

# HEL-FIRE®

## HERBICIDE ACTIVATOR

### ACTIVE INGREDIENTS:

Aminated phosphoric and carboxylic acids, sulphurated amides, and spray deposition aids	90.00%
CONSTITUENTS INEFFECTIVE AS ADJUVANTS	10.00%
<b>TOTAL</b>	<b>100.00%</b>

All ingredients are exempt from the requirements of a tolerance as specified in 40 CFR 180.

Patent No. 6,831,038

### KEEP OUT OF REACH OF CHILDREN DANGER

Causes severe skin burns and eye damage  
Harmful in contact with skin  
Harmful if swallowed  
May be harmful if inhaled

See Inside Panel for Additional  
Precautionary Statements



SN 030215

NET CONTENTS: 2.5 Gallons (9.46 Liters)

Manufactured For

**HELENA CHEMICAL COMPANY**  
225 SCHILLING BOULEVARD, SUITE 300  
COLLIERVILLE, TN 38017 • (901) 761-0050

### PRECAUTIONARY STATEMENTS

#### HAZARDS TO HUMANS AND DOMESTIC ANIMALS DANGER

**BEFORE USING THIS PRODUCT, READ ALL PRECAUTIONS, DIRECTIONS FOR USE, CONDITIONS OF SALE - LIMITED WARRANTY AND LIMITATIONS OF LIABILITY AND REMEDIES.**

Causes severe skin burns and eye damage. Harmful in contact with skin. Harmful if swallowed. May be harmful if inhaled. Wash thoroughly after handling. Do not get in eyes. Avoid contact with skin and clothing. Always wear goggles or face shield when handling this product. Do not breathe spray mist. Do not apply this product in such a manner as to directly or through drift expose workers or other persons. The degree of spray application drift hazards varies with type of pesticide, application conditions, and vegetation near the spray area. Drift minimization is the responsibility of the applicator. Always consult your local and state agricultural authorities for information regarding avoiding or minimizing spray drift. In addition, follow precautionary statements on accompanying pesticide(s) label(s) that are applied with this product. Keep locked up and away from children.

**Personal Protective Equipment (PPE):** Wear protective eyewear (goggles or face shield), chemical-resistant gloves, long-sleeved shirt and long pants, and shoes plus socks. Do not smoke, drink, or eat while using this product. Take off any contaminated clothing and wash before reuse.

**Disclaimer:** Always refer to the label **on the product** before using Helena or any other product.

### FIRST AID

<b>IF IN EYES:</b>	<ul style="list-style-type: none"><li>Hold eye open and rinse slowly and gently with water for 15-20 minutes.</li><li>Remove contact lenses, if present, after the first 5 minutes, then continue rinsing eye.</li><li>Call a poison control center or doctor for treatment advice.</li></ul>
<b>IF INHALED:</b>	<ul style="list-style-type: none"><li>Move person to fresh air.</li><li>If person is not breathing, call 911 or an ambulance, then give artificial respiration, preferably mouth-to-mouth, if possible.</li><li>Call a poison control center or doctor for treatment advice.</li></ul>
<b>IF ON SKIN OR CLOTHING:</b>	<ul style="list-style-type: none"><li>Take off contaminated clothing.</li><li>Rinse skin immediately with plenty of water for 15-20 minutes.</li><li>Call a poison control center or doctor for treatment advice.</li></ul>
<b>IF SWALLOWED:</b>	<ul style="list-style-type: none"><li>Call a poison control center or doctor immediately for treatment advice.</li><li>Rinse mouth.</li><li>Do not induce vomiting.</li><li>Do not give anything by mouth to an unconscious or convulsing person.</li></ul>

### HOT LINE NUMBER

Have the product container or label with you when calling a poison control center or doctor, or going for treatment. You may also contact 1-800-424-9300 for emergency medical treatment information.

### STORAGE AND DISPOSAL

Do not contaminate water, food, or feed by storage and disposal.

**STORAGE:** Store in original container only. Keep container tightly closed. Do not allow water to be introduced into the contents of this container. Do not store near heat or open flame. Do not store with oxidizing agents.

**PESTICIDE DISPOSAL:** Wastes resulting from the use of this product may be disposed of on site or at an approved waste disposal facility. Do not contaminate water sources by run off from cleaning of equipment, disposal of equipment washwater or spray waste.

