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OWNER'S SERVICE MANUAL

Manual 240-FI-90-50/5M

9/2/2015 ver 1.0

FIREICE® FIRE EXTINGUISHER OWNER'S MANUAL

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Introduction

Anyone who might be expected to use this fire extinguisher should study and understand the information in this manual. Please read it completely and keep it accessible so that it may be reviewed on a periodic basis. OSHA requires training of personnel who might be expected to use an extinguisher in the case of an emergency. Familiarity with this manual and the instruction nameplate on the extinguisher will contribute to successful use of the extinguisher. You should know just what it CAN and CANNOT do, where it is located, how to use it and how to maintain it. Proper and effective use of any fire extinguisher begins with an understanding of the classes of fire. Extinguishers are tested and rated for certain classes and sizes of fires. Some are rated for single classifications, some for multiple classifications and others constitute a hazard if used on certain types of fires.

TYPES AND CLASSES OF FIRES

Classes of Fires	Types of Fires	Picture Symbol
A	Wood, paper, cloth, trash, and other ordinary materials	
B	Gasoline, oil, paint, and other flammable liquids	
C	Maybe used on fires involving electrical equipment without danger to the operator	
D	Combustible metals and combustible metal alloys.	
K	Cooking media (vegetable or animal oils and fats)	

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IMPORTANT THINGS TO REMEMBER

NEVER DISCHARGE A FIRE EXTINGUISHER INTO ANYONE'S FACE

NEVER THROW AN EXTINGUISHER INTO THE FIRE OR LEAVE IT UNATTENDED IF THE FIRE IS NOT OUT (Pressure build-up could cause an explosion from even a partially full extinguisher)

KEEP FIRE EXTINGUISHER AWAY FROM CHILDREN

NEVER USE ON LIVE ELECTRICAL EQUIPMENT. The nameplate on the extinguisher has the international red slash across the class C symbol designating the hazard of using it where electricity is involved.

NEVER USE FOR FIRES IN COOKING MEDIA. The extinguishing agent could cause the cooking media to splash and cause serious burns to the user.

After discharging the fire extinguisher the ground will be slick where the extinguishing agent has been deployed. Avoid walking in the area until the extinguishing agent has been removed and the area has dried.

Do not subject the extinguisher to conditions where it might freeze.

NOTE: As required by OSHA, Material Safety Data Sheets (MSDS) is available for the chemical contained in this fire extinguisher. Contact your GelTech distributor or GelTech Solutions for more information. In addition the MSDS can be found at www.geltechsolutions.com.

All fire extinguishers should be installed, inspected and maintained in accordance with the National Fire Protection Association "NFPA 10: Standard for Portable Fire Extinguishers" and all local authority having jurisdiction requirements.

When required, maintenance should be performed, as indicated, by trained personnel utilizing proper equipment. Fire extinguishers are pressure vessels and, therefore, should be treated with respect and handled with care. The extinguishers are mechanical devices that require periodic maintenance to ensure readiness, as well as safe and proper operation. GelTech Solutions strongly recommends that a trained professional – preferably your local authorized distributor – perform all required inspection, testing and maintenance of portable fire extinguishers.

GelTech Solutions offers authorized replacement parts, which are available to ensure proper maintenance – use of substitute parts releases GelTech Solutions of its warranty obligations. GelTech Solutions' parts contain machined surfaces and threads that are manufactured to exacting tolerances. O-rings, hoses, nozzles, horns and all metal parts meet precise specifications and are subject to multiple in house inspections and tests for acceptability. There are substitute parts available on the market that may be incorrectly labeled as Underwriter's Laboratories (UL) listed component parts that can be used with these portable extinguishers. Some of these substitute parts are even advertised as GelTech Solutions type parts. If a part is not purchased through GelTech Solutions or one of their approved distributors, these parts may

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not meet UL requirements. Use of any of these non-listed, substitute parts voids all GelTech Solutions extinguisher warranties. **DO NOT SUBSTITUTE PARTS.**

WARNING

DO NOT use this extinguisher on Class B fires that involve flammable liquids, Class C fires the involve energized electrical equipment, or class D fires that involve any flammables that will react with water.

