^{10}B in the form of Boric Acid for the Nuclear Industry

Description

- Enriched Boric Acid for use as a chemical shim for excess neutron absorption in the primary circuit of PWRs using high burnup or MOX fuel cores.
- In these PWRs neutron absorption of natural Boric Acid is insufficient. Solubility of Boric Acid limits the boron concentration in primary circuit water to be used as neutron poison.
- Today more and more enriched Boric Acid (95 % enriched in 10B) is used by NPPs.

Physical Properties:

Material	Boron-10 in form of crystalline Boric Acid
Enrichment	^{10}B > 96 at%

Chemical Properties

Form	H3BO
Purity	≥ 99,95 wt%

Impurities in ?g/g

As	0,1
Ca	1
Cl	0,09
F	0,21
Na	1,5
Pb	4
PO4	0,2

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SO4	0,4
Insolubles in water	8
Maximum particle size, mm no more	3.5

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