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 <u>standard written notification form</u> for the purpose of providing pesticide use information to the school, day care center, and/or school-age childcare program. <u>The Pest Management Professional should save this form for copying.</u>

School:

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

Pest Management Company:

(Please Print) Name

Address

Pest Management Professional:

(Please Print)

License number

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

Beginning Date

Ending Date

B. Record the specific location of the anticipated pesticide use

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.			
2.			
3.			
4.			
5.			

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. 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 08/03

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



CONSUMER INFORMATION BULLETIN LAWN CARE

Massachusetts "Regulations Relative to Application to Lawns in Residential Settings "333 CMR 13.06) requires that you receive this information bulletin.

Are commercial applications to lawns safe?

When pesticide application are performed properly and carefully the degree of risk is greatly reduced, however all pesticides are by design poisonous to some form of life. Therefore they must be treated with caution. Toxicity can vary from one pesticide product to another, and individuals may be affected differently from the same level of exposure. Although there is usually minimal risk, you should take steps to minimize your exposure to avoid potential problems.

Is it safer to treat my own lawn?

Maintaining your own trees/shrubs with pesticides can be more hazardous since you will be directly exposing yourself to the harmful chemicals during application. There are additional hazards with improper storage of pesticides around the home. If you do decide to maintain your own tree/shrubs, seek professional advice and carefully follow the label directions.

Can I minimize exposure to pesticide applications?

Yes. To minimize exposure and the potential for health related problems from pesticide applications, there are logical steps that can be taken such as closing windows and removing all lawn furniture and toys from the yard. During and immediately after an application it is also important to keep other people, especially children and pets away from areas where pesticides are being applied.

May I be notified by the company prior to the pesticide application?

Yes. The pesticide applicator/company you hire must provide you with the opportunity to request per-notification before each application. This notification would allow you time to prepare for the application(s). You can also use this notification option to contact neighbors that might have concerns/questions.

Does the applicator have to put the yellow signs on my lawn?

Yes. The applicator is required to post standardized signs on pesticide treated lawns. The signs provide notice to you that a pesticide application has been made to your lawn. This will allow you and other persons to avoid the treated areas. Children should be made aware that the signs mean that a pesticide application has recently taken place and that they should avoid using those areas. You may remove the signs after 24 hours.

What information must be left with me after the application?

After each application, you should receive the following information: Name and Pesticide applicator license number Date and time of the application Name and EPA Registration number of pesticides applied to your property Directions/Precautions on what you should do after the application

Why is my lawn being treated mosquito/ticks?

Mosquito and tick applications may be applied to the lawn. They are often applied in a manner so that the product either comes into direct contact with mosquito/ticks or the product remains on foliage for a period of time so that it will kill the mosquito/tick when they rest on the foliage or come into contact with it.

What if I have a question or a problem?

The Department of Agricultural Resources regulates the use of pesticides in Massachusetts. It is a violation of the law to use a pesticide inconsistent with the label directions. All commercial pesticide applicators must have a valid Pesticide Applicator License issued by the Department. Consumers should check to insure that the applicator is licensed or certified. If you suspect that your applicator is unlicensed or a misuse has occurred, please contact the Department of Agricultural Resources. If you have any further questions or concerns about pesticides or the application of pesticides you should contact your tree/shrub company or you can contact the following:

Massachusetts Pesticide Enforcement: (617) 626-1782 EPA National Pesticide Information Center: (800) 858-7378 Massachusetts Poison Information Center: (617) 232-2120 Department of Public Health/Bureau of Environmental Health (617) 624-5757

If you have a contractual problem with a company, please contact the Massachusetts Attorney Generals' Office of Consumer Affairs at (617) 727-8400 or the Better Business Bureau at (617) 426-9000 and (413)734-3114.

May 2, 2017

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



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?

e s

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. <u>http://massnrc.org/ipm/index.html</u>

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: <u>http://www.mass.gov/agr/pesticides/</u>

Updated August 2011



Version 3.0 / USA 10200004004

1/11 Revision Date: 07/14/2014 Print Date: 03/14/2016

SECTION 1: IDENTIFICATION OF THE SUBSTANCE/MIXTURE AND OF THE COMPANY/UNDERTAKING

Product identifier	
Trade name	FINALE® HERBICIDE
Product code (UVP)	05950643
SDS Number	10200004004
EPA Registration No.	432-1229
Relevant identified uses of th	e substance or mixture and uses advised against
Use	Herbicide
Restrictions on use	See product label for restrictions.
Information on manufacturer	
	Bayer Environmental Science 2 T.W. Alexander Drive Research Triangle PK, NC 27709 United States
Emergency Telephone Number (24hr/ 7 days)	1-800-334-7577
Product Information Telephone Number	
SDS Information or Request	SDSINFO.BCS-NA@bayer.com

SECTION 2: HAZARDS IDENTIFICATION

Classification in accordance with regulation HCS 29CFR §1910.1200

Reproductive toxicity : Category 1B Specific target organ toxicity - repeated exposure : Category 2 Eye irritation : Category 2A Acute toxicity (Inhalation): Category 4



Signal word: Danger

Hazard statements

May damage fertility or the unborn child. May cause damage to organs (nervous system) through prolonged or repeated exposure. Causes serious eye irritation. Harmful if inhaled.



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2/11 Revision Date: 07/14/2014 Print Date: 03/14/2016

Precautionary statements

Obtain special instructions before use. Do not handle until all safety precautions have been read and understood. Wear protective gloves/protective clothing/eye protection/face protection. Do not breathe spray. Wash thoroughly after handling. Use only outdoors or in a well-ventilated area. IF exposed or concerned: Get medical advice/attention. Get medical advice/attention if you feel unwell. IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. If eye irritation persists: Get medical advice/attention. IF INHALED: Remove person to fresh air and keep comfortable for breathing. Call a POISON CENTER/doctor/physician if you feel unwell. Store locked up. Dispose of contents/container in accordance with local regulation.

Other hazards

No other hazards known.

SECTION 3: COMPOSITION/INFORMATION ON INGREDIENTS

Hazardous Component Name	CAS-No.	Concentration % by weight
Glufosinate ammonium	77182-82-2	11.33
Sodium alkyl ether sulphate	68585-34-2	12.70
1-Methoxy-2-propanol	107-98-2	10.00

SECTION 4: FIRST AID MEASURES

Description of first aid measures

General advice	When possible, have the product container or label with you when calling a poison control center or doctor or going for treatment.
Inhalation	Move to fresh air. If person is not breathing, call 911 or an ambulance, then give artificial respiration, preferably mouth-to-mouth if possible. Call a physician or poison control center immediately.
Skin contact	Take off contaminated clothing and shoes immediately. Wash off immediately with plenty of water for at least 15 minutes. Call a physician or poison control center immediately.
Eye contact	Hold eye open and rinse slowly and gently with water for 15-20 minutes. Remove contact lenses, if present, after the first 5 minutes, then continue rinsing eye. Call a physician or poison control center immediately.
Ingestion	Call a physician or poison control center immediately. Rinse out mouth and give water in small sips to drink. DO NOT induce vomiting unless



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	directed to do so by a physician or poison control center. Never give anything by mouth to an unconscious person. Do not leave victim unattended.
Most important symptoms a	nd effects, both acute and delayed
Symptoms	Gastrointestinal disturbance, Tremors, Convulsions, Drowsiness, Diarrhoea, Vomiting, Nausea, muscular weakness, Tachycardia, Respiratory failure, Unconsciousness, Coma
	Symptoms may be delayed.
Indication of any immediate	medical attention and special treatment needed
Treatment	Appropriate supportive and symptomatic treatment as indicated by the patient's condition is recommended. In case of ingestion gastric lavage should be considered in cases of significant ingestions only within the first 2 hours. However, the application of activated charcoal and sodium sulphate is always advisable.

SECTION 5: FIREFIGHTING MEASURES

Extinguishing media Suitable Unsuitable	Carbon dioxide (CO2), Foam, Water spray, Dry powder None known.
Special hazards arising from the substance or mixture	In the event of fire the following may be released:, Hydrogen cyanide (hydrocyanic acid), Carbon monoxide (CO), Oxides of phosphorus, Nitrogen oxides (NOx)
Advice for firefighters	
Special protective equipment for fire-fighters	Firefighters should wear NIOSH approved self-contained breathing apparatus and full protective clothing.
Further information	Fight fire from upwind position. Keep out of smoke. Remove product from areas of fire, or otherwise cool containers with water in order to avoid pressure being built up due to heat. Whenever possible, contain fire-fighting water by diking area with sand or earth. Do not allow run-off from fire fighting to enter drains or water courses.
Flash point Autoignition temperature	> 100 °C no data available
Lower explosion limit	no data available
Upper explosion limit	no data available
Explosivity	not applicable



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SECTION 6: ACCIDENTAL RELEASE MEASURES

Personal precautions, protective equipment and emergency procedures Precautions Isolate hazard area. Keep unauthorized people away. Avoid contact with spilled product or contaminated surfaces. Methods and materials for containment and cleaning up Soak up with inert absorbent material (e.g. sand, silica gel, acid binder, Methods for cleaning up universal binder, sawdust). Collect and transfer the product into a properly labelled and tightly closed container. Clean contaminated floors and objects thoroughly, observing environmental regulations. Additional advice Use personal protective equipment. Do not allow to enter soil, waterways or waste water canal. Do not allow product to contact nontarget plants. Reference to other sections Information regarding safe handling, see section 7. Information regarding personal protective equipment, see section 8. Information regarding waste disposal, see section 13.

