

## PESTICIDE STANDARD WRITTEN NOTIFICATION FOR SCHOOLS, DAY CARE PROGRAMS, AND SCHOOL-AGE CHILDCARE PROGRAMS

The school, day care center, and/or school-age childcare program is responsible for sending this standard written notification form to employees, pupils, parents etc. to insure that they receive this information at least 2 working days prior to any pesticide use.

It is recommended that the Pest Management Professional use this ready-to-copy standard written notification form for the purpose of providing pesticide use information to the school, day care center, and/or school-age childcare program. The Pest Management Professional should save this form for copying.

**School:** Westport Junior/Senior High School

\_\_\_\_\_  
Name of School , Day care center, and/or School age childcare program

**Pest Management Company:** Tru Green

20 Raffaele Rd., Plymouth, MA 02360

(Please Print)

\_\_\_\_\_  
Name

\_\_\_\_\_  
Address

**Pest Management Professional:** Keith Patterson

#AL-0043865

(Please Print)

\_\_\_\_\_  
License number

### A. List the Approximate Dates on which the pesticide use shall commence and conclude

**Beginning Date** June 28, 2022

**Ending Date** June 28, 2022

### B. Record the specific location of the anticipated pesticide use

Fertilization of all athletic playing fields

### C. Pesticide Information (Pest Management Professional should be specific as is possible when listing product(s) to be used)

Pesticide Product Name	Pesticide Type	EPA Registration #	Description/Purpose of treatment and/or application
1. TCS Growstar Fert.	Herbicide	82757-6	Fertilization herbicide
2. Escalade 2 Herbicide	Herbicide	228-442	Fertilization herbicide
3.			

This standard written notification must be accompanied by the following 2 documents. These materials are available from the DAR web page [www.mass.gov/agr](http://www.mass.gov/agr). Follow the links to the Children's Protection page.

- Chemical Specific Fact Sheet(s)
- Consumer Information Bulletin for school, day care center, and/or school-age childcare program. 3RD Edition approved

# THE COMMONWEALTH OF MASSACHUSETTS

EXECUTIVE OFFICE OF ENERGY AND ENVIRONMENTAL AFFAIRS



## Department of Agricultural Resources

251 Causeway Street, Suite 500, Boston, MA 02114

617-626-1700 fax: 617-626-1850 [www.mass.gov/agr](http://www.mass.gov/agr)



### THE ACT PROTECTING CHILDREN AND FAMILIES FROM HARMFUL PESTICIDES OF 2000

#### Massachusetts Pesticide Enforcement Consumer Information Bulletin FOR SCHOOLS, DAYCARE CENTERS AND SCHOOL AGE CHILD CARE PROGRAMS

The Massachusetts Pesticide Control Act requires parents, staff, and children to receive this Consumer Information bulletin whenever pesticide applications are being made on the property of your school, daycare center or school age child care program. This bulletin is being provided to you along with a Standard Written Notification form and a Pesticide Specific Factsheet.

#### **Why am I receiving this information and what should I do when I receive it?**

The purpose of the Standard Written Notification is to provide you with information about pesticide applications which are taking place on the property of your school, day care center or school age child care program. The bulletin provides information about precautions you can take to minimize exposure to any pesticides. The Pesticide Specific Factsheets provide information about the properties of the pesticides being used.

#### **Who applies pesticides in my school, daycare center or school age child care program?**

Commercial pest management professionals, facilities managers, grounds personnel or custodians. Regardless of the approach used, the person who applies the pesticides must have a current and valid Pesticide Bureau Applicator license. Check the standard written notification form for the applicator's license number.

#### **How do I know when pesticides are being applied?**

Employees, supervised children and their guardians must receive standard written notification at least two working days prior to the application of pesticides outdoors on the property. The standard written notification form, which accompanies this bulletin, includes:

- approximate dates when the application shall commence and conclude;
- specific location of the application;
- product name, type and EPA Registration number of the pesticide;
- a Pesticide Specific Fact Sheet;
- a description of the purpose of the application and
- this Consumer Information Bulletin

The notification must also be posted in a common area of the facility at least two working days before the outdoor application is to commence and at least 72 hours after the application. Treated areas will be posted with clear and conspicuous warning signs along the perimeter. This information will be supplied to the school by the licensed pesticide applicator.



### **Are applications of pesticides safe?**

All pesticides must be treated with caution. They are intended to be specifically poisonous to target pest insects, weeds, mold, fungus etc. - and may also be harmful to other living things including humans. Some degree of risk is always posed by their use. Because of this inherent risk, a number of regulatory and non-regulatory mechanisms have evolved to deal with those risks. Included among these mechanisms are pesticide regulations such as those enforced by Massachusetts Pesticide Enforcement; licensing and training of pesticide applicators; improved pesticide application methods; and the use of Integrated Pest Management (IPM).

### **What precautions can I take to minimize my exposure to pesticide applications?**

There are several precautions that can be taken to reduce potential exposure to pesticides. These precautions will vary depending on where and how the pesticides are applied. Chemicals may be ingested, inhaled and absorbed through the skin. Know where the pesticide will be applied and how you might come into contact with it. Use common sense. The licensed pesticide applicator is required to post yellow signs to indicate a pesticide application on school grounds. These are some suggested general precautions. Ask the licensed pesticide applicator for other suggestions or directions specific to the work being done.

#### **For outdoor applications:**

- be familiar with the small yellow signs which applicators are required to post when a pesticide is applied outdoors to turf. Stay off the field until the flags are removed.
- if you are sensitive to chemicals, avoid the area of pesticide application for 72 hours.
- ensure that pets are kept away from the area of pesticide application

#### **For indoor applications:**

- cover or refrigerate edible products.
- remove or cover toys, clothes, and bedding from areas to be treated.
- remove pets including their food and water bowls and toys from the area to be treated.
- ventilate as much as possible during and, following an indoor pesticide application, open the windows.
- do not walk on treated areas and carpets until completely dry. Ask about drying times.

### **What types of pesticides will be applied?**

Pesticide applicators may apply pesticides in several forms for control of insects and weeds. Dusts, aerosol sprays, sprays, baits, and fogs are all common forms in which pesticides exist and are used. For control of termites, the soil around the building may be impregnated with a pesticide. To control weeds, pesticides may be used as granules or sprays. Mechanical traps may also be used to control rodents.

In Massachusetts schools daycare centers and school age child care programs have to develop special pest management plans called Integrated Pest Management (IPM) plans. IPM is an approach to pest management which relies on a combination of common sense practices, including pesticides, for preventing and controlling pests. All plans are required to be submitted to the Department of Agricultural Resources. Check the MDAR website to see if your school has submitted its plan. <http://massnrc.org/ipm/index.html>

### **What if I have a question or problem?**

Questions about what pesticides will be applied and why, and specific information about the application should be referred to the licensed pesticide applicator doing the work. The Massachusetts Department of Agricultural Resources, Pesticide Enforcement is responsible for enforcing the pesticide regulations and laws. Contact Pesticide Enforcement at 617-626-1781. Additional information can be found at the Pesticide Programs website: <http://www.mass.gov/agr/pesticides/>

Updated August 2011

## 1. Product and Company Identification

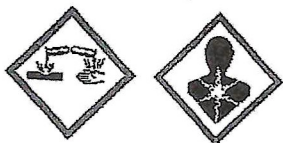
**Product Code:** 902848 *EPA # 82757-6*  
**Product Name:** TCS Growstar Fertilizer W 0.29% Barricade Herbicide (19-0-5)  
**Company Name:** Turf Care Supply Corp.  
 50 Pearl Road  
 Suite 200  
 Brunswick, OH 44212  
**Web site address:** www.turfcaresupply.com  
**Email address:** regaffairs@tcscusa.com  
**Emergency Contact:** PERS  
**Information:** Turf Care Supply Corp.  
**Synonyms:** Fertilizer with Pre-Emergent Herbicide.

**Phone Number:**  
1 (330)558-0910

1 (800)633-8253  
1 (330)558-0910

## 2. Hazards Identification

Skin Corrosion/Irritation, Category 2  
 Serious Eye Damage/Eye Irritation, Category 1  
 Germ Cell Mutagenicity, Category 2  
 Toxic To Reproduction, Category 1B  
 Specific Target Organ Toxicity (single exposure), Category 1  
 Specific Target Organ Toxicity (repeated exposure), Category 1  
 Aquatic Toxicity (Acute), Category 3  
 Aquatic Toxicity (Chronic), Category 3



**GHS Signal Word:**

**GHS Hazard Phrases:**

**Danger**

Causes skin irritation.  
 Causes serious eye damage.  
 Suspected of causing genetic defects.  
 May damage fertility or the unborn child.  
 Causes damage to organs  
 Causes damage to organs through prolonged or repeated exposure.  
 Harmful to aquatic life.  
 Harmful to aquatic life with long lasting effects.

**GHS Precaution Phrases:**

Obtain special instructions before use.  
 Do not handle until all safety precautions have been read and understood.  
 Do not breathe dust.  
 Wash hands thoroughly after handling.  
 Do not eat, drink or smoke when using this product.  
 Use personal protective equipment as required.

