

EMPERO™ Q-PAK



Contains halosulfuron, the active ingredient used in SedgeHammer®+.

A selective herbicide for the control of nutsedge and other weeds in turfgrass, ornamentals, landscaped areas, and other specified non-crop areas.

ACTIVE INGREDIENT:	(% by weight)
Halosulfuron-methyl, methyl 3-chloro-5-(4,6-dimethoxypyrimidin-2-ylcarbamoylsulfamoyl)-1-methylpyrazole-4-carboxylate	5.0%
OTHER INGREDIENTS:	95.0%
TOTAL:	100.0%
EPA Reg. No.: 91234-69	

SPECIMEN

**KEEP OUT OF REACH OF CHILDREN
CAUTION**

Si usted no entiende la etiqueta, busque a alguien para que se la explique a usted en detalle.
(If you do not understand the label, find someone to explain it to you in detail.)

SEE BELOW FOR ADDITIONAL PRECAUTIONARY STATEMENTS.

FIRST AID	
If in eyes	<ul style="list-style-type: none"> ▪ Hold eye open and rinse slowly and gently with water for 15 - 20 minutes. ▪ Remove contact lenses, if present, after the first 5 minutes, then continue rinsing eye. ▪ Call a poison control center or doctor for treatment advice.
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 SafetyCall at 1-844-685-9173 for emergency medical treatment information.	

**For Chemical Emergency: Spill, Leak, Fire, Exposure, or Accident,
Call CHEMTREC Day or Night Within USA and Canada:
1-800-424-9300 or +1 703-527-3887 (collect calls accepted)**

Empero™ Q-Pak is not manufactured, or distributed by Gowan Company, LLC, seller of SedgeHammer®+.



Manufactured for:
Atticus, LLC
5000 CentreGreen Way, Suite 100
Cary, NC 27513

PRECAUTIONARY STATEMENTS HAZARDS TO HUMANS AND DOMESTIC ANIMALS

CAUTION

Causes moderate eye irritation. Avoid contact with eyes or clothing.

PERSONAL PROTECTIVE EQUIPMENT (PPE):

Applicators and other handlers must wear:

- Long-sleeved shirt and long pants,
- Shoes plus socks

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.

ENGINEERING CONTROLS

When handlers use closed systems, enclosed cabs, or aircraft in a manner that meets the requirements listed in the 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.

USER SAFETY RECOMMENDATIONS

Users should:

- Wash hands before eating, drinking, chewing gum, using tobacco or using the toilet.
- Remove clothing/PPE immediately if pesticide gets inside. Then wash thoroughly and put on clean clothing.

ENVIRONMENTAL HAZARDS:

This product is toxic to non-target vascular plants. Do not apply directly to water, to areas where surface water is present or to intertidal areas below the mean high water mark. Do not contaminate water when cleaning equipment or disposing of equipment washwaters.

Halosulfuron-methyl is known to leach through soil into groundwater under certain conditions as a result of label use. This chemical may leach into groundwater if used in areas where soils are permeable, particularly where the water table is shallow.

This product may impact surface water quality due to runoff of rain water. This is especially true for poorly draining soils and soils with shallow ground water. This product is classified as having high potential for reaching surface water via runoff for several months or more after application. A level, well-maintained vegetative buffer strip between areas to which this product is applied and surface water features such as ponds, streams, and springs will reduce the potential loading of halosulfuron-methyl from runoff water and sediment. Runoff of this product will be greatly reduced by avoiding applications when rainfall or irrigation is expected to occur within 48 hours.

PHYSICAL OR CHEMICAL HAZARDS

Do not mix or allow coming into contact with oxidizing agent. Hazardous chemical reaction may occur.

DIRECTIONS FOR USE

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

Do not apply this product in a way that will contact workers or other persons, either directly or through drift. Only protected handlers may be in the area during application. For any requirements specific to your State or Tribe, consult the agency responsible for pesticide regulation.

