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GOVERNOR

STATE OF MAINE
MAINE DEPARTMENT OF AGRICULTURE, FOOD & RURAL RESOURCES
BOARD OF PESTICIDES CONTROL
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AUGUSTA, MAINE 04333-0028

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COMMISSIONER

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DIRECTOR

May 27, 2009

TO: Board Members

FROM: Gary Fish, Manager, Pesticide Programs

SUBJECT: Disinfection of Artificial Turf Fields

The number of artificial turf fields in Maine has increased over the past 5 years. Not only universities and colleges sport synthetic grass, but a number of high schools and indoor sports arenas also run on plastic turf. All of these surfaces are regularly disinfected because of a concern about staph infections, especially methicillin-resistant *Staphylococcus aureus* (MRSA).

Typically, a quaternary ammonium product (sample label attached) is used and it is usually applied with a low-pressure boom sprayer. Because they are applying with powered equipment, they cannot fit into the exemption for persons applying general-use antimicrobial products by hand or with non-powered equipment to interior or exterior surfaces and furnishings of buildings during the course of routine cleaning procedures.

Where does this type of activity fall on the Board's enforcement priority scale? Should we be inspecting each artificial turf field to see if they are applying disinfectants and, if so, require them to either license their own staff or hire a company licensed to do microbial pest control (Category 7C)? Should this activity be folded into Category 7C or should it be added to the 3B Turf category?

I would like your guidance before making decisions on how to approach this somewhat new area of pest management.

Pioneer[®]
"The Striping People"[®]

TITAN™ TURF GARD

ONE-STEP DISINFECTANT

Disinfectant, Bactericidal, Fungicide, Virucide, Staphyldcidal

Active Ingredients	
Didecyl dimethyl ammonium chloride	2.54%
n-Alkyl (C ₁₄ , 50%; C ₁₂ , 40%; C ₁₆ , 10%) dimethyl benzyl ammonium chloride	1.69%
Inert Ingredients	95.77%
TOTAL	100.000%

KEEP OUT OF REACH OF CHILDREN

DANGER

SEE BELOW FOR ADDITIONAL PRECAUTIONARY STATEMENTS and FIRST AID

EPA Registration No. 47371-131-892 EPA Establishment No. 48062-OH-1

NET CONTENTS: 5 Gal. (18.9 L.)

DISINFECTANT CORROSIVE LIQUID, NOS, 8,
UN1903, PG III
CONTAINS: Quarternary Amine

PRECAUTIONARY STATEMENTS

HAZARD TO HUMANS AND DOMESTIC ANIMALS

DANGER. CORROSIVE. Causes irreversible eye damage. Do not get in eyes or on clothing. Wear protective eyewear (goggles, face shield or safety glasses). Avoid contact with skin. Harmful if inhaled. Avoid breathing spray mist. Wash thoroughly with soap and water after handling. Remove contaminated clothing and wash clothing before reuse.

FIRST AID

IF IN EYES: Hold eye open and rinse slowly and gently with water for 15 - 20 minutes. Remove contact lenses, if present, after the first 5 minutes, then continue rinsing eye. **IF ON SKIN OR CLOTHING:** Take off contaminated clothing. Rinse skin immediately with plenty of water for 15 - 20 minutes. **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 treatment advice. Have the product container or label with you when calling a poison control center or doctor or going for treatment.

NOTE TO PHYSICIAN: Probable mucosal damage may contraindicate the use of gastric lavage.

ENVIRONMENTAL HAZARDS

Do not discharge effluent containing this product into lakes, streams, ponds, estuaries, oceans or other waters unless in accordance with the requirements of a National Pollutant discharge Elimination system (NPDES) permit and the permitting authority has been notified in writing prior to discharge. Do not discharge effluent containing this product to sewer systems without previously notifying the local swage treatment plant authority. For guidance contact your State Water Board or Regional Office of the EPA.

