

TECHNICAL DATA SHEET

Product:	ETIBOR-48 (Granular and Powder)
Synonyms:	Di-sodium Tetraborate Pentahydrate; Buffer Salt pH 9.18; Borax Pentahydrate; Sodium Borate Pentahydrate, 5 mol Borax
CAS#	12179-04-3
Formula:	$\text{Na}_2\text{B}_4\text{O}_7 \cdot 5\text{H}_2\text{O}$
Product Description:	Etibor-48 is a white, odorless crystalline granular or powder product. Etibor-48 is the most common form of sodium borate used in industry. It is mildly alkaline. The most tangible advantage of using Etibor-48 is, besides having comparable physico-chemical aspects as that of Borax Decahydrate, Etibor-48 has relatively higher Boron content per unit mass compared to Borax Decahydrate. Etibor-48 is also less hygroscopic. It is mildly alkaline in solution.
Packaging:	Etibor-48 is available in 25 kg (55 lb.) multilayer paper bags, 1000 kg (2200 lb.) bulk bags and bulk loose powders.
Applications:	<ul style="list-style-type: none">- Fluxing agent- Water Softener and Buffering Agent- Soaps and Detergent formulations- Agriculture- Pesticide formulations- Corrosion Inhibition- Glass and Ceramics- Fiberglass Insulations- Lubricant- Antifreeze- Adhesives- Flame retardant
Precautions:	Etibor-48 is chemically stable, however, it is advised to store Etibor-48 under dry, cool and steady temperature conditions. During storage and transport avoid any wide variation in temperature. With temperature cycling and exposure to humid environment, Etibor-48 may undergo inter-particle bridging or caking, which may impair material flow.

Typical properties of Etibor-48:

Property	Typical Value
Appearance	Granular Powder
Color	White
Bulk Density	55-65 lb / ft³
Specific Gravity	1.88
Solubility in water at 25°C, 50°C and 100°C	4.4%, 13.7% and 50% respectively
Solubility in propylene glycol at 25°C	21.5%
pH of saturated aqueous solution at 20°C	9.2

Chemical Analysis					
Component	Unit	Specification Granular (min-max)	Typical Value Granular	Specification Powder (min-max)	Typical Value Powder
B ₂ O ₃	%	48.0– 49.35%	49	47.8 – 49.0 %	48
Na ₂ O	%	21.37 - 21.95 %	21.6	21.36 – 21.81 %	21.6
SO ₄	ppm	135 max.	108	200 max.	120
Fe	ppm	3 max.	2	3 max.	2
Cl	ppm	70 max.	50	70 max.	55
Water Insoluble	ppm	150 max.	115	150 max.	125
Purity	%	99.90 min.	100	99.90 min.	100

Dry Sieve Analysis						
Size	US Mesh	Unit	Specification Granular	Typical Value Granular	Specification Powder	Typical Value Powder
+ 1.680 mm	12	%	-	0.1	-	-
+ 1.180 mm	16	%	4.0 max.	2.0	2.0 max.	0.1
+ 0.85 mm	20	%	-	8.0	-	-
+ 0.60 mm	30	%	-	18.0	-	2.0
+ 0.15 mm	100	%	-	60.0	-	-
+ 0.075 mm	200	%	-	9.0	-	84.0
- 0.075 mm	- 200	%	5.0 max	3.0	50.0 max.	14.0

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