**GHS Response Phrases:**

IF ON SKIN: Wash with plenty of soap and water.  
 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.  
 IF exposed: Call a POISON CENTER or doctor/physician.  
 IF exposed or concerned: Get medical attention/advice.  
 Get medical attention/advice if you feel unwell.  
 If skin irritation occurs, get medical advice/attention.  
 Take off contaminated clothing and wash before re-use.  
 Store in a secure location.  
 Dispose of contents/container to an appropriate disposal facility.

**GHS Storage and Disposal Phrases:**



# TCS Growstar Fertilizer W 0.29% Barricade Herbicide (19-0-5)

Printed: 03/10/2017  
Revision: 11/08/2016  
Supersedes Revision: 08/03/2016

## Potential Health Effects (Acute and Chronic):

Chronic: Prolonged or repeated skin contact may cause dermatitis. Prolonged or repeated exposure may cause permanent eye damage. Chronic exposure may cause lung damage. Effects may be delayed.

## Inhalation:

May be harmful if inhaled. Low hazard for normal industrial handling. The toxicological properties of this substance have not been fully investigated. May cause systemic effects. Material may be irritating to mucous membranes and upper respiratory tract.

## Skin Contact:

May cause skin irritation. Dust causes mechanical irritation. Low hazard for usual industrial handling.

## Eye Contact:

May cause eye irritation. Dust may cause mechanical irritation.

## Ingestion:

May be harmful if swallowed. May cause gastrointestinal irritation with nausea, vomiting and diarrhea. Low hazard for normal industrial handling. The toxicological properties of this substance have not been fully investigated. May cause systemic effects.

## 3. Composition/Information on Ingredients

CAS #	Hazardous Components (Chemical Name)	Concentration
1317-65-3	Limestone	44.0 %
57-13-6	Urea	41.4 %
7447-40-7	Potassium chloride	7.96 %
7704-34-9	Sulfur	3.17 %
14808-60-7	Quartz	1.47 %
64742-65-0	Mineral Oil	0.300 %
29091-21-2	Prodiamine	0.290 %

## 4. First Aid Measures

### Emergency and First Aid

#### Procedures:

#### In Case of Inhalation:

Remove from exposure and move to fresh air immediately. If not breathing, give artificial respiration. If breathing is difficult, give oxygen. Get medical aid.

#### In Case of Skin Contact:

Get medical aid if irritation develops or persists. In case of contact, flush skin with plenty of water. Remove contaminated clothing and shoes. Get medical aid if irritation develops and persists. Wash clothing before reuse. Wash off with soap and plenty of water.

#### In Case of Eye Contact:

Flush eyes with plenty of water for at least 15 minutes, occasionally lifting the upper and lower eyelids. Do NOT allow victim to rub eyes or keep eyes closed.

#### In Case of Ingestion:

If victim is conscious and alert, give 2-4 cupfuls of milk or water. Call a poison control center. If swallowed, do not induce vomiting unless directed to do so by medical personnel. Never give anything by mouth to an unconscious person.

#### Signs and Symptoms Of Exposure:

To the best of our knowledge, the chemical, physical, and toxicological properties have not been thoroughly investigated.

#### Note to Physician:

Treat symptomatically and supportively.



## 5. Fire Fighting Measures

<b>Flash Pt:</b>	No data.
<b>Explosive Limits:</b>	LEL: No data. UEL: No data.
<b>Autoignition Pt:</b>	No data.
<b>Suitable Extinguishing Media:</b>	For small fires, use dry chemical, carbon dioxide, or water spray. For large fires, use dry chemical, carbon dioxide, alcohol-resistant foam, or water spray.
<b>Fire Fighting Instructions:</b>	As in any fire, wear a self-contained breathing apparatus in pressure-demand, MSHA/NIOSH (approved or equivalent), and full protective gear. Substance is noncombustible. Decomposes at high temperatures, resulting in toxic and corrosive products. Runoff from fire control or dilution water may cause pollution.
<b>Flammable Properties and Hazards:</b>	Most of the components of this product are non-combustible. However, a portion of them may support combustion at elevated temperatures.
<b>Hazardous Combustion Products:</b>	Thermal decomposition may result in the production of ammonia, formaldehyde, biuret, chlorine, cyanic acid, and cyanide, and oxides of carbon, nitrogen, phosphorus, potassium, sulfur, and chlorine, and oxides of alkaline earth metals, and certain heavier metals used as nutrients in fertilizer products, such as copper, iron, manganese, and zinc, and other toxic and irritating fumes and gases.

## 6. Accidental Release Measures

<b>Steps To Be Taken In Case Material Is Released Or Spilled:</b>	<p>Use proper personal protective equipment as indicated in Section 8.</p> <p>Spills/Leaks: Vacuum or sweep up material and place into a suitable disposal container. Avoid generating dusty conditions. Provide ventilation. Avoid runoff into storm sewers and ditches which lead to waterways. Do not let this product enter the environment except as directed on product label. Clean up spills immediately, observing precautions in the Protective Equipment section.</p> <p>Personal precautions. Use personal protective equipment. Avoid dust formation. Avoid breathing dust. Ensure adequate ventilation.</p> <p>Environmental precautions. Do not let product enter drains.</p> <p>Pick up and arrange disposal without creating dust. Keep in suitable, closed containers for disposal.</p> <p>PROCEDURES &amp; PERSONAL PRECAUTIONS. Exercise appropriate precautions to minimize direct contact with skin or eyes and prevent inhalation of dust.</p> <p>Methods for cleaning up. Sweep up, place in a bag and hold for waste disposal. Avoid raising dust. Ventilate area and wash spill site after material pickup is complete.</p>
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## 7. Handling and Storage

<b>Precautions To Be Taken in Handling:</b>	<p>Use with adequate ventilation. Minimize dust generation and accumulation. Avoid contact with eyes, skin, and clothing. Avoid ingestion and inhalation. Wash thoroughly after handling. Use only in a well-ventilated area. Keep container tightly closed. Wash clothing before reuse.</p> <p>Provide appropriate exhaust ventilation at places where dust is formed.</p>
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# TCS Growstar Fertilizer W 0.29% Barricade Herbicide (19-0-5)

Printed: 03/10/2017

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Supersedes Revision: 08/03/2016

**Precautions To Be Taken in Storing:** Store in a cool, dry place. Keep container closed when not in use.

## 8. Exposure Controls/Personal Protection

CAS #	Partial Chemical Name	OSHA TWA	ACGIH TWA	Other Limits
1317-65-3	Limestone	PEL: 15 (dust); 5 (resp.) mg/m3	No data.	No data.
57-13-6	Urea	No data.	No data.	No data.
7447-40-7	Potassium chloride	No data.	No data.	No data.
7704-34-9	Sulfur	No data.	No data.	No data.
14808-60-7	Quartz	PEL: 50 ug/m3	TLV: 0.05 mg/m3 (R)	No data.
64742-65-0	Mineral Oil	No data.	TLV: 5 mg/m3	No data.
29091-21-2	Prodiamine	No data.	No data.	No data.

### Respiratory Equipment (Specify Type):

A respiratory protection program that meets OSHA's 29 CFR 1910.134 and ANSI Z88.2 requirements or European Standard EN 149 must be followed whenever workplace conditions warrant respirator use. Where protection from nuisance levels of dusts are desired, use type N95 (US) or type P1 (EN 143) dust masks. For higher level protection use type OV/AG/P99 (US) or type ABEK-P2 (EU EN 143) respirator cartridges.

### Eye Protection:

Wear appropriate protective eyeglasses or chemical safety goggles as described by OSHA's eye and face protection regulations in 29 CFR 1910.133 or European Standard EN166.

### Protective Gloves:

Wear appropriate protective gloves to prevent skin exposure. Wash and dry hands.

### Other Protective Clothing:

Wear appropriate protective clothing to prevent skin exposure. Choose body protection according to the amount and concentration of the dangerous substance at the work place.

### Engineering Controls (Ventilation etc.):

Facilities storing or utilizing this material should be equipped with an eyewash facility and a safety shower. Use adequate ventilation to keep airborne concentrations low. Use adequate general or local exhaust ventilation to keep airborne concentrations below the permissible exposure limits.

### Work/Hygienic/Maintenance Practices:

Handle in accordance with good industrial hygiene and safety practice. Wash hands before breaks and at the end of workday. Wash thoroughly after handling.

## 9. Physical and Chemical Properties

### Physical States:

☐ Gas ☐ Liquid ☒ Solid

### Appearance and Odor:

Multi-colored, granular solid.  
Characteristic pesticide solvent odor.

### pH:

No data.

### Melting Point:

~ 133 C

### Boiling Point:

No data.

### Flash Pt:

No data.

### Evaporation Rate:

No data.

### Flammability (solid, gas):

No data available.

### Explosive Limits:

LEL: No data.

UEL: No data.

### Vapor Pressure (vs. Air or mm Hg):

No data.

### Vapor Density (vs. Air = 1):

No data.

