USER INSTRUCTION, SAFETY AND TRAINING GUIDE

NFPA 1999 EMERGENCY MEDICAL (EMS) WORK GLOVES

LION
ready for action

7200 POE AVE.
DAYTON, OHIO 45414
www.LIONprotects.com

August 2023

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Earn your LION NFPA 1500
PPE Safety and Use Certificate

⚠ DANGER

You MUST read this Guide and all Safety, Cleaning, and Information labels before wearing.

Burns are a function of time and temperature. First degree skin burns can occur when skin reaches a temperature of as low as 118° F (47.8° C).

Fire burns at temperatures up to 2000° F (1093.3° C) or higher.

These Gloves provide **NO** protection against heat and flame.

While wearing these Gloves, you may be burned without heat sensation or warning in some circumstances, and without any sign of damage to the Gloves.

MH60854

PROTECTIVE MULTIPLE USE WORK GLOVES FOR EMERGENCY MEDICAL OPERATIONS IN ACCORDANCE WITH NFPA 1999-2018.

THIS GLOVE MEETS THE MULTIPLE-USE EMERGENCY MEDICAL WORK GLOVE REQUIREMENTS OF NFPA 1999, STANDARD ON PROTECTIVE CLOTHING AND ENSEMBLES FOR EMERGENCY MEDICAL OPERATIONS, 2018 EDITION.

DO NOT REMOVE THIS LABEL!

1. Certification Label

LION® **XS**

Bravo™

LPGEMS1=10

LION
7200 POE AVE., SUITE 400
DAYTON, OH 45414 USA
800-421-2926

TRACE NO. _____

MATERIALS: SYNTHETIC LEATHER, SPANDEX, NEOPRENE, CROSSTECH® INSERT WITH FILM TECHNOLOGY, POLYESTER LINING, NYLON, COTTON & NOMEX® THREADS.

HAND OR MACHINE WASH GENTLE CYCLE WITH MILD SOAP. NO BLEACH. DO NOT WRING. SQUEEZE TO REMOVE EXCESS WATER. AIR DRY.

2. Cleaning Label

DATE OF MANUFACTURE/LOT NO.

MONTH:

☐ JAN ☐ MAY ☐ SEP
☐ FEB ☐ JUN ☐ OCT
☐ MAR ☐ JUL ☐ NOV
☐ APR ☐ AUG ☐ DEC

YEAR:

☐ 2018 ☐ 2020 ☐ 2022
☐ 2019 ☐ 2021 ☐ 2023

ASSEMBLED IN THE USA OF USA AND IMPORTED COMPONENTS.

SHELL: 40% SYNTHETIC LEATHER, 25% SPANDEX, 15% NEOPRENE, 20% PVC. BARRIER: 100% MAN-MADE MATERIALS. LINER: 100% POLYESTER.

3. Date of Manufacturing Label

USER GUIDE:
YOUR GLOVE USER GUIDE IS AVAILABLE ONLINE AS A DOWNLOADABLE PDF. GO TO: **www.LIONPPE.com**; OR TO REQUEST A COPY, CALL **1-800-421-2926.**

⚠ *WARNING*

This guide provides information on the use and limitations of this product. Do not use your Gloves until you have read and understood this User Instruction, Safety and Training Guide and all of the attached labels.

TABLE OF CONTENTS

1. INTRODUCTION

Your NFPA 1999 Compliant Work Gloves (referred to throughout this Guide as the "NFPA 1999 Compliant Work Glove" or "Glove") are designed to provide limited protection in emergency medical operations when worn in conjunction with other specified elements of the emergency medical ensemble. The gloves are manufactured and certified under the performance requirements for work gloves of the NFPA 1999 Standard on Protective Clothing and Ensembles for Emergency Medical Operations.

This User Instruction, Safety and Training Guide gives important instructions regarding the use, inspection, care, maintenance, storage and retirement of your NFPA 1999 Compliant Work Gloves. No one except you, the emergency medical responder, should remove this Guide. Immediately upon receipt of your NFPA 1999 Compliant Work Gloves, you should carefully read and save this Guide for future reference.

Emergency medical response is an extremely dangerous profession. The circumstances of each hazardous situation are unique and often impossible to predict. LION Protective Gloves are designed to provide limited protection against injuries to the hand when properly maintained and worn by trained emergency medical responders during emergency medical response activities. This Guide is a training tool to help you understand your NFPA 1999 Compliant Emergency Medical Work Gloves and how to use them in the safest possible manner during dangerous emergency medical operations. Please take the time to read it.

For your personal safety, be alert for important safety messages in this training guide:

⚠ DANGER

DANGER Indicates immediate hazards that will result in serious personal injury or death if not avoided, or if instructions, including recommended precautions, are not followed. The signal word **"DANGER"** is highlighted in red, in this training guide to indicate the extreme hazard of the situation.

⚠ WARNING

WARNING Indicates potentially hazardous situations that could result in serious personal injury or death if not avoided, or if instructions, including recommended precautions, are not followed. The signal word **"WARNING"** is highlighted in black in this training guide.

⚠ CAUTION

CAUTION Indicates potentially hazardous situations or unsafe practices that could result in minor or moderate personal injury or product or property damage if instructions, including recommended precautions, are not followed. The signal word **"CAUTION"** is highlighted in gray in this Guide.

2. DEFINITIONS

ASTM – Acronym for American Society of Testing and Materials.

Aramid Fibers – Specially manufactured polymer fibers in which the fiber-forming material consists of linked, long chain-like structures of large molecules. Aramid fibers exhibit higher resistance to flammability, higher strength and higher elasticity than ordinary synthetic or natural fibers. Fabrics made from aramid fibers maintain their integrity at high temperatures and are used in protective clothing and other industrial applications.

