Product Bulletin
Product Name: Aquapure CLC 65/35
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AquaPure™ CLC 65/35

Aquapure CLC 65/35 is a concentrated Rare Earth precipitant used for removing ortho-phosphate and fluoride from; industrial, municipal and food processing wastewater. Removal of phosphates from wastewater is key to preventing algae growth downstream. The Aquapure CLC 65/35 is very versatile and effective in a pH range of 4.5 to 8.5. The sludge generated from removal of ortho-phosphate and fluoride is significantly less than iron and aluminum coagulant/ precipitants and is instantaneous. The Aquapure CLC 65/35 can be used for total removal or polishing to get to low limits for either phosphate or fluoride.

For the removal of phosphate and fluoride: The solution is 27% Cerium/Lanthanum. (Rare Earth Oxide/ Chloride) Reacts with Phosphate in 1:1 molar ratio to form Cerium/Lanthanum Phosphate:

$3Ce^{3}+ 2 La^{3}+ 5PO_4^{3-} \rightarrow 2La (PO_4) + 3 Ce (PO_4)$

Features & Benefits

Very low freeze point/outside storage	No freezing in the winter months
Wide pH range	Is versatile to capture PO_4 or F starting from 2.0 pH – 8.5 pH
Works well in conjunction with a sand filter to capture any overflow floc	A sand filter will pick up any solids, so they are not discharged

Physical Data

CLC 65/35	>=26%, <=28%
CeO_2	>=60%, <=70%
La_2O_3	>=30%, <=40%
pH	2.5 – 4.0
Appearance	Clear to yellow solution
Specific gravity	1.50 – 1.55
CAS number	10025-84-0 ($LaCl_3$); 7790-86-5 ($CeCl_3$)
DOT	Not regulated

Typical Applications

Cerium/Lanthanum Chloride ($CeCl_3$ + $LaCl_3$) is used for phosphate and fluoride removal in industrial, municipal and food processing wastewater for the prevention of algae growth.

Operating Conditions

Dosing

Municipal	Twenty liters removes (10 m/L) phosphates from 100,000 gallons of water. Phosphates will precipitate and can be removed through filtration, clarification or settling.
Industrial	Dosing will vary depending on the other competing ions and the pH of the introduction. Jar testing is recommended. Phosphates will precipitate and can be removed through filtration, clarification or settling.
Food processing	Dosing will vary depending on the pH of introduction. Phosphates will precipitate and can be removed through filtration, clarification or settling.

Caution

Keep container tightly closed. Store in a cool, dry, well ventilated environment. This solution is suitable for storage in any general chemical environment.
Avoid eye and skin exposure. If contact occurs, rinse eyes with copious amounts of water; wash affected skin thoroughly with soap and water for at least 5 minutes. Seek medical attention if irritation persists.

WARRANTY: THE QUALITY OF THIS PRODUCT IS GUARANTEED ON SHIPMENT FROM OUR PLANT. IF THE USE RECOMMENDATIONS ARE FOLLOWED, DESIRED RESULTS WILL BE OBTAINED. SINCE THE USE OF OUR PRODUCTS IS BEYOND OUR CONTROL, NO GUARANTEE EXPRESSED OR IMPLIED IS MADE AS TO THE EFFECTS OF SUCH USE, OR THE RESULTS TO BE OBTAINED.

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For more information on this process,
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