



GREEN LIFE GROUP
Natural ecological cleaning products



We change the concept, We take care of the planet.

Green Refinery

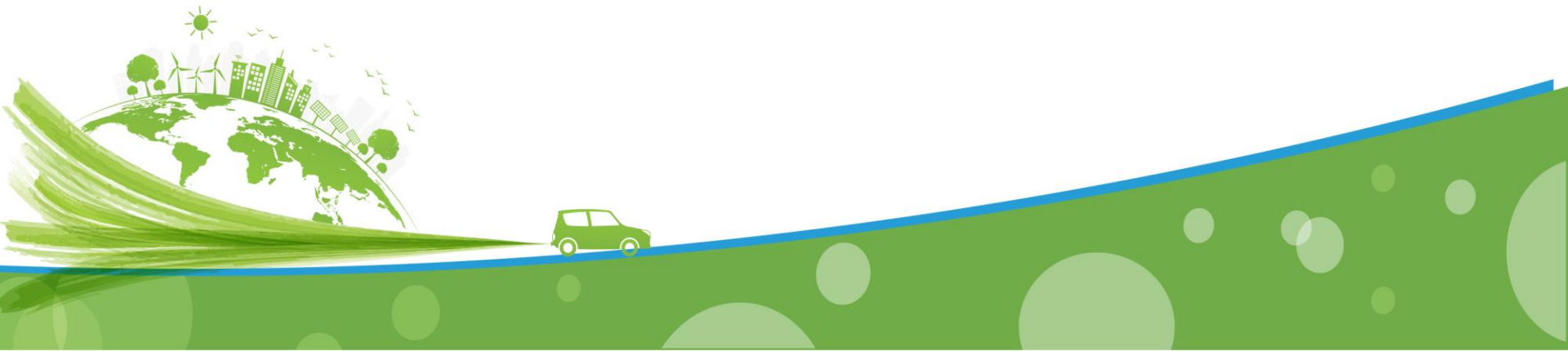


Oil & Petroleum industry – **the rationale**

The Cleaning and degreasing products in refineries and oil industries today include detergents that are based on alkalis ,acids, polluting chemicals containing metals, borates, phosphates ,etc. all of which have adverse effects on the environment.

These materials which are based on active caustic or acid base , pose a corrosive danger for humans as well ,especially on our lungs, our eyes and our skin.

Ecological cleaning substances will replace these types of detergents.



