Production Chemical Solutions

NaturaLine® Products and Solutions
Multi-Chem, a Halliburton Service, is committed to providing sound environmental practices and product stewardship to support our customers with their oilfield applications. Because of this commitment, Multi-Chem’s NaturaLine® solutions, our line of carefully selected environmentally conscious products, offer a unique opportunity to collaborate with customers and develop the most effective and environmentally responsible options to production challenges. The NaturaLine evaluation process gives our customers a consistent and comprehensive basis to consider both toxicity and environmental health effects when making informed chemical selections for their production and completion needs.

While we appreciate that unconventional shale plays are becoming an increasingly important and abundant part of domestic and global production, we also acknowledge the need for more environmentally conscious solutions to treat flowback and produced water. Concerns about the potential for groundwater contamination and waste water disposal have only strengthened the need for careful selection of more environmentally friendly fracturing chemicals through our NaturaLine solutions and products.

Product Evaluation Process
To begin the NaturaLine product evaluation process, Multi-Chem’s experienced team of technical experts will evaluate the production or fracturing challenge and recommend the most effective products and solutions to meet the need. All recommended products receive a ranking based upon carefully selected environmental and health-based criteria. This information is provided to you along with pertinent technical and cost performance information. The product can then be independently evaluated and selected based on criteria that best demonstrate a commitment to environmental product stewardship in their communities and best meet your operational needs.

Multi-Chem is a leader in the use of frac additives and processes that fully utilize flowback and produced water and optimize water management efforts. NaturaLine solutions and products can be used throughout the entire fracturing process and can enhance production operations as well. NaturaLine provides operators with a basis for system-specific frac or production solutions that can offer due diligence to communities, regulators or partners in environmental protection. The product selection process can be tailored to include both Multi-Chem’s NaturaLine criteria and local standards and requirements as requested.
What Does the NaturaLine Program Mean to Operators?
The NaturaLine program offers an alternative solution for chemical needs that is tailored to specific locations. Therefore, should an operator choose to use NaturaLine products and solutions, Multi-Chem can assist in the following areas:

Environmental Stewardship
Environmental protection is a prime consideration in the development and assessment of NaturaLine products. To assist oil and gas producers in minimizing the impact of their daily operations in surrounding ecosystems, NaturaLine products provide relatively low toxicity to aquatic organisms compared to traditional chemistries in produced waters. Multi-Chem is on the cutting-edge for developing technology and chemistries that provide lower toxicity, reduce exposure, and consequently reduce the environmental risks of production and completion chemicals. Through the NaturaLine process and products, operators have an opportunity to partner with Multi-Chem to achieve their goals for both production and environmental stewardship.

NaturaLine products are also evaluated on biodegradation and bioaccumulation. Many of our product options have improved biodegradation and reduced bioaccumulation tendencies in the aquatic environment, therefore reducing the potential for exposure over the products' total lifetime. Operators can benefit from selecting products that have these improved exposure profiles over more traditional chemistries.

Safety Stewardship
Multi-Chem is not only committed to providing more environmentally friendly solutions, but is also dedicated to providing the most complete safety information possible for operators to utilize. Our NaturaLine process fully evaluates products on the basis of both physical and health hazards to assist operators in minimizing safety concerns for employees and members of the surrounding community. Operators can choose from our NaturaLine solutions to help demonstrate a commitment to improving operational safety and reducing hazards to employees, regulators, and community members.

Community Stewardship
In many areas where oil and gas is produced, there is a heightened sense of awareness regarding fracturing and production operations. Multi-Chem's customer-specific NaturaLine solutions can offer the operator the opportunity to use a reduced amount of chemicals and achieve the same, or greater, production results. For the community where the operations take place, this means improved environmental and safety stewardship.

Why Should You Buy Frac Additives From a Specialty Chemical Company?
- Multi-Chem has proven success in using frac fluids to treat systems properly and safely.
- Multi-Chem's business model focuses on protecting assets (increasing their useful life) and mitigating production challenges.
- When chemicals are purchased from horsepower companies, they are usually sold as part of an overall program. Multi-Chem offers a specialty chemical program that is designed especially for the individual field rather than chemicals sold in bulk.
- Multi-Chem's operational objective is to "do the right thing." This means that we work to resolve issues for the life of the well, not just the brief period of the frac job.
- Savings from completing the job correctly up front can be many times that of having to deal with issues over the life of the well.
What “Green” Means to Multi-Chem

In some areas where Multi-Chem supplies chemicals, such as the North Sea, there are formal standards to determine whether a product is considered environmentally friendly. Currently, in the United States and Canada, there are no set standards for determining whether a chemical is considered “green.”

Multi-Chem has developed a system for ranking products according to their level of environmental friendliness. We work with you and use this ranking system to select products based on your individual needs.

Ranking System for Certifying Products

Multi-Chem’s ranking system is meant to be measurable and universal. The system was built to encompass customer and field concerns that arise in operating situations. Our operators are continuously questioned about the chemicals that they have on location. In an effort to assist you with answering these questions, we provide this simple system that you can use to demonstrate the safety and environmental ranking of each chemical.

This ranking system aligns with definitions from state, federal, and international regulatory standards. These standards focus on employee, customer, and public safety as well as environmental quality.

NaturaLine solutions include the following products:

- Friction Reducers
- Scale Inhibitors
- Biocides and Biotechnology Products
- Surfactants

Multi-Chem’s HSE department considers these factors when determining if a product is fit for the NaturaLine® product line.

Employee, customer, and public safety factors:

- Toxicity through inhalation
- Toxicity through dermal exposure
- Toxicity through oral exposure
- Flammability
- Reactivity
- Corrosivity

Environmental factors:

- Environmental toxicity
- Bioaccumulation (the capability to accumulate in living things)
- Biodegradability (the capability to be broken down)