INITIA™ 205

overview

INITIA™ 205 is a high performance sulfonated polymer that is designed specifically for calcium phosphate and iron stabilization. **INITIA™ 205** is optimized in monomer type, ratio, and polymerization conditions for specific functionality in a wide-range of water treatment applications. **INITIA™ 205** has been thoroughly evaluated versus the industry leading specialty copolymers including sulfonated ter-polymers and tetra-polymers.

specifications

appearance	slightly hazy, pale straw liquid
solids content	44-46%
pH (as is)	2.5-4.0
viscosity at 25° C	<500 cPs
density at 20° C	1.17 ± 0.05 g/ml
solubility in water	complete
residual monomer	<0.1%

INITIA™ 205 delivers...

best-in-class calcium phosphate stabilization

exceptional iron stabilization

highly effective particulate and solids dispersion

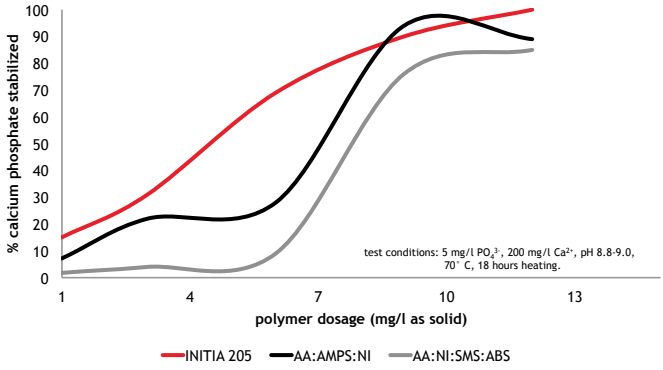
suggested applications

cooling towers
boilers (<400psi)
reverse osmosis
mining
oilfield and natural gas

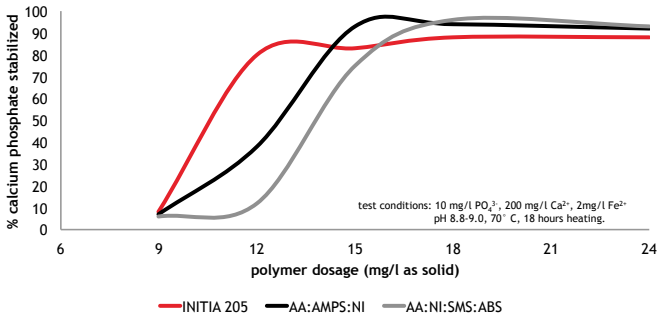
phosphate stabilization

INITIA™ 205 is an exceptional additive for the control of calcium phosphate in water treatment applications such as cooling. **INITIA™ 205** has been evaluated versus industry leading sulfonated ter-polymers and tetra-polymers and has demonstrated superior performance under a wide-range of conditions. The graphs below summarize the performance of **INITIA™ 205** under stressed conditions at 5, 10, and 15 mg/l ortho-phosphate.

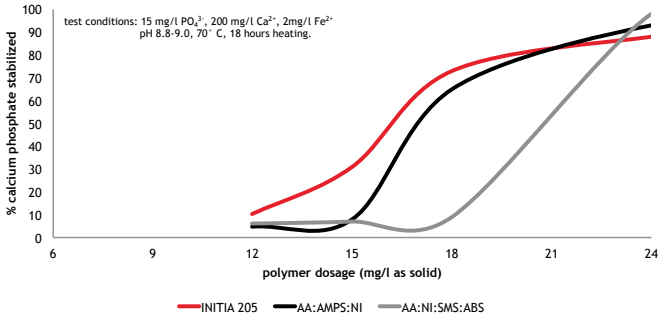
calcium phosphate evaluation - 5 mg/l PO_4^{3-}