# TCS Growstar Fertilizer W 0.29% Barricade Herbicide (19-0-5)

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Specific Gravity (Water = 1):	No data.
Bulk density:	~ 45 - 65 LB/CF
Solubility in Water:	~ 1,080 g/L at 20.0 C
Solubility Notes:	The solubility value cited is for the urea component of this product, if present. See section 3.
Octanol/Water Partition Coefficient:	No data.
Autoignition Pt:	No data.
Decomposition Temperature:	~ 135 C
Viscosity:	No data.
Additional Physical Information	The melting point and decomposition temperatures cited are for the urea component of this product, if present. See section 3. Urea decomposes before boiling. (UNEP Publication, OECD SIDS UREA, CAS No: 57-13-6)

## 10. Stability and Reactivity

Stability:	Unstable [ ] Stable [ X ]
Conditions To Avoid - Instability:	Incompatible materials, dust generation, heating to decomposition. High temperatures.
Incompatibility - Materials To Avoid:	Strong oxidizing agents, bases, acids, aluminum.
Hazardous Decomposition or Byproducts:	The decomposition of fertilizer products may result in the generation of some or all of the following: ammonia, formaldehyde, biuret, chlorine, cyanic acid, and cyanide, and oxides of carbon, nitrogen, phosphorus, potassium, sulfur, and chlorine, and oxides of alkaline earth metals, and certain heavier metals used as nutrients in fertilizer products, such as copper, iron, manganese, and zinc, and other irritating and toxic fumes and gases.
Possibility of Hazardous Reactions:	Will occur [ ] Will not occur [ X ]
Conditions To Avoid - Hazardous Reactions:	No data available.

## 11. Toxicological Information

<p><b>Toxicological Information:</b></p> <p>Epidemiology: No information found.</p> <p>Teratogenicity: Teratogenic effects have occurred in experimental animals.</p> <p>Neurotoxic effects have occurred in experimental animals.</p> <p>Reproductive toxicity - no data available.</p> <p>Inhalation: May cause damage to organs through prolonged or repeated exposure.</p> <p>CAS# 57-13-6: Urea:</p> <p>Other Studies:, TCLO, Inhalation, Rat, 288.0 MG/M3, 17 W; Gigiena Truda i Professional'nye Zabolevaniya.(Labor Hygiene and Occupational Disease), V/O Mezhdunarodnaya Kniga, Moscow 113095 Russia, Vol/p/yr: 30(3),43, 1986</p> <p>Acute toxicity, LD50, Oral, Rat, 8471. MG/KG; Gigiena i Sanitariya, Mezhdunarodnaya Kniga, ul. B. Yakimanka, 39, 113095, Moscow 113095 Russia, Vol/p/yr: 51(6),8, 1986</p> <p>Standard Draize Test, Skin, Human, 22.00 MG, 3 D; Cutaneous Toxicity, Proceedings of the 3rd Conference, 1976, D, V.A., and P. L, New York, Academic Press, Inc., London United Kingdom, Vol/p/yr: -,127, 1977</p>	
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Printed: 03/10/2017  
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CAS# 7447-40-7: Potassium chloride:

Acute toxicity, LD50, Oral, Rat, 2600. MG/KG; "Sbornik Vysledku Toxikologickeho Vysetreni Latek A Pripravku," , Institut Pro Vychovu Vedoucicn P, Marhold, J.V., Institut Pro Vychovu Vedoucicn, Pracovniku Chemickeho, Prumyclu Praha Czechoslovakia, Vol/p/yr: -,8, 1972

Standard Draize Test, Eyes, Species: Rabbit, 500.0 MG, 24 H; "Sbornik Vysledku Toxikologickeho Vysetreni Latek A Pripravku," , Institut Pro Vychovu Vedoucicn P, Marhold, J.V., Institut Pro Vychovu Vedoucicn, Pracovniku Chemickeho, Prumyclu Praha Czechoslovakia, Vol/p/yr: -,8, 1972

CAS# 7704-34-9: Sulfur:

Acute toxicity, LC50, Inhalation, Species: unspecified., 1660. MG/M3; Gigiena Truda i Professional'nye Zabolevaniya.(Labor Hygiene and Occupational Disease), V/O Mezhdunarodnaya Kniga, Moscow 113095 Russia, Vol/p/yr: 34(12),8, 1990

Standard Draize Test, Eyes, Human, 8.000 PPM; Analytical Chemistry., American Chemical Soc., Distribution Office Dept. 223, POB 57136, West End Stn., Washington, DC 20037, Vol/p/yr: 21,1411, 1949

## Carcinogenicity/Other Information:

This material may contain small amounts of respirable crystalline and amorphous silica. The International Agency for Cancer Research (IARC) has classified crystalline silica as a carcinogen to humans (Group 1), and amorphous silica as not classifiable as to its carcinogenicity to humans (Group 3). See "Silica, Some Silicates, Coal dust and para-Aramid Fibrils in IARC Monographs on the Evaluation of Carcinogenic Risks to Humans", (Vol. 68).

CAS #	Hazardous Components (Chemical Name)	NTP	IARC	ACGIH	OSHA
1317-65-3	Limestone	n.a.	n.a.	n.a.	n.a.
57-13-6	Urea	n.a.	n.a.	n.a.	n.a.
7447-40-7	Potassium chloride	n.a.	n.a.	n.a.	n.a.
7704-34-9	Sulfur	n.a.	n.a.	n.a.	n.a.
14808-60-7	Quartz	Known	1	A2	n.a.
64742-65-0	Mineral Oil	n.a.	n.a.	n.a.	n.a.
29091-21-2	Prodiamine	n.a.	n.a.	n.a.	n.a.

## 12. Ecological Information

### General Ecological Information:

Environmental: If released to the atmosphere, urea will degrade rapidly in the vapor-phase by reaction with photochemically produced hydroxyl radicals (half-life of 9.6 hr). If released to soil, urea is hydrolyzed to ammonium through soil urease activity (the basis of its use as a fertilizer). The rate of hydrolysis can be fast (24 hr); however, a number of variables (such as increasing the pellet size of the fertilizer) can decrease the degradation rate.

Urea will dissolve and disperse in water, and will promote algae growth which may degrade water quality and taste. Notify downstream water users of any release that may affect water quality.

Do not empty into drains.

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Printed: 03/10/2017  
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## CAS# 57-13-6: Urea:

Lethal concentration to 0% of test organisms., Creek Chub (*Semotilus atromaculatus*), 16000000. UG/L, 24 H, Mortality, Water temperature: 15.0 C - 21.0 C C, pH: 8.30, Hardness: 98.00 MG/L; Appraisal of a Chemical Waste Problem by Fish Toxicity Tests, Gillette, L.A., D.L. Miller, and H.E. Redman, 1952

## CAS# 7447-40-7: Potassium chloride:

LC50, Rainbow Trout (*Oncorhynchus mykiss*), 1610000. UG/L, 48 H, Mortality, Water temperature: 17.0 C C, pH: 7.70, Hardness: 40.00 MG/L; Toxicity of Candidate Molluscicides to Zebra Mussels (*Dreissena polymorpha*) and Selected Nontarget Organisms, Waller, D.L., J.J. Rach, W.G. Cope, L.L. Marking, S.W. Fisher, and H. Dabrowska, 1993

## CAS# 7704-34-9: Sulfur:

LC50, Rainbow Trout (*Oncorhynchus mykiss*), 180.0 PPM, 96 H, Mortality; Pesticide Ecotoxicity Database (Formerly: Environmental Effects Database (EEDB)), Office of Pesticide Programs, 2000

### Persistence and Degradability:

#### Prodiamine:

Terrestrial Field Test Half-life: 69 days  
(Thurston County Health Dept., 412 Lilly Road NE, Olympia, WA 98506, pesticide review, Prodiamine, 10/10/2014)

### Bioaccumulative Potential:

Prodiamine: Log (Kow) = 4.1 (Thurston County Health Dept., 412 Lilly Road NE, Olympia, WA 98506, Pesticide Review, Prodiamine, 10/10/2014)

### Mobility in Soil:

#### Prodiamine:

Water Solubility: 0.013 mg/L  
(Thurston County Health Dept., 412 Lilly Road NE, Olympia, WA 98506, pesticide review, Prodiamine, 10/10/2014)

## 13. Disposal Considerations

### Waste Disposal Method:

If material cannot be completely used according to label directions, dispose of container and contents according to this section.

Contact a licensed professional waste disposal service to dispose of this material.

Do not let product enter drains.

Chemical waste generators must determine whether a discarded chemical is classified as a hazardous waste. US EPA guidelines for the classification determination are listed in 40 CFR Parts 261. Additionally, waste generators must consult state and local hazardous waste regulations to ensure complete and accurate classification.

RCRA P-Series: None listed.

RCRA U-Series: None listed.

Observe all federal, state, and local environmental regulations.

Packaging: Empty bag may be placed in trash.



