

OPINION

Greenhouse Gases Verification Opinion ISO 14064-1 : 2018

Gives to

CHUNGHWA CHEMICAL SYNTHESIS & BIOTECH CO., LTD

Office Address

**1, TUNG-HSING ST., SHU-LIN DIST.,
NEW TAIPEI CITY 23850, TAIWAN**

The quantity of Greenhouse Gas of the above organization and found to be in accordance with ISO 14064-3:2019. (detailed information please refer to next page)

Report Year	: 2023	
Greenhouse Gases		
Direct Emissions	: 5,471.7164	CO2-e Tonnes/ year
Energy Indirect Emissions(Category2)	: 11,438.8190	CO2-e Tonnes/ year
Other Indirect Emissions (Category3-6)	: 14,749.9280	CO2-e Tonnes/ year
Sum	: 31,660.463	CO2-e Tonnes/ year
Materiality	: 5%	
Reasonable Assurance	: Direct and Energy Indirect Emissions	
Limited Assurance	: Category3-6	

Opinion No.: GHG-243519058

Version:

Verify Date: 2024-05-07

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Verification Body
at TUV NORD Taiwan Co., Ltd.

TUV NORD Taiwan Co., Ltd.
Room A1, 9F, No.333, Sec. 2,
Tun Hua S. Rd.
Taipei 10669 Taiwan, R.O.C.

Further clarifications regarding the scope of this opinion and the applicability of the standard may be obtained by consulting the organization

TUV NORD Taiwan Co., Ltd. Room A1, 9F, No. 333, Sec. 2, Tun Hua S. Rd., Taipei, Taiwan www.tuv-nord.com/tw/en

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Appendix to Opinion No. GHG-243519058

ISO 14064-1 : 2018

TUV NORD Taiwan Co., Ltd (hereinafter referred to as "TUV NORD") has been contracted with CHUNGHWA CHEMICAL SYNTHESIS & BIOTECH CO., LTD (hereinafter referred to as "CHUNGHWA"), 1, Tung-Hsing St., Shu-Lin Dist., New Taipei City 23850, Taiwan. for the verification of direct and indirect greenhouse gas emissions in accordance with ISO 14064-3:2019. In the GHG Opinion in the form of GHG report covering GHG emissions of the period 01, Jan., 2023 to 31, Dec., 2023.

Roles and responsibilities

The management of CHUNGHWA 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.

TUV NORD conducted a third party verification to express an independent GHG verification opinion on the GHG emissions as provided in the GHG Opinion for the period year 2023.

Level of Assurance

The level of assurance agreed are that of reasonable assurance for category 1 and 2; Limited level assurance from category 3 to 6.

Scope

Verification of GHG emissions within the organization's boundary and is based on ISO 14064-3:2019.

Location/Boundary of the activities:

Company	Address
CHUNGHWA CHEMICAL SYNTHESIS & BIOTECH CO., LTD	1, Tung-Hsing St., Shu-Lin Dist., New Taipei City 23850, Taiwan
	3, Tung-Hsing St., Shu-Lin Dist., New Taipei City 23850, Taiwan

- Types of GHGs included: CO₂, CH₄, N₂O, HFCs, PFCs, SF₆, NF₃
- The IPCC 2021 AR6 GWP values are applied in the inventory.
- GHG information for the following period was verified on 25, Apr, 2024 to 07, May, 2024

The GHG emissions are described as below:

GHG emissions categorization		Description	GHG emission (tonnes of CO ₂ e per year)
Direct Emissions/ Category 1		Occur from GHG sources inside organizational boundaries and that are owned or controlled by the organization.	5,471.7164
Energy Indirect Emissions	Category 2	Indirect GHG emissions from imported energy	11,438.8190
	Category 3	Indirect GHG emissions from transportation	1,676.5785
Indirect Emissions	Category 4	Indirect GHG emissions from products used by an organization	13,073.3495
	Category 5	Indirect GHG emissions associated with the use of products from the organization	Undisclosed
	Category 6	Other sources	Undisclosed
Direct Emissions and Indirect Emissions			31,660.463

The GHG emissions categorization are based on Annex B of ISO14064-1:2018.

Intended User of Verification Opinion: Organizations use for their own reference.

Confidentiality

The reports and appendix are not allowed to be edited, duplicated, or published without the clients' agreement.

Avoidance of Conflict of Interest

The reports was verified with fairness and honestly.

Verifiers Group

According as the above opinion were judgement by TUV NORD.



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at TUV NORD Taiwan Co., Ltd.

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