

## 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:** Westwood Jr. High, Downey, Sheehan, Martha Jones, Deerfield, Hanlon, High School  
Name of School, Day care center, and/or School age childcare program

**Pest Management Company:** Prescription Turf Services 16ProgressAve, Chelmsford, MA 01824  
(Please Print) Name Address

**Pest Management Professional:** John Devarenne 02690, David Clark 27631, Nick Aleo 42739  
(Please Print) License number

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

**Beginning Date** April 15, 2017 **Ending Date** April 17, 2017

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

Athletic Fields- Barricade herbicide

High School baseball and softball fields-Eagle fungicide

All ball field skinned infields, warning tracks- Razor Pro

#### 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. Eagle 20EW	fungicide	62719-463	disease management
2. Barricade 0.29% w/ fei	herbicide	100145682757	crabgrass pre-emergent management
3. Razor Pro	herbicide	228-366	vegetation management
4.			
5.			

This standard written notification must be accompanied by the following 2 documents. These materials are available from the MDAR 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.

## PESTICIDE FACT SHEET

### MYCLOBUTANIL

Myclobutanil is a fungicide manufactured by the Rohm and Haas Company and sold for turf and ornamental uses under the trade name Eagle. The Rohm and Haas emergency telephone number is: (215) 592-3000.

#### ACUTE TOXICITY

Formulation	Oral LD <sub>50</sub> (mg/kg)	Dermal LD <sub>50</sub> (mg/kg)	Toxicity Rating*
Eagle 20EW 19.7% Myclobutanil	1810	>5,000	Moderately Toxic

\*Gosselin R., Smith R., Hodge H., *Clinical Toxicology of Commercial Products, Fifth Edition*, PP. VI-3, Williams & Wilkins, 1984.

#### A typical TruGreen spray application may contain up to 0.018% myclobutanil in water.

Eagle 20EW is an eye irritant. The end-use dilution is a 1:2133 dilution in water. Myclobutanil was a sensitizer in animal studies.

#### CHRONIC TOXICITY

A 13-week subchronic feeding study in rats resulted in increased liver and kidney weights, hypertrophy and necrosis of the liver, pigmentation in convoluted kidney tubules and vacuolization of the adrenal cortex at the lowest observable effect level (LOEL) of 3,000 ppm. There were no observable effects at 1,000 ppm (NOEL).

Subchronic dermal studies using a 40% WSP formulation was conducted by application of 100 mg myclobutanil per kg once each day for a total of 19-20 treatments over a 4-week period. No systemic effects were observed. Skin irritation was observed at 100 mg/kg but not at 10 mg/kg.

A subchronic feeding study in dogs resulted in a NOEL of 10 ppm and LOEL of 200 ppm at 200 ppm (approximately 7 mg/kg) and above hepatocellular centrilobular or midzonal hypertrophy was observed in males at 800 ppm (approximately 32 mg/kg). The same effect was seen in females. Increases in alkaline phosphatase were observed.

Myclobutanil was not mutagenic in the Ames Test, mammalian cell gene-mutation-assay in Chinese hamster ovary cells, in vitro cytogenetic assay in Chinese hamster or mouse ovary cells, in vitro rat hepatocyte unscheduled DNA synthesis or dominant lethal test.

Myclobutanil was not carcinogenic in mice fed 2,000 ppm for 18 months or rats fed up to 800 ppm for 24 months.

A 2-generation rat reproduction study was conducted at dietary concentrations of 0, 50, 200 and 1,000 ppm. The parental NOEL was 50 ppm. The reproductive toxicity NOEL was

200 ppm and the LOEL was 1,000 ppm based on an increased incidence in the number of stillborns and atrophy of the testes, epididymis and prostate. The developmental NOEL was 200 ppm and the developmental LOEL was 1,000 ppm based on a decrease in pup body weight gain during lactation.

A teratology study was conducted in rabbits at doses of 0, 20, 60 or 200 mg myclobutanil/kg body weight per day on days 7-19 of gestation. The highest dose, 200 mg/kg, was maternally toxic and there was an increase in number of resorptions, decreases in litter size and a decrease in the viability index.

In a rat teratology study the maternal NOEL was 93.8 mg/kg/day. The developmental LOEL was 312.6 mg/kg based on increased incidences of 14th rudimentary and the 7<sup>th</sup> cervical ribs.

