

carboncalcpcf.com

Product Carbon Footprint Dashboard

Product: vohxiqslnt (EcoGadget Pro)

Total Carbon Footprint

33.04 kg CO2e

Per 1.0 unit

Primary Hotspot

Use Phase

~95.35% of total impact

Top Material Impact

Main Casing

0.48 kg CO2e (Plastic)

Key Emission Scope

Scope 3 (Downstream)

31.33 kg CO2e

Lifecycle Stage Breakdown

Use Phase	94.81% (31.50 kg CO2e)
Manufacturing	3.65% (1.21 kg CO2e)
Raw Materials	1.44% (0.48 kg CO2e)
End-of-Life (Disposal)	0.07% (0.02 kg CO2e)
Logistics	0.04% (0.01 kg CO2e)

Note: The End-of-Life phase includes a significant recycling credit of -0.19 kg CO2e, resulting in a lower net impact to the total footprint.

GHG Protocol Scope Breakdown

Scope 3 (Downstream)	94.84% (31.33 kg CO2e)
Scope 2 (Purchased Electricity)	3.37% (1.11 kg CO2e)
Scope 3 (Upstream)	1.49% (0.49 kg CO2e)
Scope 1 (Direct Emissions)	0.30% (0.10 kg CO2e)

The dashboard includes 95%+ Scope 3 coverage, aligned with 2026 requirements.

Highlights & Key Findings

- The **Use Phase** is the dominant carbon hotspot, contributing ~95% of the total footprint, primarily due to energy consumption over the product's 7-year lifespan.
- Manufacturing operations utilize **60% renewable energy**, significantly mitigating Scope 2 emissions, though room for improvement remains.
- An impressive **85% recyclability** combined with circular economy programs results in a net carbon credit for the End-of-Life phase, demonstrating effective waste management.

Recommended Action Plan

1. **Enhance Energy Efficiency:** Prioritize design improvements to drastically reduce product energy consumption during the use phase.
2. **Boost Renewable Energy:** Increase renewable energy adoption beyond 60% in manufacturing to further lower Scope 2 emissions.
3. **Optimize Materials:** Explore strategies for material reduction and integrate more recycled content, especially for high-impact components like the main casing.
4. **Strengthen Circularity:** Expand take-back programs and invest in advanced recycling technologies to maximize material recovery.
5. **Improve Data Collection:** Collaborate with suppliers to collect more primary data for upstream Scope 3 emissions, enhancing reporting accuracy.

Accounting Standard: GHG Protocol | System Boundary: factory_gate

Production Country: China | Generated Date: Thursday, May 21, 2026

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