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Product Carbon Footprint Dashboard

Product: Smart Home Hub (zhtiopkeij) | Company: EcoInnovate Corp. (skmthdrhrl)

18.93 kg CO2e per unit

18.93

Total Footprint (kg CO2e / unit)

Use Phase

Primary Emission Hotspot (71.3%)

GHG Protocol

Accounting Standard (2026 LSR)

Silicon Chipset

Top Material Impact (2.0 kg CO2e)

Lifecycle Stage Breakdown

Use of Sold Products	13.50 kg CO2e (71.3%)
Materials Acquisition & Pre-processing	4.35 kg CO2e (23.0%)
Purchased Electricity (Manufacturing)	1.50 kg CO2e (7.9%)
Transportation of Sold Products	0.48 kg CO2e (2.5%)
End-of-Life Treatment (Benefit)	-0.90 kg CO2e (-4.8%)

Key Insights & Hotspots

- The **Use Phase** is the overwhelming emission hotspot, contributing 71.3% of the total product carbon footprint due to energy consumption over its lifespan.
- **Materials Acquisition & Pre-processing** accounts for 23.0% of emissions, with the Silicon Chipset (2.0 kg CO2e) and Lithium-ion Battery (0.8 kg CO2e) being the most impactful components.
- The company's take-back program and high recyclability (70%) result in a significant **negative emission (-0.90 kg CO2e)** at End-of-Life, demonstrating the benefits of circularity.

Material Carbon Impact Breakdown (Upstream)

Silicon Chipset	2.0 kg CO2e (46.0%)
Printed Circuit Board (PCB)	0.8 kg CO2e (18.4%)
Lithium-ion Battery	0.8 kg CO2e (18.4%)
ABS Plastic Casing	0.5 kg CO2e (11.5%)
Copper Wiring	0.2 kg CO2e (4.6%)
Packaging (Recycled Cardboard)	0.05 kg CO2e (1.1%)