#### **ENVIRONMENTAL TOXICITY**

Bluegill sunfish - 96 hour LC<sub>50</sub>: 2.2 mg/l  
Rainbow trout - 96 hour LC<sub>50</sub>: 3.9 mg/l  
Daphnia magna, 48 hour LC<sub>50</sub>: 10.2 mg/l  
Eastern oyster, 96 hour EC<sub>50</sub>: 0.72 mg/l  
Mysid shrimp, 96 hour LC<sub>50</sub>: 240 ug/l  
Algae (*selenastrum capricornutum*),  
120 hour EC<sub>50</sub>: 0.91 mg/l  
Algae (*scenedesmus subspicatus*), 96 hour  
EC<sub>50</sub>: 2.6 mg/l  
Bobwhite quail, Dietary LC<sub>50</sub>: 5,000 ppm  
Bobwhite quail, LD<sub>50</sub>: 510 mg/kg  
Mallard duck, Dietary LC<sub>50</sub>: 5,000 ppm  
Honeybee, LD<sub>50</sub>: >362 ug/bee

#### **PRODUCT LABEL**

##### **PRECAUTIONARY STATEMENTS**

The following statement from the Eagle 20EW label refers to the application of end-use dilutions of the product:

Keep unprotected persons out of treated area until sprays have dried.

## PESTICIDE FACT SHEET

### GLYPHOSATE

Glyphosate is a phosphanoglycine herbicide and is registered for control or destruction of most plants with little residual effect. Glyphosate is manufactured by the Agricultural Division of the Monsanto Company and sold under the trade names Rodeo<sup>®</sup> and Roundup<sup>®</sup>. The Monsanto emergency telephone number is: (314) 694-4000. Glyphosate is manufactured by NuFarm Americas, Inc. under the name of Razor<sup>®</sup>. The NuFarm emergency telephone number is (877) 325-1840.

#### ACUTE TOXICITY

Formulation	Oral LD50 (mg/kg)	Dermal LD50 (mg/kg)	Toxicity Rating*
Glyphosate, technical	5,600	>5,000	Slightly Toxic
Roundup 41.0% glyphosate	5,400	>5,000	Slightly Toxic
Roundup Pro 41.0% glyphosate	>5,000	>5,000	Slightly Toxic
Rodeo 53.5% glyphosate, as the isopropylamine salt	5,400	>5,000	Slightly Toxic
Razor	>5,000	>5,000	Slightly Toxic

\*Gosselin R., Smith R., Hodge H., *Clinical Toxicology of Commercial Products, Fifth Edition*, PP. V1-3, Williams & Wilkins, 1984.

**A typical spray application may contain up to 0.92% active ingredient in water-based solution. A dilute water-based solution containing up to 2.75% active ingredient may be applied to selective lawn areas by use of a hand-held sprayer. Glyphosate is used for postemergence grassy weed control for renovation of lawns and for total vegetation control in non-turf areas.**

Occasional eye irritation has been reported by applicators after exposure to Roundup. This irritation has been attributed to the surfactant in Roundup. Glyphosate and Rodeo, which do not contain the surfactant in Roundup, have been reported to be practically non-irritating to rabbit skin and

eyes. Neither Roundup or Rodeo are considered to be dermal sensitizing agents. Glyphosate as Roundup is poorly absorbed through the skin. Two percent or less of the glyphosate was absorbed when applied to human skin cells or to rhesus monkey skin.

Symptoms of mild gastric upset including nausea, vomiting and diarrhea have been reported in children accidentally ingesting Roundup. Systemic absorption after oral administration was minimal in rats with 60% to 90% of the oral dose excreted unchanged in the feces. Of the glyphosate that was absorbed, approximately 95% to 99% was excreted in the urine. Less than 2% of the total dose was found in tissues after 24 hours.

Glyphosate has a low vapor pressure and very little odor. Roundup is not volatile and is considered to be only slightly toxic by breathing spray mist.

### **CHRONIC TOXICITY**

The EPA has classified glyphosate as a Class D oncogen (not classifiable as to human carcinogenicity). This classification is a result of inadequate evidence for oncogenicity from two year rat and mouse studies. Further studies for the evidence of carcinogenicity in rats and mice have been recommended by the EPA because of equivocal data in the mouse study and because the highest dose tested (31 mg/kg/day) in the rat study was the no-observed-effect level (NOEL). Mutagenesis tests were negative.

One-year oral toxicity studies in dogs administered glyphosate resulted in the highest dosage level of 500 mg/kg/day also being the NOEL.

There was no evidence of neurotoxicity in hens fed repeated doses of 7.5 glyphosate/kg.

Teratogenic effects were not reported in rats at the highest dosage of 3,500 mg/kg/day or in rabbits at the highest dosage of 350 mg/kg/day. The maternal and fetotoxic NOEL of 1,000 mg/kg/day was determined in the rat study. The maternal and fetotoxic NOEL of 175 mg/kg/day and 350 mg/kg/day, respectively, was determined in the rabbit study. In a three-generation rat study, glyphosate did not cause any adverse effects on reproduction at the dosage of 10 mg/kg/day or less.