CAS #	Hazardous Components (Chemical Name)	Other US EPA or State Lists
1317-65-3	Limestone	CAA HAP,ODC: No; CWA NPDES: No; TSCA: Yes - Inventory; CA PROP.65: No; MA Oil/HazMat: No; MI CMR, Part 5: No; NJ EHS: No; NY Part 597: No; PA HSL: Yes - 1
57-13-6	Urea	CAA HAP,ODC: No; CWA NPDES: No; TSCA: Yes - Inventory, 8A CAIR; CA PROP.65: No; MA Oil/HazMat: No; MI CMR, Part 5: No; NJ EHS: No; NY Part 597: No; PA HSL: No
7447-40-7	Potassium chloride	CAA HAP,ODC: No; CWA NPDES: No; TSCA: Yes - Inventory; CA PROP.65: No; MA Oil/HazMat: No; MI CMR, Part 5: No; NJ EHS: No; NY Part 597: No; PA HSL: No
7704-34-9	Sulfur	CAA HAP,ODC: No; CWA NPDES: No; TSCA: Yes - Inventory; CA PROP.65: No; MA Oil/HazMat: No; MI CMR, Part 5: No; NJ EHS: No; NY Part 597: No; PA HSL: Yes - 1
14808-60-7	Quartz	CAA HAP,ODC: No; CWA NPDES: No; TSCA: Yes - Inventory; CA PROP.65: No; MA Oil/HazMat: No; MI CMR, Part 5: No; NJ EHS: No; NY Part 597: No; PA HSL: Yes - 1
64742-65-0	Mineral Oil	CAA HAP,ODC: No; CWA NPDES: No; TSCA: Yes - Inventory; CA PROP.65: No; MA Oil/HazMat: No; MI CMR, Part 5: No; NJ EHS: No; NY Part 597: No; PA HSL: No
29091-21-2	Prodiamine	CAA HAP,ODC: No; CWA NPDES: No; TSCA: Yes - Inventory; CA PROP.65: No; MA Oil/HazMat: No; MI CMR, Part 5: No; NJ EHS: No; NY Part 597: No; PA HSL: No

**TCS Growstar Fertilizer W 0.29% Barricade  
Herbicide (19-0-5)**

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Supersedes Revision: 08/03/2016

**Regulatory Information:**

This chemical is a pesticide product registered by the United States 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 (SDS), and for workplace labels on non-pesticide chemicals. The hazard information required on the pesticide label is reproduced below. The pesticide label also includes other important information, including directions for use.

**KEEP OUT OF REACH OF CHILDREN****CAUTION**

See the following section, Precautionary Statements, Hazards to Humans and Domestic Animals, for additional information.

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

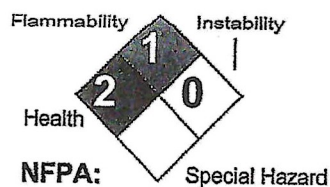
**CAUTION:** Causes moderate eye irritation. Wash thoroughly with soap and water after handling and before eating, drinking, chewing gum, using tobacco or using the toilet.

**ENVIRONMENTAL HAZARDS**

This product has low solubility in water. At the limits of solubility, this product is not toxic to fish. However, at concentrations above the level of water solubility, it may be toxic to fish. Drift and runoff from treated areas may be hazardous to aquatic organisms in adjacent sites. To protect the environment, do not allow pesticide to enter or run off into storm drains, drainage ditches, gutters or surface waters. Applying this product in calm weather when rain is not predicted for the next 24 hours will help to ensure that wind or rain does not blow or wash pesticide off the treatment area. Sweeping any product that lands on a driveway, sidewalk, or street, back onto the treated area of the lawn or garden will help to prevent run off to water bodies or drainage systems.

**16. Other Information****Revision Date:**

11/08/2016

**Hazard Rating System:****Additional Information About** No data available.**This Product:****Company Policy or****Disclaimer:**

**Disclaimer and Limitation of Liability:** This data sheet was developed from information on the constituent materials identified herein and does not relate to the use of such materials in combination with any other material or process. No warranty is expressed or implied with respect to the completeness or ongoing accuracy of the information contained in this data sheet, and Turf Care Supply Corp. disclaims all liability for reliance on such information. This data sheet is not a guarantee of safety. Users are responsible for ensuring that they have all current information necessary to safely use the product described by this data sheet for their specific purposes.



82757-6

07/21/2009

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## U.S. ENVIRONMENTAL PROTECTION AGENCY

Office of Pesticide Programs  
Registration Division (7505P)  
1200 Pennsylvania Ave., N.W.  
Washington, D.C. 20460

EPA Reg. Number:

82757-6

Date of Issuance:

JUL 21 2009

## NOTICE OF PESTICIDE:

☒ Registration  
☐ Reregistration  
(under FIFRA, as amended)

Term of Issuance:

Conditional

Name of Pesticide Product:

TCS GROWSTAR ATRAZINE  
1.38% + FERTILIZER

Name and Address of Registrant (include ZIP Code):

**Turf Care Supply Corp.**  
**50 Pearl Road, Suite 200**  
**Brunswick, OH 44212**

Note: Changes in labeling differing in substance from that accepted in connection with this registration must be submitted to and accepted by the Registration Division prior to use of the label in commerce. In any correspondence on this product always refer to the above EPA registration number.

On the basis of information furnished by the registrant, the above named pesticide is hereby registered/reregistered under the Federal Insecticide, Fungicide and Rodenticide Act.

Registration is in no way to be construed as an endorsement or recommendation of this product by the Agency. In order to protect health and the environment, the Administrator, on his motion, may at any time suspend or cancel the registration of a pesticide in accordance with the Act. The acceptance of any name in connection with the registration of a product under this Act is not to be construed as giving the registrant a right to exclusive use of the name or to its use if it has been covered by others.

This product is conditionally registered in accordance with FIFRA section 3(c)(7) provided that you make the following label changes before you release the product for shipment:

1. Submit and/or cite all data required for registration/registration review of your product under FIFRA sec 3(c)(5) or 3(g) when the Agency requires all registrants of similar products to submit such data.
2. Before shipment of product, add the EPA Registration No. 82757-6, and the appropriate establishment number to the label.
3. Under the product name, add "NOT FOR USE ON TURF BEING GROWN FOR SALE OR OTHER COMMERCIAL USE AS SOD, OR FOR COMMERCIAL SEED PRODUCTION, OR FOR RESEARCH PURPOSES".
4. On page 1 before the sentence starting with "FOR USE ON ST. AUGUSTINE [including 'Floratam'], etc.", add, "FOR USE ON TURFGRASSES AT THE RESIDENTIAL SITES, HOMES, DAYCARE FACILITIES, SCHOOLS, PLAYGROUNDS, PARKS, RECREATIONAL AREAS, AND SPORTS FIELDS."
5. Under the "PRECAUTIONARY STATEMENTS" and the "Hazards to Humans and Domestic Animals" heading, add,

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"Applicators must wear:

- Long sleeve shirts and long pants, and
- Shoes plus socks"

6. On page 2, in the "CAUTION" paragraph, after the first sentence, add "Wear protective eyewear". In the same paragraph, remove the third sentence starting with "wash thoroughly with soap and water, etc.", and add a separate paragraph in a box beneath the "CAUTION" paragraph, and place in the box, "USER SAFETY RECOMMENDATIONS: User should wash hands before eating, drinking, chewing gum, using tobacco, or using the toilet."
7. On page 2, under "Application Restrictions", add to the third bullet, "Watering-in must be performed by the commercial applicator, or the commercial applicator must provide the following instructions to the resident or owner in writing:
  - This product must be watered in immediately
  - Do not enter or allow others (including children or pets) to enter the treated areas (except those involved in the watering) until the watering-in is complete and the surface is dry."
8. Add a batch number to product as required under 40CFR156.
9. Submit one copy of the final printed label for the record before you release the product for shipment.

If these conditions are not complied with, the registration will be subject to cancellation in accordance with FIFRA sec. 6(e). Your release for shipment of the product constitutes acceptance of these conditions. A stamped copy of the label with comments is enclosed for your file.

For any additional assistance in this matter, please contact Phil Errico at 703-305-6663/  
[Errico.Philip@epa.gov](mailto:Errico.Philip@epa.gov).

Enclosure: Stamped copy of label, with comments, for product with EPA Reg. No. 82757-6.

Signature of Approving Official:

Date:

James A. Tompkins, Product Manager (25)  
Herbicide Branch, Registration Division (7505P)

JUL 21 2009

EPA Form 8570-6



# TCS GrowStar

## Atrazine 1.38% + Fertilizer

FOR USE ON ST. AUGUSTINE [Including 'Floratam'] ZOYSIA,  
CENTIPEDE AND CARPETGRASS LAWNS ONLY

[Sections/wording highlighted in yellow will depend upon the fertilizer claim  
and/or unit size produced.]

[See Appendix for consolidated list of optional marketing claims]

[Controls Weeds as Listed while Feeding Your Lawn with a Quick Greening Long  
Lasting Fertilizer] • Kills over 50 weeds [While Feeding Your Lawn] • Kills  
Dollarweed & [35] other major lawn weeds [as listed] • Promotes Thick Green  
Growth and Controls Dollarweed, Dandelion, Henbit and Many Other Broadleaf  
Weeds (see back for a complete list of weeds) • Controls Many More Weeds Listed  
on the Back of this Bag • Enjoy a Beautiful Weed-Free Lawn. • Kills over 50 weed  
types [as listed]. • Apply anytime broadleaf weeds are growing. • Covers XX Sq Ft. •  
Contains Atrazine • Apply anytime weeds are actively growing • Money Back  
Guarantee

Active Ingredient:  
Atrazine ..... 1.38%  
Related Compounds ..... 0.03%  
Other Ingredients ..... 98.59%  
[TOTAL] ..... 100.00%  
**KEEP OUT OF REACH OF CHILDREN**

**CAUTION** See back panel for First Aid and Precautionary Statements.

NET WT. XX Lb (XX KG)