Authority Having Jurisdiction – The organization, office or individual responsible for approving equipment, an installation or a procedure.

Body Substance Isolation – A concept practiced by emergency responders whereby blood and ALL other body fluids are considered a risk for transmission of bloodborne diseases.

Biological Agents – Biological materials that are capable of causing acute disease or long-term damage to the human body.

Biological Terrorism Agents – Liquid or particulate agents that can consist of biologically derived toxins or pathogens to inflict lethal or incapacitating casualities.

Body Fluid-Borne Pathogen – An infectious bacterium or virus carried in human, animal or clinical body fluids, organs or tissue.

Body Fluids – Fluids produced by the body including, but not limited to, blood, semen, mucous, feces, urine, vaginal secretions, breast milk, amniotic fluid, cerebrospinal fluid, synovial fluid and pericardial fluid.

CBRN – An abbreviation for chemicals, biological agents and radiological particulates hazards.

Chemical Terrorism Agent – Liquid, solid, gaseous and vapor chemical warfare agents and toxic industrial chemicals used to inflict lethal or incapacitating casualties, generally on a civilian population as a result of a terrorist attack.

Component(s) – Any material, part or subassembly used in the construction of NFPA 1999 Compliant Work Gloves.

Emergency Medical Garment – Any item of emergency medical protective clothing designed and configured as a single garment or assembly of multiple garments to provide barrier protection to the wearer's upper and lower torso, excluding the hands, face and feet.

Emergency Medical Operations – Emergency patient care and transportation prior to arrival at a hospital or other health care facility.

Emergency Medical Protective Clothing– Multiple items of protective clothing, including garments, examination gloves, work gloves, cleaning gloves, footwear and footwear covers and face protection and barrier protection against blood and body fluid-borne pathogens contact with the wearer's body during delivery of emergency patient care and other emergency medical functions.

Entry Firefighting – EXTRAORDINARILY specialized firefighting operations that can include the activities of rescue, fire suppression, and property conservation at incidents involving fires producing very high levels of conductive, convective and radiant heat; such as aircraft fires, bulk flammable gas fires, and bulk flammable liquid fires. Highly specialized thermal protection from exposure to extreme levels of conductive, convective and radiant heat is necessary for persons involved in such EXTRAORDINARILY specialized operations and because direct entry into the flames is made. NFPA 1999 Compliant Work Gloves are NEVER to be used for entry firefighting or any direct contact with flames or molten metals, and do not provide the required level of protection.

Exposure Incident – Specific contact of the following with blood or O.P.I.M.: 1) eye; 2) mouth or other mucous membranes; 3) non intact skin; or 4) parenteral contact.

Flame Resistance – The property of a material whereby the application of a flaming or non-flaming source of ignition and the subsequent removal of the ignition source results in the termination of combustion. Flame resistance can be an inherent property of the material or it can be imparted by specific treatment.

Flame Retardant – A chemical compound that can be incorporated into materials or a textile fiber during manufacture or treatment to reduce its flammability.

Flash Fire – A fire that rapidly spreads through a diffuse fuel, such as a dust, gas or the vapors of an ignitable liquid, without the production of damaging pressure.

Fluorescence – The process by which radiant flux of certain wavelengths is absorbed and reradiated, nonthermally in other, usually longer, wavelengths.

Glove – The term Glove used throughout this Guide refers ONLY to NFPA 1999 Compliant Work Gloves.

Guide – Means this User Instruction, Safety and Training Guide.

Heat Flux – The thermal intensity indicated by the amount of power per unit area. The heat flow rate through a surface of unit area perpendicular to the direction of heat flow.

Interface Area – An area of the body where the protective garments, helmet, gloves, footwear or respiratory facepiece meet, i.e. the protective coat--helmet--SCBA facepiece area, the protective coat--protective trouser area, the protective coat--glove area, and the protective trouser--footwear area.

ISP – Acronym for Independent Service Provider. An independent third party verified by a certification organization (such as UL or ITS) to perform any one or any combination of advanced inspection, advanced cleaning or repair services.

Moisture Barrier – The portion of the Glove composite designed to prevent the transfer of liquids.

NFPA – Acronym for National Fire Protection Association. A private sector, volunteer-based standard-making organization that develops guidelines related to fire protection and prevention.

NFPA 1999 Compliant Work Glove – (Also referred to in this Guide as Glove). Means a Glove certified by a private, third party certification organization (for example, Underwriters' Laboratories) to meet at the time of manufacture the design and performance requirements of the NFPA 1999 Standard.

OPIM – Acronym for Other Potentially Infectious Materials. Includes semen, vaginal secretions, cerebrospinal fluid, synovial fluid, pleural fluid, pericardial fluid, amniotic fluid and peritoneal fluid.

OSHA – Acronym for Occupational Safety and Health Administration. A government-based standard-making body that develops public health and safety standards for the workplace.

Outer Shell – The outermost layer of a multi-layer composite with the exception of trim and any hardware, reinforcing material or wristlet material. Also referred to as “shell”.

Parenteral – Piercing through the skin barrier, such as a needlestick injury, human bite or a cut or scrape.

Protective Element – The parts or items that comprise the protective ensemble. The protective ensemble elements are: coats, trousers, coveralls, helmets, gloves, footwear and interface components.

Responder/Emergency Responder– Emergency personnel involved in Emergency Medical Operations.

Retroreflection/Retroflective – The reflection of light in which the reflected rays are preferentially returned in the direction close to the opposite of the direction of the incident rays, with this property being maintained over wide variations of the direction of the incident rays.

Retroreflective Markings – A material that reflects and returns a relatively high proportion of light in a direction close to the direction from which it came.

SAFER – Acronym for Southern Area Fire Equipment Research. An established body of fire equipment users with expertise in the research and evaluation of firefighting personal protective equipment.