#### CONTAINER DISPOSAL

**NON-REFILLABLE CONTAINER DISPOSAL:** Do not reuse empty container. Triple rinse (or equivalent) during mixing and loading and add rinsate to spray tank. Recycling decontaminated containers is the best option of container disposal. The Agricultural Container Recycling Council (ACRC) operates the national recycling program. To contact your state and local ACRC recycler visit the ACRC web page at [www.acrcycle.org](http://www.acrcycle.org). Decontaminated containers may also be disposed of in a sanitary landfill. For help in chemical emergencies involving spill, leak, fire or exposure, call toll free 1-800-424-9300.

**REFILLABLE CONTAINER:** Refill this container with adjuvants 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 the 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. If the container is not being refilled, return the container to the point of purchase.

### GENERAL INFORMATION

**HEL-FIRE®** is a specialized formulation of deposition agents, activators, and water conditioners designed to enhance the degree and speed of herbicide performance.

**HEL-FIRE®** can positively affect both pesticide spray application and pesticide efficacy. **HEL-FIRE®** can eliminate the antagonistic effects of hard water on herbicide efficacy. **HEL-FIRE®** is designed primarily to be applied with herbicides which utilize glyphosate as the active ingredient. However, it is also suitable and effective for most pesticides and nutritional products which can be used with wetter/spreader type adjuvants. Optimum application and consequent effects can be influenced by many factors. Therefore, it is recommended that careful observation of the spray deposit be made and the adjuvant rate be adjusted accordingly to ensure thorough coverage without undue runoff.

If mixing Sulfonyl-ureas with **HEL-FIRE®** and burn-down herbicides, spray within 24 hours after mixing.

### DIRECTIONS FOR USE

**FOR USE WITH HERBICIDES REGISTERED FOR: AGRICULTURAL, FORESTRY, INDUSTRIAL, MUNICIPAL, ORNAMENTAL, RIGHTS-OF-WAY, TURF, NON-CROPLAND AND OTHER USES.**

The addition of an adjuvant to some pesticides or pesticide tank mix combinations may cause phytotoxicity to the foliage and/or fruit of susceptible crops. Prior to the addition of **HEL-FIRE®** to spray tank mixes, the user or application advisor must have experience with the combination or must have conducted a phytotoxicity trial.

**HEL-FIRE®** may be applied by ground, CDA, or aerial spray equipment. For most applications, use enough **HEL-FIRE®** to allow for uniform wetting and deposition of the spray onto leaf surfaces without undue runoff.

**Ground, Aerial, CDA:** Use 2-8 pints per 100 gallons of spray. For use with glyphosate or sulfosate type herbicides, use a minimum of 4 pints per 100 gallons.

**Water conditioning:** **HEL-FIRE®** should be used at 1-2 quarts per 100 gallons of spray solution when used in place of 8.5-17 pounds of ammonium sulfate.

**Buffering:** To obtain an initial buffering effect, use a minimum of 3 pints per 100 gallons of spray. Rates may be adjusted as water conditions vary. The use of a pH measuring device is recommended to determine a suitable **HEL-FIRE®** rate.

Do not add adjuvant at a level that would exceed 5% v/v of the finished spray volume.

**NOTE:** The above use recommendations are considered to be adequate for most uses. Some herbicides, however, may require higher or lower rates for optimum effect. Follow the pesticide label directions when this occurs.

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## MIXING

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Prior to any pesticide application all spray mixing and application equipment must be thoroughly cleaned. Carefully observe all cleaning directions on the pesticide label.

Do not mix **HEL-FIRE®** with undiluted pesticides.

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## CONDITIONS OF SALE – LIMITED WARRANTY AND LIMITATIONS OF LIABILITY AND REMEDIES

**Read the Conditions of Sale – Warranty and Limitations of Liability and Remedies before using this product. If the terms are not acceptable, return the product, unopened, and the full purchase price will be refunded.**

The directions on this label are believed to be reliable and must be followed carefully. Insufficient control of pests and/or injury to the crop to which the product is applied may result from the occurrence of extraordinary or unusual weather conditions or the failure to follow the label directions or good application practices, all of which are beyond the control of Helena Chemical Company (the "Company") or seller. In addition, failure to follow label directions may cause injury to crops, animals, man or the environment. The Company warrants that this product conforms to the chemical description on the label and is reasonably fit for the purpose referred to in the directions for use subject to the factors noted above which are beyond the control of the Company. The Company makes no other warranties or representations of any kind, express or implied, concerning the product, including no implied warranty of merchantability or fitness for any particular purpose, and no such warranty shall be implied by law.