AGRICULTURAL USE REQUIREMENTS

Use this product only in accordance with its labeling and with the Worker Protection Standard, 40 CFR part 170. This Standard contains requirements for the protection of agricultural workers on farms, forests, nurseries, and greenhouses, and handlers of agricultural pesticides. It contains requirements for training, decontamination, notification, and emergency assistance. It also contains specific instructions and exceptions pertaining to the statements on this label about personal protective equipment (PPE) and restricted-entry interval. The requirements in this box only apply to uses of this product that are covered by the Worker Protection Standard.

Do not enter or allow worker entry into treated areas during the restricted-entry interval (REI) of 12 hours.

PPE required for early entry to treated areas that is permitted under the Worker Protection Standard and that involves contact with anything that has been treated, such as plants, soil, or water is:

- Coveralls,
- Shoes plus socks, and
- Chemical-resistant gloves made out of any waterproof material.

NON-AGRICULTURAL USE REQUIREMENTS

The requirements in this box apply to uses of this product that are NOT within the scope of the Worker Protection Standard for agricultural pesticides (40 CFR Part 170). The WPS applies when this product is used to produce agricultural plants on farms, forests, nurseries, or greenhouses.

- Keep people off treated areas until spray solution has dried.

PRODUCT INFORMATION

Empero Q-Pak is a selective herbicide for postemergence control of sedges such as purple and yellow nutsedge, *Kyllinga* species and certain broadleaf weeds (see weeds controlled chart). **Empero Q-Pak** can be applied to commercial and residential turf-grass and on other non-crop sites including: airports, campgrounds, cemeteries, established woody ornamentals in landscape areas, fairgrounds, fallow areas, fuel storage areas, golf courses, landscaped areas, lumberyards, public recreation areas, race tracks, residential property, rights-of-ways, roadsides, school grounds, sports fields, tank farms and tennis courts.

This product is toxic to plants and may adversely impact the forage and habitat of non-target organisms, including pollinators, in areas adjacent to the treated area. Protect the forage and habitat of non-target organisms by minimizing spray drift. For further guidance and instructions on how to minimize spray drift, refer to the **Spray Drift** management section of this label.

WEED RESISTANCE MANAGEMENT

Empero Q-Pak is a Group 2 herbicide (ALS/AHAS inhibitors). Any weed population may contain or develop plants naturally resistant to **Empero Q-Pak** and other Group 2 herbicides. Weed species with acquired resistance to Group 2 herbicides may eventually dominate the weed population if Group 2 herbicides are used repeatedly in the same field or in successive years as the primary method of control for targeted species. This may result in partial or total loss of control of those species by **Empero Q-Pak** or other Group 2 herbicides. Users should scout before and after application.

Suspected herbicide-resistant weeds may be identified by these indicators:

- Failure to control a weed species normally controlled by the herbicide at the dose applied, especially if control is achieved on adjacent weeds;
- A spreading patch of non-controlled plants of a particular weed species; and
- Surviving plants mixed with controlled individuals of the same species.

To delay herbicide resistance:

- Avoid the consecutive use of **Empero Q-Pak** or other target site of action Group 2 herbicides that might have a similar target site of action, on the same weed species.
- Use tank mixtures or premixes with herbicides from different target site of action Groups as long as the involved products are all registered for the same use, have different sites of action and are both effective at the tank mix or pre-pack rate on the weed(s) of concern (an herbicide mode of action classification by itself may not adequately address specific weeds that are resistant to specific herbicides)
- Base herbicide use on a comprehensive Integrated Pest Management (IPM) program.
- Scout fields prior to application to identify the weed species present and their growth state to determine if the intended application will be effective.
- Scout fields after application to verify that the treatment was effective.
- Contact your local extension specialist, certified crop advisors and/or manufacturer for herbicide resistance management and/or integrated weed management recommendations for specific crops and resistant weed biotypes.

Report any incidence of non-performance of this product against a particular weed species to your Atticus, LLC retailer, representative or call 984-664-9804. If resistance is suspected, treat weed escapes with an herbicide having a different mechanism of action and/or use non-chemicals means to remove escapes, as practical, with the goal of preventing further seed production.

