STATE OF HAWAII
Department of Agriculture
ACCEPTED
LICENSE NO.
8342.15

VigorOx® Oil & Gas

EPA Registration No. 65402-9
EPA Est. No. 00279-NY-003

For Industrial Use Only

Active Ingredients:	Peroxyacetic Acid	15%
	Hydrogen Peroxide	10%
Inert Ingredients:		75%
Total:		100%

KEEP OUT OF REACH OF CHILDREN

DANGER

VigorOx® Oil & Gas is for use in oil-field and gas-field well operations.

FMC Corporation
Peroxygens Division
1735 Market Street
Philadelphia Pennsylvania 19103

FMC and VigorOx® are trademarks of FMC Corporation

Net Contents: 55 Gallons Pounds

Precautionary Statements
Hazards to Humans and Domestic Animals

DANGER

Corrosive, causes eye and skin damage. Harmful if swallowed. Do not get in eyes, on skin or on clothing. Wear goggles or face shield and rubber gloves when handling. Wash thoroughly with soap and water after handling. Do not breathe vapor or spray mist. Do not enter an enclosed area without proper respiratory protection.

Physical or Chemical Hazards

Strong oxidizing agent. Mix only with water. VigorOx® SP-15 Antimicrobial Agent is not combustible; however, at temperatures exceeding 156°F, decomposition occurs, releasing oxygen. The oxygen released could initiate or promote combustion of other materials.

Environmental Hazards

This pesticide is toxic to birds, mammals, fish and aquatic invertebrates. Do not discharge effluent containing this product into lakes, streams, ponds, estuaries, oceans, or other waters unless in accordance with requirements of a National Pollutant Discharge Elimination System (NPDES) permit and the permitting authority has been notified in writing prior to discharge. Do not discharge effluent containing this product to sewer systems without previously notifying the local sewage treatment plant authority. For guidance contact your State Water Board or Regional Office of the EPA.

Any solution released from the system should be diluted with water and tested for residuals to ensure that there is less than 3 ppm peroxygen remaining.

First Aid

Have the product container or label with you when calling a poison control center or doctor, or going for treatment.

If in eyes
- Hold eye open and rinse slowly and gently with water for 15-20 minutes.
- Remove contact lenses, if present, after the first 5 minutes, then continue rinsing eye.
- Call a poison control center or doctor for treatment advice.

If on skin or clothing
- Take off contaminated clothing.
- Rinse skin immediately with plenty of water for 15-20 minutes.
- Call a poison control center or doctor for treatment advice.

If inhaled
- Move person to fresh air.
- If person is not breathing, call 911 or an ambulance, then give artificial respiration, preferably by mouth-to-mouth if possible.
- Call a poison control center or doctor for further treatment advice.

If swallowed
- Call poison control center or doctor immediately for treatment advice.
- Have person sip a glass of water if able to swallow.
- Do not induce vomiting unless told to do so by a poison control center or doctor.
- Do not give anything by mouth to an unconscious person.

Note to Physician: Probable mucosal damage may contraindicate the use of gastric lavage.

Storage and Disposal

Storage

NEVER RETURN VigorOx® Oil & Gas TO THE ORIGINAL CONTAINER AFTER IT HAS BEEN REMOVED. Avoid all contaminants, especially dirt, caustic, reducing agents, and metals. Contamination and impurities will reduce shelf life and can induce decomposition. In case of decomposition, isolate container, douse container with cool water and dilute with large volumes of water.

Avoid damage to containers. Keep container closed at all times when not in use. Keep container out of direct sunlight. To maintain product quality, store at temperatures below 86°F. Do not store on wooden pallets.

Procedure for Leak or Spill

Stop leak if this can be done without risk. Shut off ignition sources; no flames, smoking, flares, or spark producing tools. Keep combustible and organic materials away. Flush spilled material with large quantities of water. Undiluted material should not enter confined spaces.

Disposal

Pesticide Disposal

If material has been spilled, an acceptable method of disposal is to dilute with at least 20 volumes of water followed by discharge into suitable treatment system in accordance with all local, state, and Federal environmental laws, rules, regulations, standards, and other requirements. Because acceptable methods of disposal may vary by location, regulatory agencies should be contacted prior to disposal.

VigorOx® Oil & Gas which is to be discarded should be disposed of as hazardous waste after contacting the appropriate local, state, or Federal agency to determine proper procedures.