Protect this extinguisher from freezing conditions.

References contained in this manual:

NFPA 10 – Standard for Portable Fire Extinguishers

CGA C-1 Methods for Hydrostatic Testing of Compressed Gas Cylinders

CGA C-6 Standard for Visual Inspection of Compressed Gas Cylinders

Above references are available from:

National Fire Protection Association
P.O. Box 9101
Quincy, MA 02269-9101

Compressed Gas Association
1235 Jefferson Davis Hwy, Suite 501
Arlington, VA 22202

GelTech Solutions does not service, maintain or recharge fire extinguishers. The purpose of this manual is to act as a guide to assist service personnel in the installation, inspection, maintenance and recharge of FireIce extinguishers only. No instruction manual can anticipate all possible malfunctions that may be encountered in the service of fire extinguishers. GelTech Solutions assumes no liability for installation, service, maintenance or recharge of fire extinguishers by publishing this manual.

INSTALLATION

Install, inspect, maintain and test your fire extinguisher in accordance with the National Fire Protection Assoc. Standard 10 “Portable Fire Extinguishers”.

Your fire extinguisher should be mounted in a clean dry area, accessible to possible fire hazards and preferably near an exit. Mount it so that the top is from 3 ½ to 5 feet above the floor and out of the reach of small children.

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Use the mounting bracket furnished with the extinguisher or an approved GelTech vehicle bracket if required. Fasten to a solid surface using strong screws or fasteners (not included). Follow the Mounting Instructions below, particularly in public areas where the extinguisher might be accidentally dislodged from the bracket or have objects placed on it.

MOUNTING INSTRUCTIONS

UL specifies that a hanging device must withstand a vertical force of five times the weight of the charged extinguisher but not less than 100 pounds. The extinguisher bracket should be mounted as follows:

Walls where 2"x4" studs can be found – ALL SIZES: Mount wall hanger bracket securely to stud using two #10 x 1¼" long wood screws through the diagonal smaller holes in the bracket.

Sheetrock – ALL SIZES: Mount a ¾" thick board to the wall using 3/16" toggle bolts – height and width of the board is dependent on extinguisher size. The board should extend a minimum of two inches beyond all sides of the extinguisher profile (excluding hose and horn). Mount wall hanger bracket to board using two #10 x 1" long wood screws as above.

Cinderblock or Cement – ALL SIZES: Mount wall hanger bracket using one ¼" toggle bolt or masonry lead screw expansion anchor through center hole in the bracket. Mount vehicle/marine strap type brackets using two 3/16" toggle bolts or #10 lead screw expansion anchors.

Concrete or Tile Wall – ALL SIZES – Mount wall hanger bracket using one ¼" masonry lead screw expansion anchor through center hole in wall bracket. Mount vehicle/marine strap type brackets using two No. 10 masonry lead screw expansion anchors.

Steel Posts or Beams – ALL SIZES: Special tools and fasteners are required – have extinguisher mounted by a professional fire extinguisher service company.

Tile Walls: Locate in joint.

IN CASE OF FIRE

1. Have everyone evacuate the area immediately.
2. Call the Fire Department even if the fire appears to be small (small fires quickly become LARGE fires). The Fire Dept. phone number should be posted at every phone.
3. Use your extinguisher properly, according to the instructions on the nameplate and in this manual. A large fire should be fought by professionals. Be prepared to leave the area if the fire cannot be immediately controlled.

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HOW TO USE

NOTE: The following instructions are of a general nature, intended to familiarize the user with the basic operating techniques of hand portable extinguishers.

1. Hold the extinguisher upright and pull the ring (safety) pin breaking the plastic seal.
2. Stand back from the fire (the minimum distance stated on the nameplate) and aim at the base of the fire nearest you.
3. Keeping the extinguisher upright, squeeze the handles together to discharge and sweep from side to side. Move closer as the fire is extinguished but not so close as to scatter the burning material.
4. When the fire is out, back away while watching for possible re-ignition.
5. Evacuate and ventilate the area immediately after use. The fumes and smoke from any fire may be hazardous and can be deadly.

NOTE: Whenever possible, protective clothing and breathing equipment should be used while fighting a fire.