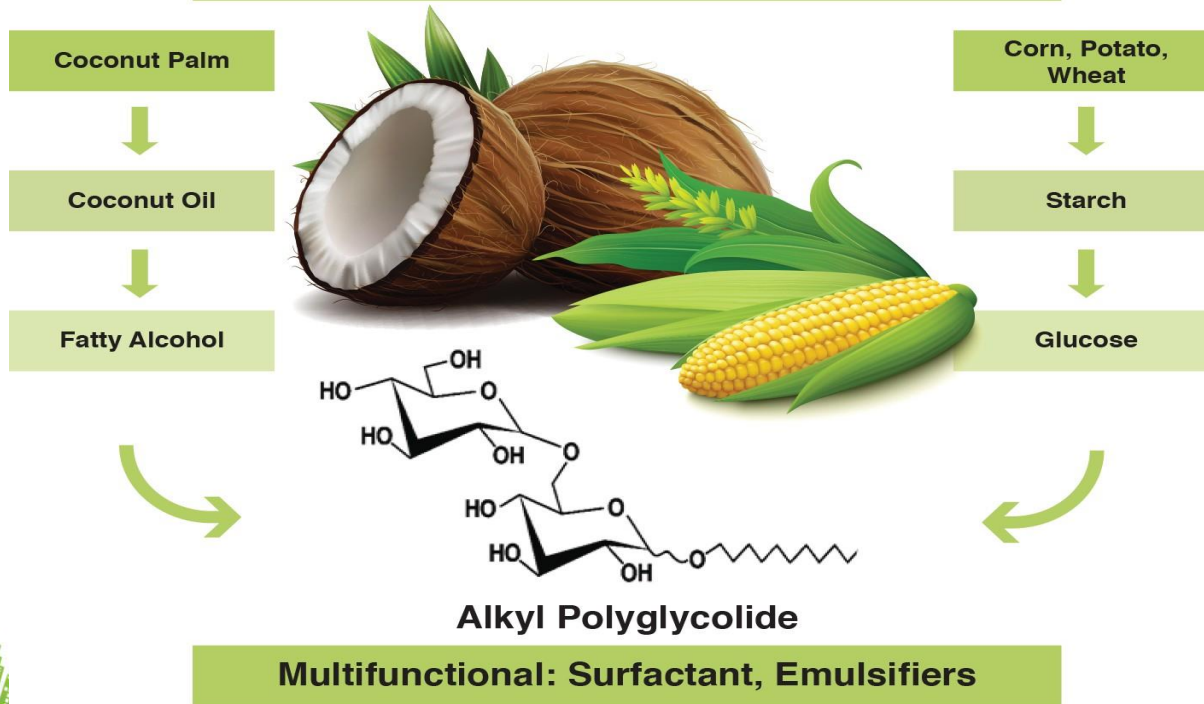
Characteristics of Green Up Products

- Water based natural antibacterial ecological cleaning and sanitizing products ready for use.
- The family of Green Up products excel in their ability to completely disintegrate, dissolve and remove oils from a variety of fatty acids and dirt.
- Destroy bad odours of decay and fermentation.
- Protect the environment and are Readily Biodegradable.
- Protect the soil, water sources, lakes and streams, seas, and underground water.
- Protect drainage and sewerage systems. Sanitize and clean absorption runoffs.
- Are not dangerous to airways.
- Do not leave marks on hands or skin.
- Are non poisonous , non flammable, non ionic.
- Do not emit poisonous gases or the synthetic smell associated with cleaning products.
- Do not contain carbon solvents, carbon dissolvers, or caustic soda.
- Do not attack or eat away surfaces made of rubber, plastic, metal including stainless steel.
- Reduce the wear and depreciation of work areas.
- Do not contain SLS and do not foam.
- Do not leave a greasy or sticky residue on cleaned surfaces.
- Do not stain or leave traces or streaks but shine and prevent stains from forming.
- Can be used on wet surfaces.



Green solution from natural sources

Key Natural Raw Materials – Sugar Derivatives



Product Properties

- Soil Removal
- Emulsifier Potential
- Plastic Compatibility
- Foaming Properties
- Filing Properties
- Anti Streaking
- Skin Compatibility



Petroleum is very important to humans since it is the biggest energy provider in the world and also the biggest polluter in the refining of different fuels and products from it.

Oil industry pollution in the ground soil and in the air is difficult and problematic to clean.

Green Life Group has developed a series of specialty products for use in the oil and petroleum industry and the connected industries.

The products are easy and safe to use since they are based on green ingredients which are not poisonous and non-flammable.

The products are user friendly, considerably lessen pollution and protect the environment.



Green Up for the Oil Industry is the Solution

The product is a safe cleaner and a powerful, biodegradable, water based degreaser, oil dispersant. It's made from renewable raw materials –glucose derived from corn, and fatty alcohols from coconut and palm kernel oils, mixt with natural silicates. The product is very mild, low in toxicity and readily Biodegradable.

It is a cleaning , ecological liquid , strong-acting water based product which naturally decomposes, non dangerous to the user and doesn't pollute the environment. It is readily biodegradable. Beyond just being a cleaning product that protects the environment it also improves the level of cleaning, protects against damage and economical.

Oil refining is a process which turns crude oil into various consumer products such as gasoline , diesel fuel, gas, oils or kerosene.

The refinery consists of many different production units, each of which causes various sorts of pollution during work.

These resulting pollutants seep into the soil or disperse and pollute the air.

The use of Green Life products lessens the amount of pollution that is produced by refineries.