SPRAY DRIFT

THE APPLICATOR IS RESPONSIBLE FOR AVOIDING OFF-SITE SPRAY DRIFT. BE AWARE OF NEARBY NON-TARGET SITES AND ENVIRONMENTAL CONDITIONS.

IMPORTANCE OF DROPLET SIZE

An effective way to reduce spray drift is to apply large droplets. Use the largest droplets that provide target pest control. While applying larger droplets will reduce spray drift, the potential for drift will be greater if applications are made improperly or under unfavorable environmental conditions.

SHIELDED SPRAYERS

Shielding the boom or individual nozzles can reduce spray drift. Consider using shielded sprayers. Verify that the shields are not interfering with the uniform deposition of the spray on the target area.

TEMPERATURE AND HUMIDITY

When making applications in hot and dry conditions, use larger droplets to reduce effects of evaporation.

TEMPERATURE INVERSIONS

Drift potential is high during a temperature inversion. Temperature inversions are characterized by increasing temperature with altitude and are common on nights with limited cloud cover and light to no wind. The presence of an inversion can be indicated by ground fog or by the movement of smoke from a ground source or an aircraft smoke generator. Smoke that layers and moves laterally in a concentrated cloud (under low wind conditions) indicates an inversion, while smoke that moves upward and rapidly dissipates indicates good vertical air mixing. Avoid applications during temperature inversions.

WIND

Drift potential generally increases with wind speed. AVOID APPLICATIONS DURING GUSTY WIND CONDITIONS. Applicators need to be familiar with local wind patterns and terrain that could affect spray drift.

WINDBLOWN SOIL PARTICLES

Empero Q-Pak has the potential to move off-site due to wind erosion. Soils that are subject to wind erosion usually have a high silt and/or fine to very fine sand fractions and low organic matter content. Other factors which can affect the movement of windblown soil include the intensity and direction of prevailing winds, vegetative cover, site slope, rainfall, and drainage patterns. Avoid applying **Empero Q-Pak** if prevailing local conditions may be expected to result in off-site movement.

APPLICATION EQUIPMENT AND INSTRUCTIONS

Calibrate application equipment prior to application of this product. Application should be uniform and of sufficient volume to avoid streaking or skips. **Empero Q-Pak** often works with 1 application, but depending on the size and age of the nutsedge a second treatment may be required 6 - 10 weeks after the initial treatment.

Herbicide symptoms are likely to show within 2 weeks as a necrotic ring at the base of the plant, even though the leaves and stems remain green and a deep leathery green in color.

Boom-less Ground Applications:

- Applicators are required to use a Medium or coarser droplet size (ASABE S572.1) for all applications.
- Do not apply when wind speeds exceed 10 miles per hour at the application site.
- Do not apply during temperature inversions.

SPRAY DRIFT ADVISORIES

Boom-less Ground Applications:

- Setting nozzles at the lowest effective height will help to reduce the potential for spray drift.

Handheld Technology Applications:

- Take precautions to minimize spray drift.

USE PRECAUTIONS

- For optimum results, do not mow turf for 2 days before or 2 days after application.
- Avoid applications when rainfall is forecasted to occur within 4 hours.
- This product may be used on established seeded, sodded, or sprigged turfgrass. Allow the turf to develop a good root system and uniform stand before application.
- Treated areas may be overseeded with annual or perennial ryegrass or bermudagrass, 2 weeks after application.
- Avoid application of **Empero Q-Pak** when turfgrass or nutsedge is under stress since turf injury and poor nutsedge control may result.
- Avoid excessive overlap of the spray.
- Annual and perennial herbaceous ornamentals, including color plants, may be injured when transplanted into landscaped areas treated with **Empero Q-Pak**.

USE RESTRICTIONS

- Do not store **Empero Q-Pak** in solution. Once the product is mixed with water apply immediately.
- Do not apply as an over the top spray to desirable flowers, ornamentals, vegetables, shrubs or trees.
- Do not apply this product to golf course putting greens.
- Do not apply this product through any type of irrigation system.
- Do not apply this product by air.
- Do not apply this product using ground boom equipment.