STORAGE AND DISPOSAL

Do not contaminate water, food or feed by storage or disposal. **PESTICIDE STORAGE:** Store in original container in areas inaccessible to children. Open dumping is prohibited. Do not reuse empty container.

PESTICIDE DISPOSAL: Pesticide wastes are acutely hazardous. Improper disposal of excess pesticide, spray mixture or rinsate is a violation of Federal Law. If these wastes cannot be disposed of by use according to label instruction, contact State Pesticide or Environmental Control Agency or the Hazardous Waste representative at the nearest EPA Regional Office for guidance.

CONTAINER DISPOSAL: (Plastic containers:) Triple rinse (or equivalent), then offer for recycling or reconditioning, or puncture and dispose of in a sanitary landfill, or incinerate, or if allowed by state and local authorities, burn. If burned, stay out of smoke.

MSDS AVAILABLE ONLINE AT:
www.pioneerathletics.com
rev. 11/08

Sold by:

Pioneer[®]
ATHLETICS

4529 INDUSTRIAL PARKWAY
CLEVELAND, OH 44135
P: (800) 877-1500
F: (800) 877-1511
www.pioneerathletics.com

Titan™ Turf Gard is a multi-purpose, neutral pH, germicidal agent effective in hard water up to 400 ppm in the presence of a moderate amount of soil according to the AOAC Use-dilution Test. Titan Turf Gard is recommended for use in schools, colleges, and locker rooms and exercise facilities. Titan Turf Gard disinfects, cleans and deodorizes nonporous, inanimate surfaces such as floors, walls, glazed porcelain and metal and plastic surfaces (such as polypropylene, polystyrene, etc.).

DILUTION: (1:64) 2 ounces per gallon of water (660 ppm quat)

Titan Turf Gard is effective against the following pathogens: **BACTERIA:** Staphylococcus aureus (Staph), Staphylococcus aureus-Methicillin Resistant (MRSA), Staphylococcus aureus-Vancomycin Intermediate Resistant (VISA), Escherichia coli, Enterococcus faecalis-Vancomycin Resistant (VRE), Streptococcus pyogenes (Strep). **VIRUSES:** Hepatitis B Virus (HBV), Hepatitis C Virus (HCV), Herpes Simplex Type 1 & 2, HIV-1 (AIDS virus), Influenza A/Hong Kong, Respiratory Syncytial Virus (RSV), SARS Associated Coronavirus, Rubella, Vaccinia. **FUNGI:** Trichophyton mentagrophytes (Athlete's Foot Fungus).

DIRECTIONS FOR USE

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

DISINFECTION, CLEANING, DEODORIZING DIRECTIONS: Remove heavy soil deposits from surface, then thoroughly wet surface with a use-solution of 2 oz. of the concentrate per gallon of water. The use-solution can be applied with a cloth, mop, sponge or coarse spray or by soaking. For sprayer applications, use a coarse spray device. Spray 6-8 inches from the surface, rub with a brush, cloth or sponge. Do not breathe spray. Let solution remain on surface for a minimum of 10 minutes. Rinse or allow to air dry. Rinsing of floors is not necessary unless they are to be waxed or polished. Food contact surfaces must be thoroughly rinsed with potable water. This product must not be used to clean the following food contact surfaces: utensils, glassware and dishes.

Prepare a fresh use-solution daily or more often if the solution becomes visibly dirty or diluted.

FUNGICIDAL DIRECTIONS: For use in areas such as locker rooms, dressing rooms, shower and bath areas and exercise facilities follow disinfection directions.

KILLS HIV-1 (AIDS VIRUS) AND HBV (HEPATITIS B VIRUS) AND HCV (HEPATITIS C VIRUS) ON PRECLEANED, ENVIRONMENTAL SURFACES/OBJECTS PREVIOUSLY SOILED WITH BLOOD/BODY FLUIDS in health care settings or other settings in which there is an expected likelihood of soiling of inanimate surfaces/objects with blood/body fluids and in which the surfaces/objects likely to be soiled with blood/body fluids can be associated with the potential for transmission of Human Immunodeficiency Virus Type 1 (HIV-1) (associated with AIDS) or Hepatitis B Virus (HBV) or Hepatitis C Virus (HCV).