SCBA – Acronym for Self-Contained Breathing Apparatus.

SDS – Acronym for Safety Data Sheets.

Sewn Seam – A series of stitches joining two or more separate pieces of material(s) of planar structure, such as textile fabrics.

Stabilization – Those activities directed at mitigating the dangerous elements of an emergency incident.

Structural Firefighting – The activities of rescue, fire suppression and property conservation in buildings, enclosed structures, vehicles, marine vessels or like properties that are involved in a fire or emergency situation. NFPA 1999 Compliant Glove are NEVER to be used in firefighting and do not provide the required level of protection.

Trim – Retroreflective and fluorescent materials attached to the outermost surface of the protective ensemble for visibility enhancement. Retroreflective materials enhance nighttime visibility, and fluorescent materials enhance daytime visibility. “Trim” is also known as “visibility markings”.

Useful Life – The period of time that NFPA 1999 Compliant Work Gloves, which have been properly cared for, can be expected to provide reasonable limited protection. Useful life of Gloves is normally 1 year, depending on the conditions of wear, maintenance and storage. Useful life can be as long as 3-5 years if Gloves have been subject to relatively lower levels of wear and tear and have been consistently maintained in a regular cleaning and maintenance program and stored properly. See Section 15 of this Guide.

UV (Light or Radiation) – Acronym for Ultraviolet Light. A type of radiated electromagnetic energy commonly found in the sun’s rays.

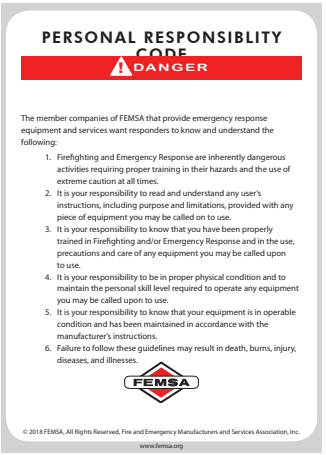
Universal Precautions – Under universal precautions, blood and certain body fluids of all patients are considered potentially infectious for human immunodeficiency virus (HIV), hepatitis B virus (HBV) and other bloodborne pathogens.

3. SAFETY CHECKLIST

Do not use these gloves until you have checked "YES" to the following:

1. Have you completed formal training in emergency medical response compliant with the approved standard recognized by the Authority Having Jurisdiction, and on the proper use of all equipment, including gloves?
❑ Yes ❑ No

2. Have you read and understood all the instructions and warnings throughout this Guide, as well as all the safety, cleaning and information labels on the Gloves?
❑ Yes ❑ No



PERSONAL RESPONSIBLITY CODE

DANGER

The member companies of FEMSA that provide emergency response equipment and services want responders to know and understand the following:

1. Firefighting and Emergency Response are inherently dangerous activities requiring proper training in their hazards and the use of extreme caution at all times.
2. It is your responsibility to read and understand any user's instructions, including purpose and limitations, provided with any piece of equipment you may be called on to use.
3. It is your responsibility to know that you have been properly trained in Firefighting and/or Emergency Response and in the use, precautions and care of any equipment you may be called upon to use.
4. It is your responsibility to be in proper physical condition and to maintain the personal skill level required to operate any equipment you may be called upon to use.
5. It is your responsibility to know that your equipment is in operable condition and has been maintained in accordance with the manufacturer's instructions.
6. Failure to follow these guidelines may result in death, burns, injury, diseases, and illnesses.

FEMSA

www.femsa.org

FIG. 1 Personal Responsibility Code. Also shown on back cover of this Guide.

3. Will you regularly inspect the Gloves inside and out for any tears, holes, thin spots, worn areas, dirt, contaminants, embrittlement, or any other conditions as discussed in Section 5 of this Guide?
❑ Yes ❑ No

4. Have you studied the limitations of your Gloves as described throughout this Guide?
❑ Yes ❑ No

5. Have you checked to make sure that your Gloves fit you properly?
❑ Yes ❑ No

6. Do you understand that when your skin reaches a temperature as low as 118° F (47.8° C) you will be burned, and that, in some situations, you may not feel a heat sensation or pain while wearing your Gloves, or receive damage to your Gloves prior to being burned? ❑ Yes ❑ No

7. Have you read, do you understand, and do you agree to assume the risks and responsibilities listed in the Personal Responsibility Code? See FIG. 1 and back cover of this Guide. ❑ Yes ❑ No

If you answered **NO** to any of the questions, **DO NOT WEAR THESE GLOVES** until you have read the appropriate sections in this guide and have been properly trained by qualified instructors.

4. PURPOSE, LIMITATIONS AND USE

These Gloves are designed to provide **LIMITED** protection under the requirements for work gloves in NFPA 1999 against hazards arising from EMERGENCY MEDICAL OPERATIONS, INCLUDING:

- penetration of blood and other bodily fluids;
- environmental, including moisture and cold weather; and
- physical hazards, including cuts and abrasion;

⚠ DANGER

DO NOT use this Gloves for the following:

- **Structural, Proximity or Entry firefighting operations (see definitions)**
- **Activities requiring direct contact with flames or molten metal**
- **Hazardous Materials Emergency Operations**
- **Protection against all hazardous material, chemical, biological, radiological, or nuclear agents, or CBRN terrorism agents (see definitions)**
- **Wildland Firefighting**

Do not use for any firefighting.

Do not use for direct contact with flames or molten metal.

Do not use for protection against hazardous radiological agents.

Do not use for protection against hazardous biological agents.

Do not use for protection against hazardous chemical agents.

Risk Assessment

The authority having jurisdiction (see Definitions) should perform a risk assessment to identify the hazards present and to determine the suitability of NFPA 1999 Work Gloves. For each of the activities described as EMS rescue incidents, the authority having jurisdiction should determine the level of protection needed as deemed by the hazards present.

