506, Zhongshan Rd, Xigang Dist., Tainan City 723, Taiwan
 - No. 508,510, Zhongshan Rd, Xigang Dist., Tainan City 723, Taiwan
 - No. 48, Sec. 1, Zhongshan Rd., Guiren Dist., Tainan City 711, Taiwan
- Types of GHGs included: CO₂, CH₄, N₂O, HFCs, PFCs, SF₆, NF₃, HCFCs
- The IPCC 2021 AR6 GWP values are applied in this inventory.
- Emission factor:
 - Direct emissions: Greenhouse Gas Emission Factor, MOENV(2024.02.05)
 - Indirect emissions:
 - Electricity emission factor is 0.494 kgCO₂e/kwh (Announced by Energy Administration, Ministry of Economic Affairs in 2024).
 - The secondary database has Carbon Footprint Information Platform, Ecoinvent V3.

- 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.
- Materiality : 5%
- The version of inventory sheet: 20240711 (V3)
- The version of GHG statement: 20240711 (V3)
- Intended user of the verification opinion: 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 statement
- The data reported are accurate, complete, consistent, transparent and free of material error or omission.

Conclusion

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 the GHG emissions are free from material misstatement.

- The greenhouse gas emissions is 182,249.749 metric tonnes of CO₂ equivalent
- The emissions from the combustion of biomass is 0.0000 metric tonnes of CO₂ equivalent

The emission of each category is described as below:

Unit: tonnes of CO₂e

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	Transportation	<ul style="list-style-type: none"> Emissions from upstream transport and distribution for goods(Direct materials account for 80% of the purchase amount, Packaging materials items whose purchase amount accounts for more than 65%, Wooden pallets (commonly purchased specifications 100*120 (122) and 114*114)) Employee commuting emissions 	1,565.4163
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	Associated with the use of products from the organization	-	-
	Other sources	-	-
Direct emissions and indirect emissions			182,249.749

- The opinion of SGS is modified in accordance with the following described circumstances.
 - The verifier has sufficient and appropriate evidence to support the material emissions, removals, or storage.
 - The verifier applies appropriate criteria for the material emissions, removals, or storage.
 - When the verifier intends to rely on relevant controls, the effectiveness of those controls has been assessed.
 - The verifier, applying the ISO 14064-1:2018 standard, presents the following findings. After adjustments and corrections, no material errors were identified.

- The method for quantifying the emission source requires further elucidation. Upon thorough examination and clarification, it is confirmed that there are no significant discrepancies.(e.g. Category 1 generator diesel, Category 4 goods purchased)
- An error has been detected in the activity data. Following a comprehensive verification and subsequent correction, it is assured that there are no considerable errors.(e.g. Category 1 stacker diesel, Category 3 upstream transport and distribution for goods)
- Retention Limitation: NA

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 opinion shall be interpreted with the GHG statement of NAN PAO RESINS as a whole.

Verifier Group

Above opinions coincide with auditing process with fairness and impartiality and aim at the emission of year 2023 of clients.

Lead Verifier:

Ocean Wu

Verifier:

Kyle Tang

Jim Tsai

Sophia Chui

Ed Ku

Note: This opinion 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. The findings recorded hereon are based upon an audit performed by SGS. A full copy of this opinion, the findings and the supporting GHG Assertion may be consulted at NAN PAO RESINS CHEMICAL CO. LTD., No. 519, Zhongshan Rd, Xigang Dist., Tainan City 723, Taiwan, This opinion 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.