


Port Jervis

SCHOOL DISTRICT

To: Board of Education
Thomas Bongiovi, Superintendent of Schools

cc: Lorelei Case, Assistant Superintendent for Business

From: Donald R. Preiss, Director of Facilities III 

Date: July 14, 2017

Re: Herbicide Treatment at Glennette Field, PJMS

Continued efforts to eliminate yellow nutsedge and its spread at Glennette Field will require an additional application of herbicide. The cost for application is \$405.00 and can be done by Farmside Landscape & Design on Thursday, July 27, 2017.

According to the NYS Education Law, we are required to seek and obtain permission from the Board of Education to apply herbicides/pesticides. Copies of Safety Data Sheets (SDS) and directions for use of SedgeHammer herbicide, which will be used to treat, are attached for your review. Appropriate signage will be posted at the treatment location.

We hereby request board approval for application of herbicide at Glennette Field only on Thursday, July 27, 2017.

Respectfully submitted for your consideration.

DRP/lh



SEDGEHAMMER® is a selective herbicide for the control of nutsedge and other weeds in turfgrass and landscaped areas.

	% By Wt.
ACTIVE INGREDIENT: * Halosulfuron-methyl.....	75.0%
OTHER INGREDIENTS:	25.0%
	Total: 100.0%

Read the entire label before using this product. Use only according to label instructions. Read "NOTICE OF CONDITIONS OF SALE AND WARRANTY AND LIABILITY LIMITATIONS" before buying or using. If terms are not acceptable, return at once unopened.

**KEEP OUT OF REACH OF CHILDREN
CAUTION**

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 5 minutes, then continue rinsing eye. • Call poison control center or physician for treatment advice.
IF SWALLOWED	<ul style="list-style-type: none"> • Call poison control center or physician immediately for treatment advice. • Remove visible particles from mouth. • Have person rinse mouth thoroughly with water, spit out rinse water. • Have person sip a glass of water if able to swallow. • Do not induce vomiting unless told to do so by the poison control center or doctor. • Do not give anything by mouth to an unconscious person.
<p>Have the product container or label with you when calling a poison control center or physician, or going for treatment. FOR MEDICAL EMERGENCIES INVOLVING THIS PRODUCT, CALL TOLL FREE 1-888-478-0798. This product is identified as SEDGEHAMMER TURF HERBICIDE, EPA Reg. No. 81880-1-10163.</p>	

**PRECAUTIONARY STATEMENTS
HAZARDS TO HUMANS AND DOMESTIC ANIMALS
CAUTION**

CAUSES MODERATE EYE IRRITATION. HARMFUL IF SWALLOWED. Avoid contact with eyes or clothing. Wash thoroughly with soap and water after handling.

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.

When handlers use closed systems, or 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.

NET CONTENTS OUNCES

EPA Reg. No. 81880-1-10163
EPA Est. No. 67545-AZ-002



Produced For:
Gowan Company
P.O. Box 5569
Yuma, AZ 85366-5569

ENVIRONMENTAL HAZARDS

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 disposing of equipment washwaters or rinsate.

This chemical demonstrates the properties and characteristics associated with chemicals detected in ground water. The use of this chemical in areas where soils are permeable, particularly where the water table is shallow, may result in ground water contamination.

DIRECTIONS FOR USE

It is a violation of Federal law to use this product in any manner inconsistent with its labeling. This product must be used in accordance with the Directions For Use on this label or in separately published Gowan Supplemental 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,
- chemical resistant gloves, such as nitrile rubber, neoprene rubber or polyethylene. For more options, follow instructions for category A (dry and water-based formulations) on an EPA chemical resistant category selection chart.

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.