⚠ WARNING

Controlled laboratory tests in the NFPA 1999 Standard “shall not be deemed as establishing performance levels for all situations to which personnel can be exposed”. You should always use extreme caution in any EMS situation to avoid the risk of injuries. See NFPA 1999.

⚠ WARNING

Protective properties in a new NFPA 1999 Compliant Work Gloves will diminish as the product is worn and ages. To reduce the risk of injuries, you MUST follow the recommendations in this Guide for inspection and retirement of your Gloves to ensure that your Gloves are not used past the Useful Life.

⚠ WARNING

- Choose the size glove that will provide comfort, protection and dexterity. A sizing chart is available from LION.
- If a glove is too loose or too tight, you may be unable to adequately perform duties such as handling small objects and equipment. Protective equipment worn by first responders should be properly sized and adjusted to overlap and eliminate gaps during use.
- Do not alter your gloves in any way. Changes to the gloves may increase your risk of injury or death.
- For marking an individual's name, or other identifying mark, an indelible laundry marker may be used on the outer shell or in a blank space on a label inside the glove.

⚠ DANGER

Never wear Gloves that fit improperly. If you have a question, or there is a problem with the fit of the Gloves, contact your safety officer for assistance. Wearing Gloves that do not fit properly could reduce protection and result in severe cuts or abrasions or dangerously restrict your ability to avoid injuries in an emergency situation.

⚠ DANGER

These Gloves are manufactured from materials that will melt and/or burn. DO NOT use these gloves for any activities where there is a risk of direct contact with flames, high heat or molten metal!

⚠ WARNING

Many Fire Fighters attempt to push the limits of their Personal Protective Equipment (PPE) by performing exercises in burn buildings or training centers for prolonged periods of time. This may result in damage to the PPE and its components, as well as a shortened useful life due to continuous exposure to extreme, nonroutine fire training conditions. Damage caused by use in fire training conditions is not covered by the product's limited warranty.

5. INSPECTION

Your Gloves should be cleaned, inspected, and repaired in a frequency and manner consistent with your department's protocol and NFPA 1999.

5.1 PREPARATION

Read all Safety, Cleaning, and Information Labels. If any labels are missing, return the Gloves to the manufacturer immediately.

5.2 FREQUENCY

Inspect your Gloves:

- upon receipt of your new Gloves;
- after each use or at least monthly (whichever is greater) during the useful life of the Gloves;
- after exposure to heat, flames, chemicals, or firefighting agents (including AFFF foam and water);
- after exposure to body fluids (including blood); and
- after washing, repair or decontamination.

5.3 INSPECTION PROCESS AND CRITERIA

1. Preparation for Inspection

A. Ensure that Gloves are clean. If any have been contaminated by hazardous materials or biological agents, make sure they have been decontaminated. This is important for your safety, and for assurance that potential problems are not masked by incidental residue.

B. Place Gloves on a clean surface in a brightly lighted area.

2. Inspection of the Outer Shell and Inner Liner

- When inspecting your gloves, check thoroughly for:
  - ◊ Cuts or worn areas in the leather shell or lining material
  - ◊ Separation of inner liner from the shell
  - ◊ Torn seams or cut threads which may allow seams to separate
  - ◊ Chemical contamination in the outer shell or liner which has not been removed
  - ◊ Brittleness, discoloration or other evidence of damage from heat or sun
  - ◊ Leaks or signs of liquid penetration
- If your gloves are excessively worn, damaged, contaminated, or otherwise do not pass inspection, do not use them. Turn in the damaged gloves and obtain a replacement pair of LION Protective Gloves from your organization. Do not attempt to repair the gloves yourself.

⚠ *WARNING*

Most performance properties of the Gloves and their components cannot be tested by the user in the field.

THE WATER INTEGRITY FIELD TEST (ADVANCED INSPECTION ONLY)

Your NFPA 1999 Compliant Work Gloves should be tested for water resistance as part of the regular test procedures defined by your organization. The Water Integrity Test defined in NFPA 1999 provides a method for testing gloves for leaks. Put on a water marker glove (a thin glove that will stain when touched by water) underneath your LION Protective Glove. Immerse your gloved hand into a container of tap water to within one inch of the top. Clench your fist every 10 seconds, for 2 minutes. Remove your gloved hand from the water, take off the Protective Glove, and check the marker glove for signs of water marks. If your gloves show signs of water penetration, obtain a replacement pair of LION Protective Gloves from your organization.

5.4 RECORDKEEPING

LION TotalCare® Centers offer recordkeeping services. For manual records, record all inspections and your results on the Inspection, Cleaning, Repair, Retirement, and Disposal Record located in the back of this Guide. Maintain this form unless your organization has provided you with a comparable recordkeeping method for this purpose.

6. DONNING AND DOFFING

- Pull on your LION Protective Gloves after putting on your other protective equipment.
- Pull the gloves completely onto the hands.
- Check to be sure the gloves fit properly.
- You must check to ensure that your gloves interface properly with the sleeves of your EMS coat and that no gap appears between the glove and your EMS coat.
- In all ranges of motion, your hand, wrist and arm should remain covered by the glove or EMS coat.
- To remove your gloves, grasp the palm and carefully pull off of the hand. **Do Not** pull from the fingertips.
- If your gloves have been exposed to hazardous materials, such as chemicals, acids or blood, avoid contact with the contaminated portions of the glove. You should isolate and bag the gloves in a sealable, leak-proof bag.