calcium phosphate evaluation - 10 mg/l PO_4^{3-}, 2 mg/l Fe^{2+}

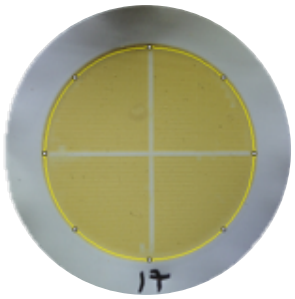


calcium phosphate evaluation - 15 mg/l PO_4^{3-}, 2 mg/l Fe^{2+}



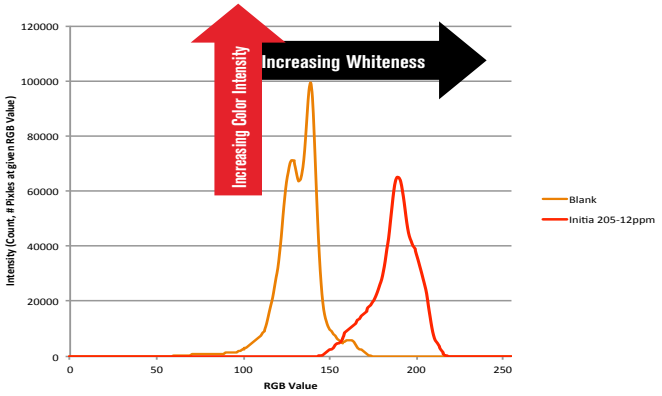
iron stabilization

INITIA™ 205 is an exceptional additive for the stabilization of iron and other transition metals. To demonstrate the efficacy of **INITIA™ 205** experiments were conducted using 2 mg/l of ferrous iron that was oxidized and precipitated at a pH of 8.8-9.0. The images below show filtered iron collected on a 0.2µm membrane and subsequent image analysis. The data show **INITIA™ 205** to be highly effective at stabilizing colloidal iron.



Blank (No Treatment)

with INITIA™ 205

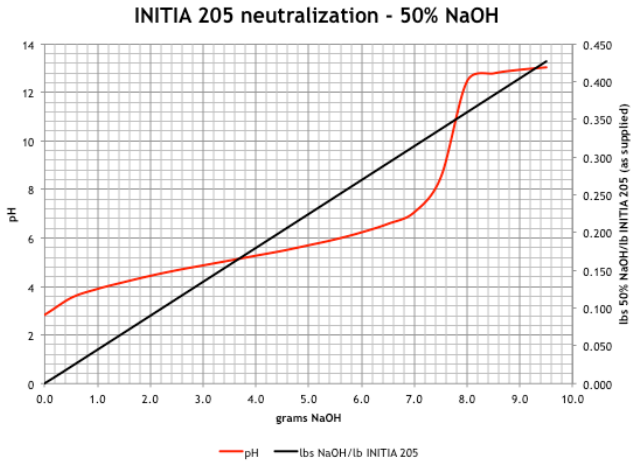


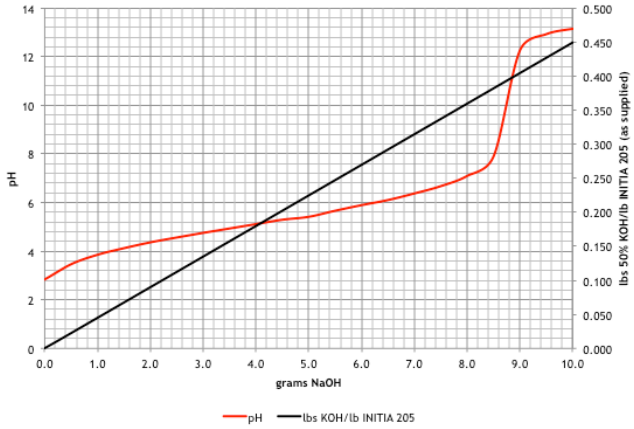
safety use and handling

Consult the Safety Data Sheet (SDS) for further information regarding the safe handling and use of **INITIA™ 205**. This product should be stored in a cool/dry place and must be protected from freezing. Avoid storage at high temperatures (>90˚F), direct sunlight, and exposure to surface, airborne or other common environmental contaminants such as debris, bacteria, yeast, and mold.

product neutralization

INITIA™ 205 is supplied as a concentrated (~45%) sulfonated copolymer at a pH of 2.5-4.0. The neutralization **INITIA™ 205** is exothermic and can produce a rapid increase in heat during formulation. **INITIA™ 205** should be diluted to the desired final formulation concentration with deionized water prior to adding a neutralizing agent. Neutralizing agents should be added slowly until the desired pH is achieved. Effective neutralization is possible without observing product precipitation using either NaOH or KOH. The graphs below indicate the approximate amount of NaOH or KOH required to neutralize **INITIA™ 205** to a given final pH.





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