SPECIAL INSTRUCTIONS FOR CLEANING AND DECONTAMINATION AGAINST HIV-1 (AIDS VIRUS) OR HBV OR HCV ON SURFACES OR OBJECTS SOILED WITH BLOOD OR BODY FLUIDS.

Personal Protection: Disposable protective gloves, gowns, face masks or eye coverings, as appropriate, must be worn during all cleaning of blood or body fluids and during decontamination procedures.

Cleaning Procedures: Blood or body fluids must be thoroughly cleaned from surfaces and objects before application of disinfectant.

Contact Time: HIV-1 (AIDS virus) is inactivated after a contact time of 4 minutes at 25°C (77°F) (room temperature). HBV and HCV are inactivated after a 10 minute contact time. Use a 10 minute contact time for other viruses, fungi and bacteria listed.

Disposal of Infectious Material: Blood or body fluids should be autoclaved and disposed of according to federal, state and local regulations for infectious waste disposal.

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Sold by:

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MD

Material Safety Data Sheet

MSDS #TG02A

SECTION 1 – CHEMICAL PRODUCT AND COMPANY IDENTIFICATION

Product Name: Titan Turf Gard	For Chemical Emergency call:
EPA Reg No:	Infotrac 1-800-535-5053
Issue Date: November 13, 2008	
Supercedes:	
Company Name: Pioneer Manufacturing Company	For Information call:
4529 Industrial Parkway	1-800-877-15001-800-877-1500
Cleveland, OH 44135	

SECTION 2 – COMPOSITION / INFORMATION ON INGREDIENTS

Components	Wt%	Exposure Limits		
		OSHA PEL	ACGIH TLV	NIOSH REL
* – (see note below)				
Octyl Dimethyl Amine Oxide (CAS No. Not Available)	0 to 5	None	None	None
Quaternary Ammonium (CAS No. 7173-51-5)	0 to 5	None	None	None

* – Asterisk ingredients are those considered hazardous according to the criteria of 29CFR1910.1200. Other ingredients are listed for informational purposes to assist emergency medical response personnel.

SECTION 3 – HAZARDS IDENTIFICATION

Eyes: May cause eye irritation.
 SKIN: May cause skin irritation.
 INHALATION:
 INGESTION: May cause irritation to the intestine, mouth, throat, & esophagus.

HMIS Rating	
Health	1
Flammability	0
Reactivity	0

SECTION 4 – FIRST AID MEASURES

Eye Contact:	IF IN EYES: Hold eyelids open and flush with a steady, gentle stream of water for 15 minutes. Get medical attention.
Skin Contact:	IF ON SKIN: Wash with plenty of soap and water. Get medical attention if irritation persists.
Inhalation:	IF INHALED: Remove victim to fresh air. If not breathing, give artificial respiration, preferable mouth-to-mouth. Get medical attention.
Ingestion:	IF SWALLOWED: Call a doctor or get medical attention. Do not induce vomiting or give anything by mouth to an unconscious person. Drink promptly a large quantity of milk, egg white, gelatin solution, or if these are not available, drink large quantities of water.