GENERAL INFORMATION

SEDGEHAMMER is a selective herbicide for post-emergence control of sedges such as purple and yellow nutsedge in established lawns, ornamental turfgrass, and landscaped areas. SEDGEHAMMER may be applied to commercial and residential turf and on other non-crop sites including: airports, cemeteries, fallow areas, golf courses, landscaped areas, public recreation areas, residential property, roadsides, school grounds, sod or turf seed farms, sports fields, landscaped areas with established woody ornamental, fairgrounds, race tracks, tennis courts, campgrounds and rights-of-way.

TURFGRASSES

When applied as directed under the conditions described, the following established turfgrasses are tolerant to this product:

Cool-Season Grasses

Bentgrass, creeping <i>Agrostis stolonifera</i>	Fescue, fine <i>Festuca arundinacea</i>	Ryegrass, perennial <i>Lolium perenne</i>
Bluegrass, Kentucky <i>Poa pratensis</i>	Fescue, tall <i>Festuca arundinacea</i>	

Warm-Season Grasses

Bahiagrass <i>Paspalum notatum</i>	Seashore paspalum <i>Paspalum vaginatum</i>	Kikuyugrass <i>Pennisetum clandestinum</i>
Bermudagrass <i>Cynodon dactylon</i>	St. Augustinegrass <i>Stenotaphrum secundatum</i>	
Centipede grass <i>Eremochloa ophiuroides</i>	Zoysiagrass <i>Zoysia japonica</i>	

ESTABLISHED WOODY ORNAMENTALS IN LANDSCAPED AREAS

This product may be applied at specific rates as a post-directed spray around any established woody ornamental species in landscaped areas. For transplanted woody ornamentals, allow three months after transplanting before applying this product.

NOTE: Avoid contact of this product to leaves of desirable plants since foliar injury, discoloration or death may result.

FALLOW TREATMENTS

This product may be used 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.

WEEDS CONTROLLED

When applied post-emergence, this product will control the following weeds:

Purple nutsedge	Yellow nutsedge
<i>Cyperus rotundus</i>	<i>Cyperus esculentus</i>

When applied postemergence, this product will suppress the following weed:

Kyllinga spp.

APPLICATION DIRECTIONS

Rates and timing of Application

Broadcast Applications:

For post-emergence control of purple or yellow nutsedge found in established turfgrass, apply 2/3 to 1 1/3 ounces by weight of this product per acre (0.031 to 0.062 pound active ingredient per acre) after nutsedge has reached the 3 to 8 leaf stage of growth. Use the lower rate in light infestations and the higher rate in heavy infestations.

A second treatment may be required 6 to 10 weeks after the initial treatment. As a sequential treatment, when new purple or yellow nutsedge plants have reached the 3 to 8 leaf stage of growth, apply 2/3 to 1 1/3 ounces by weight of this product per acre (0.031 to 0.062 pound active ingredient per acre). Use the lower rate in light infestations and the higher rate in heavy infestations. No more than 4 applications can be made with the total use rate not exceeding 5 1/3 ounces by weight of this product (0.25 pounds active ingredient) per acre per use season.

Use 0.25-0.5 percent v/v of a nonionic surfactant (1-2 quarts per 100 gallons of spray solution) for broadcast applications. For high volume applications, DO NOT exceed 1 quart of surfactant per acre. Use only nonionic surfactants that contain at least 80 percent active material.

Spot Treatments:

Mix 0.9 gram of this product in one or two gallons of water to treat 1000 square feet. Add 2 teaspoons (1/3 fluid ounce) of nonionic surfactant per gallon of water.

INSTRUCTIONS FOR WATER DISPERSIBLE GRANULE IN 1.3 OUNCE BOTTLE: Mix 0.9 gram of this product (using the measuring scoop provided) in one or two gallons of water to treat 1000 square feet. Add 2 teaspoons (1/3 fluid ounce) of nonionic surfactant per gallon of water. Ensure the product is measured as a level scoop and not rounded.