1. HOLD EXTINGUISHER UPRIGHT AND PULL THE RING (SAFETY) PIN



2. STAND BACK FROM THE FIRE AND AIM AT THE BASE OF THE FIRE NEAREST YOU



3. SQUEEZE HANDLES TOGETHER & SWEEP THE EXTINGUISHER STREAM SIDE TO SIDE



**REMEMBER THIS SIMPLE WORD –
P A S S**

Pull

Aim

Squeeze

Sweep

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INSPECTING THE EXTINGUISHER

INSPECTION - Your extinguisher should be inspected monthly, checking for any possible damage, corrosion, leakage or obstructions in the discharge outlet. The tamper seal should be unbroken. The extinguisher should be cleaned so that the instructions on the label are always clearly visible.

Extinguisher pressure gauges should be checked. The indicator will vary slightly due to temperature, but should always be in the GREEN area if it is fully pressurized. Heft or weigh the extinguisher to determine fullness.

The extinguisher should be inspected at regular intervals (monthly or more often if circumstances require) to ensure that it is ready for use.

Per NFPA 10, the inspection should include a “quick check” of the extinguisher that confirms the following:

1. Located in designated place.
2. No obstructions to access or visibility.
3. Operating instructions on nameplate (label) and facing outward.
4. Seals and tamper indicators are not broken or missing.
5. Determine fullness by weighing or “hefting”.
6. Examine for obvious physical damage, corrosion, leakage, or clogged nozzle.
7. Pressure gauge reading in the operable area.

MAINTAINING THE EXTINGUISHER

ANNUAL MAINTENANCE is a more complete inspection of the extinguisher and should be done professionally. It will reveal the need for hydrotesting which must be done every FIVE YEARS. Most local authorities require special tags be attached to the extinguisher to verify this service.

SIX YEAR MAINTENANCE – Every six years extinguishers requiring shall be emptied and subject to thorough examination of mechanical parts, extinguishing agent and expelling means. When applicable maintenance procedures are done during periodic recharging or hydrotesting, the six year requirement will begin from that date.

RECHARGE should be done professionally immediately after any use by your local Fire Equipment Dealer who has the trained personnel, extinguishing agents and equipment to do it properly. This extinguisher must be recharged with the extinguishing agent specified on the nameplate. Substitutions could cause damage or injury **and will void the warranty.**

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Per NFPA 10, at least once a year (or more frequently if indicated by an inspection), maintenance on the extinguisher should be performed. Maintenance is a “thorough check” of the extinguisher. It is intended to give maximum assurance that an extinguisher will operate effectively and safely. This includes a thorough examination as well as any necessary repairs or even extinguisher replacement. Maintenance will may also reveal the need for hydrostatic testing.

MAINTENANCE PROCEDURE

1. Clean extinguisher to remove dirt, grease or foreign material. Check to make sure that the instruction nameplate is securely fastened and legible. Inspect the cylinder for corrosion, abrasion, dents, or weld damage. If any of these conditions are found and you doubt the integrity of the cylinder, hydrostatically test, using the proof pressure method and a suitable cage, in accordance with CGA Pamphlet C-1 and NFPA Pamphlet 10.
2. Note: When cleaning, avoid use of solvents around the pressure gauge. They could seriously damage the plastic gauge face.
3. Inspect the extinguisher for damage, missing or substitute parts. Only factory replacement parts are approved for use with the FireIce extinguishers.
4. Weigh extinguisher with a calibrated scale of suitable size and compare with weight printed on the maintenance section of the nameplate (label). Recharge extinguisher if weight is not within indicated allowable tolerances.
5. Check the date of manufacture on the extinguisher cylinder hanger loop or on the extinguisher nameplate. Cylinder must be hydrostatically tested every 5 years to the test pressure indicated on the label.
6. Visually inspect the pressure gauge:
 - a. If bent, damaged or improper gauge, depressurize and replace.
 - b. If pressure is low, check for leaks.
 - c. If over pressurized (overcharged), clean, refill, and recharge the extinguisher to 100 psi (690 kPa).
7. Inspect the footstand (base). If cracked or broken replace with proper footstand.
8. Check ring pin for freedom of movement by breaking the seal and removing the pin. Replace the ring pin if bent or if removal is difficult.
9. Inspect discharge lever for dirt or corrosion that might impair freedom of movement. Inspect carrying handle for proper installation. If lever, handle or rivets are damaged or distorted, replace with proper GelTech Solutions factory replacement part.
10. Remove hose assembly using a wrench and inspect for damage. Replace the hose assembly if necessary. Blow air through hose assembly to ensure passage is clear of foreign material.