SECTION 7: HANDLING AND STORAGE

Precautions for safe handling

Control parameters

Advice on safe handling	Maintain exposure levels below the exposure limit through the use of general and local exhaust ventilation. Handle and open container in a manner as to prevent spillage.		
Advice on protection against fire and explosion	Keep away from heat and sources of ignition.		
Hygiene measures	Wash hands thoroughly with soap and water after handling and before eating, drinking, chewing gum, using tobacco, using the toilet or applying cosmetics. Remove Personal Protective Equipment (PPE) immediately after handling this product. Before removing gloves clean them with soap and water. Remove soiled clothing immediately and clean thoroughly before using again. Wash thoroughly and put on clean clothing.		
Conditions for safe storage, including any incompatibilities			
Requirements for storage areas and containers	Store in a cool, dry place and in such a manner as to prevent cross contamination with other crop protection products, fertilizers, food, and feed. Store in original container and out of the reach of children, preferably in a locked storage area.		

SECTION 8: EXPOSURE CONTROLS/PERSONAL PROTECTION

Components	CAS-No.	Control parameters	Update	Basis

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Glufosinate ammonium	77182-82-2	0.9 mg/m3 (TWA)		OES BCS*
Sodium alkyl ether sulphate (Particulate.)	68585-34-2	5ug/m3 (AN ESL)	02 2013	TX ESL
Sodium alkyl ether sulphate (Particulate.)	68585-34-2	50ug/m3 (ST ESL)	02 2013	TX ESL
1-Methoxy-2-propanol	107-98-2	50 ppm (TWA)	02 2013	ACGIH
1-Methoxy-2-propanol	107-98-2	100 ppm (STEL)	02 2013	ACGIH
1-Methoxy-2-propanol	107-98-2	360 mg/m3/100 ppm (REL)	2010	NIOSH
1-Methoxy-2-propanol	107-98-2	540 mg/m3/150 ppm (STEL)	2010	NIOSH
1-Methoxy-2-propanol	107-98-2	360 mg/m3/100 ppm (TWA)	1989	OSHA Z1A
1-Methoxy-2-propanol	107-98-2	540 mg/m3/150 ppm (STEL)	1989	OSHA Z1A
1-Methoxy-2-propanol	107-98-2	380 mg/m3/100 ppm (TWA)	06 2008	TN OEL
1-Methoxy-2-propanol	107-98-2	540 mg/m3/150 ppm (STEL)	06 2008	TN OEL
1-Methoxy-2-propanol	107-98-2	1000ppb (ST ESL)	07 2011	TX ESL
1-Methoxy-2-propanol	107-98-2	3700ug/m3 (ST ESL)	07 2011	TX ESL
1-Methoxy-2-propanol	107-98-2	370ug/m3 (AN ESL)	07 2011	TX ESL
1-Methoxy-2-propanol	107-98-2	100ppb (AN ESL)	07 2011	TX ESL
1-Methoxy-2-propanol	107-98-2	540 mg/m3/150 ppm (STEL)	08 2010	US CA OEL
1-Methoxy-2-propanol	107-98-2	360 mg/m3/100 ppm (TWA PEL)	08 2010	US CA OEL

*OES BCS: Internal Bayer CropScience "Occupational Exposure Standard"

Exposure controls

Personal protective equipment

In normal use and handling conditions please refer to the label and/or leaflet. In all other cases the following recommendations would apply.

Respiratory protection	When respirators are required, select NIOSH approved equipment based on actual or potential airborne concentrations and in accordance with the appropriate regulatory standards and/or industry recommendations.
Hand protection	Chemical-resistant gloves (barrier laminate, butyl rubber, nitrile rubber or Viton)

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Eye protection	Tightly fitting safety goggles
Skin and body protection	Wear long-sleeved shirt and long pants and shoes plus socks.
General protective measures	Follow manufacturer's instructions for cleaning/maintaining PPE. If no such instructions for washables, use detergent and warm/tepid water. Keep and wash PPE separately from other laundry. Eye wash facility and safety shower should be available.

SECTION 9. PHYSICAL AND CHEMICAL PROPERTIES

Appearance	blue
Physical State	Liquid
Odor	weakly pungent
Odour Threshold	no data available
рН	5.5 - 7.5 at 100 %
Vapor Pressure	no data available
Vapor Density (Air = 1)	no data available
Density	ca. 1.06 g/cm³ at 20 °C
Evapouration rate	no data available
Boiling Point Melting / Freezing Point	no data available no data available
Water solubility	soluble
Minimum Ignition Energy	not applicable
Decomposition temperature	not applicable
Partition coefficient: n- octanol/water	no data available
Viscosity	
	no data available
Flash point Autoignition temperature	> 100 °C no data available
u 1	
Lower explosion limit	no data available
Upper explosion limit	no data available
Explosivity	not applicable



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SECTION 10: STABILITY AND REACTIVITY

Reactivity

Thermal decomposition Chemical stability	not applicable Stable under normal conditions.	
Possibility of hazardous reactions	No dangerous reaction known under conditions of normal use.	
Conditions to avoid	Extremes of temperature and direct sunlight.	
Incompatible materials	Bases	
Hazardous decomposition products	Ammonia	

SECTION 11: TOXICOLOGICAL INFORMATION

Exposure routes	Eye contact, Inhalation, Skin Absorption, Ingestion	
Immediate Effects Eye	Causes substantial but temporary eye injury. May cause severe eye irritation.	
Skin	Harmful if absorbed through skin. May cause slight irritation.	
Ingestion	Harmful if swallowed.	
Inhalation	Harmful if inhaled.	
Information on toxicological effects		
Acute oral toxicity	LD50 (male/female combined rat) 3,570 mg/kg	
Acute inhalation toxicity	LC50 (female rat) 4.14 mg/l Exposure time: 4 h Determined in the form of liquid aerosol.	
Acute dermal toxicity	LD50 (rat) >2,000 mg/kg	
Skin irritation	Slight irritation (rabbit)	
Eye irritation	Severe eye irritation. (rabbit)	
Sensitisation	Non-sensitizing. (guinea pig)	

Assessment repeated dose toxicity

Glufosinate-ammonium caused neurobehavioral effects and/or neuropathological changes in animal studies. Glufosinate-ammonium was well tolerated in rats and mice but less well tolerated in the dog in subchronic studies.

Assessment Mutagenicity

Glufosinate-ammonium was not mutagenic or genotoxic in a battery of in vitro and in vivo tests.



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Assessment Carcinogenicity

Glufosinate-ammonium was not carcinogenic in lifetime feeding studies in rats and mice.

ACGIH

1-Methoxy-2-propanol

NTP

None.

IARC

None.

OSHA

None.

Assessment toxicity to reproduction

Implantation loss occurred in a rat multigeneration study with Glufosinate-ammonium. There were no effects on male fertility.

107-98-2

Group A4

Assessment developmental toxicity

Glufosinate-ammonium caused developmental toxicity only at dose levels toxic to the dams. Glufosinate-ammonium caused an increased incidence of post implantation losses.

Further information

Only acute toxicity studies have been performed on the formulated product. The non-acute information pertains to the active ingredient(s).

SECTION 12: ECOLOGICAL INFORMATION

Biodegradability Koc Bioaccumulation	Glufosinate-ammonium: ; not rapidly biodegradable Glufosinate-ammonium: Koc: 2.3 Glufosinate-ammonium: Bioconcentration factor (BCF) < 1; Does not bioaccumulate.
Mobility in soil	Glufosinate-ammonium: Highly mobile in soils
Environmental precautions	Do not apply directly to water, to areas where surface water is present or to intertidal areas below the mean high water mark. Do not contaminate surface or ground water by cleaning equipment or disposal of wastes, including equipment wash water. Drift or runoff from treated areas may adversely affect non-target plants. Apply this product as specified on the label.

