



**Johnson
Screens**

A brand of
Aqseptence Group

Bio Dispersant

Nu-Well 310 Dispersant and Acid Enhancer

Description

Bio Dispersant is a unique polymeric-acid chemistry that is the most effective product available for breaking down biofilm and dispersing mineral salts.

Bio Dispersant provides a considerable boost to any acid-cleaning operation, is readily biodegradable and may be used to treat potable water systems and related equipment. **Bio Dispersant** maintains the acid reaction, holding minerals in suspension at pH levels up to 5.0 for thorough removal of biological material during flushing. Without the use of **Bio Dispersant**, dissolved minerals will drop out at pH levels above 3.0.

- Dislodges biofilm masses associated with iron oxidizing, sulfate-reducing and more prevalent slime forming bacteria, which are not removed by mineral acids alone
- Sequesters iron and inhibits corrosion on metal surfaces - iron sequestering allows the chemical solution to remove heavy accumulation of iron compounds
- Contains the best NSF certified inhibitor for water wells, protecting all forms of metal in the system, and will not attack plastic, neoprene or other synthetic materials - eliminating the need for acid inhibitors
- Provides passivation of metals when used with phosphoric acid
- NSF certified for cleaning potable water wells, pipelines and filter systems

Application

Bio Dispersant is designed for use with acid solutions to enhance the acid cleaning reaction and improve overall cleaning. Standard dosage is 3 percent (1 to 2 percent for maintenance). It is recommended that well construction and performance history be submitted, along with water samples for lab analysis, to properly determine dosage on large municipal and industrial wells.

1. Surface prepare a solution of water, acid and **Bio Dispersant** equal to approximately 40 percent of the total static volume into a vessel of appropriate size. First add water, then acid, then **Bio Dispersant**. (**Note: NEVER add water to acid! DO NOT mix Bio Dispersant directly to commercial concentrations of liquid acid, as polymer destruction may occur**).
2. Place the solution evenly across the intake zone, ensuring contact with affected areas at the recommended concentration. Agitate the cleaning solution to enhance the effectiveness of cleaning.
3. The solution should remain in contact for 18 to 48 hours, depending on the nature of the deposit. Monitor the pH and keep it below 3.0 during treatment. If additional acid is needed (to lower pH), add an amount equal to approximately 20 percent of the initial volume of the acid solution amount of acid applied.
4. Discharge the acid solution from the well, neutralize at the surface with **Neutralizer NW-600** and dispose in accordance with local regulations.



Physical properties, shipping and handling

Appearance: Amber liquid

Density: 10 lbs./gal.

pH (as shipped): 2.0

Specific Gravity: 1.19

Freeze point: 32 °F (0 °C)

Solubility (in water): 100%

Use range: 0.5 to 5% by volume

Bio Dispersant is an acid-based liquid. Avoid contact with strong alkaline materials or oxidizers. Use personal protective equipment (PPE) and clothing, especially where the possibility of inhalation exists.

Most acids and alkaline materials will not affect **Bio Dispersant** concentrations below 25 percent.

- Not regulated as a hazardous material under 49CFR 172.101
- Additional physical and handling data are available on the product SDS
- Non-bioaccumulating
- 1 gal. and 5 gal. containers can be shipped by UPS ground delivery
- Available in 1, 5, 30 and 55 gal. containers

Dosage Guide

Bio Dispersant NW-310

Treatment Example

12 in. well, total depth = 600 ft., SWL = 50 ft.

Step 1: Static height = (600 ft. - 50 ft.) = 550 ft.

Step 2: 550 ft. x 0.15 gal./ft. = 82.5 gal.

Step 3: 83 gal. **Bio Dispersant** needed.*

* For wells with over 100 ft of screen it is recommended to use 1.5 times the standard dosage to account for the filter pack and allow deep penetration into the formation

Nominal Well Size		Standard Dosage, 3%	
in.	mm	gal./ft.	l/m
2	51	0.004	0.0
3	76	0.01	0.1
4	102	0.02	0.2
5	127	0.03	0.3
6	152	0.04	0.5
8	203	0.07	0.8
10	254	0.10	1.3
12	305	0.15	1.8
14	356	0.20	2.5
16	406	0.26	3.2
18	457	0.33	4.1
20	508	0.4	5.1
22	559	0.5	6.1
24	610	0.6	7.3
26	660	0.7	8.6
30	762	0.9	11.4
34	864	1.2	14.7
36	914	1.3	16.4

***Note:** Standard dosage is for well rehabilitation. For routine maintenance, reduce dosage by 30 to 50 percent

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