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11. Examine the air-pressurizing valve (Schrader) for damage. The cap should be in place to prevent leaking. Inspect the valve assembly for corrosion or damage to hose threads connections. Replace valve assembly or component parts as necessary following the proper depressurization and recharge procedures.
12. Install hose and nozzle assembly using a wrench and hand tighten (100-125 in-lbs max.).
13. Install new tamper seal and record service data on the extinguisher inspection tag.
14. Rehang the extinguisher on the wall hanger bracket making sure that it fits the hanger bracket properly – replace the bracket if necessary.

Note: If FireIce is left in the hose it can harden and the extinguisher will not function. Ensure the hose is clear of all foreign material.

RECHARGING THE EXTINGUISHER

Per NFPA 10, extinguishers are required to be recharged after any use or as indicated by an inspection or when maintenance is performed. This includes the replacement of the extinguishing agent and the expellant for this type of extinguisher.

WARNING:

- a) Ensure that the extinguisher is fully depressurized before attempting to recharge.
- b) Use a regulated pressurized source (nitrogen). Set the calibrated regulator to no more than 25 psi (175 kPA) higher than the gauge operating pressure (100 psi).
- c) Check and calibrate regulator gauge at frequent intervals. The regulator gauge should be used to determine when the intended charging pressure has been reached. Do not use the extinguisher gauge for this purpose.
- d) Never leave an extinguisher connected to a regulator of a high-pressure source for an extended period of time. A defective regulator could cause the cylinder to rupture due to excessive pressure.

RECHARGING PROCEDURE

1. Complete “Maintenance Procedure” steps 1 through 10.
2. Discharge all remaining FireIce product making sure that there is no remaining pressure within the extinguisher.
3. Remove the valve assembly using a wrench while securely holding the extinguisher. Disassemble this assembly by removing the down tube assembly (use a wrench on the brass

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retainer, not the plastic tube), spring and valve stem. Remove the collar O-ring from the valve assembly.

4. Thoroughly rinse all parts with clean water and wipe dry with a soft cloth. Push water through the down tube and hose assemblies to ensure all FireIce is removed to prevent future blockages. Blow the valve out with air or nitrogen. Inspect the spring – replace parts if worn or damaged. Replace valve stem and collar O-ring. Lubricate the collar O-ring and small O-ring on the valve stem with Visilox V-711 (do not lubricate the valve stem seal). Inspect the down tube. If it is cracked, deformed, or does not have a threaded brass spring retainer, replace the down tube. Inspect down tube O-ring and replace, if necessary.
5. Rinse the cylinder with clean water and inspect the interior following CGA Visual inspection Standard, Pamphlet C-6.
6. Firmly replace the plastic fill tube and shake FireIce XT 2.5 gallon pre-mixed refill container vigorously and fill the cylinder with the entire contents of the shaken pre-mixed container.
7. Install a “Verification of Services” collar around the neck of cylinder. Install the valve assembly on the cylinder and properly align. Caution: Hand-tighten the valve collar nut to 100-125 in. lbs. max (1.15 -1.44 m kg). Over-tightening with a wrench will damage the valve.
8. Remove cap from the air-pressurizing valve on the side of the valve body and pressurize to 100 psi (690 kPa) using nitrogen. Note: A 02141 fill adapter may also be used by installing to the female valve outlet (where the hose assembly attaches). The pressure regulator should be set to no more than 125 psi (862 kPa). Replace pressure valve cap. The cap must be in place to ensure that the valve will not leak.
9. Check the collar, gauge, cylinder welds and valve orifice for leaks using a leak detection fluid or a solution of soapy water. Remove leak detection fluid from the valve assembly by blowing out with air and wipe exterior of the extinguisher dry.
10. Install hose assembly into the operating valve.
11. Install ring pin with ring facing front of the extinguisher. Install new tamper seal. Record recharge date and attach new recharge tag.
12. Weigh assembled extinguisher and confirm that the total weight is within the allowable tolerances indicated in the Maintenance section of the extinguisher nameplate.