The exclusive remedy against the Company for any cause of action relating to the handling or use of this product shall be limited to, at Helena Chemical Company's election, one of the following:

1. Refund of the purchase price paid by buyer or user for product bought, or
2. Replacement of the product used

To the extent allowed by law, the Company shall not be liable and any and all claims against the Company are waived for special, indirect, incidental, or consequential damages or expense of any nature, including, but not limited to, loss of profits or income. The Company and the seller offer this product and the buyer and user accept it, subject to the foregoing conditions of sale and limitation of warranty, liability and remedies.

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**HEL-FIRE®** is a registered trademark of Helena Holding Company.

# HEL-FIRE®

## Herbicide Activator, Buffer and Water Conditioning Agent

### PRINCIPAL FUNCTIONING AGENTS:

Alkyl amine ethoxylate, monocarbamide dihydrogen sulfate, and 1,2,3-trihydroxypropane .....	80.00%
CONSTITUENTS INEFFECTIVE AS SPRAY ADJUVANT .....	20.00%
TOTAL .....	100.00%

All ingredients are exempt from the requirements of a tolerance as specified in 40 CFR 180. Patent No. 6,831,038

KEEP OUT OF REACH OF CHILDREN

### DANGER

Harmful if swallowed  
Harmful in contact with skin  
Causes severe skin burns and eye damage  
Harmful if inhaled



NET CONTENTS:  2.5 Gallons (9.46 Liters) WASN 040315  
 250 Gallons (946.25 Liters) WA Reg. No. 5905-10002

MANUFACTURED FOR  
HELENA CHEMICAL COMPANY  
225 SCHILLING BOULEVARD, SUITE 300  
COLLIERVILLE, TN 38017  
901-761-0050

### PRECAUTIONARY STATEMENTS

#### HAZARDS TO HUMANS AND DOMESTIC ANIMALS

### DANGER

BEFORE USING THIS PRODUCT, READ ALL PRECAUTIONS, DIRECTIONS FOR USE, CONDITIONS OF SALE—LIMITED WARRANTY AND LIMITATIONS OF LIABILITY AND REMEDIES.

Harmful if swallowed. Harmful in contact with skin. Causes severe skin burns and eye damage. Harmful if inhaled. Keep product locked up and out of the reach of children. Wash thoroughly with soap and water after handling and before eating, drinking, chewing gum or smoking tobacco. Remove and wash contaminated clothing before reuse. Do not take internally. Avoid contact with or inhalation of spray application mist if present. Do not apply this product in such a manner as to directly expose workers or other persons. If product is being mixed with pesticides and/or spray adjuvants, follow all precautionary statements on the accompanying product(s) labeling. Not for human or animal consumption.

### PERSONAL PROTECTIVE EQUIPMENT (PPE)

Applicators and other handlers must wear:

- Coveralls over long-sleeved shirt and long pants
- Socks
- Chemical resistant footwear
- Protective eyewear and
- Chemical-resistant gloves such as Barrier Lamine, Butyl Rubber, Nitrile Rubber, Neoprene Rubber, Natural Rubber or Viton.

For overhead exposure wear chemical-resistant headgear.

When mixing, loading or cleaning equipment wear a chemical-resistant apron.

Follow manufacturer's instructions for cleaning/maintaining PPE. If no such instructions for washables exist, use detergent and hot water. Keep and wash PPE separately from other laundry.

Discard clothing and other absorbent materials that have been drenched or heavily contaminated with this product's concentrate. Do not reuse them.

When handlers use closed systems, enclosed cabs, or aircraft in a manner that meets the requirements listed in Worker Protection Standard (WPS) for agricultural pesticides [40 CFR 170.240(d)(4-6)], the handler PPE requirements may be reduced or modified as specified in the WPS.

FIRST AID	
IF IN EYES:	<ul style="list-style-type: none"> <li>• Hold eye open and rinse slowly and gently with water for 15-20 minutes.</li> <li>• Remove contact lenses, if present, after the first 5 minutes, then continue rinsing eye.</li> <li>• Call a poison control center or doctor for treatment advice.</li> </ul>
IF INHALED:	<ul style="list-style-type: none"> <li>• Move person to fresh air.</li> <li>• If person is not breathing, call 911 or an ambulance, then give artificial respiration, preferably mouth-to-mouth if possible.</li> <li>• Call a poison control center or doctor for further treatment advice.</li> </ul>
IF ON SKIN OR CLOTHING:	<ul style="list-style-type: none"> <li>• Take off contaminated clothing.</li> <li>• Rinse skin immediately with plenty of water for 15-20 minutes.</li> <li>• Call a poison control center or doctor for treatment advice.</li> </ul>
IF SWALLOWED:	<ul style="list-style-type: none"> <li>• Call a poison control center or doctor immediately for treatment advice.</li> <li>• Have person sip a glass of water if able to swallow.</li> <li>• Do not induce vomiting unless told to do so by a poison control center or doctor.</li> <li>• Do not give anything by mouth to an unconscious or convulsing person.</li> </ul>
HOT LINE NUMBER	
Have the product container or label with you when calling a poison control center or doctor, or going for treatment. You may also contact 1-800-424-9300 for emergency medical treatment information.	
NOTE TO PHYSICIAN:	
Probable mucosal damage may contraindicate the use of gastric lavage.	