INSTRUCTIONS FOR WATER DISPERSIBLE GRANULE PREMEASURED IN WATER SOLUBLE BAG: Add one (1) water soluble bag of this product per one or two gallons of water in a hand-held or backpack sprayer to treat 1000 square feet. Add 2 teaspoons (1/3 fluid ounce) of a nonionic surfactant per gallon of spray solution. Mix or shake thoroughly for at least two minutes to ensure that the water soluble bag and ingredients are completely dispersed. Occasionally shake the spray solution while spraying to ensure that it remains thoroughly mixed.

Spray the target weeds thoroughly and wet the entire leaf surface of the undesirable plants.

DO NOT exceed the specified amount of surfactant due to the potential for turf injury at higher rates. Refer to the surfactant label and observe all precautions, mixing and application instructions.

TANK MIX WITH GLYPHOSATE HERBICIDE IN LANDSCAPED AND FALLOW AREAS AND TURF RENOVATION.

This product may be tank mixed with Glyphosate herbicide for application as a directed spray in landscaped or fallow areas.

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. Avoid excessive overlap of the spray.

USE PRECAUTIONS

For optimum results, do not mow turf for 2 days before or 2 days after application.

This product is effective if no rainfall occurs within 3 hours, but best results are obtained with no rainfall or irrigation for at least 4 hours.

This product may be used on seeded, sodded, or sprigged turfgrass that is well established. 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.

Color plants or herbaceous ornamentals may be injured when transplanted into landscaped areas treated with SEDGEHAMMER.

Avoid application of SEDGEHAMMER when turfgrass or nutsedge is under stress since turf injury and poor nutsedge control may result.

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.

FOR USE ON ROADSIDES, RIGHT OF WAY, TANK FARMS, LUMBERYARDS, FUEL STORAGE AREAS, FALLOW LAND, AND FENCE ROWS FOR HORSETAIL CONTROL

This product may be applied at specified rates as a post-emergence spray on roadsides and other industrial sites. When applied post-emergence, this product will suppress the following weeds: cocklebur, common sunflower, common ragweed, giant ragweed, pigweed, and velvetleaf. This product may be tank mixed with Glyphosate herbicide.

Control of Horsetail (*Equisetum arvense*)

For post-emergence control of horsetail (*Equisetum arvense*), apply 2 2/3 ounces of this product per acre, or 1.8 grams of this product per 1000 square feet (0.125 pound active ingredient per acre) after horsetail has leafed out. This rate of product will control horsetail that is less than 6 inches tall and suppress horsetail that is greater than 6 inches tall.

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.

STORAGE AND DISPOSAL

Do not contaminate water, food, or feed by storage or 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 that cannot be used or chemically reprocessed must be disposed of in a landfill approved for pesticide disposal or in accordance with applicable Federal, state, or local procedures, or in such other method as approved under those procedures.

Emptied container retains vapor and product residue. Observe all labeled safeguards until container is destroyed.

CONTAINER HANDLING:

INSTRUCTIONS FOR WATER DISPERSIBLE GRANULE IN 1.3 OUNCE BOTTLE:

Nonrefillable container. Do not reuse or refill this container. Triple rinse container promptly after emptying. Triple rinse as follows: Empty the remaining contents into application equipment or a mix tank. Fill the container 1/4 full with water and recap. Shake for 10 seconds. Pour rinsate into application equipment or a mix tank or store rinsate for later use or disposal. Drain for 10 seconds after the flow begins to drip. Repeat this procedure two more times. Then offer for recycling if available, or puncture and dispose of in a sanitary landfill or by incineration. Do not burn unless allowed by state and local ordinances.

INSTRUCTIONS FOR WATER DISPERSIBLE GRANULE PREMEASURED IN WATER SOLUBLE BAG: Nonrefillable container. Do not reuse or refill this container. Completely use water soluble bags in application equipment. Offer for recycling if available, or, dispose of the empty outer foil pouch in the trash as long as WSP is unbroken.

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.