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TROUBLESHOOTING GUIDE

Warning: Determine the source of a leak before the extinguisher is depressurized. The extinguisher must be completely depressurized before any attempt is made to de-valve it and correct any leakage problem. To depressurize – hold the extinguisher in an inverted position and slowly squeeze the discharge handle. Some liquid remaining in the down tube will be discharged so care should be taken in the area used for depressurization. Thoroughly clean all valve parts after depressurization and valve removal.

	Problem	Corrective action
1	Leak at collar O-ring.	Remove valve assembly, clean collar thoroughly and install new O-ring. Lubricate the O-ring with Visilox V-711.
2	Leak through valve.	Install new valve stem assembly. Check valve seat for scratches or foreign matter.
3	Leak around gauge threads.	Remove gauge* and reinstall using Teflon tape on the gauge threads.
4	Defective gauge.	Remove defective gauge* and install a new P/N 06479 gauge using Teflon tape on the gauge threads.
5	Leak in the cylinder.	Contact GelTech Solutions if under warranty. Otherwise mark “rejected” and return to owner.
*Pressure gauge threads are coated with a special epoxy at the factory. For easy removal, soak the valve assembly in hot water (180° F) for two to four minutes. Remove gauge with a thin 7/16” open end wrench.		

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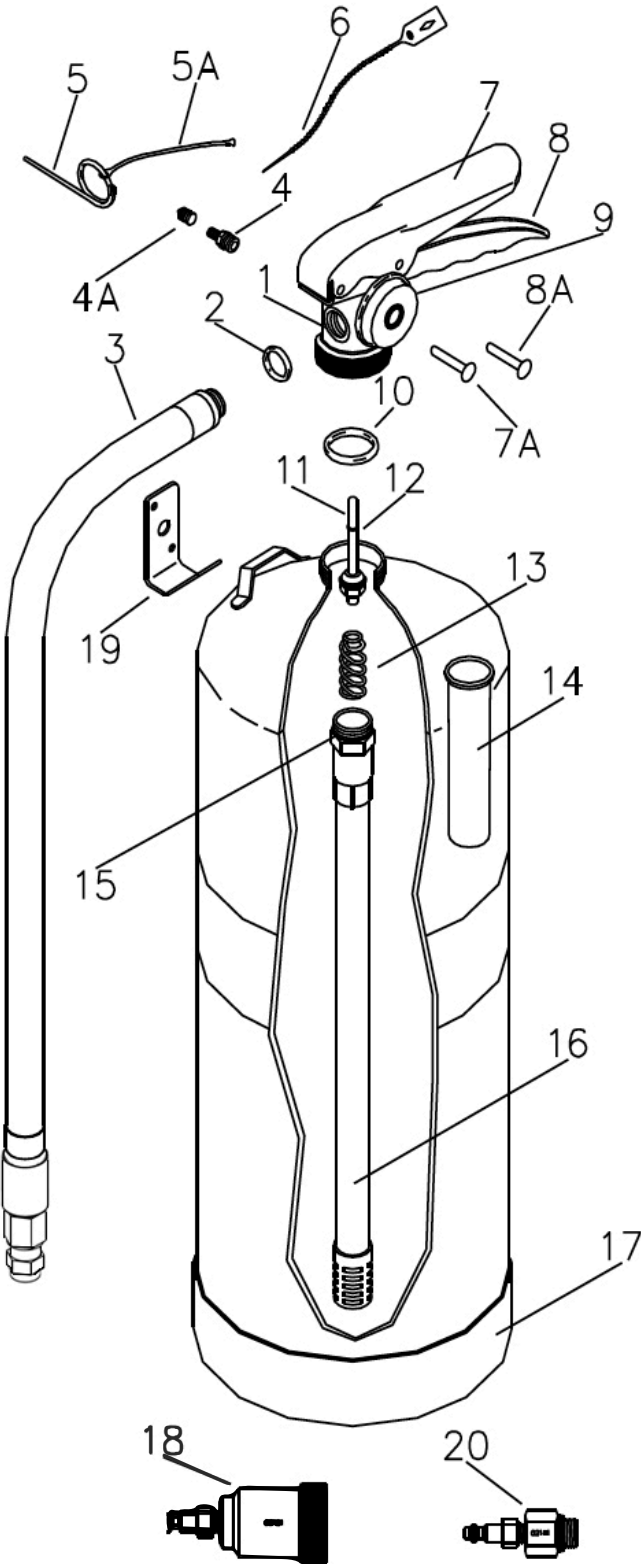
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Parts list for 2 ½ Gallon Stainless Steel Stored Pressure FireIce Extinguisher (Brass Valve) Model 240-FI90-50/5

