



IRCHEM Co.

(Knowledge-based Company)

www.irchemineral.com

TECHNICAL DATA SHEET

Sodium Perborate Tetrahydrate ($\text{NaBO}_3 \cdot 4\text{H}_2\text{O}$)

Chemical & Physical Properties

PARAMETER	UNIT	SPECIFICATION	TEST METHOD
Appearance	–	White crystalline powder	Visual inspection
Active Oxygen (O_2)	wt%	10.0 ± 0.5	EN 50209 / Iodometric Titration
Boron (as B)	wt%	11.3 – 11.8	ICP-OES or AAS
pH (1% solution)	–	9.5 – 10.5	ASTM D1287
Moisture Content (H_2O)	wt%	14.0 – 16.0	105°C Oven / ASTM E203
Bulk Density	g/cm^3	0.50 – 0.65	ISO 697
Particle Size (D90)	μm	$\leq 500 \mu\text{m}$ (90%)	Sieving / ASTM E11
Stability at Room Temperature	–	Stable (min. 12 months)	Storage Simulation
Heavy Metals (Fe, Pb, etc.)	ppm	< 10	ICP-MS

Packaging & Storage

- ✓ Standard Packaging: 10 kg or 25 kg single-layer polypropylene bags
 - ✓ Storage Conditions: Store in a cool (Max 30°C), dry, and well-ventilated area, away from moisture and acids
 - ✓ Shelf Life: Minimum 12 months in original packaging
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Safety & Handling

- ✓ Avoid contact with eyes and skin
 - ✓ Rinse immediately with water if exposed
 - ✓ Do not mix with acidic substances (may release oxygen gas)
 - ✓ Refer to SDS for detailed safety instructions
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Compliance & Registration

- ✓ REACH Registered
 - ✓ Complies with EU Detergent Regulation EN 50209
 - ✓ Suitable for use in oxygen-based detergents, cleaning agents, and laundry formulations
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