[Bracketed Text] = Optional language

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<b>Guaranteed Analysis</b>	XX-XX-XX
Total Nitrogen (N).....	XX.X%
XX.X% Ammoniacal Nitrogen	
XX.X% Urea Nitrogen**	
XX.X% Water Insoluble Nitrogen	
Available Phosphate (P <sub>2</sub> O <sub>5</sub> ).....	XX.X%
Soluble Potash (K <sub>2</sub> O).....	XX.X%
Sulfur (S).....	XX.X%
XX.X% Free Sulfur (S)	
XX.X% Combined Sulfur (S)	
Iron (Fe).....	XX.X%
XX.X% Water Soluble Iron (Fe)	
Manganese (Mn).....	XX.X%
Magnesium (Mg).....	XX.X%
Zinc (Zn).....	XX.X%
Copper (Cu).....	XX.X%
Derived From: XXXX	
Chlorine (Cl) Max.....	XX.X%
**XX.X% Slowly available XXX from XXX	

**ACCEPTED**  
**with COMMENTS**  
**In EPA Letter Dated**

JUL 21 2009

### BACK PANEL

Under the Federal Insecticide,  
Fungicide, and Rodenticide Act  
as amended, for the pesticide  
registered under EPA Reg. No.  
82757-10

#### [Optional Use Tip Box(s)]

##### "To Do" List

- Measure lawn
- Subtract Non-Lawn Areas
- Apply at directed rate
- Water in immediately after application

##### "Product Fast Facts"

- What it Does: Kills unsightly and [nutrient stealing] [harmful] weeds while feeding your lawn
- When to Use: Anytime weeds are actively growing
- Questions & Comments: Call 1-XXX-XXX-XXX or visit www.XXXXX.com



# STOP. READ THE ENTIRE LABEL FIRST. OBSERVE ALL PRECAUTIONS AND FOLLOW DIRECTIONS CAREFULLY

## PRECAUTIONARY STATEMENTS

Hazards to Humans and Domestic Animals

**CAUTION:** Causes moderate eye irritation. Avoid contact with eyes or clothing. Wash thoroughly with soap and water after handling and before eating, drinking, chewing gum, or using tobacco. Avoid breathing dust. Do not apply granular lawn products by hand. Avoid contact with hands and skin. Broadcast applications must NOT be made using hand-held devices, such as a belly grinder or handheld rotary applicator. Such equipment may only be used for spot treatments.

## 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>
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Note: Have this product label with you when calling a Poison Control Center or doctor, or going for treatment. [Active Ingredient: Atrazine, CAS #1912-24-9.]

## Environmental Hazards

- Atrazine can travel (seep or leach) through soil and enter ground water, which may be used as drinking water. Atrazine has been found in ground water. Users are advised not to apply Atrazine to well drained soils where the water table (groundwater) is close to the surface and where these soils are very permeable. Your local agricultural agencies can provide further information on the type of soil in your area and the location of ground water. This product is toxic to aquatic invertebrates. Do not apply directly to water, to areas where surface water is present or to intertidal areas below the mean high water mark. Runoff and drift from treated areas may be hazardous to aquatic organisms in neighboring areas.
- Do not contaminate water when disposing of equipment washwaters.

## DIRECTIONS FOR USE

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

## [BEFORE YOU APPLY]

- Read and follow these guidelines when you use this product:
- Apply with a fertilizer spreader - Never apply by hand

[Bracketed Text] = Optional language

- Do not use on or under trees, shrubs, bedding plants, flowers or garden plants.
- Do not apply to newly seeded zoysia, centipede, or carpetgrass lawns. Wait until they have required at least two mowings.

## Application Restrictions

- Do not apply this product in a way that will contact any person or pet, either directly or through drift.
- Keep people and pets out of area during application.
- This product must be WATERED IN IMMEDIATELY after application.
- Do not enter or allow others (including children and pets) to enter the treatment areas (except those involved in the watering) until watering in is complete and the surface is dry.
- Do not apply by hand or handheld device such as handheld rotary applicator.
- Do not apply more than 2 lbs active ingredient (139 lbs this product per 1 acre, per acre for any application).
- Do not make more than two applications per year.

## USE PRECAUTIONS

- Not for use on turf being grown for sale or other commercial use as sod, or for commercial seed production, or for research purposes.
- Not for use on or under trees, shrubs, bedding plants, flowers or garden plants.
- Do not apply under the branches (root zone area) of shrubs, trees, flowers, etc.
- Do not apply to newly seeded zoysia, centipede, or carpetgrass lawns.
- Wait until they have required at least two mowings.
- Do not apply to flowers, bedding plants, ornamental trees or shrubs.

## WHERE TO USE

- Use on St Augustinegrass [including 'Floritam'], zoysia, centipede and carpetgrass lawns ONLY. Do not use on Bluegrass, Fescue, Bentgrass, Bahiagrass, Rye, Bermudagrass, or Dichondra lawns

## WHAT IT DOES Controls Weeds

- Contains an active ingredient that works fast and kills unsightly [and] [nutrient stealing] [harmful] weeds [and provides the essential nutrients your lawn needs to grow thick and green.]
- Also, prevents germination of many common spring and fall germinating annual weeds. It will provide post-emergence control of many winter and summer weeds.



## Fertilizes and Replenishes

- Dual feeding formula provides both quick greening and extended feeding, resulting in a thicker, stronger, greener lawn

This product controls [or suppresses] the following list of growing weeds.

Annual Bluegrass (Poa Annua)	Florida Betony	Sicklepod
Annual Sowthistle	Florida Pusley	Spotted Spurge
Barnyardgrass	Fragrant Cudweed	Spurweed
Black Medic	(Rabbit Tobacco)	Slinging Nettle
Blue Toadflax	Green Foxtail	Swinecress
Buckhorn Plantain	Henbit	Venus Looking Glass
Bull Paspalum	Hopclover	Virginia Creeper
Burclover	Knitweed	Wild Mustard
Carolina Geranium	Lambsquarter	Witchgrass
Capelweed	Lespedeza	Wood Sorrel
Chamberbitter (Niruri)	Lippia (Matchweed)	Yellow Foxtail
Chickweed, Common	Moneywort	
Chickweed, Mouseear	Morning Glory	
Clover	Narrowleaf Vetch	
Cocklebur	Oxalis	
Common Dandelion	Parsley-Piert	
Common Purslane	Pepperweed	
Corn Speedwell	Pigweed	
Crabgrass	Purslane	
Crowfoot Grass	Ragweed	
Cudweed	Red Sorrel	
Cutleaf Evening Primrose	Rescuegrass	
Dichondra	Sandspur	
Dollarweed	Sedge	
Florida Beggarweed	Shepherdspurse	

## WHEN TO APPLY

- For post-emergence control, apply anytime broadleaf weeds are [actively] growing. If complete control is not obtained, a second application may be necessary two months after the first.
- To prevent germination of crabgrass, spurge, lespedeza, oxalis and sedges (from seed) apply in January, February or early March.
- Apply in the fall to control henbit, chickweed, annual bluegrass (Poa), cudweed, parsley-piert, rescuegrass and other listed winter weeds.
- Apply to newly sprigged St. Augustine and zoysia lawns to help prevent competition from newly emerging weeds. Water the new sprigs, allow the grass blades to dry, then make the application of [product name] [optional fertilizer claim] [optional marketing claim].

[Bracketed Text] = Optional language

- Do not apply to centipede or carpetgrass lawns during the period of winter dormancy -- approximately October 15 to March 15 (okay to apply in Florida, however). Do not apply to newly seeded centipede or carpetgrass lawns until after the new grass has been mowed at least twice.

## [GENERAL USE DIRECTIONS] [HOW TO APPLY]

1. Determine size of area to be treated -- measure length and width in feet, then multiply to determine coverage area in sq. ft. (length x width). Next, subtract non-lawn areas.
2. Use the spreader setting chart to determine the appropriate setting.
3. Apply evenly over dry grass, avoiding streaking, skips and overlaps -- thorough coverage is important. On hot days (above 80° F), water the lawn to rinse particles off the grass.

## Spreader Settings

## [BROADCAST] [ROTARY] SPREADERS

		DROP SPREADERS
Republic EZ	X	Republic EZ
Earthway EV-N SPRED	X	Ortho
Quaker	X	Precision
Scotts Easy Green	X	Scotts (PF)
Scotts Deluxe Edgeguard	X	Scotts AccuGreen
Scotts Speedy Green	X	Scotts Even Green

Calibrate your spreader with each application. Adjust to apply at the rate of 3.2 lb of product per 1,000 sq. ft. This XX lb bag covers XX sq ft of lawn area. Do not make more than two applications per year. Do not exceed the maximum rate of 3.2 lb of product per 1,000 sq ft (2 lbs active ingredient per acre) per application.

Note: The spreader settings listed [at right] [on this label] [above] are approximate, it is important to check calibration of spreader frequently to ensure spreader : functioning properly and applying product evenly. To check calibration, accurately, weigh a few pounds into your spreader and apply to a measured area. Then adjust spreader setting if necessary in order to ensure correct rate of application.

## [Optional Advisory Statement]

[Do not apply near water, storm drains or drainage ditches. Do not apply if heavy rain is expected. Apply this product only to your lawn, and sweep any product that lands on the driveway, sidewalk, or street back onto your lawn.]

**[Optional Iron and Fertilization Program Statement]**

This product contains iron that aids in the greening process but **WILL** stain sidewalks and driveways. Sweep off any product that may have drifted onto these areas.

Typically, a lawn will utilize 1 to 4 lb of nitrogen per 1,000 sq ft per growing season. When used as directed, this product will supplement your regular fertilizer program by providing XX lb of nitrogen per 1,000 sq ft. Consult your local County Extension office for questions regarding a fertilizer program suitable for your geographic region.

