

# Bellacide<sup>®</sup> 355

## reduce oxidizer's corrosivity

### Challenge

Bleach is commonly used to control microbiological growth in water reuse for fracturing and production. However, it's known that bleach's corrosive characteristics have detrimental effects on equipment and piping.

### Test

In a laboratory test, bleach (sodium hypochlorite) was combined with Bellacide 355 to determine the corrosive properties of this combination. N80 steel was tested over a 72-hour time span for the following mixtures:

1. Control (no additive).
2. Bleach 250ppm active as sodium hypochlorite.
3. Bleach 250ppm active as sodium hypochlorite + 10ppm active Bellacide 355.
4. Bleach 250ppm active as sodium hypochlorite active + 25ppm active Bellacide 355.
5. Bleach 50ppm active as sodium hypochlorite active + 10ppm active Bellacide 355.

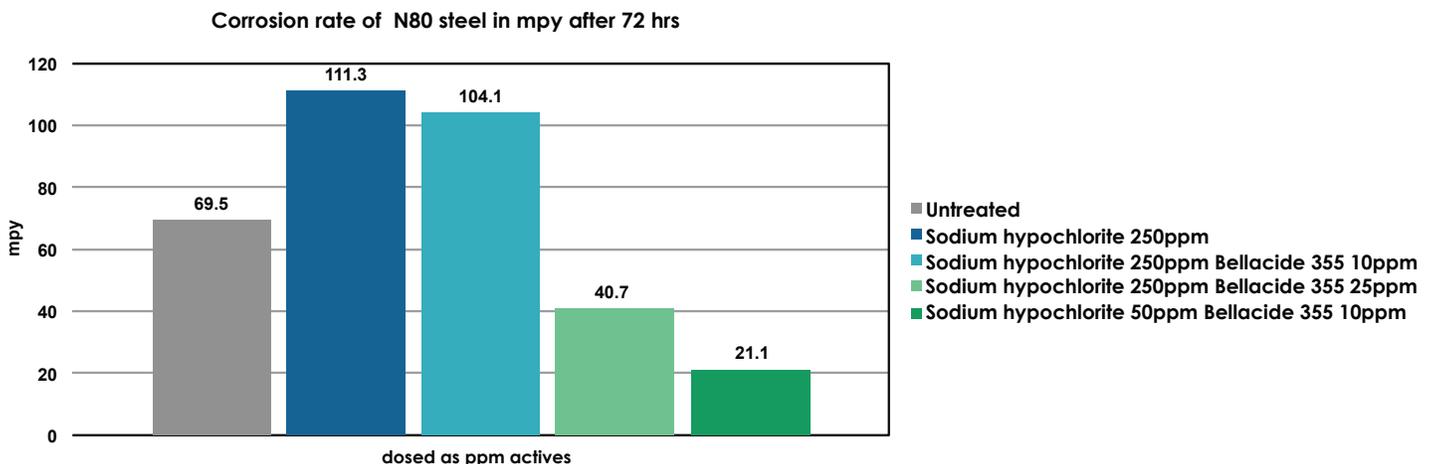
### Results

In a typical field dose of 250ppm, as active sodium hypochlorite, a corrosion rate of 111.3 mpy was seen. With the addition of 10ppm active of Bellacide 355, a reduction of 6 percent in the corrosion rate was observed. The application of Bellacide 355 at 25ppm active (with the same 250ppm of sodium hypochlorite), reduced the corrosion rate by 63 percent.

Bellacide 355 has synergistic compatibility with halogens as seen in other industries, where the same biocidal efficacy can be achieved at a lower halogen dose. This test was designed to mirror this effect by reducing sodium hypochlorite to 50ppm and Bellacide 355 to 10ppm. A reduction of 81 percent was observed.

### Conclusion

These lab results validate customer feedback when using Bellacide 355. Replace your non-oxidizer with Bellacide 355 and watch halogen use go down, and corrosion rates plummet.



Our wide selection of biocide chemistry can be tailored for any treatment scenario.  
**Learn more at [www.wateradditives.com](http://www.wateradditives.com)**

## Bellacide® 355

Bellacide 355 is a fast acting, long lasting biocide that kills SRB's, APB's and biofilm in the widest range of conditions. Bellacide 355 will not degrade and maintains performance regardless of pH, temperature, pressure or the presence of reducing agents. Bellacide 355 is the most robust product for all biocide needs, with the added benefit of reducing corrosion rates.

<b>Bellacide 355</b> <b>Fast acting, long lasting</b>	
Appearance	Clear, colorless liquid
Specific gravity at 20° C	0.98
pH	6.0 – 8.0
Odor	Slight to none
Boiling Point	100° C (212° F)



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