

# CRUDE OIL CLEANER

Environmental 1 Crude Oil Cleaner represents the most challenging research and development program the company has undertaken in an effort to impact the petroleum industry. The gas and oil industry is vital to our economy and the comfort in which we are able to live our lives. Environmental 1 is committed to improving and preserving life through successfully formulating safer products for human health and the environment while making significant contributions in the crude oil business worldwide.

## CRUDE OIL INDUSTRY

Working with environmental and organic products, those that are naturally derived, you have to be humbled working with crude oil. Created 40 million years ago, it is a tenacious, sticky, black substance that can still hold its own with the best, given up out of the depths of the earth but certainly not easily. After working with the oil business you have to come away with a new sense of combined amazement and respect. The stakes are high, but they should be. Due to its high energy density, easy transportability, and relative abundance, oil has become the world's most important source of energy since the mid 1950's. Crude oil varies greatly depending on its composition, but the typical black Texas crude was our starting point. Crude oil is the world's most actively traded commodity. Crude oil futures contract has been reported to have become the world's most liquid

forum for crude oil trading, as well as the world's largest volume futures contract trading on a physical commodity. Because of its excellent liquidity and price transparency, the contract

is used as a principal international pricing benchmark. (kito.com)

### **DEFINE THE CHALLENGE**

You can't participate in the oil industry without quickly appreciating the fact that crude oil generates a lot of opinions. The Environmental impacts of a major crude oil spill linger with a reputation like a hurricane. Knowing that we were not going to eliminate oil spills or come up with a magic plan to avoid an environmental disaster, Environmental 1 set its goals on discovering a beneficial new product for handling crude oil that helps eliminate the frequent use of toxic chemicals for removal, and to assist in oil spill remediation. Environmental 1 research and development focused on crude oil, and began the process of gathering and recording industry concerns with an Environmental impact. As any oil man knows, if you getyour hands covered in crude oil and mud, the removal process is involved and difficult. Trying to manage crude oil is a major problem in the industry in every aspect of its use. That in a bility is what makes occurrences like the Valdez spill events to be remembered for a lifetime.

### **ENVIRONMENTAL 1 RESPONSE**

Our goal was simple; attempt to change crude oil with predetermined criteria of using no human or environmental toxins or creating new problems. Ultimately, the goal is to create a vital natural resource that demonstrates improvement in its ability to be utilized today.

Oil tankers with their cargo holds bulging with crude oil make difficult passages across oceans with unknown demands. The better able to deal with all aspects of this voyage to finally deliver the liquid gold and transfer the cargo to storage, the more certain it can be accomplished without dangerous complications.

Each load of oil must be characterized, assessed, and analyzed for future reference, and ships must be cleaned thoroughly to not leave any contaminants that could accidentally be associated with oil from another location, country or well in which there is a problem. Thoroughly and completely cleaning the tanker after cargo is removed has represented a problem in the past due to the nature of the materials required to adequately extract all of the crudeoil. Analyzing crudeoil from the tankers after emptied, we understood many of the problems the gas and oil industry had voiced about the physical removal of the crudeoil, and the associated

problems crewmembers experienced working in closed spaces to evacuate the crude. Multiple health related issues were addressed by our medical director and toxicologist. After significant efforts, we found a new technology that physically altered the crude and eliminated the major health side effects. We formulated Environmental 1 Crude Oil Cleaner as a result, and significantly changed a major process required to take the crude to a marketable product.

Environmental 1 Crude Oil Cleaner most importantly was formulated to eliminate any significant threat to human health or the environment. The alterations in crude in the future will make it much safer and easier to extract from tankers. The new cleaner is water soluble and miscible, pH neutral, biodegradable, has no toxic fumes or vapors, and has not been determined to have a proven direct negative effect on human health.

Another huge benefit is that the Environmental 1 Crude Oil Cleaner is extremely useful on the tanker as a whole; being able to remove accumulated crude including that on engines, machinery, tools, decks, clothes, hands and vehicles. The product is ideal for cleaning crude oil from tanker walls and the tanker itself with an industrial cleaning factor to quickly and effectively deep clean and remove crude from

the surfaces. In addition, it impacts the health and welfare of the tanker environment and allows workers to accomplish their jobs expeditiously with no threat to their health or the environment.

Preliminary evaluation indicates it will be just as beneficial on drilling platforms and the sites where toxic was te is taken from the empty tankers. The research and development of this new product has just begun and we are confident we will discover many other benefits to the gas and oil industry.

Already we have entered Environmental 1 Crude Oil Cleaner into our study of crude oil and rheology to facilitate asier, more fluid transport of crude from one location to another. The physical and structural changes we have made also facilitate the transportation. Once the crude is exposed to Environmental 1 Crude Oil Cleaner, it is permanently altered and does not stick to everything and can be moved with less effort.

Ourtests with Environmental 1 inwater with applied pressure also demonstrate its ability to break crude apart and form small particles. After further study, we hope to be able to show the process of natural bioremediation will be accelerated and assist the evolution of oil spills.

The future of this discovery will be expanded upon, and Environmental One will generate new developments for the petroleum industry.



## UNIQUE FEATURES OF CRUDE OIL CLEANER

## **Crude Oil Control**

- Professional strength crude oil cleaner.
- No major threat to human health or the environment.
- Biodegradable and no long term residues.

#### **Extreme Power**

- Energy or agitation will put crude oil into solution. i.e.- high pressure spraying or vigorous agitation in the wallows the solution to disappear into water
- Excellent maintenance for well sites, oil rigs, tanks, equipment and tools

# **Health and Safety**

- Use goggles with high pressure spraying.
- If sprayed directly into eyes, rinse generously with clean water; on skin may cause slight irritation with increa concentration and continuous application with pack.

## Instructions and Use

- 1. Apply 12 oz. of concentrate to 1 Gallon water.
- 2. Application is best accomplished with a high-pressure sprayer.
- 3. Once cleaner is applied to crude oil, the oil changes so it will not adhere to surfaces or other crude o before treatment. This non-adherence promotes easy deep cleaning from surfaces.
- 4. The cleaning ability of Environmental 1 Crude Oil Cleaner is estimated to be 2-3 times the base strength needed.

Go Beyond Green with Environmental 1 Crude Oil Cleaner to restore a healthier environment.



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