**STORAGE AND DISPOSAL**

**Storage:** Store product in original container in a cool, dry, locked place out of reach of children and pets. Do not store near food or feedstuffs. To prevent cross-contamination, do not store near other fertilizers, pesticides, or seeds.

**Disposal:** If empty: Nonrefillable container. Do not reuse or refill this container. Place in trash or offer for recycling if available. If partly filled: Call your local solid waste agency for disposal instructions. Never place unused product down any indoor or outdoor drain.

**Notice:** To the extent consistent with applicable law, buyer assumes all responsibility for safety and use not in accordance with directions.

When applied as directed, this product meets the guidelines for metals adopted by the Association of American Plant Food Control Officials.

Information regarding the contents and levels of metals in this product is available on the Internet at <http://www.aapfco.org/metals.htm>.

**[Questions or comments? 1-XXX-XXX-XXX]**

**[Visit Us on the Internet or Call Our Customer Satisfaction Hotline 1-XXX-XXX-XXXX]**

Manufactured [in the USA] [and Guaranteed] by Turf Care Supply Corp.  
722 Webster Turn Drive Sebring, FL 33870 (or) 50 Pearl Road, Suite 200  
Brunswick, OH 44212

EPA Reg. No. 82757-X

**[Bracketed Text] = Optional language**



## APPENDIX

### Optional Fertilizer Claims:

Delivers a Long Lasting Feeding without Burning for a Stronger Greener Lawn • Timed-Release for Extended Feeding • Feeds for up to (time period as designated by registrant/subregistrant) (at 72° F) • Quick Greening & Extended Feeding for up to 8 weeks • Greens Quickly and Feeds Up to 2 months • A special Formula for St. Augustine Lawns • Improves Deficient St. Augustine Lawns • Contains (X)% Fertilizer Nutrient For Extra Greening • Contains (X)% Fertilizer Nutrient to Improve Deficient St. Augustine Lawns • Greens in 72 hours • Greenskote Technology • Timed-Release Feeding for up to 8 Weeks • Greens Quickly, Feeds Longer! • Contains 5% Iron for Deep Greening • Greens Fast, Feeds Twice As Long\* - up to 5 Months • \*Compared to (Brand Name) • Phosphorus Free •

### OPTIONAL MARKETING CLAIMS

#### Optional Turf Note:

CENTPEDE GRASS IS DIFFERENT FROM OTHER TURFGRASSES. It requires very little fertilizer. In fact, turf experts say that too much fertilizer can hurt centipede. With this in mind, we have specially formulated (name of product) to give your Centipede grass the light feeding it needs to grow thick, lush and sturdy. Our exclusive timed-release nitrogen provides a slow, gradual feeding that keeps your grass greener longer and helps build a stronger, harder root system. Extra iron helps keep the grass green without too much nitrogen.

(Brand Name) products with ???@ timed-release nitrogen work differently than other slow-release products. ???@ timed-release nitrogen releases in response to soil temperature rather than moisture level. Other slow release products release according to the amount of moisture present in the soil... the more moisture the quicker the nutrients release... putting your grass at risk from burning. Because (Brand Name) products contain ???@ timed-release nitrogen, your grass is fed for up to (time period as designated by registrant/sub-registrant) (at 72° F).

(Brand Name) (Product Name) (Optional Marketing Claim)] [timed-release nitrogen] is specially formulated [to give your grass the primary nutrients it needs] to grow thick, lush and sturdy green grass. Our [exclusive] timed-release nitrogen provides a slow, gradual feeding that keeps your grass greener longer and helps build a stronger, harder root system.

Why does your lawn need (brand) Weed & Feed? (Brand) Weed & Feed is specially formulated to kill lawn weeds and give your grass the nutrients it needs for thick growth. Our timed-release formula keeps your grass greener longer and helps build strong, hardy root systems.

(Brand Name) products with ???@ timed release nitrogen feed as the ground temperature warms in the Spring and Summer, and slows down as the soil cools in the Fall, thus supplying nitrogen according to the requirements of your grass.]

Contains [Polyon@] timed-release fertilizer as used [on championship golf courses around the country]

Contains (Brand Name) time-release fertilizer as used [on championship golf courses around the country] [by professional landscapers around the country].

[\*\*CTR™, Composite Timed-release is your Guarantee that a QUICK and LONG LASTING FEEDING will be systematically delivered to your lawn.]

Why [(Brand Name) (Product Name) (Optional Marketing Claim)]? When it comes to your lawn, we know what matters – lush, green turf that lasts all season long. With 5% iron and a high level of controlled-release nitrogen, [(Brand Name) (Product Name) (Optional Marketing Claim)] [premium lawns fertilizers] green quickly and feed longer than ordinary lawn fertilizers. [(Brand Name) (Product Name) (Optional Marketing Claim)] Fertilizers – Performance You Can Trust, Guaranteed.

The (brand name) Promises Your Satisfaction Guaranteed or Your Money Back! If you apply [(brand name) (product name) (optional marketing claim)] as directed and are not completely satisfied, send proof of purchase from this package and the original cash register receipt to the address below (or on the bag). We will refund the purchase price you paid.

Plus Atrazine Weed Control

Southern Lawn Fertilizer

TCS GrowStar® is a registered trademark of Turf Care Supply Corp.

**1. CHEMICAL PRODUCT AND COMPANY IDENTIFICATION****Product Name:** ESCALADE 2 HERBICIDE**EPA Reg. No.:** 228-442**Product Type:** Herbicide**Company Name:** Nufarm Americas Inc.  
11901 S. Austin Avenue  
Alsip, IL 60803  
1-800-345-3330**Telephone Numbers:** For Chemical Emergency, Spill, Leak, Fire, Exposure, or Accident,  
Call CHEMTREC Day or Night: 1-800-424-9300  
For Medical Emergencies Only, Call 1-877-325-1840

This product is an EPA FIFRA registered pesticide. Some classifications on this SDS are not the same as the FIFRA label. Certain sections of this SDS are superseded by federal law governed by EPA for a registered pesticide. Please see Section 15. REGULATORY INFORMATION for explanation.

**2. HAZARDS IDENTIFICATION****HEALTH HAZARDS:**

Eye irritation	Category 2A
Skin irritation	Category 2
Acute toxicity, oral	Category 4
Specific target organ toxicity – Repeated exposure	Category 2

**ENVIRONMENTAL HAZARDS:**

Hazardous to aquatic environment, acute	Category 1
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**SIGNAL WORD:**

WARNING

**HAZARD STATEMENTS:**

Causes serious eye irritation. Harmful if swallowed. May cause damage to organs (liver, kidneys) through prolonged or repeated exposure. Very toxic to aquatic life.

**PRECAUTIONARY STATEMENTS**

Wash hands and exposed skin thoroughly after handling. Wear chemical resistant gloves. Wear face shield, chemical goggles or shielded safety glasses. Do not eat, drink or smoke when using this product. Do not breathe mist/vapors/spray.

**IF IN EYES:** Rinse cautiously with water for several minutes. Remove contact lenses if safe to do. Continue rinsing. If eye irritation persists: Get medical advice/attention.

**IF ON SKIN:** Wash with plenty of water. Specific treatment: See **Section 4** First Aid and product label instructions. If skin irritation occurs: Get medical advice/attention. Take off contaminated clothing and wash it before reuse.

**IF SWALLOWED:** Call a poison center or doctor if you feel unwell. Rinse mouth.

Get medical advice/attention if you feel unwell.

Avoid unintended release to the environment. Collect spillage

Dispose of contents/container in accordance with state and federal regulations. See **Section 13** and product label for disposal instructions.



## SAFETY DATA SHEET

## ESCALADE 2 HERBICIDE

## 3. COMPOSITION / INFORMATION ON INGREDIENTS

## COMPONENT

	CAS NO.	% BY WEIGHT
Dimethylamine Salt of 2,4-Dichlorophenoxyacetic Acid	2008-39-1	38.3 – 40.7
1-Methylheptyl Ester of Fluroxypyr	81406-37-3	5.6 – 6.2
Dicamba (3,6-Dichloro-o-Anisic Acid)	1918-00-9	3.9 – 4.3
Solvent Naphtha (Petroleum), Heavy Aromatic	64742-94-5	5.9 – 6.5
Other Ingredients:	Trade Secret	Trade Secret

## Synonyms:

Mixture of 2,4-D DMA, Fluroxypyr MHE, and Dicamba

Ingredients not precisely identified are proprietary or non-hazardous. Values are not product specifications.

## 4. FIRST AID MEASURES

**If in Eyes:** Hold eye open and rinse slowly and gently with water for 15 to 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.

**If Swallowed:** Call a poison control center or doctor immediately for treatment advice. 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.

**If on Skin or Clothing:** Take off contaminated clothing. Rinse skin immediately with plenty of water for 15 to 20 minutes. Call a poison control center or doctor for treatment advice.

**If Inhaled:** Move person to fresh air. If person is not breathing, call 911 or an ambulance, then give artificial respiration, preferably by mouth-to-mouth, if possible. Call a poison control center or doctor for further treatment advice.

**Most Important symptoms/effects:** Eye exposure may cause moderate irritation. Skin exposure may cause irritation.

**Indication of Immediate medical attention and special treatment if needed:** There is no specific antidote if this product is ingested. Treat symptomatically.

