

Fuel Oil Conditioning
with
ALKEN EVEN-FLO® Formulas

By Leonard P. Boyer
Revised 1993 by Albert A. Waltien

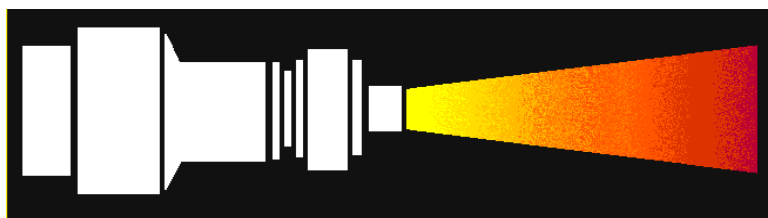


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INTRODUCTION WHAT IS ALKEN EVEN-FLO[®]?

Alken Even-Flo[®] comprises a family of wholly-organic fuel oil conditioners designed to overcome the common problems associated with burning petroleum oil as a fuel. Alken Even-Flo[®] fuel oil conditioners dissolve sludge, eliminate stratification, control water contamination, suppress slugging and corrosion, improve combustion, and reduce maintenance costs. Appropriate formulations are available for installations large and small, stationary and mobile, land and marine.



Alternative Alken[®] Fuel Treatment Products

Where special problems exist, Alken-Murray offers a number of oil-soluble metallic additives. These include combustion catalysts, slag-control agents, and sulfur trioxide suppressors.

SOME COMMON OIL-RELATED PROBLEMS

<i>Fuel Oil Storage and Handling System</i>	
PROBLEM	CAUSE
• Water	Refining, transportation, condensation
• Sludge	Heavy hydrocarbons from refining processes. Oil-water emulsions. Blending practices.
• Corrosion	Water and acid compounds in oil.
• Deposits	Sticky sludge particles.

<i>Fireside</i>	
PROBLEM	CAUSE
• Incomplete combustion	Incorrect fuel-air ratio. Poorly blended fuel. Unstable blends. Heavy hydrocarbons. Occluded water.
• Slag	Metallic impurities in oil.
• Spalling	Adsorption by refractory of low-melting vanadium compounds.
• High temperature corrosion	Dissolution of protective oxide coating by liquid phase vanadium oxides.
• Low temperature corrosion	Sulfuric acid formed by condensation of sulfur trioxide in flue gas.

<i>Environmental</i>	
PROBLEM	CAUSE
• Particulate Emission	Incomplete combustion. High ash content of oil.
• Sulfur oxides	Sulfur content of oil.
• Acid smut	Adsorption of sulfur trioxide by particulates in flue gas.