

# NavalKleen™

CONCENTRATED MICROBIAL-ENZYMATIC HYDROCARBON REMEDIATION AGENT

## INFORMATION

**NavalKleen** is a blend of naturally occurring micro-organisms that metabolize oil waste and other hydrocarbons. The **organisms simply digest the majority of hydrocarbons present in bilges, oily waste tanks and oil water separators with little disruption to surrounding, non-contaminated areas.** The by-product is water that meets environmental regulations and is ready for disposal. **NavalKleen is specially formulated to be easy to use, environmentally safe and cost-effective.**

This unique cleaning agent, utilizing bioremediation technologies, is a blend of naturally occurring micro-organisms chosen for their ability to metabolize hydrocarbons. When used in a routine maintenance program, **NavalKleen will eliminate hydrocarbon build-up, eliminating the need to clean Bilges, pump the Oily Waste Tank and clean the Oily Water Separator.** The continual use of this product will result in lower levels off concentration of NavalKleen to maintain consistent expectations. Routine use in preventative maintenance program can lead to increased cost savings provided by the bioremedial process.

## USES & APPLICATIONS

NavalKleen™ is an exception cleaning product for COMMERCIAL OCEAN VESSELS. Some of its **key features and applications are:**

- BILGES - BALLASTS - OIL/WATER SEPARATORS
- INTERCEPTORS AND OILY WASTE TANKS
- GENERAL CLEANING & DEGREASING IN ENGINE ROOMS
- REDUCES OVERALL MAINTENANCE COSTS
- REDUCE HEALTH & SAFETY ISSUES
- APPROVED BY US NAVY - USCG - MILITARY SEALIFT COMMAND
- ENVIRONMENTAL DIRECTIVE EIN 201

## DIRECTIONS & PROPERTIES

NavalKleen™ is highly concentrated and effective environmentally safe product. The following suggested directions are a general guideline to the use of the product:

**GENERAL CLEANING:** In a sprayer, using a ratio of 15:1 (Water to NavalKleen) spray cofferdam, decks etc.

**DRY BILGES:** In a sprayer or pressure washer, using a ratio of 20:1, wash the bilges or deck area. Allow the NavalKleen to consume the hydrocarbon based compounds. Operate the bilge pumps and transfer to oily waste tanks.

**WET BILGES:** Mix NavalKleen using a ratio of 15:1 and pour mixture into the bilges. Treat as for general cleaning.

**OIL WATER SEPARATOR:** Add 1% of the "OWS" capacity to the separator. Allow to re-circulate and agitate.

### PHYSICAL PROPERTIES:

Appearance: Pale Yellow Liquid      Odor: Orange Citrus      Boiling Point: 212° F.  
Soluble in Water: Complete      pH Concentrate: 6.9 to 7.2      pH Diluted: 6.9 to 7.5  
Evaporation Rate: Same as Water

**PRODUCT EFFECTIVENESS:** The effectiveness of this product and the "speed" at which it works is determined by certain factors. In general these factors are as follows:

**TEMPERATURE:** The warmer the temperature, the faster this product will work.  
(Range 42° F. to 130° F.)

**AERATION & PRESSURE:** The use of an industrial sprayer or pressure washer speeds the process.

**TYPE OF HYDROCARBON:** Some hydrocarbons take longer than others.

**PACKAGING:** 5 gal., 55 gal., 275 gal. tote containers and bulk packaging available, please call for details and options.

**NavalKleen** can be used to remediate all petroleum hydrocarbons. The following is only a partial list of the most common contaminant's:

### COMMON LUBE & HYDRAULIC OILS

- 9250 L06 LUBE DIESEL - MIL-L-9000H LUBE OIL, SHIPBOARD HIGH OUTPUT DIESEL
- 2190 TEP LTL LUBE OIL - MIL-L-17331H LUBE OIL STEAM TURBINE
- ANSI/SAE J1899-95
- MOTOR OIL AUTOMOTIVE
- MIL-H-5606- HYDRAULIC FLUID, SYNTHETIC
- MIL-L-23699- AIRCRAFT GAS TURBINE SYNTHETIC LUBRICANT
- MIL-H-17672D-HYDRAULIC FLUID PETROLEUM
- MIL-H-19457D-HYDRAULIC FLUID, FIRE RESISTANT
- TRANSMISSION FLUID
- TRANSFORMER OIL
- MINERAL OIL
- PARAFFIN

### COMMON FUELS

- NO. 2 DIESEL FUEL
- NO. 6 DIESEL FUEL
- BUNKER C
- GASOLINE
- KEROSENE
- AVGAS
- DF-A ARTIC
- DF-1 LOW TEMP
- DIESEL FUEL MARINE (DFM)
- NAVAL DISTILLATE FUEL NDF - MIL-F-16884H
- BURNER FUEL OIL - ASTM D396 STD SPEC FUEL OIL
- JP-5/ JP-8 STANDARD - MIL-T-5624P AVIATION TURBINE FUEL
- JP-4 JET FUEL
- F-44 (JP-5)
- JP-5 JET FUEL
- JP-7 JET FUEL
- JP-8 AVIATION TURBINE
- DF-2 GENERAL
- NPD

A partial listing of additional bioremedial products available through Environmental Solution, Inc.:

• Bioremedial Absorbents • Light & Heavy Duty Multi-Use Cleaner/Degreaser • Bio Based Solvent Replacements • Soil & Water Remediation • Food Processing Plants • Bioremedial Parts Washer • Floating Absorbent • Oil Water Separators • Oil & Petroleum Processing, On/Off shore

FOR ADDITIONAL INFORMATION OR TO PLACE AN ORDER, PLEASE CONTACT ENVIRONMENTAL SOLUTION, INC.

**Bioremedial Cleaning Products for a Cleaner, Greener Planet.**

Environmental Solution, Inc.



**Environmental Solution, Inc.** is a distributor of bioremedial cleaning products that eliminate spills, contamination and environmental hazards utilizing eco-friendly solutions manufactured by EnviroLogic, Inc.

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