## 5. FIRE FIGHTING MEASURES

**Extinguishing Media:** Recommended for large fires: foam or water spray. Recommended for small fires: dry chemical or carbon dioxide.

**Special Fire Fighting Procedures:** Firefighters should wear NIOSH/MSHA approved self-contained breathing apparatus and full fire-fighting turn out gear. Dike area to prevent runoff and contamination of water sources. Dispose of fire control water later.

**Unusual Fire and Explosion Hazards:** If water is used to fight fire or cool containers, dike to prevent runoff contamination of municipal sewers and waterways.

**Hazardous Decomposition Materials (Under Fire Conditions):** May produce gases such as hydrogen chloride and oxides of carbon and nitrogen.

## 6. ACCIDENTAL RELEASE MEASURES

**Personal Precautions:** Wear appropriate protective gear for the situation. See Personal Protection information in Section 8.

**Environmental Precautions:** Prevent material from entering public sewer systems or any waterways. Do not flush to drain. Large spills to soil or similar surfaces may necessitate removal of topsoil. The affected area should be removed and placed in an appropriate container for disposal.

**Methods for Containment:** Dike spill using absorbent or impervious materials such as earth, sand or clay. Collect and contain contaminated absorbent and dike material for disposal.

**Methods for Cleanup and Disposal:** Pump any free liquid into an appropriate closed container. Collect washings for disposal. Decontaminate tools and equipment following cleanup. See Section 13: DISPOSAL CONSIDERATIONS for more information.

**Other Information:** Large spills may be reportable to the National Response Center (800-424-8802) and to state and/or local agencies.

## 7. HANDLING AND STORAGE

## HANDLING:

Do not get in eyes or on clothing. Avoid contact with skin. Users should wash hands before eating, drinking, chewing gum, using tobacco, or using the toilet. Remove clothing/Personal Protective Equipment (PPE) immediately if pesticide gets inside. Then wash thoroughly and put on clean clothing. If pesticide gets on skin,



# SAFETY DATA SHEET

## ESCALADE 2 HERBICIDE

wash immediately with soap and water. Remove PPE immediately after handling this product. Wash the outside of gloves before removing. As soon as possible, wash thoroughly and change into clean clothing.

### STORAGE:

Always use original container to store pesticides in a secured warehouse or storage building. Store at temperatures above 25° F. Protect from freezing. If allowed to freeze, remix well before using. This does not alter the product. Containers should be opened in well-ventilated areas. Keep container tightly sealed when not in use. Do not stack cardboard cases more than two pallets high. Do not store near open containers of fertilizer, seed or other pesticides. Do not contaminate water, food or feed by storage or disposal.

## 8. EXPOSURE CONTROLS / PERSONAL PROTECTION

### Engineering Controls:

Where engineering controls are indicated by specific use conditions or a potential for excessive exposure, use local exhaust ventilation at the point of generation.

### Personal Protective Equipment:

**Eye/Face Protection:** To avoid contact with eyes, wear face shield, goggles or safety glasses. An emergency eyewash or water supply should be readily accessible to the work area.

**Skin Protection:** To avoid contact with skin, wear long-sleeved shirt, long pants, shoes, socks and chemical-resistant gloves. When mixing or loading, cleaning up spills or equipment or otherwise expose to the concentrate also wear a chemical-resistant apron. An emergency shower or water supply should be readily accessible to the work area.

**Respiratory Protection:** Not normally required. If vapors or mists exceed acceptable levels, wear NIOSH approved air-purifying respirator with cartridges/canisters approved for use against pesticides.

**General Hygiene Considerations:** Personal hygiene is an important work practice exposure control measure and the following general measures should be taken when working with or handling this material: 1) do not store, use and/or consume foods, beverages, tobacco products, or cosmetics in areas where this material is stored; 2) wash hands and face carefully before eating, drinking, using tobacco, applying cosmetics or using the toilet.

### Exposure Guidelines:

Component	OSHA		ACGIH		Unit
	TWA	STEL	TWA	STEL	
DMA Salt of 2,4-D	10*	NE	10*	NE	mg/m <sup>3</sup>
Fluroxypyr	NE	NE	NE	NE	
Dicamba	NE	NE	NE	NE	
Solvent Naphtha (Petroleum), Heavy Aromatic**	NE	NE	NE	NE	
Other Ingredients	NE	NE	NE	NE	

\*Based on adopted limit for 2,4-D

\*\* Manufacturer recommended limit of 100 mg/m<sup>3</sup> total hydrocarbon vapor.

NE = Not Established

## 9. PHYSICAL AND CHEMICAL PROPERTIES

Appearance:	Amber colored liquid
Odor:	Mild amine odor
Odor threshold:	No data available
pH:	5.5 - 8
Melting point/freezing point:	25° F (-4° C)
Initial boiling point and boiling range	No data available
Flash point:	>230° F (>110° C) Setflash
Evaporation rate:	No data available
Flammability (solid, gas):	No data available
Upper/lower flammability or explosive limits:	No data available
Vapor pressure:	No data available
Vapor density:	No data available
Relative density:	No data available
Solubility(ies):	1.169 @ 25° C
Partition coefficient: n-octanol/water:	Soluble
Autoignition temperature:	No data available
Decomposition temperature:	No data available
Viscosity:	No data available
	51.6 cPs @ 25° C



# SAFETY DATA SHEET

## ESCALADE 2 HERBICIDE

**Note:** Physical data are typical values, but may vary from sample to sample. A typical value should not be construed as a guaranteed analysis or as a specification.

### 10. STABILITY AND REACTIVITY

**Reactivity:** Not reactive.

**Chemical Stability:** This material is stable under normal handling and storage conditions.

**Possibility of Hazardous Reactions:** Will not occur.

**Conditions to Avoid:** Excessive heat. Do not store near heat or flame.

**Incompatible Materials:** Strong oxidizing agents: bases and acids.

**Hazardous Decomposition Products:** Under fire conditions may produce gases such as hydrogen chloride and oxides of carbon and nitrogen.

### 11. TOXICOLOGICAL INFORMATION

**Likely Routes of Exposure:** Eye contact, Skin contact

**Symptoms of Exposure:**

**Eye Contact:** Causes substantial but temporary eye damage. Vapors and mist may cause irritation.

**Skin Contact:** Slightly toxic and moderately irritating based on toxicity studies. Overexposure by skin absorption may cause symptoms similar to those for ingestion.

**Ingestion:** Slightly toxic if ingested based on toxicity studies. May cause headache, dizziness, nausea, vomiting, gastrointestinal irritation, weakness and central nervous system depression.

**Inhalation:** Low inhalation toxicity based on toxicity studies.

**Delayed, immediate and chronic effects of exposure:** Eye irritation

**Toxicological Data:**

Data from laboratory studies conducted on a similar, but not identical, formulation:

**Oral:** Rat LD<sub>50</sub>: 1,750 mg/kg (female) (estimated based on mortalities for doses tested)

**Dermal:** Rat LD<sub>50</sub>: >2,000 mg/kg

**Inhalation:** Rat 4-hr LC<sub>50</sub>: >2.07 mg/L

**Eye Irritation:** Rabbit: Moderately irritating

**Skin Irritation:** Rabbit: Moderately irritating

**Skin Sensitization:** Not a contact sensitizer in guinea pigs following repeated skin exposure.

**Subchronic (Target Organ) Effects:** Repeated overexposure may cause effects to liver, kidneys, blood chemistry, testes and gross motor function. Rare cases of peripheral nerve damage have been reported, but extensive animal studies have failed to substantiate these observations, even at high doses for prolonged periods.

**Carcinogenicity / Chronic Health Effects:** Various animal cancer tests have shown no reliably positive association between 2,4-D exposure and cancer. Epidemiology studies on herbicide use have been both positive and negative with the majority being negative. The U.S. EPA has given 2,4-D and dicamba a Class D classification (not classifiable as to human carcinogenicity). Fluroxypyr did not cause cancer in laboratory animals.

**Reproductive Toxicity:** No impairment of reproductive function attributable to 2,4-D have been noted in laboratory animal studies. In animal studies, fluroxypyr has been shown not to interfere with reproduction. Dicamba did not interfere with fertility in reproduction studies in laboratory animals.

**Developmental Toxicity:** Studies in laboratory animals with 2,4-D have shown decreased fetal body weights and delayed development in the offspring at doses toxic to mother animals. Fluroxypyr did not cause birth defects in animals; other effects were seen in the fetus only at doses which caused toxic effects in the mother. Animal tests with dicamba have not demonstrated developmental effects.

**Genotoxicity:** There have been some positive and some negative studies, but the weight of evidence is that 2,4-D is not mutagenic. Animal tests with fluroxypyr and dicamba did not demonstrate mutagenic effects.