SECTION 13: DISPOSAL CONSIDERATIONS



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Product	Pesticide, spray mixture or rinse water that cannot be used according to label instructions may be disposed of on site or at an approved waste disposal facility. Dispose in accordance with all local, state/provincial and federal regulations.
Contaminated packaging	Do not use containers for other products. Triple rinse containers. Puncture container to avoid re-use. Dispose of empty container in a sanitary landfill or by incineration, or, if allowed by State/Provincial and local authorities, by burning. If burned, stay out of smoke.
RCRA Information	Characterization and proper disposal of this material as a special or hazardous waste is dependent upon Federal, State and local laws and are the user's responsibility. RCRA classification may apply.

SECTION 14: TRANSPORT INFORMATION

According to national and international transport regulations this material is not classified as dangerous goods / hazardous material.

Freight Classification: COMPOUNDS, TREE OR WEEDKILLING, N.O.I., other than poison; HAVING A DENSITY OF GREATER THAN 20 LBS. PER CUBIC FOOT

SECTION 15: REGULATORY INFORMATION

EPA Registration No. 432-1229 **US Federal Regulations TSCA** list Sodium alkyl ether sulphate 68585-34-2 1-Methoxy-2-propanol 107-98-2 US. Toxic Substances Control Act (TSCA) Section 12(b) Export Notification (40 CFR 707, Subpt D) None. SARA Title III - Section 302 - Notification and Information None. SARA Title III - Section 313 - Toxic Chemical Release Reporting None. **US States Regulatory Reporting** CA Prop65 This product does not contain any substances known to the State of California to cause cancer.

This product does not contain any substances known to the State of California to cause reproductive harm.

US State Right-To-Know Ingredients None.

Bayer Environmental Science SAFETY DATA SHEET



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Canadian Regulations Canadian Domestic Substance List Sodium alkyl ether sulphate 1-Methoxy-2-propanol

68585-34-2 107-98-2

Environmental CERCLA None. Clean Water Section 307 Priority Pollutants None. Safe Drinking Water Act Maximum Contaminant Levels None.

International Regulations European Inventory of Existing Commercial Substances (EINECS) 1-Methoxy-2-propanol 107-98-2

EPA/FIFRA Information:

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

Signal word: Warning!

Hazard statements:	Causes substantial but temporary eye injury. Harmful if swallowed, inhaled or absorbed through the skin.
	Avoid contact with skin, eyes and clothing.
	Avoid inhalation of vapour or mist.

SECTION 16: OTHER INFORMATION

NFPA 704 (National Fire Protection Association):					
Health - 2	Flammability - 1	Instability - 0	Others - none		
HMIS (Hazardo)	us Materials Identificatio	n System, based on the	e Third Edition Ratings Guide)		
Health - 2	Flammability - 1	Physical Hazard - 0	PPE -		

0 = minimal hazard, 1 = slight hazard, 2 = moderate hazard, 3 = severe hazard, 4 = extreme hazard

Reason for Revision: Revised according to the current OSHA Hazard Communication Standard (29CFR1910.1200)

Revision Date: 07/14/2014

This information is provided in good faith but without express or implied warranty. The customer assumes all responsibility for safety and use not in accordance with label instructions. The product names are

Bayer Environmental Science SAFETY DATA SHEET



FINALE® HERBICIDE

Version 3.0 / USA 10200004004 **11/11** Revision Date: 07/14/2014 Print Date: 03/14/2016

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UNITED STATES ENVIRONMENTAL PROTECTION AGENCY WASHINGTON, D.C. 20460

OFFICE OF PREVENTION, PESTICIDES AND TOXIC SUBSTANCES

1/29

JUL 7 2008

Mr. Richard M. Gorrell Manager, Registrations Bayer Environmental Science 2 T.W. Alexander Drive Research Triangle Park, N.C. 27709

Re: Notification to revise Finale label to reflect a change to the Warranty Statement EPA Reg No.: 432-1229 Date of Submission: May 7, 2008

Dear Mr. Gorrell:

The Agency is in receipt of your Application for Pesticide Notification under Pesticide Registration Notice (PRN) 98-10 dated May 7, 2008, for the product, Finale Herbicide. The Registration Division (RD) has conducted a review of this request for its applicability under PRN 98-10 and finds that the actions requested fall within the scope of PRN 98-10. The label submitted with the application has been stamped "Notification" and will be placed in our records.

If you have any questions, please call me directly at 703-305-6249 or Joyce Edwards of my staff at 703-308-5479.

Sincerely,

Linda Arrington Notifications & Minor Formulations Team Leader Registration Division (7505P) Office of Pesticide Programs

E-LABEL Notice

The electronic copy of the label (PDF on a CD) submitted with this application has been removed by the In-processing Team for entry into the Electronic Label Library* (ELL) to make it available to OPP staff.

You should be using this e-label to conduct your label review.

Note: If the e-label is not found in the ELL then it was probably not named correctly and could not be entered into the ELL. However, the file can be retrieved from the CD which is retained by the Inprocessing Team.

If the e-label is not found in the ELL, contact Tom Harris, RD (308-9423), Willie Abney, AD (308-1689) or Jim Downing, BPPD (308-9071) for further information and assistance.

Notes database

Please read instructions on		time barrow	· .				070 000	الار 2. Approvel expires 2-28-5
	Environmenta	United States	· · ·			Registra Amenda Other	tion	OPP Identifier Number
		Applicatio	n for Pestici	de - Sec	tion)		
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4. Company/Product (Name) Finale Herbicide			РМ# 23					
i. Name and Address of App Bayer Environmental 2 T. W. Alexander Dr Research Triangle Pa	Science ive	ode)	(b)(i), n to: EPA F			ilar or identi NOTIFI	cal in co	· · · · · · · · · · · · · · · · · · ·
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Notification - Explain Explanation: Use addition This notification is consistent labeling or the confidential st EPA. I further understand th FIFRA and I may be subject - Notification of label revision	al page(s) if necessar with the provisions of f atement of formula of th at if this notification is n to enforcemnet action a to change the warranty	PR Notice 98-10 his product. I un ot consistent wit and penalties und	and EPA regulation derstand that it is a h the terms of PR N	violation of 1 lotice 98-10 14 of FIFRA	152.46 18 U.S.C and 40	, and no other C. Sec. 1001 t	o willfully r this produ	make any false statement to
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1. Contact Point (Complete	items directly below I	or identification			if nece	ssary, to pro	cess this	application.)
Name Richard M. Gorrell		1	ītle Manager, Registr			ŀ	Telephone	-2623 Concert
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4. Typed Name Richard M. Gorrell	- /	·	Date May	7, 2008	} .	<u> </u>	U I	

EPA Form 8570-1 (Rev. 3-94) Previous editions are obsolete.

Yellow - Applicant Copy

NOTIFICATION

JUL 0 7 2008

TOTAL

EPA Est. No.

FINALE® HERBICIDE

FOR NONSELECTIVE WEED CONTROL OF EMERGED WEEDS IN NONCROP AREAS

ACTIVE INGREDIENT: Glufosinate-ammonium*	11.33%**
OTHER INGREDIENTS:	88.67%

*CAS Number 77182-82-2

**Equivalent to 1.00 pound of active ingredient per U.S. gallon.

EPA Reg. No. 432-1229

KEEP OUT OF REACH OF CHILDREN WARNING – AVISO

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

IN CASE OF MEDICAL, ENVIRONMENTAL, OR TRANSPORTATION EMERGENCIES OR INQUIRIES, CALL 1-800-334-7577 (24 HOURS/DAY)

For product inquiry information, call toll free: 1-800-331-2867.

FIRST AID

If cwallowed:				
n swanoweu.	• 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 by a poison control center or doctor.			
If in eyes:	 Hold eyes open and rinse slowly and gently with water for 15-20 minutes. Remove contact lenses, if preser after the first 5 minutes, then continue rinsing. 			
	Call a poison control center or doctor for treatment advice.			
lf on skin:	Take off contaminated clothing.			
	Rinse skin immediately with plenty of water for 15-20 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 mouth-to-mouth if possible.			
	Call a poison control center or doctor for further treatment advice.			

PRECAUTIONARY STATEMENTS

HAZARDS TO HUMANS AND DOMESTIC ANIMALS

WARNING

Causes substantial but temporary eye injury. Harmful if swallowed, inhaled, or absorbed through skin. Avoid contact with skin, eyes, or 00000 clothing. Avoid breathing vapor or spray mist.