STORAGE AND DISPOSAL	
Do not contaminate water, food, or feed by storage and disposal.	
STORAGE:	
Store in original container only. Keep container tightly closed. Do not allow water to be introduced into the contents of this container. Do not store near heat or open flame. Do not store with oxidizing agents.	
PESTICIDE DISPOSAL:	
Wastes resulting from the use of this product may be disposed of on site or at an approved waste disposal facility. Do not contaminate water sources by runoff from cleaning of equipment, disposal of equipment washwater or spray waste.	
CONTAINER DISPOSAL:	
NON-REFILLABLE CONTAINER DISPOSAL:	
Refill this container with adjuvants 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 the 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. If the container is not being refilled, return the container to the point of purchase.	
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GENERAL INFORMATION	
HEL-FIRE® is a specialized formulation of activators, buffers and water-conditioning agents designed to enhance the degree and speed of herbicide performance. HEL-FIRE® can positively affect both pesticide spray application and pesticide efficacy. HEL-FIRE® can eliminate the antagonistic effects of hard water on herbicide efficacy. HEL-FIRE® is designed primarily to be applied with herbicides which utilize glyphosate as the active ingredient. However, it is also suitable and effective for most herbicides and nutritional products which can be used with wetter/spreader-type adjuvants. Optimum application and consequent effects can be influenced by many factors. Therefore, it is recommended that careful observation of the spray deposit be	

**Disclaimer:** Always refer to the label on the product before using Helena or any other product.

made and the adjuvant rate be adjusted accordingly to ensure thorough coverage without undue runoff.

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#### DIRECTIONS FOR USE

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The addition of an adjuvant to some pesticides or pesticide tank mix combinations may cause phytotoxicity to the foliage and/or fruit of susceptible crops. Prior to the addition of HEL-FIRE® to spray tank mixes, the user or application advisor must have experience with the combination or must have conducted a phytotoxicity trial.

HEL-FIRE® may be applied by ground, CDA, or aerial spray equipment. For most applications, use enough HEL-FIRE® to allow for uniform wetting and deposition of the spray onto leaf surfaces without undue runoff.

**Ground, Aerial, CDA:** Use 2-8 pints per 100 gallons of spray.

**Water Conditioning:** HEL-FIRE® should be used at 1-2 quarts per 100 gallons of spray solution when used in place of 8.5-17 pounds of ammonium sulfate.

**Buffering:** To obtain an initial buffering effect, use a minimum of 3 pints per 100 gallons of spray. Rates may be adjusted as water conditions vary. The use of a pH measuring device is recommended to determine a suitable HEL-FIRE® rate.

Do not add adjuvant at a level that would exceed 2% v/v of the finished spray volume.

Do not apply adjuvant at a rate above 1.5 pints per acre.

**NOTE:** The above use recommendations are considered to be adequate for most uses. Some herbicides, however, may require higher or lower rates for optimum effect. Follow the pesticide label directions when this occurs.

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#### MIXING

Prior to any pesticide application all spray mixing and application equipment must be thoroughly cleaned. Carefully observe all cleaning directions on the pesticide label.

1. Fill spray tank one-half full with water and begin agitation.
2. Add HEL-FIRE®.
3. Add pesticides and/or fertilizers as directed by label or in the following sequence:
  - A. Micronutrients and fertilizers
  - B. Dry flowables and water-dispersible granules
  - C. Flowables
  - D. Water-soluble pesticides
  - E. Emulsifiable concentrates
4. Continue agitation and complete filling of the spray tank.

Do not mix HEL-FIRE® with undiluted pesticides.

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The exclusive remedy against the Company for any cause of action relating to the handling or use of this product shall be limited to, at Helena Chemical Company's election, one of the following:

1. Refund of the purchase price paid by buyer or user for product bought, or
2. Replacement of the product used

To the extent allowed by law, the Company shall not be liable and any and all claims against the Company are waived for special, indirect, incidental, or consequential damages or expense of any nature, including, but not limited to, loss of profits or income. The Company and the seller offer this product and the buyer and user accept it, subject to the foregoing conditions of sale and limitation of warranty, liability and remedies.

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