**FOR 24-HOUR EMERGENCY ASSISTANCE (SPILL, LEAK OR FIRE), CALL CHEMTREC® (800) 424-9300.
For more product information, call toll-free 1-800-883-1844.**

NOTICE OF CONDITIONS OF SALE AND WARRANTY AND LIABILITY LIMITATIONS

Important: Read the entire Directions for Use and Notice of Conditions of Sale and Warranty and Liability Limitations before using this product. If terms are not acceptable return the unopened container for a full refund.

Our directions for use of this product are based on tests believed to be reliable. However, it is impossible to eliminate all risk associated with the use of this product. Crop injury, inadequate performance, or other unintended consequences may result due to soil or weather conditions, off target movement, presence of other materials, method of use or application, and other factors, all of which are beyond the control of Gowan Company. All such risks shall be assumed by the Buyer and User.

Gowan Company warrants that this product conforms to the specifications on the label when used in strict conformance with Direction for Use, subject to the above stated risk limitations. TO THE EXTENT CONSISTENT WITH APPLICABLE LAW, GOWAN COMPANY MAKES NO OTHER EXPRESS OR IMPLIED WARRANTY OF MERCHANTABILITY OR FITNESS FOR A PARTICULAR PURPOSE NOR ANY OTHER EXPRESS OR IMPLIED WARRANTY.

TO THE EXTENT CONSISTENT WITH APPLICABLE LAW, GOWAN COMPANY'S EXCLUSIVE LIABILITY FOR ANY AND ALL LOSSES, INJURIES OR DAMAGES RESULTING FROM THE USE OR HANDLING OF THIS PRODUCT WHETHER IN CONTRACT, WARRANTY, TORT, NEGLIGENCE, OR ANY OTHER LEGAL THEORY IS STRICTLY LIMITED TO THE PURCHASE PRICE PAID OR REPLACEMENT OF PRODUCT, AT GOWAN COMPANY'S SOLE DISCRETION.

SEDGEHAMMER® is a registered trademark of Gowan Company, LLC.
Chemtrec® is a registered trademark of American Chemistry Council, Inc.

1 Identification

Product identifier

- Trade name: **SedgeHammer® Turf Herbicide**
EPA Registration No.: **81880-1-10163**
- CAS Number: Active Ingredient: **Halosulfuron-Methyl (75%), CAS:100784-20-1**
- Relevant identified uses of the substance or mixture and uses advised against
 - Sector of Use **Turf and Ornamentals**
 - Application of the substance / the mixture **Turf herbicide**

Details of the supplier of the safety data sheet

Manufacturer/Supplier:

Gowan Company
P.O. Box 5569
Yuma, Arizona 85366-5569
(928) 783-8844

Information department: sds@gowanco.com

Emergency telephone number:

Chemtrec® Emergency Telephone 24 - Hours: (Spills, leak or fire) Inside U.S. & Canada: (800) 424-9300
Outside the U.S. & Canada: +011 (703) 527-3887

For medical emergency (Prosar®): (888) 478-0798

2 Hazard(s) identification

Classification of the substance or mixture



GHS07

Acute Tox. 4 H302 Harmful if swallowed.

Label elements

GHS label elements

The product is classified and labeled according to the Globally Harmonized System (GHS).

Hazard pictograms



GHS07

Signal word: Warning

Hazard statements

Harmful if swallowed.

Precautionary statements

Wash thoroughly after handling.

Do not eat, drink or smoke when using this product.

If swallowed: Call a poison center/doctor if you feel unwell.

Rinse mouth.

Dispose of contents/container in accordance with local/regional/national/international regulations.

Hazard description:

CAUSES MODERATE EYE IRRITATION. HARMFUL IF SWALLOWED. Avoid contact with eyes or clothing.

