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Product Carbon Footprint Dashboard

Detailed PCF Analysis for **onilpkmvfu** by **nujopgllzm**

Generated: June 3, 2026

Key Metrics Overview

Total Product Footprint

29.33

kg CO2e / unit

Carbon Intensity

29.33

kg CO2e / unit (for 1.0 unit)

Top Material Hotspot

1.60

kg CO2e (Lithium-ion Battery)

Primary Emission Scope

Scope 3

28.43 kg CO2e (97% of total)

Lifecycle Stage Breakdown

Raw Materials	19.12% (5.61 kg CO2e)
Manufacturing (Electricity)	3.07% (0.90 kg CO2e)
Transport	35.11% (10.30 kg CO2e)
Use Phase	42.62% (12.50 kg CO2e)
End-of-Life	0.08% (0.02 kg CO2e)

Material Impact Hotspots (Top 5)

Lithium-ion Battery	1.60 kg CO2e
Circuit Board	1.50 kg CO2e
Aluminum Casing	1.25 kg CO2e
Plastic Housing	0.54 kg CO2e
Packaging (Cardboard)	0.16 kg CO2e

Key Highlights

Use Phase Dominance: The product's energy consumption during its 5-year lifespan is the largest emissions hotspot, accounting for 42.62% of the total PCF.

Logistics Burden: Transport from China to Europe, including last-mile delivery, contributes significantly (35.11%), indicating a substantial supply chain footprint.

Material Intensity: Raw material acquisition, particularly for components like the Lithium-ion Battery and Circuit Board, forms a critical upstream hotspot, making up 19.12% of emissions.

Recommended Action Plan

****Energy Efficiency & Renewables:**** Focus on reducing energy consumption during the product's use phase and further increasing renewable energy sourcing in manufacturing (currently 70% in China).

****Logistics Optimization:**** Explore options for localized production, more efficient shipping routes, and cleaner transport modes to mitigate significant transport emissions.

****Sustainable Material Sourcing & Design:**** Invest in sourcing lower-carbon alternative materials and redesign components like batteries and circuit boards for reduced impact and enhanced circularity.

Confidential - Internal Use Only | Accounting Standard: GHG Protocol | System Boundary: factory_gate

Product: onilpkmvfu | Production Country: China