7. USING YOUR GLOVES SAFELY: HOW TO MINIMIZE THE RISK OF INJURY

Always use your NFPA 1999 Compliant Work Gloves properly and in a manner consistent with the following:

- The Authority Having Jurisdiction's standard operating procedures;
- NFPA 1581, *Standard on Fire Department Infection Control Program;*
- Title 29, Code of Federal Regulations (CFR), Part 1910.132 "General Requirements of Sub part I, Personal Protective Equipment"; and
- Title 29, CFR 1910.1030, "Protecting Healthcare Workers from Occupational Exposure to Bloodborne Pathogens".

7.1 PREPARATION

Before beginning any emergency operation, your Gloves should be donned according to the procedure in Section 6 of this guide, and checked by another person for proper interface.

7.2 HEAT STRESS: A SIGNIFICANT CAUSE OF INJURIES

Physical work in a warm or hot environment causes a rise in the temperature inside the body. To protect the body against heat, the heart begins to beat faster so more blood can be moved to the skin surface. Blood vessels near the skin dilate so they can carry more blood. In this way, blood in the interior of the body can be brought out near the body's surface and cooled. Most importantly, the body produces sweat which evaporates off the skin to provide cooling. These natural responses do not work very well for any or all of the following conditions: the ambient air temperature 75 degrees or higher, the Glove's insulation blocks the transfer of heat away from the body, the Gloves blocks the evaporation of sweat, or the exertion of the muscles produces more heat than the system can remove. When body temperature elevates too high, the results can be heat stress, heat exhaustion, or heat stroke.

⚠ *WARNING*

Overexertion in hot conditions while wearing PPE, including NFPA 1999 Compliant Work Gloves, can lead to heat exhaustion, or heat stroke. Symptoms of **heat exhaustion** are a general feeling of weakness, dizziness, rapid pulse, low blood pressure while standing or sitting, and/or a headache. The skin may feel moist or clammy. If you feel symptoms, get to a cool place, remove your Gloves and other PPE, and drink fluids. Failure to seek attention could lead to coma or death.

⚠ *WARNING*

Symptoms of **heat stroke** are hot, dry skin with no sweating, very high body temperatures, weakness, dizziness, rapid breathing, nausea, unconsciousness, and sometimes mental confusion. If you feel any of the above symptoms at any time, get to a cool area immediately, remove your Ensemble, drink fluids and seek medical attention. Failure to seek attention could lead to coma or death. Immediate cooling is essential for survival in heat stroke cases.

⚠ *WARNING*

You must be physically fit to safely perform strenuous work under stressful conditions. Regular cardiovascular exercise, abstaining from cigarette smoking, proper training, a healthy diet, and avoidance of obesity, can help to reduce the risk of heart attack.

7.3 HEART ATTACKS: A RESULT OF OVEREXERTION

Certain activities that may be undertaken during EMS operations will cause the heart to beat faster because of the need to move more blood to the working muscles. This blood carries more oxygen to the muscles so they can handle the increased workload.

Another factor in increasing the rate of the heart is the presence of adrenaline, the fight or flight hormone, in the body during an emergency. The adrenaline present in your system causes the heart to pump even faster than during normal activity.

All of these factors could place too much stress on the heart, leading to a heart attack. The heart simply cannot handle the load placed on it.

7.4 ELECTROCUTION

⚠ *WARNING*

Your Gloves are NOT designed to protect you against electrocution. When entering a building, you should NEVER touch live wiring, especially if your Gloves are wet. Never allow equipment you are operating to contact live wiring.

7.5 BLOODBORNE PATHOGENS

Your Gloves are designed to protect your body from the hazards of exposure to bloodborne pathogens present in human body fluids. Exposure incidents are specific contact of the following with blood or O.P.I.M. (Other Potentially Infectious Materials): eye; mouth or other mucous membranes; non-intact skin; or parenteral contact. Make sure face and mouth, eyes and nose, and non-intact skin are covered. Avoid contact with sharps. Use Body Substance Isolation Procedures when handling your Gloves if contaminated with body fluids. Cleaning your Gloves will reduce hazards arising from its exposure to potentially hazardous body fluids.

7.6 BURN HAZARDS: TYPES OF HEAT TRANSFER

There are three types of heat transfer in a fire that could cause burns: conduction, convection, and radiation. Conduction is the direct transfer of heat through contact with a hot object. Convection is the transfer of heat through a medium; for example, air. Thermal radiation is the transfer of heat in the form of light energy, directly from flames or reflected from hot surfaces.

FLASH FIRE

Flash fire means fire that rapidly spreads through a diffuse fuel, such as dust, gas, or the vapors of an ignitable liquid, without the production of damaging pressure. Flash fires mainly produce hazardous radiant heat, as well as convective heat.

The materials used in work gloves provide no protection against heat and flames. Radiant and convective heat may be severe enough that you may be burned while wearing these Gloves, and without sustaining damage to the Gloves.

⚠ *DANGER*

Flash Fires are extremely dangerous incidents. The radiant and convective heat produced by a flash fire may be severe enough that you may be burned while wearing these Gloves, and without sustaining damage to the Gloves. If you sense combustible gasses or debris in the area, you should escape to a safe area until the dangerous condition has been eliminated.

⚠ *DANGER*

Emergency responders who are exposed to a flashover, backdraft, or other flame and high heat environments are at **EXTREME** risk for extensive burn injuries and death while wearing their NFPA 1999 Compliant Ensemble, including Work Gloves!

7.7 BURNS

Burns are a function of time and temperature. The higher the temperature of the heat source and the longer the exposure time, the greater the severity of burns.

FIRST DEGREE BURNS begin when the temperature of skin reaches **118° F (47.8° C)**.

SECOND DEGREE BURNS occur when the skin reaches approximately **131° F (55° C)**.

THIRD DEGREE BURNS occur when skin temperature reaches approximately **152° F (66.7° C)**.