(Contd. on page 2)

Safety Data Sheet

acc. to OSHA

Printing date 07/01/2015

Reviewed on 07/01/2015

Trade name: SedgeHammer® Turf Herbicide
EPA Registration No.: 81880-1-10163

(Contd. of page 1)

Classification system:

NFPA ratings (scale 0 - 4)



HAZARD INDEX:

- 4 Severe Hazard
- 3 Serious Hazard
- 2 Moderate
- 1 Slight Hazard
- 0 Minimal Hazard

HMIS-ratings (scale 0 - 4)



HAZARD INDEX:

- 4 Severe Hazard
- 3 Serious Hazard
- 2 Moderate Hazard
- 1 Slight Hazard
- 0 Minimal Hazard

Other hazards

- Results of PBT and vPvB assessment**
 - PBT:** Not applicable in US.
 - vPvB:** Not applicable in US.

3 Composition/information on ingredients

Chemical characterization: Mixtures

- Description:** Only the identities of the active ingredient(s) and any hazardous inert ingredients are listed.

Dangerous components:

100784-20-1	Halosulfuron present as methyl ester	75.0%
	⚠ Aquatic Acute 1, H400; Aquatic Chronic 1, H410	

4 First-aid measures

Description of first aid measures

General information:

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

You may also contact 1-888-478-0798 for emergency medical treatment information.

After eye contact:

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

After swallowing:

- Call a poison control center or doctor immediately for treatment advice.
- Remove visible particles from mouth.
- Have person rinse mouth thoroughly with water, spit out rinse water.

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Trade name: SedgeHammer® Turf Herbicide
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(Contd. of page 2)

- Have person sip a glass of water if able to swallow.
- Do not induce vomiting unless told to do so by a poison control center or doctor.
- Do not give anything by mouth to an unconscious person.
- **Information for doctor:**
 - **Most important symptoms and effects, both acute and delayed** No further relevant information available.
 - **Indication of any immediate medical attention and special treatment needed**
No further relevant information available.

5 Fire-fighting measures

- **Extinguishing media**
 - **Suitable extinguishing agents:**
CO₂, extinguishing powder or water spray. Fight larger fires with water spray or alcohol resistant foam.
- **Special hazards arising from the substance or mixture** No further relevant information available.
- **Advice for firefighters**
Firefighters and others that may be exposed to vapors, mists, dusts, or products of combustion should wear full protective clothing and self-contained breathing apparatus. Equipment should be thoroughly cleaned after use.
 - **Protective equipment:** Wear self-contained respiratory protective device.

6 Accidental release measures

- **Personal precautions, protective equipment and emergency procedures** Not required.
- **Environmental precautions:**
Do not apply directly to water, to areas where surface water is present or to intertidal areas below the mean high water mark.
- **Methods and material for containment and cleaning up:**
Absorb remaining material or small spills with an inert material and then place in a chemical waste container. Flush residual spill area with water. Refer to Section 13 for disposal information and Section 15 for reportable quantity information.
- **Reference to other sections**
See Section 7 for information on safe handling.
See Section 8 for information on personal protection equipment.
See Section 13 for disposal information.

7 Handling and storage

- **Handling:**
 - **Precautions for safe handling**
No special measures required.
Avoid contact with eyes or clothing. Wash hands before eating, drinking, chewing gum, using tobacco, or using the toilet. Remove clothing immediately if pesticide gets inside. Then wash thoroughly and put on clean clothing. 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 disposing of equipment washwaters.
 - **Information about protection against explosions and fires:** Keep ignition sources away - Do not smoke.
- **Conditions for safe storage, including any incompatibilities**
 - **Storage:**
 - **Requirements to be met by storerooms and receptacles:**
Do not contaminate water, foodstuffs, feed or seed by storage or disposal. Store under cool, dry conditions (below 120°F). Do not store under moist conditions.
 - **Information about storage in one common storage facility:** Store away from foodstuffs.

