

COAGULANT

RoQuest™ 4000

Liquid Coagulant

APPLICATIONS

RoQuest™ 4000 liquid coagulant is an organic polymer and ferric sulfate blend used to enhance the removal of a broad spectrum of inorganic particulates, organics, silt, and colloids in multimedia filters. This multicomponent polymer and iron salt coagulant is formulated for waters with high organics and turbidities higher than 2.0 NTU. Although this product is membrane compatible, overfeeding of pretreatment chemicals is not recommended as it can affect organic and particulate removal.

RoQuest 4000 is injected into the feedstream of multimedia and sand filters to enhance filter performance by reducing turbidity and color to produce an improved filtrate that will reduce downstream reverse osmosis (RO) and nanofiltration (NF) membrane fouling. Best results are achieved in raw waters with upper limits of turbidity and color (10 NTU and 10 units, respectively) or in feedwaters where organic polymers have been under- or overdosed. RoQuest 4000 is NSF approved.

INJECTING

RoQuest 4000 contains a ferric component which requires a minimum of 20 ppm of alkalinity to maintain an ideal pH. For feedwaters with lower alkalinity values, we recommend sending a sample into the Avista laboratory for testing. Do not use static mixers ahead of the filters as the shear imparted by this equipment will degrade the polymers contained in this formulation.

DOSING

A typical RoQuest 4000 dose ranges from 2 to 25 mg/l. Approximately 0.25 mg/l of alkalinity expressed as calcium carbonate is required per mg/l of RoQuest 4000. Following coagulant addition, a minimum of 25 mg/l of residual alkalinity is required. Significant overdosing of RoQuest 4000 may cause degradation in the quality of the filtered water.

DILUTION

RoQuest 4000 should be fed neat if possible. When dilution is necessary, dilute no more than 4:1 with RO permeate or deionized water.

CHEMICAL AND PHYSICAL PROPERTIES

CHARACTERISTICS	DATA
Appearance	Clear to amber liquid
pH (1% solution)	2.0 – 3.0
Specific gravity (@25°C)	1.3 – 1.4

PERFORMANCE BENEFITS

- Filter-aid properties resist solids breakthrough in direct filter applications.
- Low dosage requirements and effective over a wide pH range.
- Capable of producing RO-quality feedwater in multimedia and sand filters.
- Compatible with polyamide and cellulose acetate RO membranes and Avista™ antiscalants, including Avista™VT 3000, 3025, 5100, and 7000.

PACKAGING AND STORAGE

Standard regional pack sizes are listed below. Information on drumless or bulk tanker delivery is available on request.

PACKAGING FORMAT	AMERICAS	ASIA	EMEA
Pail	45 lb	20 kg	20 kg
Drum	500 lb	200 kg	200 kg
IBC tote	2500 lb	1500 kg	1500 kg



Please consult your sales representative for further technical or logistical details, and always review the SDS before use to ensure suitable safety precautions are followed.

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