Minimal protection against conductive burns: You can be burned by conductive heat when you contact heated surfaces or objects. Your NFPA 1999 Compliant Work Gloves do not include a thermal liner, and therefore the Gloves provide no protection from conductive burns. It is critical to avoid contact with any hot surfaces while wearing the NFPA 1999 Compliant Work Gloves.

⚠ *WARNING*

These NFPA 1999 Compliant Work Gloves **do not** provide and are not required to provide flame resistance or thermal insulation. Serious burn injury or death may occur if you wear these Gloves for ANY firefighting activity.

7.8 ADDITIONAL FACTORS AFFECTING SAFETY

The following additional factors may affect the limited protection provided by the Gloves:

- conditions at the incident beyond the scope of the limited purposes of these Gloves;
- unauthorized modifications, repairs or replacement of components of the Gloves not otherwise in compliance with LION's specifications; and
- the addition of accessories that are not approved by LION as compatible with NFPA 1999 Compliant Work Gloves. If you have questions about whether accessories will degrade the performance of your Gloves, contact LION or a LION TotalCare® Center.

⚠ *DANGER*

These NFPA 1999 Compliant Work Gloves do NOT include a thermal barrier for insulation against heat. To prevent being burned, you must avoid wearing these Gloves in high temperature environments and avoid contact with any hot surfaces.

⚠ *DANGER*

You must only use NFPA 1999 Compliant Work Gloves in environments where no structural fire is present. In situations where fire is present, responders must only wear NFPA 1971 compliant structural firefighter clothing.

8. WASHING, DECONTAMINATION AND STORAGE

8.1 HAZARDS OF DIRTY GLOVES: WHY WASHING AND DECONTAMINATING ARE IMPORTANT

You can be exposed to many hazardous substances on the job. These substances can contaminate your Gloves, and cause harm to you after your body contacts your Gloves. This section tells you how to wash and decontaminate your Gloves to reduce these hazards.

Hazardous Chemicals: If you experience accidental or incidental exposure to a hazardous chemical, follow all precautions in this Section to limit exposure and risk of harm to yourself and others.

You should hose down contaminated Gloves at the scene to limit further exposure to hazardous chemicals, to reduce exposure to others, and to reduce the likeliness of chemicals settling into your gloves.

Bloodborne Pathogens: Your Gloves may be exposed to body fluids that may contain bloodborne pathogens. The washing procedures described later in this section will reduce your risk of infection from these hazards.

⚠ *WARNING*

Decontamination of protective clothing and equipment is a complicated process for which there is no guarantee that protective elements are free from contamination. While the purpose of decontamination is to remove all contaminant(s) from the element, decontamination procedures or cleaning processes are not always 100% effective in removing all contamination. See NFPA 1851.

8.2 FREQUENCY

Clean Gloves at least annually or as soon as possible after contamination or exposure to smoke, blood or body fluids, or hazardous substances.

8.3 CLEANING PRODUCTS

Routine Washing:

A. Commercially available detergents. Use commercially available detergents with a pH greater than 6.0 and less than 10.5. Many household cleaning products fall within this range.

B. Specialty Cleaners. StationCare 1851 from LION TotalCare® is designed for NFPA 1999 Gloves. Always read MSDS sheets before use.

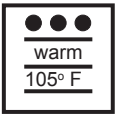
C. Spot cleaning and pre-treating. Use commercially available degergents with a pH greater than 6.0 and less than 10.5.

StationCare 1851 is available online at www.lionprotects.com/totalcare.

⚠ WARNING

Never use chlorine bleach or chlorinated products to clean your Gloves. Even small amounts of chlorine will seriously reduce your Gloves' protective qualities. Non-chlorinated bleaches are acceptable.

8.4 HAND WASHING



water temperature

A common technique for washing your gloves is to put them on your hands and rub them together, using a mild cleaning product. A soft bristle brush may help remove some of the imbedded soils. Rinse thoroughly in warm water.

8.5 MACHINE WASHING

machine wash cycle

Gloves may also be machine washed at warm temperature using normal or gentle wash cycles in non-agitating machines.


no chlorine bleach

Do not wash gloves in top-loading, industrial or agitating washing machines. The force of the machines may weaken the protective properties of the gloves.

8.6 DRYING

Gloves should be air dried or tumble dried in cool air dryers.

Drying racks in well-ventilated areas assist in drying. Do not turn the gloves inside out to dry, this may tear or damage the moisture barrier layer or inner lining.

Do not lay the gloves on radiators or dry them in hot air dryers. Hot air drying will stiffen the materials and severely shorten the service life of the gloves.

Do not dry the gloves in direct or indirect sunlight, or in fluorescent light. Light will severely reduce the strength and protective qualities of the gloves.

Do not wring dry your gloves; wringing may tear the Moisture Barrier Layer. The gloves may be gently squeezed to remove excess water from the shell.

8.7 DO NOT DRY CLEAN

Never dry clean your Gloves. Dry cleaning will damage the gloves and reduce their protective qualities

8.8 DECONTAMINATION AND DISINFECTION

Applicable Standard. You must read and have facilities and procedures in compliance with NFPA 1581 Standard for Organization Infection Control Program.

⚠ WARNING

To reduce risk of harm from hazardous substances present in products of fire combustion, hazardous chemicals, and body fluids, you MUST wash, decontaminate and/or disinfect your Gloves after each exposure to such hazardous substances.

Preparation: Remove contaminated and infected Gloves from wearer and from service before beginning. Gloves should remain out of service until decontaminated and disinfected. Wear protective gloves and appropriate protective clothing and equipment while decontaminating and disinfecting.

A. Hazardous Substances Present in the Products of Fire Combustion (Soot, Smoke, and Debris).

To reduce the risks associated with exposure to the hazardous substances found in the products of fire combustion, you MUST wash, dry, and store your Gloves according to the procedures in this section.