(Contd. on page 4)

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Trade name: SedgeHammer® Turf Herbicide
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- *Further information about storage conditions: None.*
- *Specific end use(s) No further relevant information available.*

8 Exposure controls/personal protection

- *Additional information about design of technical systems: No further data; see item 7.*
- **Control parameters**
 - **Components with limit values that require monitoring at the workplace:**
The product does not contain any relevant quantities of materials with critical values that have to be monitored at the workplace.
 - **Additional information:**
Causes moderate eye irritation. Harmful if swallowed. Avoid contact with eyes or clothing.
- **Exposure controls**
 - **Personal protective equipment:**
 - **General protective and hygienic measures:**
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.
 - **Breathing equipment:** *Not required.*
 - **Protection of hands:**



Protective gloves

- **Material of gloves**
chemical resistant gloves, such as nitrile rubber, neoprene rubber or polyethylene. For more options, follow instructions for category A (dry and water-based formulations) on an EPA chemical resistant category selection chart.
- **Penetration time of glove material**
The exact break through time has to be found out by the manufacturer of the protective gloves and has to be observed.
- **Body protection:**
Applicators and other handlers must wear:
 - *Long-sleeved shirt and long pants*
 - *Coveralls*
 - *Shoes plus socks*
 - *Chemical resistant gloves, such as nitrile rubber, neoprene rubber or polyethylene. For more options, follow instructions for category A (dry and water-based formulations) on an EPA chemical resistant category selection chart.*

9 Physical and chemical properties

- **Information on basic physical and chemical properties**
 - **General Information**
 - **Appearance:**
 - **Form:** *Granulate*
 - **Color:** *Beige*
 - **Odor:** *Slightly Vanilla*
 - **Odour threshold:** *Not determined.*

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· pH-value at 20 °C (68 °F):	6.6
· Change in condition	
· Melting point/Melting range:	Undetermined.
· Boiling point/Boiling range:	Undetermined.
· Flash point:	Not applicable.
· Flammability (solid, gaseous):	Not determined.
· Ignition temperature:	
· Decomposition temperature:	Not determined.
· Auto igniting:	Product is not self-igniting.
· Danger of explosion:	Product does not present an explosion hazard.
· Explosion limits:	
· Lower:	Not determined.
· Upper:	Not determined.
· Vapor pressure:	Not applicable.
· Density at 20 °C (68 °F):	0.656 g/cm ³ (5.474 lbs/gal)
· Relative density	Not determined.
· Vapour density	Not applicable.
· Evaporation rate	Not applicable.
· Solubility in / Miscibility with	
· Water:	Dispersible.
· Partition coefficient (n-octanol/water):	Not determined.
· Viscosity:	
· Dynamic:	Not applicable.
· Kinematic:	Not applicable.
· Other information	No further relevant information available.

10 Stability and reactivity

· Reactivity

· Chemical stability

This product should be stable for at least two years under normal conditions of warehouse storage. Store in a cool, well-ventilated place away from foodstuffs, reducing agents and acids.

· **Thermal decomposition / conditions to be avoided:** No decomposition if used according to specifications.

· **Possibility of hazardous reactions** No dangerous reactions known.

· **Conditions to avoid** Store under cool, dry conditions (below 120°F). Do not store under moist conditions.

· **Incompatible materials:** Reducing agents and acids

· **Hazardous decomposition products:** No dangerous decomposition products known.

US

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Trade name: **SedgeHammer® Turf Herbicide**
EPA Registration No.: 81880-1-10163

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11 Toxicological information

- Information on toxicological effects

- Acute toxicity:

- LD/LC50 values that are relevant for classification:

Oral	LD50	1287 mg/kg (rat)
Dermal	LD50	>5000 mg/kg (rat)
Inhalative	LC50/4 h	>5.7 mg/l (rat)

- Primary irritant effect:

- on the skin: Slightly irritating
- on the eye: Moderately Irritating
- Sensitization: No sensitizing effects known.

- Additional toxicological information:

The product is not subject to classification according to internally approved calculation methods for preparations:

When used and handled according to specifications, the product does not have any harmful effects according to our experience and the information provided to us.