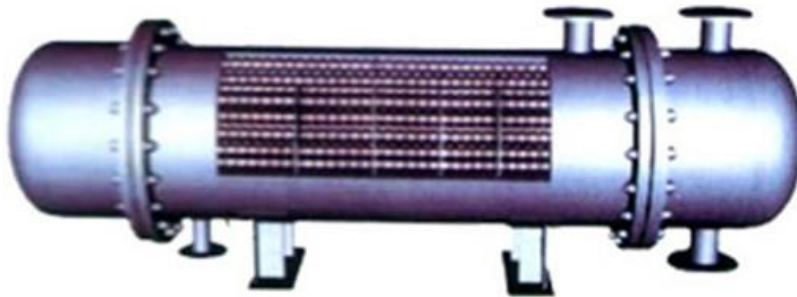
The products are environmentally friendly, comfortable and safe to use, based on ecological elements which are non poisonous or flammable.



Heat Exchanger

The job of the heat exchanger in the refining process is to provide an indirect heat source without an open flame near the crude oil. To provide this exchange of heat special thermal oils are used. During the process of heating the pipes with the thermal oil they could become plugged which would result in heat loss. When this happens the crude oil in the heated space undergoes a process of polymerization and this causes a buildup of a layer of carbon in the heat transfer pipes. This buildup decreases efficiency of the heat transfer and there is a need to replace the pipes.

Green Life Group has developed a product which enables cleaning of the heat transfer pipes from inside and outside thus saving money for the refinery by a simple cleaning process instead of replacement.



Fuel Storage Tanks



Crude oil and its finished products are stored in tanks. During the storage different types of sludge are collected at the bottom of the tank. The process of cleaning the tank , removing and recycling the sludge is not only a problem but an expensive problem. Green Life Group has developed products which enable cleaning these tanks as well as cleaning floating roofs. The sludge is broken down into its components and in a simple process treated in order to recover hydrocarbons and recycle them back into the refining process.



Pipe Trenches



The drainage trenches and the pipes of the refinery are extremely large and take up a significant area of the factory. Every drip or spill of fuel congregates in these trenches. The concentration of these different fuels here is a safety issue.

Green Life products clean and dissolve all manner of fuels and oils quickly and efficiently. Since our products are water based they lessen the level of combustion and are not dangerous to the user. They lessen pollution of various kinds in the refinery area.



Oil Wastewater Treatment

All the spillage of the refinery is concentrated in the site for sludge treatment. After a process of separation between water and fuels, the fuel layer is sent for various treatments and the layer of water is treated in the biological container.

Green Life Group has developed a product that helps with a better separation between the water and the fuel layers ,thus cleaning the water .

This makes the biological treatment easier and lessens the time and money spent on the separation.

The Green Life product is water based, non toxic and not dangerous to the workers. It dilutes the sludge efficiently, prevents noxious odors during the treatment of the sludge and prevents flare-ups in the working area.



Gases Neutralization

Before the cleanup of fuel sludge in large fuel tanks it is imperative to begin the operation of neutralizing the existing explosive environment within the tank by utilizing Green Up Fog. This product considerably raises the minimum ignition energy and the temperature flash point of the explosive gas and also diminishes the strong odor of the gas. Following the completion of the neutralizing process the sludge cleaning can be commenced safely.

Subject: Expert Opinion on the Safe Implementation of "GREEN UP FOG" in Neutralizing Explosive Environment within Large Fuel Tanks

References:

- 1) IEC 60079-2011: Explosive Atmospheres: General requirements (Also Israel Institute Standard 60079-2011)
- 2) NFPA 497-2004: Recommended Practice for the Classification of Flammable Liquids, Gases, or Vapors and of Hazardous (Classified) Locations for Electrical Installations in Chemical Process Areas
- 3) Atex 137: Explosive Atmospheres

**FOR MORE DETAILS PLEASE VISIT : www.egreenup.com
In the "Oil Industry Section"**



Contact Information

To obtain more information about the concept, we kindly invite you to contact us.

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