SECTION 5 – FIRE FIGHTING MEASURES

Flash Point / Method:	Not applicable	NFPA
Flammable Limits:	Not applicable	
Extinguishing Media:	Non-Flammable	
Special Fire Fighting Procedures:	Non applicable.	
Fire and Explosion Hazards:	Not applicable	

SECTION 6 – ACCIDENTAL RELEASE MEASURES

Response to Spills:	Small spills: Contain spill. Flush to sanitary sewer. Rinse area thoroughly with water. Large spills: Dike or dam spill. Pump to containers or soak up with inert absorbent. Prevent runoff to creeks and waterways.
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SECTION 7 – HANDLING AND STORAGE

Handling Precautions:	Wash after handling. Wash hands before eating. Keep container tightly closed when not in use.
Storage Precautions:	Store in a cool, dry place. Keep storage temperature below 120°F. Do not contaminate food, feed, or drinking water. Keep from freezing.

SECTION 8 -- EXPOSURE CONTROLS / PERSONAL PROTECTION

Hygienic Practices: Normal procedures for good hygiene. Avoid eye and skin contact.

Engineering Controls: General ventilation recommended for large jobs. Eyewash station is recommended.

Personal Protective Equipment:

- Respirator Adequate ventilation
- Goggles/Face Safety glasses recommended.
- Gloves Recommended, as required, to prevent skin contact (rubber or Neoprene).

SECTION 9 -- PHYSICAL AND CHEMICAL PROPERTIES

Appearance.....	Green liquid	Boiling Point.....	212 °F
Odor.....	Mint	Freezing Point.....	Not established
pH.....	7.2	Evaporation Rate (Butyl Acetate=1).....	1
Specific Gravity (H ₂ O=1).....	1.002	Vapor Density (Air=1).....	Not applicable
Solubility.....	Soluble	Vapor Pressure (mmHg).....	20 @ 68°F
VOC Content (% Wt.).....	0.00% (0.000 lbs/gallon)		

SECTION 10 -- STABILITY AND REACTIVITY

Chemical Stability: Stable

Conditions to Avoid: None known

Incompatibility: None known

Hazardous Decomposition: Will not occur

Decomposition: None known

Polymerization: Will not occur.

Conditions to Avoid: Not applicable

SECTION 11 -- TOXICOLOGICAL INFORMATION

Not available

SECTION 12 -- ECOLOGICAL INFORMATION

Ecotoxicity: None

Environmental Fate: Readily degraded

SECTION 13 -- DISPOSAL CONSIDERATIONS

Waste Disposal Method: Dispose of in accordance with local, state, and federal regulations.

RCRA Classification:

SECTION 14 -- TRANSPORT INFORMATION

DOT Classification: Not DOT regulated.

Exceptions: None

Description: None

SECTION 15 -- REGULATORY INFORMATION

X	SARA 313	Ingredients not toxic under Section 313 of Title III, (SARA) and 40 CFR Part 373.

SECTION 16 -- OTHER INFORMATION

ID:

Issue Date (Rev):

Revision Summary:

The information provided herein is based on data considered accurate. However, it is furnished WITHOUT WARRANTY OF ANY KIND, EXPRESS OR IMPLIED. It is intended to assist in evaluating the suitability and proper use of the material and in the development of safety precautions and procedures. The user assumes all responsibility for personal injury or property damage caused by the misuse of this product.

Pioneer Athletics | Turf Gard

Effective Treatment for Bacteria, Viruses and Fungi



- Specially formulated for artificial turf
- Helps kill the microbes that cause disease from artificial turf surfaces
- Neutral pH for improved player safety
- Spray the entire field for normal maintenance, highly dilutable
- EPA registered

Related Items



Boom Sprayer

- 40-gallon corrosion resistant polyethylene tank
- 100' 5 nozzle sprayer
- Sturdy Turf Tires; 15/600 x 6
- Suction Line Sump
- 5' fill lid
- 12 volt (demand) diaphragm pump
- 2.1 G.P.M.; 60 P.S.I. Maximum
- Deluxe Pistol Grip Handgun with adjustable nozzle and 25' hose
- Towable by light weight utility carts



Premium Backpack Sprayers

- 4.75 gallon tank, 36" wand assembly and 69.5" hose
- Large filler opening, unscrew pump to fill
- Up to 90 P.S.I. operating pressure