

# SCAVSOL™ AF 50 — CONTROLLING IRON IN THE PRESENCE OF CHLORINE DIOXIDE (ClO<sub>2</sub>)

At Solugen, we have a deep understanding of the water lifecycle in the oilfield and are committed to developing the most innovative and cost-effective chemistries to meet our clients' needs. Many oilfields deploy chlorine dioxide as an oxidizer to sterilize water prior to use. When compared to traditional iron chelation products, ScavSol™ AF 50 is not only more cost-effective, safer to produce, and friendlier to the environment, but it can be used prior to chlorine dioxide applications (a sigh of relief for clients) while also maintaining chelated water-soluble iron complexes. ScavSol AF 50 allows oilfield operators to continue applying chlorine dioxide for water sterilization without the concern of iron precipitation and subsequent fouling of process equipment and disrupting operations.



ScavSol AF 50 is an iron chelation technology that controls iron precipitation in the presence of chlorine dioxide. Though a common application in oilfield water sterilization, chlorine dioxide often leads to unwanted precipitation that causes assets to foul, scale and corrode. ScavSol AF 50 can be used to chelate iron prior to chlorine dioxide application and then remain chelated as the product does not allow iron to precipitate.

### Effects of Untreated Chlorine Dioxide

Chlorine dioxide rapidly oxidizes iron (II) to iron (III), which precipitates as reactive iron oxide and hydroxide and causes harmful damage when it precipitates. When ScavSol AF 50 is used, pre-water treatment is not required to remove iron in a formation, and subsequently, no disposal of precipitated iron will be needed. ScavSol AF 50 removes the need for precipitated iron disposal and allows oilfield operations to continue with preferred oxidation technology.

Founded in 2016, Solugen is a specialty chemicals manufacturer and the world's first and only producer of bio-based chemical peroxide solutions. Our team of experts applies green chemistry principles to redesign the production of common chemicals and formulate innovative, cost-efficient commercial and industrial solutions that are also environmentally friendly.



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Disclaimer: This case study is provided for illustrative purposes only to provide an example of Solugen's technology and methodology. Please contact us for additional information with respect to the application, benefits and value described herein.