Container Disposal

Nonrefillable containers less than 5 gallons. Nonrefillable container. Do not reuse or refill this container. Offer for recycling, if available. Triple rinse container (or equivalent) promptly after emptying. Triple rinse as follows: Empty the remaining contents into application equipment or a mix tank and drain for 10 seconds after the flow begins to drip. Fill the container ¼ full with water and recap. Shake for 10 seconds. Pour rinsate into application equipment or a mix tank or store rinsate for later use or disposal. Drain for 10 seconds after the flow begins to drip. Repeat this procedure two more times.

Nonrefillable containers greater than or equal to 5 gallons. Nonrefillable container. Do not reuse or refill this container. Offer for recycling, if available. Triple rinse container (or equivalent) promptly after emptying. Triple rinse as follows: Empty the remaining contents into application equipment or a mix tank. Fill the container ¼ full with water. Replace and tighten closures. Tip container on its side and roll it back and forth, ensuring at least one complete revolution, for 30 seconds. Stand the container on its end and tip it back and forth several times. Turn the container over into its other end and tip it back and forth several times. Empty the rinsate into application equipment or a mix tank or store rinsate for later use for disposal Repeat this procedure two more times. Empty drums are not returnable to FMC unless special arrangements have been made. Dispose of drums in accordance with local, state, and Federal regulations.

All Refillable containers. Refillable container. Refill this container with pesticide only. Do not reuse this container for any other purpose. Cleaning the container before final disposal is the responsibility of the person disposing of the container. Cleaning before refilling is the responsibility of the refiller. To clean the container before final disposal, empty the remaining contents from this container into application equipment or mix tank. Fill the container about 10 percent full with water. Agitate vigorously or recirculate water with the pump for 2 minutes. Pour or pump rinsate into application equipment or rinsate collection system. Repeat this rinsing procedure two more times. Return to FMC for reuse.

Directions for Use

It is a violation of Federal law to use this product in a manner inconsistent with its labeling.

For antimicrobial use with aqueous treatment fluids in subterranean oilfield and gas-field well operations such as well drilling, formation fracturing, productivity enhancement and secondary recovery.

VigorOx® Oil & Gas can be for control of slime forming and spoilage bacteria and anaerobic sulfate reducing bacteria, *Desulfovibrio vulgaris,* that lead to reservoir souring and metal corrosion.

Drilling Muds, Fracturing Fluids, Well Squeezed Fluids

For the preservation of drilling muds, workover and completion fluids and other product susceptible to contamination, pre-mix with the fluid or add directly at the point of use at 3.75 fluid ounces per 1000 gallons of water (5 ppm) to 75.5 fluid ounces per 1000 gallons of water (100 ppm) as required. Depending on the severity of the contamination, initial application may be added up to 755 fluid ounces per 1000 gallons of water (1000 ppm).

Flooding, Injection and Produced Water

For Water Flooding operations, add initially at 3.75 fluid ounces per 1000 gallons of water (5 ppm) to 75.5 fluid ounces per 1000 gallons of water (100 ppm) and repeat until control is achieved. Subsequent treatment may be continued on a weekly basis or as required.

Injection wells associated with gas storage systems may be treated up to 100 ppm when diluted in the formation water. Any additional top-up water should be treated as required.

For hydrostatic systems, apply 3.75 fluid ounces per 1000 gallons of water (5 ppm) to 75.5 fluid ounces per 1000 gallons of water (100 ppm) depending on the water quality and the duration of the shut-in.

Pipeline and Tank Maintenance

For microbial control in water-bottoms in crude and refined hydrocarbon storage tanks, piping and transportation systems. Apply 3.75 fluid ounces per 1000 gallons of water (5 ppm) to 75.5 fluid ounces per 1000 gallons of water (100 ppm) in the aqueous phase, directly injected into the water-bottom, pipeline or may be added to the hydrocarbon phase. Treatment may be applied daily or monthly for both storage and transportation systems as needed.

In all applications always prepare a new solution daily to ensure effectiveness. Do not re-use solutions. Dispose of unused solution.

EMERGENCY TELEPHONE NUMBERS
(24 HOURS)
MEDICAL: COLLECT 303-595-9048
TRANSPORTATION: 800-424-9300
OTHER: COLLECT 716-879-0400

ESL 072310 REV 081810