WEEDS CONTROLLED BY Empero Q-Pak

C = Control, S = Suppression, NA = No Activity

Weed Species		Postemergent Activity
Burcucumber	<i>Sicyos angulatus</i>	S
Cocklebur, common	<i>Xanthium strumarium</i>	C
Corn Spurry	<i>Spergula arvensis</i>	C
Flatsedge, rice	<i>Cyperus iria</i>	C
Fleabane, Philadelphia	<i>Erigeron philadelphicus</i>	C
Galinsoga	<i>Galinsoga</i>	C
Groundsel, common	<i>Senecio vulgaris</i>	NA
Jimsonweed	<i>Datura stramonium</i>	NA
Kyllinga, Annual	<i>Kyllinga sesquiflorus</i>	C
Kyllinga, Green	<i>Kyllinga breviflora</i>	C
Kochia	<i>Kochia scoparia</i>	S
Ladysthumb	<i>Polygonum persicaria</i>	C
Lambsquarter, common	<i>Chenopodium album</i>	NA
Mallow, Venice	<i>Hibiscus trionum</i>	C
Milkweed, common	<i>Asclepias syriaca</i>	S
Milkweed, honeyvine	<i>Ampelamus albidus</i>	S
Morningglory, tall & ivyleaf	<i>Ipomoea</i> spp.	S
Mustard, wild	<i>Sinapis arvensis</i>	C
Nutsedge, yellow	<i>Cyperus esculentus</i>	C
Nutsedge, purple	<i>Cyperus rotundus</i>	C
Pigweed, redroot	<i>Amaranthus retroflexus</i>	C
Pigweed, smooth	<i>Amaranthus hybridus</i>	C
Pokeweed, common	<i>Phytolacca Americana</i>	C
Purslane	<i>Portulaca oleracea</i>	NA
Radish, wild	<i>Raphanus raphanistrum</i>	C
Ragweed, common	<i>Ambrosia artemisiifolia</i>	C
Ragweed, giant	<i>Ambrosia trifida</i>	C
Shepherds purse	<i>Capsella bursa-pastoris</i>	S
Smartweed, Pennsylvania	<i>Polyfonum pennsylvanicum</i>	C
Sunflower, common	<i>Helianthus annuus</i>	C
Velvetleaf	<i>Abutilon theophrasti</i>	C

Empero Q-Pak RATES AND APPLICATION INSTRUCTIONS

Rate oz/ 1000 sq ft	Directions For Use
TURFGRASS (Including Commercial and Residential Turfgrass, Golf Courses, Established Lawns, and Ornamental Turfgrass)	
0.5 oz (13.5 grams) or 1 pouch Mix in 1 gallon of water	Apply Empero Q-Pak for postemergence control of purple or yellow nutsedge, Kyllinga ¹ and broadleaf weeds. Mix 0.5 oz (13.5 grams) of this product (1 pouch) in 1 gallon of water to treat 1000 sq. ft. of turfgrass. Mix or shake the solution to ensure ingredients are completely dispersed. Spray the target weeds thoroughly and wet the entire leaf surface of the undesirable plants. For best results, spray nutsedge after it has reached the 3 - 8 leaf stage of growth. ¹ For optimum Kyllinga control 2 applications are recommended.

Empero Q-Pak RATES AND APPLICATION INSTRUCTIONS (continued)