Personal Protective Equipment (PPE)

Some materials that are chemical-resistant to this product are listed below. If you want more options, follow the instruction's for category C on an EPA chemical resistance category selection chart. 0000000

Applicators and other handlers must wear:

Long-sleeved shirt and long pants; chemical-resistant gloves such as barrier laminate, butyl rubber ≥14 mils, nirrile rubber ≥14 mils, neoprene rubber ≥14 mils, polyvinyl chloride (PVC) ≥14 mils, or Viton® ≥14 mils; shoes plus socks; protective eyewear, ()

Discard clothing and other absorbent materials that have been drenched or heavily contaminated with this product's concentrate. Do not reuse them. Follow manufacturer's instructions for cleaning/maintaining PPE. If no such instructions for washables, use detergent and hot water. Keep and wash PPE separately from other laundry. いいいい

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USER SAFETY RECOMMENDATIONS

Users should:

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

ENVIRONMENTAL HAZARDS

Do not apply directly to water, or to areas where surface water is present, or to intertidal areas below the mean high water mark. Do not clean equipment or dispose of equipment washwaters in a manner that will contaminate water resources or arable land. Glufosinate-ammonium and its degradates have those properties normally associated with pesticides that have been detected in groundwater. Use of this product in areas with coarse soils and high water tables may result in groundwater contamination.

STORAGE AND DISPOSAL

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

Do not use or store near heat or open flame.

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

CONTAINER DISPOSAL: Empty containers should be triple rinsed (or equivalent). Then offer for recycling or reconditioning, or puncture and dispose of in a sanitary landfill, or by incineration; or, if allowed by State and local authorities, by burning. If burned, stay out of smoke.

GENERAL INFORMATION

FINALE® Herbicide is a nonselective water-soluble herbicide for application as a foliar spray for the control of a broad spectrum of emerged annual and perennial grass and broadleaf weeds. FINALE® Herbicide will also control certain woody species. Plants that have not yet emerged at the time of application will not be controlled. THOROUGH SPRAY COVERAGE IS IMPORTANT. Visual effects and control from application of FINALE® Herbicide occur within 2 to 4 days after application under good growing conditions.

This product is nonselective and will injure or kill all green vegetation contacted by the spray. Avoid all contact with foliage or green tissue of desirable vegetation. Avoid direct spray contact with green, thin, or uncalloused bark of desirable vegetation or plant injury may result. If desirable vegetation is contacted, rinse the sprayed portion with water immediately.

FINALE® Herbicide works best when weeds are actively growing. Weed control may be reduced when applications are made to weeds under stress due to drought or cool temperatures. Weeds under stress or in dense populations will require application at the highest rate recommended. Refer to the How to Apply section of this label.

DIRECTIONS FOR USE

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

Do not use this product until you have read the entire label. Do not apply this product in a way that will contact workers or other persons, either directly or through drift. Only protected handlers may be in the area during application.

For any requirements specific to your State or Tribe, consult the agency responsible for pesticide regulation.

In the State of New York only: Not for use in Nassau and Suffolk Counties.

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AGRICULTURAL USE REQUIREMENTS

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

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

PPE required for early entry to treated areas that is permitted under the Worker Protection Standard and that involves contact with anything that has been treated, such as plants, soil, or water, is: coveralls; chemical-resistant gloves such as barrier laminate, butyl rubber ≥ 14 mils, nitrile rubber ≥ 14 mils, neoprene rubber ≥ 14 mils, polyvinyl chloride (PVC) ≥ 14 mils, or Viton ≥ 14 mils; shoes plus socks; protective eyewear.

NON AGRICULTURAL USE REQUIREMENTS

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

NONCROP USES

When applied as recommended in this label, FINALE® Herbicide controls annual and perennial weeds. Refer to the *How to Apply* section of this labeling for recommended rates and a list of weeds controlled. Applications may be made on a broadcast, banded or spot treatment basis depending on the situation. Avoid direct spray or drift to desirable vegetation. Regrowth may occur due to the weed stage of growth at application, low use rate, or environmental conditions. Repeat treatments may be necessary to control plants generating from underground parts or seed.

WHEN TO APPLY

FINALE® Herbicide is a foliar-active material. Best results are obtained when weeds are actively growing. Weed control may be reduced when applications are made to weeds under stress due to drought or cool temperatures. Weeds under stress or in dense populations will require application of the highest rate recommended. Refer to the *How to Apply* section of this label.

FINALE® Herbicide should be applied at the rate recommended in the *How to Apply* section of this label. Repeat applications of FINALE® Herbicide or tank mixes of FINALE® Herbicide plus one or more appropriate residual herbicide(s) listed on this label will be needed to control weeds emerging from underground parts or seeds.

HOW TO MIX

FINALE® Herbicide must be mixed with water to make a finished spray solution as follows:

- 1. Fill the spray tank with the required amount of water.
- 2. Add the proper amount of this product, then mix thoroughly.

USE PRECAUTIONS

- 1. **DO NOT** apply this product through any type of irrigation system.
- 2. DO NOT apply directly to or allow drift to contact desirable green tissue or green, thin, or uncalloused bark of desirable vegetation.
- 3. FINALE® Herbicide is rainfast in a minimum of one-half hour and an average of 4 hours after application depending upon weed species, environmental conditions, and herbicide application rate.
- 4. **DO NOT** allow grazing of vegetation treated with this product.
- 5. Plants may be safely planted into Finale treated areas after spray has dried.

How To Apply

Spot or Directed Applications

This product may be used as a spot or directed spray application using 2 to 4 fluid ounces per gallon of water. Mix 2 to 4 fluid ounces per gallon of water depending upon the weed and stage of growth as shown in the following sections. Spray undesirable vegetation foliage on a spray-to-wet basis. Do not apply beyond runoff. Ensure uniform and complete coverage. Use a coarse spray. Do not spray during windy conditions. Backpack, pump-up, and hydraulic sprayers may be used. Thoroughly clean the sprayer following use.

Broadcast or Boom Applications

Apply 2 to 6 quarts per acre depending upon the weed and stage of growth as shown in the following sections. Use a minimum of 40 gallons of water per acre with a minimum of 30-psi spray pressure.

Aerial Applications

Apply as a foliar treatment using a minimum of 5 gallons of water per acre to ensure thorough coverage. Do not apply when winds are gusty or under condition which favors drift on to desirable vegetation. Applications under conditions which cause drift of this product will result in damage to any vegetation contacted. Drift control additives may be used. If a drift control additive is used, observe and follow all directions and precautions as specified on the additive label.

Tank Mix Recommendations for Noncrop Uses

FINALE® Herbicide is compatible in tank mixes with many other herbicides including non-selective herbicides such as Roundup®. Follow the more restrictive label limitations and use precautions for each product. No label dosage rates should be exceeded.

Tank mix applications of FINALE® Herbicide plus the following herbicides are recommended for broad-spectrum postemergence and preemergence weed control.

Arsenal® Herbicide	Gallery® 75 Dry Flowable Specialty Herbicide	Vanquish®
Barricade® 65WG Herbicide	Pendulum® WDG Herbicide	Ronstar® WSP
Endurance® Herbicide Factor® Herbicide	Predict® Herbicide	
Factor® Herbicide	Surflan A.S.® Specialty Herbicide	

A compatibility test must be conducted with any potential tank mix partner with FINALE® Herbicide, except with any one of those listed above. Using a clear glass quart jar, conduct the test as described below:

- 1. Fill the jar three-quarters full with water.
- Add the appropriate amount of herbicide in the following order: (a) dry flowable, (b) wettable powder, (c) aqueous suspensions, (d) flowables, (e) liquids and (f) solutions and emulsifiable or liquid concentrates. Shake or gently stir jar after each addition to thoroughly mix.
- 3. After adding all ingredients, let the mixture stand for 15 minutes and then look for separation, large flakes, precipitates, gels, and heavy oily film on the jar or other signs of incompatibility.
- 4. If the compatibility test shows signs of incompatibility, do not tank mix the product tested with FINALE® Herbicide.

Weeds Controlled by FINALE® Herbicide

For spot application:

- Apply 2 fluid ounces per gallon of water when the weed height or diameter is less than 6 inches.
- Apply 3 fluid ounces per gallon of water when the weed height or diameter is 6 inches or greater.

For broadcast application:

Apply 3 quarts per acre when the weed height or diameter is less than 6 inches.

Apply 4 quarts per acre when the weed height or diameter is 6 inches or greater.

Broadleaf Weeds

chickweed clover common cocklebur filaree jimsonweed kochia London rocket malva (little mallow) marestail purslane shepherdspurse smartweed **Grasses and Sedges** barnyardgrass cupgrass fall panicum giant foxtail goosegrass green foxtail Johnsongrass (rhizome) lovegrass shattercane smallflower Alexandergrass (signal grass) stinkgrass windgrass vellow foxtail

For spot application:

Apply 3 fluid ounces per gallon of water when the weed height or diameter is less than 6 inches.

Apply 4 fluid ounces per gallon of water when the weed height or diameter is 6 inches or greater. **For broadcast application:**

Apply 4 quarts per acre when the weed height or diameter is less than 8 inches tall.

Apply 6 quarts per acre when the weed height or diameter is 8 inches or greater.