B. Hazardous Chemicals

1. KNOWN MATERIALS: Contact the source of the materials, your local HAZMAT Team, or the Health Department to determine whether the contaminants are hazardous materials. If the contaminant is known, contact a LION TotalCare® Center or verified ISP to determine the feasibility of decontamination.
2. UNKNOWN MATERIALS: If the contaminant is not known, Gloves should remain out of service until the materials are identified. Always demand SDS information and be prepared to share your findings with the LION TotalCare® Center or verified ISP to decontaminate the Gloves. **If your Gloves cannot be decontaminated, they must be retired and disposed of in accordance with federal, state, and local regulations.**

C. Blood and Body Fluids

1. **Disinfecting Products.** You must use disinfectants that are compatible with NFPA 1999 Compliant Work Gloves.
2. **Disinfecting Procedure for Blood and Body Fluids**

   Small incidental areas: Always follow the instructions of the manufacturer regarding product usage.

   Large areas: If Gloves have large areas of coverage of blood or body fluids, place and transport Gloves in bags to prevent leakage. Contact a LION TotalCare® Center or verified ISP to arrange for disinfection.

8.9 LAUNDRY SAFETY

Laundry and Housekeeping Personnel are considered to be among those at risk to not only hazardous materials, but also to bloodborne pathogens primarily by exposure to sharp objects. Your organization should have a Bloodborne Pathogens Written Exposure Control Plan. Part of this plan is decontamination, disinfection, and washing of Gloves, and it should include LAUNDRY ROOM SAFETY PROCEDURES and HOUSEKEEPING SAFETY PROCEDURES. You should follow all appropriate federal, state, and local regulations.

If you have questions concerning the use of a particular disinfectant, contact LION, a LION TotalCare® Center.

⚠ CAUTION

Personnel involved in the handling, sorting, bagging, transporting and laundering of contaminated Gloves must wear utility gloves and appropriate protective clothing to prevent occupational exposure during these activities.

9. STORAGE

- Store your gloves safely away from:
  - ◊ Sharp edges or objects that could cut or tear the gloves
  - ◊ Direct or indirect sunlight or fluorescent light that could weaken or damage the outer shell and other components
  - ◊ Extreme temperatures that could dry or weaken the gloves
  - ◊ Excessive moisture that could promote rot or mildew

⚠ WARNING

Avoid storing your Gloves in temperature extremes. Repeated cycles of heating and cooling can reduce the protective qualities and useful life of the Gloves.

⚠ WARNING

NEVER STORE YOUR GLOVES IN DIRECT SUNLIGHT, INDIRECT SUNLIGHT OR IN FLUORESCENT LIGHT. Exposure to light (particularly light in the sun's rays and fluorescent light) will severely weaken and damage the components in your Gloves after only A FEW DAYS. Install UV filters on fluorescent lights. Damage caused by exposure to light cannot be repaired, nor will the manufacturer cover such damage in its warranty. See the Warranty Section of this Guide for more information.

⚠ CAUTION

Do not store your Gloves in contact with contaminants such as oils, solvents, acids or alkalis as these can damage the Gloves.

⚠ CAUTION

Do not store Gloves in air tight containers unless the Gloves are new and have not been issued.

⚠ CAUTION

Never store your Gloves in living quarters with personal belongings, or within the passenger compartment of a vehicle. Prolonged exposure to contaminants remaining in the Gloves may increase the risk of cancer or other diseases.

10. REPAIR

To inquire on whether a damaged Glove may be repairable, contact a LION TotalCare® Center or verified ISP. REPAIRS SHOULD ONLY BE MADE BY LION TOTALCARE® OR BY A VERIFIED ISP.

⚠ *WARNING*

Before any repairs are made to your NFPA 1999 Compliant Work Gloves, they must be washed, decontaminated, and disinfected in accordance with this Guide to protect workers who alter or repair Gloves from exposure to soils and contaminates.

All major repairs to Gloves should be done by LION TotalCare® or a verified ISP. Major repairs made by any other entity invalidates all warranties and may expose the wearer to hazardous or life threatening conditions.

For a list of LION TotalCare® Centers, visit www.lionprotects.com/totalcarelocations. Call LION at (800) 421-2926 for an updated list of verified ISPs.

11. USEFUL LIFE AND RETIREMENT

NFPA 1999 performance requirements are based on new, unworn gloves and composites. Useful life is the period of time that the gloves that have been properly cared for can be expected to provide reasonable limited protection. Useful life for Gloves is normally 1 year depending on the conditions of wear, maintenance and storage. Useful life can be as long as 3-5 years if Gloves have been subject to relatively lower levels of wear and tear and have been consistently maintained in a regular cleaning and maintenance program and stored properly. Gloves more than 5 years old and made to earlier versions of the NFPA 1999 standard are highly likely to have exceeded their useful life and should be retired.

You must retire gloves that have been exposed to hazardous materials or that fail to pass the inspection procedures defind by your organization and that, in the judgment of your organization, cannot economically be repaired.

The useful life of Gloves will vary according to the following factors:

- Age and frequency of use
- Number and type of previous repairs
- Type of work the wearer performed
- The length of exposure to extreme heat, and the intensity of the heat
- The length of exposure to hazardous chemicals
- The length of exposure to direct or indirect sunlight, or other light sources such as fl uorescent light
- Improper wear
- Improper use
- Gloves more than 5 years old
- Accelerated wear and tear caused by exposure to frequent, repeated training exercises.

