

Sodium Vanadium Phosphate (NVP) Cathode Powder

Document ID: TDS-NVP-2 | Document type: Product Technical Datasheet

1. Product Identification

Field	Information
Product name	Sodium Vanadium Phosphate (NVP) Cathode Powder
SKU / product family	NVP-2
Product category	Sodium-ion cathode active material
Material / chemistry	Na3V2(PO4)3
Supplier reference	https://item.taobao.com/item.htm?id=871558654264
Document type	Product Technical Datasheet

2. Product Description

Sodium Vanadium Phosphate (NVP) Cathode Powder (NVP-2) is an active material intended for laboratory-scale sodium-ion battery research, materials evaluation, electrode formulation, and cell validation. Supplier-derived values are presented for product selection reference. Confirm the current batch specification, exact composition, and available documentation before purchase or use.

3. Technical Data

Technical values are supplier-derived reference values and may vary by batch.

Property	Unit	Supplier value	Method / condition
Particle size D10	um	0.404	Laser diffraction
Particle size D50	um	1.687	Laser diffraction
Particle size D90	um	10.351	Laser diffraction
BET specific surface area	m2/g	20.72	BET
Moisture	ppm	856	Karl Fischer
Tap density	g/cm3	0.57	9,000 taps
Carbon	%	1.93	Carbon/sulfur analyzer
pH	-	6.80	10% suspension
Sodium (Na)	%	17.56	ICP-OES
Vanadium (V)	%	20.21	ICP-OES
Phosphorus (P)	%	20.02	ICP-OES
First discharge capacity at 0.2C	mAh/g	111.6	2.5-4.3 V, CC/CV
First discharge efficiency at 0.2C	%	96.24	2.5-4.3 V, CC/CV

4. Available Configurations

SKU	Configuration / Pack Format
NVP-2	20 g, 50 g, 100 g, 500 g

5. Intended Applications

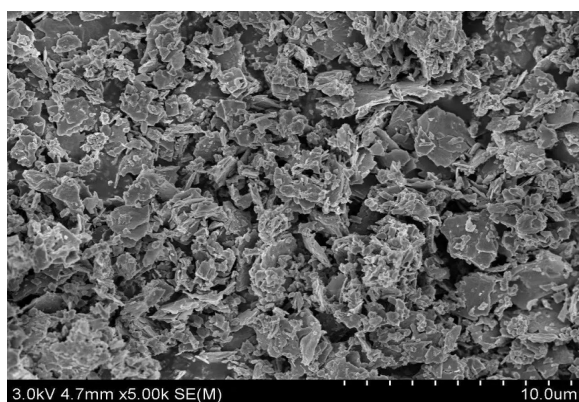
- Sodium-ion battery material evaluation
- Laboratory electrode formulation and coating studies
- Half-cell or full-cell performance screening
- University and R&D laboratory-scale testing

6. Supplier Reference Figures

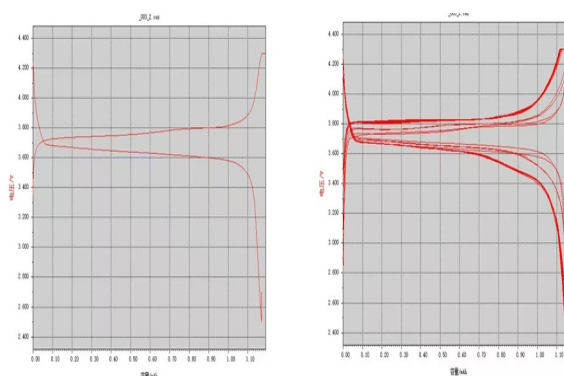
Original supplier axes, labels, magnification and scale information are retained. These figures are reference-only and are not current-batch COA results.

Cell	0.2C first efficiency (%)	0.2C charge capacity (mAh/g)	Discharge 0.2C (mAh/g)	Discharge 0.5C (mAh/g)	Discharge 1C (mAh/g)	Median voltage (V)	CC/CV ratio (%)
Average	97.49	116.2	113.2	112.6	111.3	3.6470	98.27
Cell 1	98.17	114.5	112.4	112.0	111.0	3.6324	98.29
Cell 2	96.56	117.8	113.7	113.0	112.1	3.6499	98.35
Cell 3	97.75	116.2	113.6	112.7	110.8	3.6587	98.17

Complete electrochemical performance table (English translation)



SEM micrograph - 5,000x, 10 um scale



Supplier electrochemical performance curves

7. Storage and Handling

Store in a clean, dry environment at room temperature unless otherwise specified by supplier documentation. Keep tightly sealed and away from moisture, contamination, direct sunlight, and incompatible chemicals.

8. Safety and Regulatory Information

This TDS is not a Safety Data Sheet. For SDS, hazard classification, exposure controls, transport, storage, handling, and disposal information, please contact FluxBatteryHub for available supplier documentation.

9. Notes and Disclaimer

Technical values are provided for product selection and research reference only. Typical, nominal, or reference values are not release specifications and are not current-batch COA results. Final specifications may vary by batch and should be confirmed with FluxBatteryHub before purchase, process validation, or regulated use.