- Carcinogenic categories

- IARC (International Agency for Research on Cancer)

None of the ingredients are listed.

- NTP (National Toxicology Program)

None of the ingredients are listed.

- OSHA-Ca (Occupational Safety & Health Administration)

None of the ingredients are listed.

12 Ecological information

- Toxicity

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 ground water under certain conditions as a result of label use. This chemical may leach into ground water if used in areas where soils are permeable, particularly where the water table is shallow.

- Aquatic toxicity: No further relevant information available.
- Persistence and degradability: No further relevant information available.
- Behavior in environmental systems:

- Bioaccumulative potential: No further relevant information available.
- Mobility in soil: No further relevant information available.

- Other information:

Ecotoxicity data shown is for the active ingredient, halosulfuron-methyl.
48-hr EC50 *Daphnia magna*: >107 mg/L; practically nontoxic.
96-hr LC50 Bluegill sunfish: >118 mg/L; practically nontoxic.
96-hr LC50 Rainbow trout: >131 mg/L; practically nontoxic.
5-day EC50 Algae (*Selenastrum capricornutum*): 0.0041/L; very highly toxic.

- Ecotoxicological effects:

- Other information:

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.

(Contd. on page 7)

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

· **Additional ecological information:**

· **General notes:**

Water hazard class 2 (Self-assessment): hazardous for water

Do not allow product to reach ground water, water course or sewage system.

Danger to drinking water if even small quantities leak into the ground.

· **Results of PBT and vPvB assessment**

· **PBT:** Not applicable.

· **vPvB:** Not applicable.

· **Other adverse effects** No further relevant information available.

13 Disposal considerations

· **Waste treatment methods**

· **Recommendation:**

Wastes resulting from the use of this product that cannot be used or chemically reprocessed should be disposed of in a landfill for pesticide disposal or in accordance with applicable Federal, state or local procedures.

· **Uncleaned packagings:**

· **Recommendation:**

Nonrefillable container. Do not reuse or refill this container. Triple rinse container promptly after emptying. Triple rinse as follows: Empty the remaining contents into application equipment or a mix tank. Fill the container 1/4 full with water and recap. Shake for 10 seconds. Pour rinsate into application equipment or a mix tank or store rinsate for later use or disposal. Drain for 10 seconds after the flow begins to drip. Repeat this procedure two more times. Then offer for recycling if available, or puncture and dispose of in a sanitary landfill or by incineration. Do not burn unless allowed by state and local ordinances.

14 Transport information

· **UN-Number**

· **DOT**

· **ADR, IMDG, IATA**

Not Regulated

UN3077

· **UN proper shipping name**

· **ADR**

· **IMDG**

· **IATA**

3077 Environmentally hazardous substances, solid, n.o.s. (Halosulfuron-Methyl)
ENVIRONMENTALLY HAZARDOUS SUBSTANCE, SOLID, N.O.S. (Halosulfuron-Methyl), MARINE POLLUTANT
ENVIRONMENTALLY HAZARDOUS SUBSTANCE, SOLID, N.O.S. (Halosulfuron-Methyl)

· **Transport hazard class(es)**

· **ADR, IMDG, IATA**



· **Class**

9 Miscellaneous dangerous substances and articles

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Safety Data Sheet

acc. to OSHA

Printing date 07/01/2015

Reviewed on 07/01/2015

Trade name: **SedgeHammer® Turf Herbicide**
EPA Registration No.: 81880-1-10163

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· Label	9
· Packing group · ADR, IMDG, IATA	III
· Environmental hazards:	Product contains environmentally hazardous substances: Halosulfuron present as methyl ester
· Marine pollutant:	Yes Symbol (fish and tree)
· Special marking (ADR):	Symbol (fish and tree)
· Special marking (IATA):	Symbol (fish and tree)
· Special precautions for user · Danger code (Kemler): · EMS Number:	Warning: Miscellaneous dangerous substances and articles 90 F-A,S-F
· Transport in bulk according to Annex II of MARPOL73/78 and the IBC Code	Not applicable
· UN "Model Regulation":	US DOT: Not regulated All Others: UN3077, Environmentally hazardous substances, solid, n.o.s. (Halosulfuron-Methyl), 9, III