Broadleaf Weeds

annual sowthistle bindweed buffalobur burdock Canada thistle curly dock dandelion dogbane (hemp) field gromwell fleabane goldenrod horsetail lambsquarters leafy spurge mugwort musk thistle nettle nightshade pennycress pigweed, red root plantain prickly lettuce ragweed Russian thistle tansy mustard velvetleaf vervain Virginia cooperleaf white heath aster wild buckwheat wild mustard wild onion wild rose wild turnip woodsorrel yellow rocket Grasses and Sedges annual bluegrass bahiagrass barley Bermudagrass carpetgrass crabgrass dallisgrass downy bromegrass fescue guineagrass Kentucky bluegrass nutsedge paragrass quackgrass ryegrass sandbur smooth bromegrass torpedograss vaseygrass wheat wild oat

Use Notes

1. Use higher rates within the recommended rate range for plant sizes listed when vegetation cover is dense or when weeds are growing under stressed conditions such as drought or when average temperatures are below 50°F.

The addition of 8.5 to 17 pounds of ammonium sulfate (spray grade) per 100 gallons of water (1 to 2% by weight) or 2 to 4 pounds of ammonium sulfate per acre may improve the level of weed control.

Use on Woody Species

When applied as recommended, FINALE® Herbicide will provide control, partial control, or suppression of certain perennial woody weed species. Apply 2 to 6 quarts per acre. Use the higher recommended rates per acre of this product when conditions are not optimum for spray penetration, such as when vegetation growth is heavy or dense. Lower recommended rates may be used when the target species is a conifer and when vegetation growth conditions allow for uniform spray coverage.

blackberry deer brush Douglas fir gallberry hazel honevsuckle huckleberry maple multiflora rose oak pine poison ivy poison oak roundleaf greenbriar salmonberry sweet gum sumac thimbleberry trumpetcreeper vine maple Western red cedar

Rubus spp. Ceanothus integerrimus Pseudotsuga menziesii llex spp. Corvlus spp. Lonicera spp. Gavlussacia spp. Acer spp: Rosa multiflora Quercus spp. Pinus spp. Toxicodendron radicans Toxicodendron toxicarium Smilax rotundifolia Rubus spectabilis Liquidambar styraciflua Rhus spp. Rubus parviflorus Campsis radicans Acer circinatum Thuja plicata

WHERE TO APPLY

Trimming and Edging

FINALE® Herbicide may be used for trimming and edging landscape areas such as: around individual trees and shrubs, landscape beds, foundations, fences, driveways, paths, and parking areas; also on golf courses along cart paths, around sign and light posts, and around sand traps. For control of weeds emerging from seed, the use of FINALE® Herbicide in a tank mix with preemergence herbicides is recommended. If spraying in areas adjacent to desirable plants, use a shield made of cardboard, plywood, or sheet metal while spraying to help prevent spray from contacting foliage of desirable plants. Refer to the *How to Apply* section of this labeling for appropriate application rates to control specific weeds.

Recreational and Public Areas

When applied as a spot or directed spray application, this product controls annual and perennial weeds listed on this label in areas such as: airports, commercial plants, storage and lumber yards, educational facilities, fence lines, ditch banks, dry ditches, schools, parking lots, tank farms, pumping stations, parks, other public areas and nonfood crop areas. Refer to the *How to Apply* section of this labeling for appropriate application rates to control specific weeds.

Dormant Bermudagrass

FINALE® Herbicide may be used to control winter annual weeds in well-established ornamental dormant hybrid or common Bermudagrass. Apply only when the turf is fully dormant and prior to spring green-up or severe turfgrass injury or delayed green-up may occur. For best results, apply FINALE® Herbicide at a rate of 3 to 6 quarts per acre after most weeds have germinated and are in an early growth stage. Refer to the Weeds Controlled by FINALE® Herbicide section of this label for selecting recommended rates. Applications of FINALE® Herbicide may also be used to suppress or control undesirable biennial or perennial weeds. Do not apply more than 6 quarts of FINALE® Herbicide per acre per year for this use. Avoid high volume and spot applications where spray volume exceeds 80 gallons per acre or injury or delayed green-up may occur.

Ornamentals and Christmas Trees

When applied as recommend by this label, this product may be used for the control of undesirable vegetation in site preparation prior to planting, around and within shade and greenhouses, and as a directed spray around containers and field-grown established ornamentals and Christmas trees.

DO NOT apply directly to or allow drift to contact desirable green tissue or green, thin, or uncalloused bark of desirable vegetation or injury may result. DO NOT apply FINALE® Herbicide as an over-the-top broadcast spray in ornamentals and shade or Christmas trees.

Directed spray application: FINALE® Herbicide may be applied as a directed spray to control in-row weeds in field-grown woody plants. Refer to the How to Apply section of this labeling for appropriate application rate to control specific weeds. This product may also be used between and around containers and in site preparation for new planting.

Site preparation application: This product may be used for pre-plant site preparation for the control of annual and perennial weeds listed on this label, in ornamental and Christmas tree plantings. Ornamentals and Christmas trees may be planted into the treated area after the restricted entry interval (REI) of 12 hours has elapsed. Refer to the *How to Apply* section of this labeling for appropriate application rates to control specific weeds.

Greenhouse and shade house applications: FINALE® Herbicide may be used to control weeds in greenhouses and shadehouses. Air circulation fans must be turned off during application. Apply FINALE® Herbicide as a directed spray, using large droplet and low-pressure type nozzles. Avoid drift and direct contact with desirable vegetation. Do not use in greenhouses or shade houses containing edible crops.

FARMSTEADS

When applied as recommended, this product controls undesirable plant vegetation in noncrop areas around farmstead building foundations, shelter belts, along fences, and general nonselective farmstead weed control. Refer to the *How to Apply* section of this labeling for appropriate application rates to control specific weeds. Do not allow grazing of treated vegetation.

IMPORTANT: READ BEFORE USE

Read the entire Directions for Use, Conditions, Disclaimer of Warranties and Limitations of Liability before using this product. If terms are not acceptable, return the unopened product container at once.

By using this product, user or buyer accepts the following Conditions, Disclaimer of Warranties and Limitations of Liability.

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

DISCLAIMER OF WARRANTIES: TO THE EXTENT CONSISTENT WITH APPLICABLE LAW, BAYER CROPSCIENCE LP MAKES NO OTHER WARRANTIES, EXPRESS OR IMPLIED, OF MERCHANTABILITY OR OF FITNESS FOR A PARTICULAR PURPOSE OR OTHERWISE, THAT EXTEND BEYOND THE STATEMENTS MADE ON THIS LABEL. No agent of Bayer CropScience LP is authorized to make any warranties beyond those contained herein or to modify the warranties contained herein. TO THE EXTENT CONSISTENT WITH APPLICABLE LAW, BAYER CROPSCIENCE LP DISCLAIMS ANY LIABILITY WHATSOEVER FOR SPECIAL, INCIDENTAL OR CONSEQUENTIAL DAMAGES RESULTING FROM THE USE OR HANDLING OF THIS PRODUCT.

LIMITATIONS OF LIABILITY: TO THE EXTENT CONSISTENT WITH APPLICABLE LAW, THE EXCLUSIVE REMEDY OF THE USER OR BUYER FOR ANY AND ALL LOSSES, INJURIES OR DAMAGES RESULTING FROM THE USE OR HANDLING OF THIS PRODUCT, WHETHER IN CONTRACT, WARRANTY, TORT, NEGLIGENCE, STRICT LIABILITY OR OTHERWISE, SHALL NOT EXCEED THE PURCHASE PRICE PAID, OR AT BAYER CROPSCIENCE LP'S ELECTION, THE REPLACEMENT OF PRODUCT.

Pendulum is a registered trademark of BASF. Barricade and Factor are registered trademarks of Syngenta. Gallery and Surflan are registered trademarks of Dow AgroSciences. Viton is a registered trademark of DuPont Company. Chipco and FINALE are registered trademarks of Bayer . Roundup is a registered trademark of Monsanto

Bayer Environmental Science A Business Group of Bayer CropScience LP Po Box 12014, 2 T.W. Alexander Drive Research Triangle Park, NC 27709

FINALE® (MASTER) EPA 07\05\01, Notification 05/05/08

NOTIFICATION

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JUL 0 7 2008

FINALE® HERBICIDE

FOR NONSELECTIVE WEED CONTROL OF EMERGED WEEDS IN NONCROP AREAS

*CAS Number 77182-82-2

**Equivalent to 1.00 pound of active ingredient per U.S. gallon.

EPA Reg. No. 432-1229

EPA Est. No.