Your Gloves should be assessed by trained professionals at each regular Advanced Inspection to determine whether they have exceeded their useful life and must be retired. Your Gloves must be removed from service when they can no longer be safely used, and when the cost of repair would exceed 50% of the cost of replacement. Trained professionals with in-depth knowledge of Gloves and their limitations should handle the details of a retirement program. If you have any questions about the useful life and retirement of your Gloves, get assistance before wearing your Gloves into any emergency situation! Contact a trained expert within your department, LION, a LION TotalCare® Center or a verifi ed ISP.

12. DISPOSAL

Retired uncontaminated Gloves must be destroyed to prevent their unauthorized or mistaken use. Cut them into several pieces and dispose of properly. One suggested method of disposal is a landfill.

Retired Gloves that are contaminated with blood or body fluids or hazardous chemicals should be placed in a plastic bag and properly disposed of. Follow federal, state, and local regulations governing disposal of contaminated materials.

13. LIMITED LIFETIME PRODUCT WARRANTY

LION warrants that its firefighter and emergency responder products meet all applicable NFPA standards in effect at the time of their manufacture and further warrants that such products are free from any defect in workmanship or any material defect.

Conditions of use are outside the control of LION. It is the responsibility of the user to inspect and maintain the products to assure they remain fit for its intended purpose. In order to maximize the useful life of these products and maintain the warranty, the products are to be used only by appropriately trained personnel following proper firefighting or emergency response techniques and in accordance with the product's warning, inspection, maintenance, care storage and retirement instructions. Failure to do so will void the warranty.

EXCEPT AS SET FORTH ABOVE, LION MAKES NO OTHER WARRANTIES, EXPRESS OR IMPLIED, INCLUDING BUT NOT LIMITED TO, ANY WARRANTIES OF MERCHANTABILITY OR FITNESS FOR ANY PARTICULAR USE.

Under the above warranties, LION will repair or replace, at its option, any protective product which does not meet the above warranties. Such repair or replacement will be purchaser's sole remedy, and LION will not be responsible for any incidental, consequential or other damages based upon or arising in any way from any breach of the warranties contained herein, or purchaser's use of such product.

These warranty obligations apply only to any product, part, or component which is returned to LION or a LION TotalCare Center with prior authorization and proof of purchase, and which LION agrees to be defective as covered by this warranty.

The word "product" includes the product itself and any parts or labor furnished by LION with the sales, delivery, or servicing of the product.

The useful life will vary according to the type and frequency of use and the type of materials used in the product. Useful life for Gloves is normally 1 year depending on the conditions of wear, maintenance and storage. Useful life can be as long as 3-5 years if Gloves have been subject to relatively lower levels of wear and tear and have been consistently maintained in a regular cleaning and maintenance program and stored properly. Gloves more than 5 years old and made to earlier versions of the NFPA 1999 standard are highly likely to have exceeded their useful life and should be retired. Gloves should be retired when the costs of repair would exceed 50% of the replacement cost.

DEFECTS IN WORKMANSHIP AND MATERIALS: Means poorly manufactured items, including seams, stitching, or components (for example, loose or broken assembly components, zippers, straps or other pieces that fall off or do not function properly; and fabrics or barriers with flaws such as holes, uneven spots, thin or weak areas, pilling, or other irregularities in their manufacture.)

EXCEPTIONS TO LIMITED WARRANTY

This limited warranty does not cover the following items after receipt of products by end user:

A. Claims made after 60 days from the date of shipment for damage caused by shipment;
B. Damage or color change from exposure of materials to direct or indirect sunlight or fluorescent light;
C. Shade variations among textiles used, or shade changes caused by wear-and-tear or washing;
D. Color loss due to abrasion ;
E. Damage caused by improper washing, decontamination, disinfection or maintenance (for example, use of chlorine or petrochemicals to clean);
F. Damage caused by repair work not performed to factory specification;
G. Damage from routine exposure to common hazards which may cause rips, tears, burn damage, or abrasion, including accelerated wear and tear caused by exposure to frequent, repeated training exercises;
H. Loss of retroreflectivity of reflective trim due to normal wear or heat exposure;
I. Detachment of reflective trim due to heat exposure or adhesive failure;
J. Replacement of fasteners damaged by normal wear and tear;
K. Loss of hardware caused by normal wear and tear.

14. INSPECTION, CLEANING, REPAIR, RETIREMENT AND DISPOSAL RECORD

Gloves ID_____ **Model**_____ **Date of Gloves Manufacture**_____

In the spaces below, note the activities performed on your Gloves during its wear life.
Types of activities can include: Routine or Advanced Inspection; Cleaning; Decontamination; Repair; Alteration; Removal from Service; Retirement; Disposal, etc.

Date of Activity	Type of Activity	Reason for Activity	Description of Repair, Inspection Findings, etc.	Location on Gloves	Inspection/ Cleaning/Repair Site	Activity Performed By	Date Returned to Service

Date of Retirement_____ Date and Method of Disposal_____

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Fire Academy™
www.lionfireacademy.com

PERSONAL RESPONSIBLITY CODE

DANGER

The member companies of FEMSA that provide emergency response equipment and services want responders to know and understand the following:

1. Firefighting and Emergency Response are inherently dangerous activities requiring proper training in their hazards and the use of extreme caution at all times.
2. It is your responsibility to read and understand any user's instructions, including purpose and limitations, provided with any piece of equipment you may be called on to use.
3. It is your responsibility to know that you have been properly trained in Firefighting and/or Emergency Response and in the use, precautions and care of any equipment you may be called upon to use.
4. It is your responsibility to be in proper physical condition and to maintain the personal skill level required to operate any equipment you may be called upon to use.
5. It is your responsibility to know that your equipment is in operable condition and has been maintained in accordance with the manufacturer's instructions.
6. Failure to follow these guidelines may result in death, burns, injury, diseases, and illnesses.

FEMSA

www.femsa.org

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LION®
ready for action