

BOILERS
DG SETS
FURNACES
SHIP IC ENGINES
REFINERIES

SURFACTANTS
SLUDGE HOMOGENIZER
SOLVENTS
DETERGENTS
CATALYSTS
LUBRICITY IMPROVER

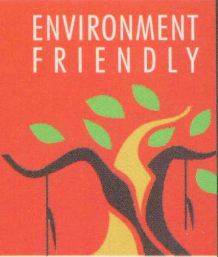
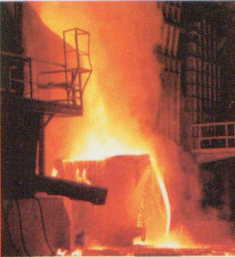
FURNACE OIL
BUNKER C FUEL
LDO, HSD
SKO, LSHS
NAPHTHA



TM

FUELNOL

LIQUID FUEL ADDITIVE

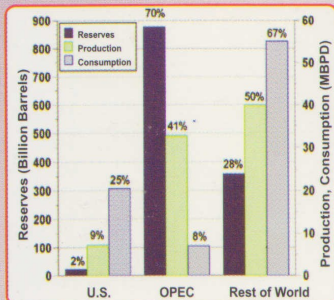


TM

ADVANCED RESOURCES
& MARKETING PVT. LTD.



FUELNOLTM
LIQUID FUEL ADDITIVE



Burning of fossil fuels figure prominently in the economic growth, equitable development and luxurious standards of living in our world. As prosperity continues, population increases and industrialization intensifies, the global fossil fuel reserves are alarmingly sounding "hollow" - what are left are also slipping away leading to short supply and price instability. A fearsome eventuality that may not sustain us far into the future. Global warming and hemisphere ravages from pollution have been squarely blamed on the emissions of greenhouse gases and the future forecasts are indeed very bleak. Plans are being formulated in right earnest by the UN for capping greenhouse gas emissions, mainly from burning fossil fuels.

We must seek to reverse the trend by putting into place remedial and corrective measures to protect the environment - Base our perspectives on realities. It is predicted that Global average temperature will rise by between 1.8 and 4 degrees Celsius mainly due to burning fossil fuels for power and transport. **ADVANCED RESOURCES AND MARKETING PRIVATE LTD** have researched and developed a liquid fuel additive for environmentally sound uses, for fossil fuel users to check green house gases and reduce fuel consumption thereby giving considerable economic benefits.


PRODUCT  **FUELNOL**TM

ARM-FUELNOL is a liquid blend of organic chemicals in a petroleum base. It is a fuel additive developed for but not limited to industrial usage. It helps achieve near complete combustion of fuel thus reducing the consumption and saving cost. The ingredients of **ARM-FUELNOL** include detergents, combustion catalyst, surfactants (chemicals that reduce the surface tension of the fuel oil), oxidation inhibitor and deposit modifiers. **ARM-FUELNOL** is easily miscible and fully compatible with all varieties of fuel oil. It can be used to treat fuels like furnace oil, bunker C fuel, low sulphur heavy stock fuel, light diesel oil, high speed diesel, kerosene and naphtha with equal benefits.

- ▶ Multipurpose, multifaceted liquid fuel additive for use in industries, etc using liquid fuels.
- ▶ All types of liquid hydrocarbon fuels.
- ▶ Ingredients used are purely Organic in nature.
- ▶ Can be added to all petroleum based liquid fuels like Petrol, Diesel, LSHS, LDO, FO, SKO, Naphtha, HSD.
- ▶ Nearly all grades of marine fuels.
- ▶ Very Expressive Anti-Pollutant agent

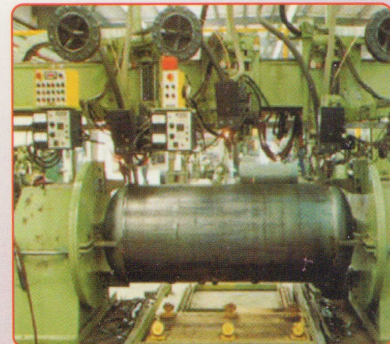
Fuel Atomisation Process



APPLICATIONS & USES OF  **FUELNOL**TM

- | | | |
|--|---------------------|-------------|
| 1. Thermo Fluid Heaters | 2. Boilers | 3. Furnaces |
| 4. DG Sets
(Very expressive Anti-polluting agent) | 5. Ships IC Engines | |
| 6. Refineries | 7. Marine Bunkers | |
| 8. Sludge homogenizers
(Recovery of fuel from sludge) | 9. Spray dryers | |

(All other equipment that use fuel oil for any of the unit operation like drying, evaporation or distillation)



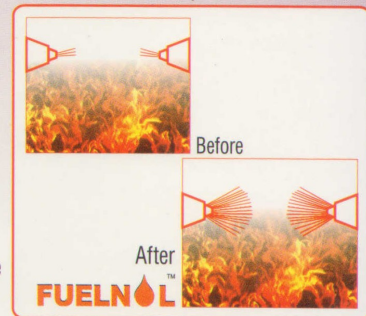


FUELNOLTM
LIQUID FUEL ADDITIVE

BENEFITS OF **ARM FUELNOL**TM

- ▶ **Helps the fuel to ignite.**
- ▶ **Improves Combustion.**
- ▶ **Reduces emissions.**
 - Self dispersing
 - Improves atomization
 - Self lubricating
 - Reduces toxic emissions thereby reducing pollution.
 - Reduces deposits.
 - Sludge homogenizers when added to the fuel tank.
 - Unburned carbon and ash particles reduced to a great extent.
 - Reduces excess air requirement required for effective combustion drastically.
 - Solvents impart non adherence properties to the flakery carbonaceous deposits which keeps the system clean & prevents choking.

