

TECHNICAL DATA SHEET (TDS)

Product Name: Disodium Tetraborate Pentahydrate
Common Name: Borax Pentahydrate
Fertilizer Grade: 15% Boro (Boron)

1. Product Identification

- Chemical Formula: $\text{Na}_2\text{B}_4\text{O}_{10} \cdot 5\text{H}_2\text{O}$
- Molecular Weight: 291.3 g/mol
- HS Code: 2840.19.10
- CAS Number: 12179-04-3
- Appearance: White crystalline powder or granules

2. Typical Properties

Property	Value
Boron (B) content	14–15 %
Purity (B_2O_3 basis)	≥ 48 %
Sodium Oxide (Na_2O)	~21–22 %
Water of Crystallization	~30 %
Solubility in water (20 °C)	~3.7 g/100 mL
Bulk Density	1.7 – 1.8 g/cm ³
pH (1% solution)	9.2 – 9.3 (alkaline)

3. Agricultural Applications

- Micronutrient fertilizer (Boron source)
- Corrects Boron deficiency in soil and crops
- Enhances root development, pollination, and fruit setting
- Increases crop yield and quality
- Suitable for foliar spray, fertigation, and soil application

4. Recommended Dosage (general guideline)

- Field crops: 1–2 kg/acre
 - Fruits & vegetables: 2–3 kg/acre
 - Foliar spray: 0.1–0.2% solution (1–2 g per liter of water)
- (Note: Actual dosage may vary depending on crop type, soil condition, and agronomist advice.)

5. Packaging & Storage

- Packaging: 25/50 kg PP woven bags with inner liner
- Storage: Store in cool, dry place away from acids and moisture

6. Safety & Handling

- Avoid inhalation of dust and direct contact with eyes/skin
- Use gloves, goggles, and mask during handling
- Wash hands thoroughly after use

Disclaimer: The above information is provided as a guide. For precise usage, consult local agricultural experts or agronomists.