TOTAL

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Call a poison control center or doctor immediately for treatment advice.	
Have person sip a glass of water if able to swallow.	
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Call a poison control center or doctor for treatment advice.	
Take off contaminated clothing.	
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Call a poison control center or doctor for treatment advice.	
Move person to fresh air.	
 If person is not breathing, call 911 or an ambulance, then give artificial respiration, preferably mouth-to-mouth if possible. 	
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PRECAUTIONARY STATEMENTS

HAZARDS TO HUMANS AND DOMESTIC ANIMALS

WARNING

Causes substantial but temporary eye injury. Harmful if swallowed, inhaled, or absorbed through skin. Avoid contact with skin, eyes, or clothing. Avoid breathing vapor or spray mist.

Personal Protective Equipment (PPE)

Some materials that are chemical-resistant to this product are listed below. If you want more options, follow the instructions for category C on an EPA chemical resistance category selection chart.

Applicators and other handlers must wear:

Long-sleeved shirt and long pants; chemical-resistant gloves such as barrier laminate, butyl rubber ≥ 14 mils, nitrile rubber ≥ 14 mils, neoprene rubber ≥ 14 mils, polyvinyl chloride (PVC) ≥ 14 mils, or Viton® ≥ 14 mils; shoes plus socks; protective eyewear.

Discard clothing and other absorbent materials that have been drenched or heavily contaminated with this product's concentrate. Do not reuse them. Follow manufacturer's instructions for cleaning/maintaining PPE. If no such instructions for washables, use detergent and hot water. Keep and wash PPE separately from other laundry.

USER SAFETY RECOMMENDATIONS

Users should:

- Wash hands before eating, drinking, chewing gum, using tobacco, or using the toilet.
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STORAGE AND DISPOSAL

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

Do not use or store near heat or open flame.

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When applied as recommended in this label, FINALE® Herbicide controls annual and perennial weeds. Refer to the How to Apply section of this labeling for recommended rates and a list of weeds controlled. Applications may be made on a broadcast, banded or spot treatment basis depending on the situation. Avoid direct spray or drift to desirable vegetation. Regrowth may occur due to the weed stage of growth at application, low use rate, or environmental conditions. Repeat treatments may be necessary to control plants generating from underground parts or seed.

WHEN TO APPLY

FINALE® Herbicide is a foliar-active material. Best results are obtained when weeds are actively growing. Weed control may be reduced when applications are made to weeds under stress due to drought or cool temperatures. Weeds under stress or in dense populations will require application of the highest rate recommended. Refer to the *How to Apply* section of this label.

FINALE® Herbicide should be applied at the rate recommended in the How to Apply section of this label. Repeat applications of FINALE® Herbicide or tank mixes of FINALE® Herbicide plus one or more appropriate residual herbicide(s) listed on this label will be needed to control weeds emerging from underground parts or seeds.

HOW TO MIX

FINALE® Herbicide must be mixed with water to make a finished spray solution as follows:

- 1. Fill the spray tank with the required amount of water.
- 2. Add the proper amount of this product, then mix thoroughly.

USE PRECAUTIONS

- 1. **DO NOT** apply this product through any type of irrigation system.
- 2. DO NOT apply directly to or allow drift to contact desirable green tissue or green, thin, or uncalloused bark of desirable vegetation.
- 3. FINALE® Herbicide is rainfast in a minimum of one-half hour and an average of 4 hours after application depending upon weed species, environmental conditions, and herbicide application rate.
- 4. **DO NOT** allow grazing of vegetation treated with this product.
- 5. Plants may be safely planted into Finale treated areas after spray has dried.

How To Apply

Spot or Directed Applications

This product may be used as a spot or directed spray application using 2 to 4 fluid ounces per gallon of water. Mix 2 to 4 fluid ounces per gallon of water depending upon the weed and stage of growth as shown in the following sections. Spray undesirable vegetation foliage on a spray-to-wet basis. Do not apply beyond runoff. Ensure uniform and complete coverage. Use a coarse spray. Do not spray during windy conditions. Backpack, pump-up, and hydraulic sprayers may be used. Thoroughly clean the sprayer following use.

Broadcast or Boom Applications

Apply 2 to 6 quarts per acre depending upon the weed and stage of growth as shown in the following sections. Use a minimum of 40 gallons of water per acre with a minimum of 30-psi spray pressure.

Aerial Applications

Apply as a foliar treatment using a minimum of 5 gallons of water per acre to ensure thorough coverage. Do not apply when winds are gusty or under condition which favors drift on to desirable vegetation. Applications under conditions which cause drift of this product will result in damage to any vegetation contacted. Drift control additives may be used. If a drift control additive is used, observe and follow all directions and precautions as specified on the additive label.

Tank Mix Recommendations for Noncrop Uses

FINALE® Herbicide is compatible in tank mixes with many other herbicides including non-selective herbicides such as Roundup®. Follow the more restrictive label limitations and use precautions for each product. No label dosage rates should be exceeded.

Tank mix applications of FINALE® Herbicide plus the following herbicides are recommended for broad-spectrum postemergence and preemergence weed control.

Arsenal® Herbicide	Gallery® 75 Dry Flowable Specialty Herbicide	Vanquish®
Barricade® 65WG Herbicide	Pendulum® WDG Herbicide	Ronstar® WSP
Endurance® Herbicide Factor® Herbicide	Predict® Herbicide	
Factor® Herbicide	Surflan A.S.® Specialty Herbicide	

A compatibility test must be conducted with any potential tank mix partner with FINALE® Herbicide, except with any one of those listed above. Using a clear glass quart jar, conduct the test as described below:

- 1. Fill the jar three-quarters full with water.
- Add the appropriate amount of herbicide in the following order: (a) dry flowable, (b) wettable powder, (c) aqueous suspensions, (d) flowables, (e) liquids and (f) solutions and emulsifiable or liquid concentrates. Shake or gently stir jar after each addition to thoroughly mix.
- 3. After adding all ingredients, let the mixture stand for 15 minutes and then look for separation, large flakes, precipitates, gels, and heavy oily film on the jar or other signs of incompatibility.
- 4. If the compatibility test shows signs of incompatibility, do not tank mix the product tested with FINALE® Herbicide.

Weeds Controlled by FINALE® Herbicide

For spot application:

- Apply 2 fluid ounces per gallon of water when the weed height or diameter is less than 6 inches.
- Apply 3 fluid ounces per gallon of water when the weed height or diameter is 6 inches or greater.

For broadcast application:

- Apply 3 quarts per acre when the weed height or diameter is less than 6 inches.
- Apply 4 quarts per acre when the weed height or diameter is 6 inches or greater.

Broadleaf Weeds

chickweed clover common cocklebur filaree jimsonweed kochia London rocket malva (little mallow) marestail purslane shepherdspurse smartweed

Grasses and Sedges barnyardgrass cupgrass fall panicum giant foxtail goosegrass green foxtail Johnsongrass (rhizome) lovegrass shattercane smallflower Alexandergrass (signal grass) stinkarass windgrass yellow foxtail

For spot application:

Apply 3 fluid ounces per gallon of water when the weed height or diameter is less than 6 inches.

Apply 4 fluid ounces per gallon of water when the weed height or diameter is 6 inches or greater. For broadcast application:

Apply 4 quarts per acre when the weed height or diameter is less than 8 inches tall.

Apply 6 quarts per acre when the weed height or diameter is 8 inches or greater.

Broadleaf Weeds

annual sowthistle bindweed buffalobur burdock Canada thistle curly dock dandelion dogbane (hemp) field gromwell fleabane goldenrod horsetail lambsquarters leafy spurge mugwort musk thistle nettle nightshade pennycress pigweed, red root plantain prickly lettuce ragweed Russian thistle tansy mustard velvetleaf vervain Virginia cooperleaf

white heath aster wild buckwheat wild mustard wild onion wild rose wild turnip woodsorrel vellow rocket

Grasses and Sedges annual bluegrass bahiagrass barley Bermudagrass carpetgrass crabgrass dallisgrass downy bromegrass fescue guineagrass Kentucky bluegrass nutsedge paragrass quackgrass ryegrass sandbur smooth bromegrass torpedograss vaseygrass wheat wild oat

Use Notes

1. Use higher rates within the recommended rate range for plant sizes listed when vegetation cover is dense or when

weeds are growing under stressed conditions such as drought or when average temperatures are below 50°F.

The addition of 8.5 to 17 pounds of ammonium sulfate (spray grade) per 100 gallons of water (1 to 2% by weight) or 2 to 4 pounds of ammonium sulfate per acre may improve the level of weed control.

Use on Woody Species

When applied as recommended, FINALE® Herbicide will provide control, partial control, or suppression of certain perennial woody weed species. Apply 2 to 6 quarts per acre. Use the higher recommended rates per acre of this product when conditions are not optimum for spray penetration, such as when vegetation growth is heavy or dense. Lower recommended rates may be used when the target species is a conifer and when vegetation growth conditions allow for uniform spray coverage.

blackberry deer brush Douglas fir gallberry hazel honeysuckle huckleberry maple multiflora rose oak pine poison ivy poison oak roundleaf greenbriar salmonberry sweet gum sumac thimbleberry trumpetcreeper vine maple Western red cedar

Gaylussacia spp. Acer spp. Rosa multiflora Quercus spp. Pinus spp. Toxicodendron radicans Toxicodendron toxicarium Smilax rotundifolia Rubus spectabilis Liquidambar styraciflua Rhus spp. Rubus parviflorus Campsis radicans Acer circinatum Thuja plicata

Ceanothus integerrimus

Pseudotsuga menziesii

Rubus spp.

llex spp.

