

CERTIFICATE OF VERIFICATION

Intertek does hereby certify that an independent assessment has been conducted on behalf of:

Eti SODA Üretim Pazarlama Nakliyat ve Elektrik Üretim Sanayi ve Ticaret A.Ş. (Eti Soda)

and has been assessed and verified by Intertek to:
CarbonClear-CI-02.0

Main Address:

Eti SODA – part of the WE Soda Group

Yeşilağaç Mah, Gurağaç Kümeevler No 47/A, 06730 Beypazarı/Ankara,
Türkiye

Product Industry/Category:

Mining / Extractive

Product Details:

Sodium Carbonate (Soda Ash)

Sodium Bicarbonate

Acceptance Criteria:

Level of Assurance: Limited Assurance

Based on supplied EPD and LCA (from WE Soda)

Issuing Office Name & Address:

Intertek Health Sciences Inc.

2233 Argentia Road, Suite 201, Mississauga, ON, L5N 2X7 Canada

Certification Number:

Intertek_P2687_EtiSoda_R6514_v2.0

Initial Verification Date:

30th September 2024

Certificate Issued:

30th September 2024

Certificate Valid Until:

15th February 2029



A handwritten signature in black ink, appearing to read 'Wesley Chen'.

Wesley Chen

VP, Sustainability, Quality & Safety,
Assuris

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System Boundaries:

EPD values based on PCR 2021:03 Basic chemicals (1.1.1). Carbon Clear follows a cradle to gate approach, so delivery of the product and other downstream activities have been scoped out from the final figure. Instead, the boundary is set at the facility gate.

Data Used:

Primary or secondary data usage is explained within the EPD and LCA.

Carbon Intensity Results:

The verified carbon intensity for sodium carbonate (soda ash) and sodium bicarbonate produced at the Eti Soda facility for the FY 2022 assessment year are summarized in the table below.

Table 1: Eti Soda FY 2022, Carbon Intensity Results

Boundary Stage	Carbon Intensity (kg CO ₂ e / kg of product)		
	Upstream	Core	Total cradle-to-gate (Upstream + Core)
Sodium Carbonate (Soda Ash)			
1 kg of Sodium Carbonate (Soda Ash) – Bulk (no packaging)	0.020	0.270	0.290
Big bag - packaging only	1.20×10^{-3}	3.45×10^{-5}	1.23×10^{-3}
Small bag - packaging only	1.08×10^{-4}	5.31×10^{-6}	1.13×10^{-4}
Sodium Bicarbonate			
1 kg of Sodium Bicarbonate – Bulk (no packaging)	0.010	0.050	0.060
Big bag - packaging only	1.10×10^{-3}	3.18×10^{-5}	1.13×10^{-3}
Small bag - packaging only	4.92×10^{-3}	3.18×10^{-5}	4.95×10^{-3}

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