

Feed Rate Practice Problems

1. A treatment plant is treating a flow of 5 MGD (18927 m³/Day). The required dosage of sodium hydroxide is 2 mg/L. The NaOH that is used is 70% pure. How much sodium hydroxide is used throughout the day?
 - A. 119 lbs/day (54 kg/day)
 - B. 83 lbs/day (38 kg/day)
 - C. 58 lbs/day (26 kg/day)
 - D. 14 lbs/day (6 kg/day)

2. A dosage of 1.50 mg/L is required for a flow of 22.4 MGD (84794 m³/Day). The chemical that is used has a purity of 85% pure. How much chemical is needed to achieve the target dosage?
 - A. 280 lbs/day (127 kg/day)
 - B. 238 lbs/day (108 kg/day)
 - C. 330 lbs/day (150 kg/day)
 - D. 40 lbs/day (18 kg/day)

3. A tank must be treated with calcium hypochlorite. The volume of water in the tank is 40,000 gallons (151 cubic meters). The dosage of calcium hypochlorite is 3.2 mg/L. The purity of the calcium hypochlorite is 65%. How much calcium hypochlorite is needed?
 - A. 1.07 lbs (0.48 kg)
 - B. 1.64 lbs (0.74 kg)
 - C. 0.20 lbs (0.09 kg)
 - D. 0.69 lbs (0.31 kg)

Answers: 1.A, 2.C, 3.B