Rate oz/ 1000 sq ft	Directions For Use
TURFGRASS (Including Commercial and Residential Turfgrass, Golf Courses, Established Lawns, and Ornamental Turfgrass)	
1 oz (27 grams) or 2 pouches Mix in 1 gallon of water	For postemergence control of horsetail apply 1 oz (27 grams) of this product (2 pouches) in 1 gallon of water to treat 1000 sq. ft. after horsetail has leafed out. Note: This rate of product will control horsetail that is less than 6 inches tall and suppress horsetail that is greater than 6 inches tall.
Apply Empero Q-Pak as directed under the conditions described to the following established turfgrasses that are tolerant to this product.	
Cool-Season Grasses	
Bentgrass, creeping	<i>Agrostis stolonifera</i>
Bluegrass, Kentucky	<i>Poa pratensis</i>
Fescue, Fine	<i>Festuca arundinacea</i>
Fescue, tall	<i>Festuca arundinacea</i>
Ryegrass, Perennial	<i>Lolium perenne</i>
Warm-Season Grasses	
Bahiagrass	<i>Paspalum notatum</i>
Bermudagrass	<i>Cynodon dactylon</i>
Buffalograss	<i>Bouteloua dactyloides</i>
Centipedegrass	<i>Eremochloa ophiuroides</i>
Kikuyugrass	<i>Pennisetum clandestinum</i>
Seashore paspalum	<i>Paspalum Vaginatum</i>
St. Augustine grass	<i>Stenotaphrum secundatum</i>
Zoysiagrass	<i>Zoysia Japonica</i>
ESTABLISHED WOODY ORNAMENTALS IN LANDSCAPED AREAS	
0.5 oz (13.5 grams) or 1 pouch Mix in 1 gallon of water	Apply Empero Q-Pak for postemergence control of purple or yellow nutsedge, Kyllinga ¹ and broadleaf weeds. Mix 0.5 oz (13.5 grams) of this product (1 pouch) in 1 gallon of water to treat 1000 sq. ft. Spray around established woody ornamental species in landscaped areas. For transplanted woody ornamentals, allow 3 months after transplanting before applying this product. Mix or shake the solution to ensure ingredients are completely dispersed. Spray the target weeds thoroughly and wet the entire leaf surface of the undesirable plants. For best results, spray nutsedge after it has reached the 3 - 8 leaf stage of growth. ¹ For optimum Kyllinga control 2 applications are recommended.
1 oz (27 grams) or 2 pouches Mix in 1 gallon of water	For postemergence control of horsetail apply 1 oz (27 grams) of this product (2 pouches) in 1 gallon of water to treat 1000 sq. ft. after horsetail has leafed out. Note: This rate of product will control horsetail that is less than 6 inches tall and suppress horsetail that is greater than 6 inches tall.

(continued)

**Empero Q-Pak
RATES AND APPLICATION INSTRUCTIONS (continued)**

Rate oz/ 1000 sq ft	Directions For Use
FALLOW AREAS	
0.5 oz (13.5 grams) or 1 pouch Mix in 1 gallon of water	Apply Empero Q-Pak for postemergence control of purple or yellow nutsedge, Kyllinga ¹ and broadleaf weeds. Mix 0.5 oz (13.5 grams) of this product (1 pouch) in 1 gallon of water to treat 1000 sq. ft. Spray on fallow areas prior to the establishment of turfgrass or woody ornamental plants. Allow 4 weeks between application and seeding or sodding of turfgrass, or transplanting woody ornamentals. Mix or shake the solution to ensure ingredients are completely dispersed. Spray the target weeds thoroughly and wet the entire leaf surface of the undesirable plants. For best results, spray nutsedge after it has reached the 3 - 8 leaf stage of growth. ¹ For optimum Kyllinga control 2 applications are recommended.
1 oz (27 grams) or 2 pouches Mix in 1 gallon of water	For postemergence control of horsetail apply 1 oz (27 grams) of this product (2 pouches) in 1 gallon of water to treat 1000 sq. ft. after horsetail has leafed out. Note: This rate of product will control horsetail that is less than 6 inches tall and suppress horsetail that is greater than 6 inches tall.
FENCE ROWS, FUEL STORAGE AREAS, LUMBERYARDS, TANK FARMS, RIGHT OF WAY, AND ROADSIDES	
0.5 oz (13.5 grams) or 1 pouch Mix in 1 gallon of water	Apply Empero Q-Pak for postemergence control of purple or yellow nutsedge, Kyllinga ¹ and broadleaf weeds. Mix 0.5 oz (13.5 grams) of this product (1 pouch) in 1 gallon of water to treat 1000 sq. ft. Spray at specified rates on fence rows, fuel storage areas, lumberyards, tank farms, rights of ways, roadsides and other industrial sites. Mix or shake the solution to ensure ingredients are completely dispersed. Spray the target weeds thoroughly and wet the entire leaf surface of the undesirable plants. For best results, spray nutsedge after it has reached the 3 - 8 leaf stage of growth. This product may be tank mixed with Glyphosate herbicide. ¹ For optimum Kyllinga control 2 applications are recommended.
1 oz (27 grams) or 2 pouches Mix in 1 gallon of water	For postemergence control of horsetail apply 1 oz (27 grams) of this product (2 pouches) in 1 gallon of water to treat 1000 sq. ft. after horsetail has leafed out. Note: This rate of product will control horsetail that is less than 6 inches tall and suppress horsetail that is greater than 6 inches tall.
OTHER NON-CROP SITES (Including Airports, Campgrounds, Cemeteries, Fairgrounds, Public Recreation Areas, Race Tracks, Residential Property, School Grounds, Sports Fields, and Tennis Courts)	
0.5 oz (13.5 grams) or 1 pouch Mix in 1 gallon of water	Apply Empero Q-Pak for postemergence control of purple or yellow nutsedge, Kyllinga ¹ and broadleaf weeds. Mix 0.5 oz (13.5 grams) of this product (1 pouch) in 1 gallon of water to treat 1000 sq. ft. ¹ For optimum Kyllinga control 2 applications are recommended.
1 oz (27 grams) or 2 pouches Mix in 1 gallon of water	For postemergence control of horsetail apply 1 oz (27 grams) of this product (2 pouches) in 1 gallon of water to treat 1000 sq. ft. after horsetail has leafed out. Note: This rate of product will control horsetail that is less than 6 inches tall and suppress horsetail that is greater than 6 inches tall.