Corylus spp.

Lonicera spp.

WHERE TO APPLY

Trimming and Edging

FINALE® Herbicide may be used for trimming and edging landscape areas such as: around individual trees and shrubs, landscape beds, foundations, fences, driveways, paths, and parking areas; also on golf courses along cart paths, around sign and light posts, and around sand traps. For control of weeds emerging from seed, the use of FINALE® Herbicide in a tank mix with preemergence herbicides is recommended. If spraying in areas adjacent to desirable plants, use a shield made of cardboard, plywood, or sheet metal while spraying to help prevent spray from contacting foliage of desirable plants. Refer to the *How to Apply* section of this labeling for appropriate application rates to control specific weeds.

Recreational and Public Areas

When applied as a spot or directed spray application, this product controls annual and perennial weeds listed on this label in areas such as: airports, commercial plants, storage and lumber yards, educational facilities, fence lines, ditch banks, dry ditches, schools, parking lots, tank farms, pumping stations, parks, other public areas and nonfood crop areas. Refer to the *How to Apply* section of this labeling for appropriate application rates to control specific weeds.

Dormant Bermudagrass

FINALE® Herbicide may be used to control winter annual weeds in well-established ornamental dormant hybrid or common Bermudagrass. Apply only when the turf is fully dormant and prior to spring green-up or severe turfgrass injury or delayed green-up may occur. For best results, apply FINALE® Herbicide at a rate of 3 to 6 quarts per acre after most weeds have germinated and are in an early growth stage. Refer to the Weeds Controlled by FINALE® Herbicide section of this label for selecting recommended rates. Applications of FINALE® Herbicide may also be used to suppress or control undesirable biennial or perennial weeds. Do not apply more than 6 quarts of FINALE® Herbicide per acre per year for this use. Avoid high volume and spot applications where spray volume exceeds 80 gallons per acre or injury or delayed green-up may occur.

Ornamentals and Christmas Trees

When applied as recommend by this label, this product may be used for the control of undesirable vegetation in site preparation prior to planting, around and within shade and greenhouses, and as a directed spray around containers and field-grown established ornamentals and Christmas trees.

DO NOT apply directly to or allow drift to contact desirable green tissue or green, thin, or uncalloused bark of desirable vegetation or injury may result. DO NOT apply FINALE® Herbicide as an over-the-top broadcast spray in ornamentals and shade or Christmas trees.

Directed spray application: FINALE® Herbicide may be applied as a directed spray to control in-row weeds in field-grown woody plants. Refer to the How to Apply section of this labeling for appropriate application rate to control specific weeds. This product may also be used between and around containers and in site preparation for new planting.

Site preparation application: This product may be used for pre-plant site preparation for the control of annual and perennial weeds listed on this label, in ornamental and Christmas tree plantings. Ornamentals and Christmas trees may be planted into the treated area after the restricted entry interval (REI) of 12 hours has elapsed. Refer to the *How to Apply* section of this labeling for appropriate application rates to control specific weeds.

Greenhouse and shade house applications: FINALE® Herbicide may be used to control weeds in greenhouses and shadehouses. Air circulation fans must be turned off during application. Apply FINALE® Herbicide as a directed spray, using large droplet and low-pressure type nozzles. Avoid drift and direct contact with desirable vegetation. Do not use in greenhouses or shade houses containing edible crops.

FARMSTEADS

When applied as recommended, this product controls undesirable plant vegetation in noncrop areas around farmstead building foundations, shelter belts, along fences, and general nonselective farmstead weed control. Refer to the *How to Apply* section of this labeling for appropriate application rates to control specific weeds. Do not allow grazing of treated vegetation.

IMPORTANT: READ BEFORE USE

Read the entire Directions for Use, Conditions, Disclaimer of Warranties and Limitations of Liability before using this product. If terms are not acceptable, return the unopened product container at once.

By using this product, user or buyer accepts the following Conditions, Disclaimer of Warranties and Limitations of Liability.

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

DISCLAIMER OF WARRANTIES: TO THE EXTENT CONSISTENT WITH APPLICABLE LAW, BAYER CROPSCIENCE LP MAKES NO OTHER WARRANTIES, EXPRESS OR IMPLIED, OF MERCHANTABILITY OR OF FITNESS FOR A PARTICULAR PURPOSE OR OTHERWISE, THAT EXTEND BEYOND THE STATEMENTS MADE ON THIS LABEL. No agent of Bayer CropScience LP is authorized to make any warranties beyond those contained herein or to modify the warranties contained herein. TO THE EXTENT CONSISTENT WITH APPLICABLE LAW, BAYER CROPSCIENCE LP DISCLAIMS ANY LIABILITY WHATSOEVER FOR SPECIAL, INCIDENTAL OR CONSEQUENTIAL DAMAGES RESULTING FROM THE USE OR HANDLING OF THIS PRODUCT.

LIMITATIONS OF LIABILITY: TO THE EXTENT CONSISTENT WITH APPLICABLE LAW, THE EXCLUSIVE REMEDY OF THE USER OR BUYER FOR ANY AND ALL LOSSES, INJURIES OR DAMAGES RESULTING FROM THE USE OR HANDLING OF THIS PRODUCT, WHETHER IN CONTRACT, WARRANTY, TORT, NEGLIGENCE, STRICT LIABILITY OR OTHERWISE, SHALL NOT EXCEED THE PURCHASE PRICE PAID, OR AT BAYER CROPSCIENCE LP'S ELECTION, THE REPLACEMENT OF PRODUCT.

Pendulum is a registered trademark of BASF. Barricade and Factor are registered trademarks of Syngenta. Gallery and Surflan are registered trademarks of Dow AgroSciences. Viton is a registered trademark of DuPont Company. Chipco and FINALE are registered trademarks of Bayer . Roundup is a registered trademark of Monsanto

Bayer Environmental Science A Business Group of Bayer CropScience LP Po Box 12014, 2 T.W. Alexander Drive Research Triangle Park, NC 27709

FINALE® (MASTER) EPA 07\05\01, Notification 05/05/08

NOTIFICATION

JUL 0 7 2008

100.00%

TOTAL

EPA Est. No.

FINALE® HERBICIDE

FOR NONSELECTIVE WEED CONTROL OF EMERGED WEEDS IN NONCROP AREAS

ACTIVE INGREDIENT: Glufosinate-ammonium*	 3%**
OTHER INGREDIENTS:	 7%

*CAS Number 77182-82-2

**Equivalent to 1.00 pound of active ingredient per U.S. gallon.

EPA Reg. No. 432-1229

KEEP OUT OF REACH OF CHILDREN WARNING – AVISO

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

IN CASE OF MEDICAL, ENVIRONMENTAL, OR TRANSPORTATION EMERGENCIES OR INQUIRIES, CALL 1-800-334-7577 (24 HOURS/DAY)

For product inquiry information, call toll free: 1-800-331-2867.

FIRST AID

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 by a poison control center or doctor.
lf in eyes:	• Hold eyes 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.
	Call a poison control center or doctor for treatment advice.
If on skin:	Take off contaminated clothing.
Rinse ski	Rinse skin immediately with plenty of water for 15-20 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 mouth-to-mouth if possible.
	Call a poison control center or doctor for further treatment advice.
NOTE TO PHYSIC	CIAN: If this product is ingested, endotracheal intubation and gastric lavage should be performed as soon as possible.

NOTE TO PHYSICIAN: If this product is ingested, endotracheal intubation and gastric lavage should be performed as soon as possible, followed by charcoal and sodium sulfate administration. Additionally, call 1-800-334-7577 immediately for further information.

PRECAUTIONARY STATEMENTS

HAZARDS TO HUMANS AND DOMESTIC ANIMALS

WARNING

Causes substantial but temporary eye injury. Harmful if swallowed, inhaled, or absorbed through skin. Avoid contact with skin, eyes, or clothing. Avoid breathing vapor or spray mist.

Personal Protective Equipment (PPE)

Some materials that are chemical-resistant to this product are listed below. If you want more options, follow the instructions for category C on an EPA chemical resistance category selection chart.

Applicators and other handlers must wear:

Long-sleeved shirt and long pants; chemical-resistant gloves such as barrier laminate, butyl rubber ≥ 14 mils, nitrile rubber ≥ 14 mils, neoprene rubber ≥ 14 mils, polyvinyl chloride (PVC) ≥ 14 mils, or Viton® ≥ 14 mils; shoes plus socks; protective eyewear.

