

PRODUCT DATA SHEET



15% B
 $\text{Na}_2\text{B}_4\text{O}_7 \cdot 5\text{H}_2\text{O}$
Disodium tetraborate pentahydrate
CAS Number 12179-04-3

High-quality granular boron

Fertibor[®] is a white free flowing micro-granular material which is highly soluble without residue. It is a versatile source of elemental boron in solid, liquid, or suspension fertilizers, and for direct soil application.

Fertibor can be used in the following applications:

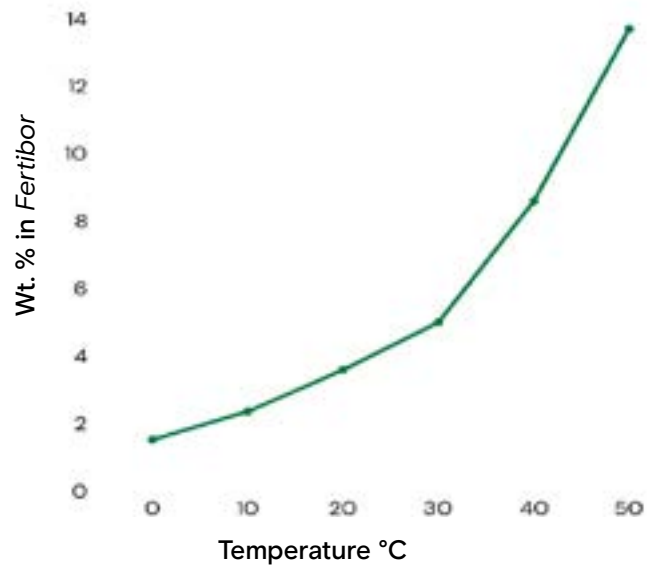
- Direct soil application to correct deficiency in some perennial plantation crops
- Manufacture of solid, liquid and suspension fertilizers
- Manufacture of compound fertilizer
- Manufacture of liquid micronutrient formulations
- Incorporation into solid growing media or composts

Particle size

Fertibor's consistent particle size makes it ideal for use as a micronutrient supplement to crops, particularly perennials, where mechanical application methods (eg fertilizer spreading or spraying) may be difficult or inappropriate.

Solubility

100% water-soluble



Tyler mesh size	mm	Percent
16	1.000	7.5
24	0.710	23.2
32	0.500	45.0
42	0.355	66.2
60	0.250	82.7
80	0.180	92.1
115	0.125	96.6
170	0.090	98.3
250	0.063	99.0
325	0.045	99.3



pH

pH buffering action	
Percent <i>Fertibor</i> by weight of solution	pH at 20°C (68°F)
0.1	9.25
0.5	9.22
1.0	9.23
2.0	9.25
5.0	9.32*

*pH of *Fertibor* saturated solution (3.59%)

Saturated solutions

Temperature		Weight % of <i>Fertibor</i> in saturated solutions	Percent concentration of boron (B) in saturated solutions
°C	°F		
0	32	1.52	0.5
10	50	2.36	0.7
20	68	3.59	1.1
30	86	5.50	1.6
40	104	8.59	2.6
50	122	13.68	4.1

Easy handling

Fertibor granules are free flowing and easily handled by pneumatic or mechanical means—a valuable property in the manufacture of compound fertilizers.

Bulk density		
Pack type	kg/m ³	lb/ft ³
Loose pack	1009	63
Tight pack	1137	71

OMRI Listed

Suitable for organic farming





Boron: An essential plant nutrient

Boron is one of eight micronutrients essential to all plant growth. Adequate boron is necessary for proper absorption of macronutrients and for maintaining the integrity of plant cell walls.

Detecting boron deficiency

Different crops show different signs of boron deficiency. Generally, but the time symptoms are seen, yields will already have been adversely affected. The best way to establish boron need is either through soil testing or tissue analysis. In this way, boron supplementation can form part of a regular crop fertilization program.

Predicting boron deficiency

Certain crops worldwide are known to be more susceptible to boron deficiency than others. Specific crop information can be found at www.borax.com/ag.

There are several factors which need to be taken into account when boron deficiency may be suspected:

- High rainfall
- Recent liming (pH over 6.6)
- Previous cropping
- Boron removal by previous crops
- No boron nutrition
- Sandy soils
- High organic matter

Correcting boron deficiency

Boron deficiency can be remedied by the correct application of a borate containing material in solid or liquid fertilizers, to the seedbed in annual crops or under the foliar canopy of perennial crops. Crops can

also be sprayed with boron containing solutions. These are normally tank mixed with other micronutrients or agrochemical products. Mixing with other sprays as part of a program not only saves on application cost, but allows for precise timing.

About U.S. Borax

U.S. Borax, part of Rio Tinto, is a global leader in the supply and science of borates—naturally-occurring minerals containing boron and other elements. We are 1,000 people serving 650 customers with more than 1,800 delivery locations globally. We supply around 30% of the world's need for refined borates from our world-class mine in Boron, California, about 100 miles northeast of Los Angeles.

Our local agriculture experts understand the uses and benefits of boron on crops. In addition to a global sales team, we have a number of agronomists on staff to help fertilizer distributors maximize the benefits of borates in agriculture applications. Our ag team can answer individual growers' questions and concerns about their particular crop.

High quality, high reliability, high performance borate products. It's what we're known for.

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