STORAGE AND DISPOSAL

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

PESTICIDE STORAGE: Store under cool, dry conditions (below 120°F). Do not store under moist conditions.

PESTICIDE DISPOSAL: Wastes resulting from the use of this product must be disposed of on site or at an approved waste disposal facility.

CONTAINER HANDLING: Nonrefillable container. Do not reuse or refill this container. Completely empty bag into application equipment. Then offer for recycling, if available, or dispose of in a sanitary landfill, or by incineration. Do not burn, unless allowed by state and local ordinances.

DISPOSAL AUTHORITIES: If none of the foregoing procedures is permitted by state and local authorities, then contact your State Pesticide or Environmental Control Agency, or your local Hazardous Waste Disposal office, or the Hazardous Waste Representative at the nearest EPA Regional Office for guidance.

LIMITATION OF WARRANTY AND LIABILITY

IMPORTANT: READ BEFORE USE. Read the entire Directions for Use, Conditions of Warranties and Limitations of Liability before using this product. If these terms and conditions are not acceptable, return the unopened product container at once. By using this product, user or buyer accepts the following Disclaimer of Warranties and Limitations of Liability.

CONDITIONS: The directions for use of this product are believed to be adequate and must be followed carefully. However, it is impossible to eliminate all risks associated with the use of this product. Ineffectiveness, injury, and other unintended consequences may result because of such factors as manner of use or application (including misuse), the presence of other materials, weather conditions, and other unknown factors, all of which are beyond the control of ATTICUS, LLC. All such risks shall be assumed by the user or buyer.

DISCLAIMER OF WARRANTIES: To the extent consistent with applicable law, ATTICUS, LLC makes no other warranties, express or implied, of merchantability or of fitness for a particular purpose or otherwise, that extend beyond statements on this label.

LIMITATIONS OF LIABILITY: To the extent consistent with applicable law, neither ATTICUS, LLC the manufacturer, nor the Seller shall be liable for any indirect, special, incidental or consequential damages resulting from the use, handling, application, storage, or disposal of this product. To the extent consistent with applicable law, the exclusive remedy of the user or buyer for any and all losses, injuries or damages resulting from the use, handling, application, or storage of this product, whether in contract, warranty, tort, negligence, strict liability or otherwise, shall not exceed the purchase price paid.

Empero™ Q-Pak is a trademark of Atticus, LLC
SedgeHammer® is a registered trademark of Gowan Company, LLC.
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