15 Regulatory information

· **Safety, health and environmental regulations/legislation specific for the substance or mixture**

EPA /FIFRA Information:

This chemical is a pesticide product registered by the Environmental Protection Agency and is subject to certain labeling requirements under federal pesticide law. These requirements differ from the classification criteria and hazard information required for safety data sheets, and for workplace labels of non-pesticide chemicals.

· **SARA Title III**

· **Section 355 (extremely hazardous substances):**

None of the ingredients are listed.

· **Section 313 (Specific toxic chemical listings):**

None of the ingredients are listed.

· **TSCA (Toxic Substances Control Act):**

None of the ingredients are listed.

· **Proposition 65**

· **Chemicals known to cause cancer:**

None of the ingredients are listed.

· **Chemicals known to cause reproductive toxicity for females:**

None of the ingredients are listed.

· **Chemicals known to cause reproductive toxicity for males:**

None of the ingredients are listed.

· **Chemicals known to cause developmental toxicity:**

None of the ingredients are listed.

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· **Carcinogenicity categories**

· **EPA (Environmental Protection Agency)**

None of the ingredients are listed.

· **TLV (Threshold Limit Value established by ACGIH)**

None of the ingredients are listed.

· **NIOSH-Ca (National Institute for Occupational Safety and Health)**

None of the ingredients are listed.

· **GHS label elements**

Not applicable

The product is classified and labeled according to the Globally Harmonized System (GHS).

· **Hazard pictograms**

Not applicable

· **Signal word:**

(US EPA) CAUTION

· **Hazard statements**

Causes moderate eye irritation.

Harmful if swallowed.

Avoid contact with eyes or clothing.

Wash thoroughly with soap and water after handling.

Harmful if swallowed.

· **Precautionary statements**

Wash thoroughly after handling.

Do not eat, drink or smoke when using this product.

If swallowed: Call a poison center/doctor if you feel unwell.

Rinse mouth.

Dispose of contents/container in accordance with local/regional/national/international regulations.

· **Chemical safety assessment:** A Chemical Safety Assessment has not been carried out.

16 Other information

This information is based on our present knowledge. However, this shall not constitute a guarantee for any specific product features and shall not establish a legally valid contractual relationship.

· **Department issuing SDS:** Supply Chain

· **Contact:** sds@gowanco.com

· **Date of preparation / last revision** 07/01/2015 / 6

· **Abbreviations and acronyms:**

ADR: Accord européen sur le transport des marchandises dangereuses par Route (European Agreement concerning the International Carriage of Dangerous Goods by Road)

IMDG: International Maritime Code for Dangerous Goods

DOT: US Department of Transportation

IATA: International Air Transport Association

ACGIH: American Conference of Governmental Industrial Hygienists

EINECS: European Inventory of Existing Commercial Chemical Substances

ELINCS: European List of Notified Chemical Substances

CAS: Chemical Abstracts Service (division of the American Chemical Society)

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*NFPA: National Fire Protection Association (USA)**HMIS: Hazardous Materials Identification System (USA)**LC50: Lethal concentration, 50 percent**LD50: Lethal dose, 50 percent**Acute Tox. 4: Acute toxicity, Hazard Category 4**Aquatic Acute 1: Hazardous to the aquatic environment - Acute Hazard, Category 1**Aquatic Chronic 1: Hazardous to the aquatic environment - Chronic Hazard, Category 1**· Sources SEDGEHAMMER® is a registered trademark of Gowan Company, LLC.**· * Data compared to the previous version altered.*

US