Graver Technologies

Product Specification

GRAVEX® GR-1-0 US CGF UPS Condensate Grade Hydroxide

Spec No.	GTS-10-US-CGF
Rev No.	3
Date	June 2, 2021

Properties	Limits
Resin Type	Strongly Basic Type 1 Gel Anion Exchange Resin
Functionality	Quaternary (tri-methyl) Ammonium
Matrix	Styrene Divinylbenzene
Physical Appearance	White to light yellow translucent spherical beads
Total Exchange Capacity, (eq/L)	≥ 1.1
Water Retention Capacity, (%)	55 - 65
Ionic Conversion, (%) OH^-	≥ 95
CO_3^{-2}	≤ 5
Cl^-	≤ 0.5
Particle Size	
Particle Diameter, (µm)	590 +/- 50 µm
Uniformity Coefficient	≤ 1.1
> 850 µm, (%)	≤ 1
< 300 µm, (%)	≤ 0.5
Friability	
Average g/bead	≥ 350
% >200 g/bead	≥ 95
Whole Uncracked Beads, (%)	≥ 95
Impurities, (mg/dry kg)	
Aluminum	≤ 40
Calcium	≤ 50
Copper	≤ 10
Iron	≤ 50
Lead	≤ 10
Magnesium	≤ 50
Potassium	≤ 50
Sodium	≤ 25

Typical Properties

Approx. Swelling Na to H, %	~ 23
Particle Density, (g/mL)	~ 1.08
Shipping Weight, (g/L)	~ 690
Operating Temperature °C (°F)	≤ 100 (212) ; Recommend 60 (140)
pH Range	0-14
Bed Depth, mm (ft)	≥ 800 (2.6)
Service Rate, m/h (gpm/ft^2)	5-60 (2-24)
Regenerant, % NaOH	2-8
Regenerant Quantity, approx. min. g/L (lb/ft^3)	100 (~6.5)
Regeneration Rate, m/h (gpm/ft^2)	2-10 (0.8-4)
Total Rinse Requirement, BV	2-10