Glyphosate does not bioaccumulate in animal tissue. An Acceptable Dietary Intake (ADI) of 0.03 mg/kg was established by the EPA and an ADI of 0.3 mg/kg was determined by the World Health Organization.

### **ENVIRONMENTAL TOXICITY**

Glyphosate is tightly bound to soil particles and has a minimal leaching ability. Microorganism biodegradation is primarily responsible for an average soil half-life of 60 days. Conflicting information on glyphosate stability in water and UV light degradation exists in the literature.

Reported glyphosate half-life in non-flowing water ranged from 7 to 10 weeks. The half-life of glyphosate after exposure to UV light ranged from 4 to 28 days in one study. Glyphosate has low toxicity to bees, fish, invertebrates and birds.

### **PRODUCT LABEL PRECAUTIONARY STATEMENTS**

The following precautionary statements from the Roundup Pro label refer to the application of end-use dilutions of this product:

*Do not apply directly to water, to areas where surface water is present, or to intertidal areas below the mean high water mark. Avoid drift when applying this product to prevent injury to non-target plants and crops.*

The following precautionary statements from the Rodeo label refer to the application of end-use dilutions of this product:

*Treatment of aquatic weeds can result in oxygen depletion or loss due to decomposition of dead plants. This oxygen loss can cause fish suffocation.*

## PESTICIDE FACT SHEET

### PRODIAMINE

Prodiamine is a preemergent herbicide registered for use on turfgrass and on landscape ornamental beds. Prodiamine is manufactured by Syngenta Crop Protection, Inc. and sold under the trade name Barricade. The Syngenta emergency telephone number is: 800-888-8372.

#### ACUTE TOXICITY

Formulation	Oral LD <sub>50</sub> (mg/kg)	Dermal LD <sub>50</sub> (mg/kg)	Toxicity Rating*
Prodiamine, technical	>5,000	>2,000	Slightly Toxic
Barricade 65 WDG	>5,000	>2,000	Slightly Toxic
Barricade 4FL			

\*Gosselin R., Smith R., Hodge H., *Clinical Toxicology of Commercial Products, Fifth Edition*, PP. VI-3, Williams & Wilkins, 1984.

**A typical spray application by TruGreen may contain up to 0.18% active ingredient in a water-based solution. Prodiamine is applied as a preemergence herbicide to prevent the germination of crabgrass and other weed seeds.**

In acute toxicity studies, prodiamine (93.0% technical) was not a dermal sensitizer in guinea pigs, but the water dispersible granular (WDG) formulation was a weak dermal sensitizer.

#### CHRONIC TOXICITY

Rats were fed prodiamine for two years at dietary concentrations of 0, 50, 200, 800 and 3,200 ppm. Increased liver weight with minor biochemical changes and an increased incidence of thyroid follicular adenoma and carcinoma were observed in both males and females fed 3,200 ppm.

Mice were also fed prodiamine at dietary concentrations of 0, 50, 500 and 5,000 ppm

for two years. Increased liver weight was observed at 5,000 ppm. However, thyroid neoplasms were not found in mice.

The EPA has classified prodiamine as a Group C carcinogen (possible human carcinogen--limited evidence of carcinogenicity in the absence of human data).

Reproductive effects of prodiamine were studied in rats and rabbits. There were no developmental effects in rabbits given doses of 100, 300 and 500 mg/kg. In rats treated with 100, 300 and 1,000 mg/kg, an increased incidence of omphalocele was observed only at 300 mg/kg.

Developmental effects were not observed in a two-generation study in rats fed prodiamine at dietary concentrations of 0, 50, 200 and 2,000 ppm, but there was reduced pup weight and increased liver weight in pups from dams fed 2,000 ppm.

## ENVIRONMENTAL TOXICITY

Prodiamine and its degradation products are immobile in soil. Runoff and leaching are unlikely because of low water solubility and strong adsorption to soil.

The half-life of prodiamine in aerobic soil is approximately 2 months.

Prodiamine is practically nontoxic to birds based on an oral LD<sub>50</sub> >2,250 mg/kg (technical) in Bobwhite quail and dietary LC<sub>50</sub> values above 10,000 ppm in both mallard ducks and Bobwhite quail.

Similarly, prodiamine has low toxicity to aquatic species with LC<sub>50</sub> values greater than 500 ppb for bluegills, rainbow trout and *Daphnia magna*.

## PRODUCT LABEL PRECAUTIONARY STATEMENTS

The following precautionary statements from the Barricade 65 DG label refer to the application of end-use dilutions of this product:

*This product has low solubility in water. At the limit of solubility, this product is not toxic to fish. However, at concentrations substantially above the level of water solubility, it may be toxic to fish. Do not apply directly to water, to areas where surface water is present or to inter-tidal areas below the mean high water mark. Drift and runoff from treated areas may be hazardous to aquatic organisms in adjacent sites.*

# 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