Geometric Spread of Fuel



FEATURES OF **ARM FUELNOL**TM

ARM -FUELNOL is an effective mixture of chemicals and solvents that speed fuel atomization process thus promoting complete combustion.

When you burn any hydrocarbon fuel. What you should get = **Co₂**, But what you get = **C + CO + CO₂**

Carbon monoxide is a sign of incomplete combustion in fuel or in more simple terms it's a loss of energy. - hence a monetary loss

ARM-FUELNOL, aided combustion's chemical reaction: $C + O_2 = CO_2 + \text{Heat}$, thereby **ARM-FUELNOL** saves money.

1. **Surfactants** (Surface Phenomenon): The phenomenon of droplets is mainly governed by a property termed as "Surface Tension". Lesser the surface tension more is the ability of the fuel to form droplets from its liquid stage. Specialty agents in **ARM-FUELNOL** reduces the surface tension of the fuel and improves the fuel atomization process, The blend of dispersing agents, detergents and catalyst reduces toxic emissions and deposits in the exhaust system
2. **Sludge Disposable:** **ARM-FUELNOL** contains dispersant which disperses the sludge, in other words it regenerates the fuel oil sludge, w h i c h can be considered as savings in oil and easy handling of fuel due to floating sludge.
3. **Solvents:** **ARM-FUELNOL** contains solvents, which keep heat transfer surfaces clean. Due to which there is efficient heat transfer. Again due to the surfactant, the unburnts are less. Hence, it keeps the entire system i.e. Tank, Pipeline, Furnace Burners, Gas System clean.
4. **Detergents:** Detergents in **ARM-FUELNOL** keeps the system clean, as it does not allow the oil to stick to the sides thereby keeping the pipeline always clean.
5. **Catalysts:** Catalyst in **ARM-FUELNOL** in the 2nd phase of combustion releases 'O₂' which helps in reducing excess air up to 10% without increasing 'CO' levels thereby achieving ideal burning conditions in the combustion chamber or furnace which in turn reduces oxidation of the metal, thereby obtaining reduction in scaling losses.
6. **Lubricity improver:** Considering the need of switching from one fuel to alternative fuel {e.g. LDO, SKO} due to cost and availability, we have added an excellent lubricity improver which improves the properties of the fuel, protecting the equipment from unforeseen damages due to inferior fuel quality.

APPLIED USES OF **ARM FUELNOL**TM

1. **BOILERS:** **ARM-FUELNOL** increases STEAM to FUEL ratio (SFC). It helps to reduce overall maintenance by reducing burner choking, injector fouling, reducing clinker formation in fuel chamber and' uptakes. It increases overhauling intervals. **ARM-FUELNOL** reduces thermal stresses in the system, hence increasing boiler life. With Regular use of **ARM-FUELNOL** the system operates at low excess air thereby reducing emissions of Sox & Nox - Controlling environmental pollution.
2. **DG SETS:** **ARM-FUELNOL** improves units generated per litre by its lubricating properties. Reduces the wear and tear of moving parts in the fuel oil system like F.O. transfer pumps and fuel pumps. Reduces overall maintenance & is a very expressive anti pollutant.
3. **FURNACES:** **ARM-FUELNOL** is effective in various types of furnaces, kilns, rolling mills, smelting furnaces, rotary kilns, ovens etc. It reduces consumption of fuel in production and also maintains uniformity in heat distribution in the combustion chamber. Produces better quality output. The continuous use of **ARM-FUELNOL** enables the furnace to function at Lower excess air levels thereby reducing the scale formation on finished charge.
4. **SLUDGE FORMATION IN FUEL TANKS:** Dispersants and Surfactants present in **ARM-FUELNOL** reduces surface tension and breaks the hydrocarbon agglomerations, thereby liquidifying the sludge. Hence up to 70% of sludge recovery can be achieved.



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LIQUID FUEL ADDITIVE

- ◆ **ARM-FUELNOL** can be added in fuel storage tanks or in day tanks in the ratio of 1 litre of FUELNOL for every 2000 litres of liquid fuel .
- ◆ Ratio may also vary & is to be ascertained depending on the type of fuel & required application of **ARM-FUELNOL**.



Makes Business Not Compete With Conservation



HAZARDS

'ARM - FUELNOL' is a highly inflammable liquid. Avoid contact with eyes and skin.
Rinse with plenty of water in case of contact.
Use with proper ventilation.

STORAGE

'ARM - FUELNOL' is to be kept in cool place and away from heat and open flame.

PACKAGING

'ARM - FUELNOL' is available in 5 litres, 20 litres and 200 litres HDPE Containers.



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