**Assessment Carcinogenicity:**

This product contains substances that are considered to be probable or suspected human carcinogens as follows:

Component	Regulatory Agency Listing As Carcinogen			
	ACGIH	IARC	NTP	OSHA
Chlorophenoxy Herbicides	No	2B	No	No
Dicamba	No	No	No	No
Fluroxypyr	No	No	No	No
Solvent Naphtha (Petroleum), Heavy Aromatic	No	No	No	No
Other Ingredients	No	No	No	No



## 12. ECOLOGICAL INFORMATION

## Ecotoxicity:

## Data on 2,4-D, Dimethylamine Salt:

96-hour LC <sub>50</sub> Bluegill:	524 mg/l	Bobwhite Quail Oral LD <sub>50</sub> :	500 mg/kg
96-hour LC <sub>50</sub> Rainbow Trout:	250 mg/l	Mallard Duck 8-day Dietary LC <sub>50</sub> :	>5,620 ppm
48-hour EC <sub>50</sub> Daphnia:	184 mg/l		

## Data on Fluroxypyr 1-Methylheptyl Ester:

Fluroxypyr 1-Methylheptyl Ester is highly toxic to aquatic invertebrates on an acute basis (LC<sub>50</sub> or EC<sub>50</sub> is between 0.1 and 1 mg/L). Concentrations for fish were not determined because they exceed water solubility. Fluroxypyr 1-Methylheptyl Ester is highly insoluble in water. Fluroxypyr 1-Methylheptyl Ester is practically non-toxic to birds on an acute and dietary basis (LD<sub>50</sub> >2,000 mg/kg and LC<sub>50</sub> >5,000 ppm).

## Data on Dicamba:

96-hour LC <sub>50</sub> Bluegill:	135 mg/l	Bobwhite Quail 8-day Dietary LC <sub>50</sub> :	>10,000 ppm
96-hour LC <sub>50</sub> Rainbow Trout:	135 mg/l	Mallard Duck 8-day Dietary LC <sub>50</sub> :	>10,000 ppm
48-hour EC <sub>50</sub> Daphnia:	110 mg/l		

## Environmental Fate:

In laboratory and field studies, 2,4-D DMA salt rapidly dissociated to parent acid in the environment. The typical half-life of the resultant 2,4-D acid ranged from a few days to a few weeks.

In laboratory and field studies, Fluroxypyr 1-Methylheptyl Ester rapidly de-esterified to parent acid in the environment. The typical soil half-life for fluroxypyr (acid and ester) ranged from one to four weeks. Microbial metabolism is the primary degradation mechanism in soil. The typical aquatic half-life ranged from 4 to 14 days.

Dicamba poorly binds to soil particles, is potentially mobile in the soil and highly soluble in water. Aerobic soil metabolism is the main degradative process for dicamba with a typical half-life of 2 weeks. Degradation is slower when low soil moisture limits microbe populations. In water, microbial degradation is the main route of dicamba dissipation. Aquatic hydrolysis, volatilization, adsorption to sediments, and bioconcentration are not expected to be significant.

## 13. DISPOSAL CONSIDERATIONS

## Waste Disposal Method:

Pesticide wastes are toxic. If container is damaged or if pesticide has leaked, contain all spillage. Absorb and clean up all spilled material with granules or sand. Place in a closed, labeled container for proper disposal. Improper disposal of excess pesticide, spray mixtures, or rinsate is a violation of Federal law and may contaminate groundwater. If these wastes cannot be disposed of by use according to label instructions, contact your State Pesticide or Environmental Control Agency, or the Hazardous Waste representative at the nearest EPA Regional Office for guidance.

## Container Handling and Disposal:

**Nonrefillable Containers 5 Gallons or Less:** Nonrefillable container. Do not reuse or refill this container. Triple rinse container (or equivalent) promptly after emptying. **Triple rinse as follows:** Empty the remaining contents into application equipment or a mix tank and drain for 10 seconds after the flow begins to drip. 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 or reconditioning, or puncture and dispose of in a sanitary landfill, or by other procedures approved by State and local authorities. Plastic containers are also disposable by incineration, or, if allowed by State and local authorities, by burning. If burned stay out of smoke.

**Nonrefillable containers larger than 5 gallons:** Nonrefillable container. Do not reuse or refill this container. Offer for recycling if available. If recycling or recondition are not available, puncture and dispose of in a sanitary landfill, or by other procedures approved by State and local authorities. Plastic containers are also disposable by incineration, or, if allowed by State and local authorities, by burning. If burned stay out of smoke. Triple rinse or pressure rinse container (or equivalent) 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. Replace and tighten closures. Tip container on its side and roll it back and forth, ensuring at least one complete revolution, for 30 seconds. Stand the container on its end and tip it back and forth several times. Turn the container over onto its other end and tip it back and forth several times. Empty the rinsate into application equipment or a mix tank or store rinsate for later use or disposal. Repeat this procedure two more times. **Pressure rinse as follows:** Empty



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## ESCALADE 2 HERBICIDE

the remaining contents into application equipment or a mix tank and continue to drain for 10 seconds after the flow begins to drip. Hold container upside down over application equipment or mix tank or collect rinsate for later use or disposal. Insert pressure rinsing nozzle in the side of the container, and rinse at about 40 psi for at least 30 seconds. Drain for 10 seconds after the flow begins to drip.

**Refillable containers larger than 5 gallons:** Refillable container. Refill this container with pesticide 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 this container into application equipment or a mix tank. Fill the container about 10% full with water. Agitate vigorously or recirculate water with the pump for two minutes. Pour or pump rinsate into application equipment or rinsate collection system. Repeat this rinsing procedure two more times.

Refillable Container: Refill this container with pesticide only. Do not reuse this container for any other purpose. Close all openings and replace all caps. Contact Nufarm's Customer Service Department at 1-800-345-3330 to arrange for return of the empty refillable container.

### For Residential Use:

**Container Handling:** **If empty** - Do not reuse this container. Place in trash or offer for recycling if available. **If partly filled** - If product cannot be used as directed, call your local solid waste agency for disposal instructions. Never place unused product down any indoor (including toilet) or outdoor (including sewer) drain.

## 14. TRANSPORTATION INFORMATION

Follow the precautions indicated in Section 7: HANDLING AND STORAGE of this SDS.

### DOT

<30 gallons per completed package

Non Regulated

≥ 30 and < 119 gallons per complete package

UN 3082, Environmentally hazardous substance, liquid, n.o.s., (2,4-D Salt), 9, III, RQ

≥ 119 gallons per complete package

UN 3082, Environmentally hazardous substance, liquid, n.o.s., (2,4-D Salt), 9, III, RQ, Marine Pollutant

### IMDG

UN 3082, Environmentally hazardous substance, liquid, n.o.s., (2,4-D Salt), 9, III, Marine Pollutant

### IATA

Non regulated

## 15. REGULATORY INFORMATION

### EPA FIFRA INFORMATION

This chemical is a pesticide product registered by the United States 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 (SDS), and for workplace labels of non-pesticide chemicals. The hazard information required on the pesticide label is reproduced below. The pesticide label also includes other important information, including directions for use.

**WARNING.** Causes substantial but temporary eye injury. Harmful if swallowed or absorbed through the skin. Do not get in eyes or on clothing. Avoid contact with skin.

### U.S. FEDERAL REGULATIONS

**TSCA Inventory:** This product is exempted from TSCA because it is solely for FIFRA regulated use.

### SARA Hazard Notification/Reporting:

**Hazard Categories Under Criteria of SARA Title III Rules (40 CFR Part 370.66):**

Immediate and Delayed

### Section 313 Toxic Chemical(s):

Dicamba (CAS No. 1918-00-9), 3.9 -4.3% by weight in product

### Reportable Quantity (RQ) under U.S. CERCLA:

Dicamba (CAS No. 1918-00-9) 1,000 pounds

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### RCRA Waste Code:

Under RCRA, it is the responsibility of the product user to determine at the time of disposal, whether a material containing the product or derived from the product should be classified as a hazardous waste.

### State Information:

Other state regulations may apply. Check individual state requirements.

California Proposition 65: Not Listed.

### 16. OTHER INFORMATION

#### National Fire Protection Association (NFPA) Hazard Rating:

Rating for this product: Health: 2 Flammability: 1 Reactivity: 0

Hazards Scale: 0 = Minimal 1 = Slight 2 = Moderate 3 = Serious 4 = Severe

This Safety Data Sheet (SDS) serves different purposes than and DOES NOT REPLACE OR MODIFY THE EPA-ACCEPTED PRODUCT LABELING (attached to and accompanying the product container). This SDS provides important health, safety and environmental information for employers, employees, emergency responders and others handling large quantities of the product in activities generally other than product use, while the labeling provides that information specifically for product use in the ordinary course.

Use, storage and disposal of pesticide products are regulated by the EPA under the authority of the Federal Insecticide, Fungicide, and Rodenticide Act (FIFRA) through the product labeling, and all necessary and appropriate precautionary, use, storage, and disposal information is set forth on that labeling. It is a violation of Federal law to use a pesticide product in any manner not prescribed on the EPA-accepted label.

Although the information and recommendations set forth herein (hereinafter "Information") are presented in good faith and believed to be correct as of the date hereof, Nufarm Americas Inc. makes no representations as to the completeness or accuracy thereof. Information is supplied upon the condition that the persons receiving same will make their own determination as to its suitability for their purposes prior to use. In no event will Nufarm Americas Inc. be responsible for damages of any nature whatsoever resulting from the use of or reliance upon Information. NO REPRESENTATIONS OR WARRANTIES, EITHER EXPRESS OR IMPLIED, OF MERCHANTABILITY, FITNESS FOR A PARTICULAR PURPOSE OR OF ANY OTHER NATURE ARE MADE HEREUNDER WITH RESPECT TO INFORMATION OR THE PRODUCT TO WHICH INFORMATION REFERS AND ALL SUCH WARRANTIES ARE HEREBY SPECIFICALLY DISCLAIMED.

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