Item No.	Part No.	Description	Std. Pkg.
1	G13281	Valve Ass'y – 240 Model Only	1
2	G06978	Hose Gasket (O-ring)	24
3	G06999	Hose & Nozzle Ass'y	1
4	G00155	Pressure Valve & Cap ass'y - 240 Model Only	1
4A	G00158	Cap Only for Pressure Valve - 240 Model Only	1
5	G00160	Ring Pin Stainless Steel	24
5A	G00532	Chain (Nylon) for Ring Pin	24
6	G01387	Lock Wire Seal (Red)	500
7	G07762	Lever and Rivet	1
7A	G01563	Rivet Only for Lever	24
8	G09020	Handle and Rivets	1
8A	G01564	Rivet Only for Handle (2 Required)	24
9	G06479	Gauge 100 psi (Stainless Steel Tube)	1
10	G05240	Collar O-ring Collar O-ring (Bulk Bag)	24 100
11	G06093	Valve Stem Ass'y Valve Stem Ass'y (Bulk Bag)	6 96
12	G05243	Valve Stem O-ring	24
13	G00383	Spring	6
14	G02595	Fill Tube	1
15	G05690	O-ring-Down Tube/Retainer	12
16	G15943	Down Tube/Retainer Ass'y – 240 Model Only	1
17	G03576	Foot Stand w/clip (Black) – 240 Model Only	1
18	G03181	Hydrotest Adapter	1
19	G01007	Wall Bracket	6
20	G02141	Pressurizing Adapter	1
*	G06247	Visilox Lubricant (5oz Tube)	1
*	G04488	Adhesive (Footstand) 3 oz. Tube	1
Note: All Valve Assemblies Include New Valve Body, Gauge, Knurled Nut, Lever, Handle and Pressure Valve			
*		Part Not Pictured	

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OWNER'S MANUAL for HAND PORTABLE GEL FIRE EXTINGUISHER MODEL 240-FI-90-50/5M



GELTECH LIMITED 5 YEAR WARRANTY

GelTech warrants its fire extinguishers to be free from defects in material and workmanship for a period of five (5) years from the date of purchase. During the warranty period, any such defects will be repaired or the defective extinguisher replaced IF THE ORIGINAL GREY TAMPER SEAL IS INTACT AND/OR IF ONLY FACTORY REPLACEMENT PARTS HAVE BEEN USED TO SERVICE THE EXTINGUISHER. This warranty does not cover defects resulting from modification, alteration, misuse, exposure to corrosive conditions, improper installation or maintenance.

ALL IMPLIED WARRANTIES, INCLUDING BUT NOT LIMITED TO, WARRANTIES OF FITNESS FOR PURPOSE AND MERCHANTABILITY, ARE LIMITED TO THE TIME PERIODS STATED ABOVE. IN NO EVENT SHALL GELTECH BE LIABLE FOR INCIDENTAL OR CONSEQUENTIAL DAMAGES.

Some states do not allow limitations on how long an implied warranty lasts or the exclusion or limitation of incidental or consequential damages, so the above limitations or exclusions may not apply to you. GelTech neither assumes nor authorizes any representative or other person to assume for it, any obligation or liability other than expressly set forth herein. This warranty gives you specific legal right and you may have other rights, which vary from state to state. To obtain performance of the obligation of this warranty, write to:

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