Discard clothing and other absorbent materials that have been drenched or heavily contaminated with this product's concentrate. Do not reuse them. Follow manufacturer's instructions for cleaning/maintaining PPE. If no such instructions for washables, use detergent and hot water. Keep and wash PPE separately from other laundry.
USER SAFETY RECOMMENDATIONS

Users should:

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

ENVIRONMENTAL HAZARDS

Do not apply directly to water, or to areas where surface water is present, or to intertidal areas below the mean high water mark. Do not clean equipment or dispose of equipment washwaters in a manner that will contaminate water resources or arable land. Glufosinate-ammonium and its degradates have those properties normally associated with pesticides that have been detected in groundwater. Use of this product in areas with coarse soils and high water tables may result in groundwater contamination.

STORAGE AND DISPOSAL

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

Do not use or store near heat or open flame.

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

CONTAINER DISPOSAL: Empty containers should be triple rinsed (or equivalent). Then offer for recycling or reconditioning, or puncture and dispose of in a sanitary landfill, or by incineration; or, if allowed by State and local authorities, by burning. If burned, stay out of smoke.

GENERAL INFORMATION

FINALE® Herbicide is a nonselective water-soluble herbicide for application as a foliar spray for the control of a broad spectrum of emerged annual and perennial grass and broadleaf weeds. FINALE® Herbicide will also control certain woody species. Plants that have not yet emerged at the time of application will not be controlled. THOROUGH SPRAY COVERAGE IS IMPORTANT. Visual effects and control from application of FINALE® Herbicide occur within 2 to 4 days after application under good growing conditions.

This product is nonselective and will injure or kill all green vegetation contacted by the spray. Avoid all contact with foliage or green tissue of desirable vegetation. Avoid direct spray contact with green, thin, or uncalloused bark of desirable vegetation or plant injury may result. If desirable vegetation is contacted, rinse the sprayed portion with water immediately.

FINALE® Herbicide works best when weeds are actively growing. Weed control may be reduced when applications are made to weeds under stress due to drought or cool temperatures. Weeds under stress or in dense populations will require application at the highest rate recommended. Refer to the How to Apply section of this label.

DIRECTIONS FOR USE

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

Do not use this product until you have read the entire label. Do not apply this product in a way that will contact workers or other persons, either directly or through drift. Only protected handlers may be in the area during application.

For any requirements specific to your State or Tribe, consult the agency responsible for pesticide regulation.

In the State of New York only: Not for use in Nassau and Suffolk Counties.

AGRICULTURAL USE REQUIREMENTS

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

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

PPE required for early entry to treated areas that is permitted under the Worker Protection Standard and that involves contact with anything that has been treated, such as plants, soil, or water, is: coveralls; chemical-resistant gloves such as barrier laminate, butyl rubber ≥ 14 mils, nitrile rubber ≥ 14 mils, neoprene rubber ≥ 14 mils, polyvinyl chloride (PVC) ≥ 14 mils, or Viton ≥ 14 mils; shoes plus socks; protective eyewear.

NON AGRICULTURAL USE REQUIREMENTS

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

NONCROP USES

When applied as recommended in this label, FINALE® Herbicide controls annual and perennial weeds. Refer to the *How to Apply* section of this labeling for recommended rates and a list of weeds controlled. Applications may be made on a broadcast, banded or spot treatment basis depending on the situation. Avoid direct spray or drift to desirable vegetation. Regrowth may occur due to the weed stage of growth at application, low use rate, or environmental conditions. Repeat treatments may be necessary to control plants generating from underground parts or seed.

WHEN TO APPLY

FINALE® Herbicide is a foliar-active material. Best results are obtained when weeds are actively growing. Weed control may be reduced when applications are made to weeds under stress due to drought or cool temperatures. Weeds under stress or in dense populations will require application of the highest rate recommended. Refer to the *How to Apply* section of this label.

FINALE® Herbicide should be applied at the rate recommended in the *How to Apply* section of this label. Repeat applications of FINALE® Herbicide or tank mixes of FINALE® Herbicide plus one or more appropriate residual herbicide(s) listed on this label will be needed to control weeds emerging from underground parts or seeds.

HOW TO MIX

FINALE® Herbicide must be mixed with water to make a finished spray solution as follows:

- 1. Fill the spray tank with the required amount of water.
- 2. Add the proper amount of this product, then mix thoroughly.

USE PRECAUTIONS

- 1. **DO NOT** apply this product through any type of irrigation system.
- 2. **DO NOT** apply directly to or allow drift to contact desirable green tissue or green, thin, or uncalloused bark of desirable vegetation.
- 3. FINALE® Herbicide is rainfast in a minimum of one-half hour and an average of 4 hours after application depending upon weed species, environmental conditions, and herbicide application rate.
- DO NOT allow grazing of vegetation treated with this product.
- 5. Plants may be safely planted into Finale treated areas after spray has dried.

How To Apply

Spot or Directed Applications

This product may be used as a spot or directed spray application using 2 to 4 fluid ounces per gallon of water. Mix 2 to 4 fluid ounces per gallon of water depending upon the weed and stage of growth as shown in the following sections. Spray undesirable vegetation foliage on a spray-to-wet basis. Do not apply beyond runoff. Ensure uniform and complete coverage. Use a coarse spray. Do not spray during windy conditions. Backpack, pump-up, and hydraulic sprayers may be used. Thoroughly clean the sprayer following use.

Broadcast or Boom Applications

Apply 2 to 6 quarts per acre depending upon the weed and stage of growth as shown in the following sections. Use a minimum of 40 gallons of water per acre with a minimum of 30-psi spray pressure.

Aerial Applications

Apply as a foliar treatment using a minimum of 5 gallons of water per acre to ensure thorough coverage. Do not apply when winds are gusty or under condition which favors drift on to desirable vegetation. Applications under conditions which cause drift of this product will result in damage to any vegetation contacted. Drift control additives may be used. If a drift control additive is used, observe and follow all directions and precautions as specified on the additive label.

Tank Mix Recommendations for Noncrop Uses

FINALE® Herbicide is compatible in tank mixes with many other herbicides including non-selective herbicides such as Roundup®. Follow the more restrictive label limitations and use precautions for each product. No label dosage rates should be exceeded.

Tank mix applications of FINALE® Herbicide plus the following herbicides are recommended for broad-spectrum postemergence and preemergence weed control.

Arsenal® Herbicide	Gallery® 75 Dry Flowable Specialty Herbicide	Vanquish®
Barricade® 65WG Herbicide	Pendulum® WDG Herbicide	Ronstar® WSP
Endurance® Herbicide Factor® Herbicide	Predict® Herbicide	
Factor® Herbicide	Surflan A.S.® Specialty Herbicide	

A compatibility test must be conducted with any potential tank mix partner with FINALE® Herbicide, except with any one of those listed above. Using a clear glass quart jar, conduct the test as described below:

- 1. Fill the jar three-quarters full with water.
- 2. Add the appropriate amount of herbicide in the following order: (a) dry flowable, (b) wettable powder, (c) aqueous suspensions, (d) flowables, (e) liquids and (f) solutions and emulsifiable or liquid concentrates. Shake or gently stir jar after each addition to thoroughly mix.
- 3. After adding all ingredients, let the mixture stand for 15 minutes and then look for separation, large flakes, precipitates, gels, and heavy oily film on the jar or other signs of incompatibility.
- 4. If the compatibility test shows signs of incompatibility, do not tank mix the product tested with FINALE® Herbicide.

Weeds Controlled by FINALE® Herbicide

For spot application:

Apply 2 fluid ounces per gallon of water when the weed height or diameter is less than 6 inches. Apply 3 fluid ounces per gallon of water when the weed height or diameter is 6 inches or greater.

For broadcast application:

Apply 3 quarts per acre when the weed height or diameter is less than 6 inches.

Apply 4 quarts per acre when the weed height or diameter is 6 inches or greater.

Broadleaf Weeds

chickweed clover common cocklebur filaree jimsonweed kochia London rocket malva (little mallow) marestail purslane shepherdspurse smartweed **Grasses and Sedges** barnyardgrass cupgrass fall panicum giant foxtail goosegrass green foxtail Johnsongrass (rhizome) lovegrass shattercane smallflower Alexandergrass (signal grass) stinkgrass windgrass yellow foxtail

For spot application:

Apply 3 fluid ounces per gallon of water when the weed height or diameter is less than 6 inches.

Apply 4 fluid ounces per gallon of water when the weed height or diameter is 6 inches or greater. **For broadcast application:**

Apply 4 quarts per acre when the weed height or diameter is less than 8 inches tall.

Apply 6 quarts per acre when the weed height or diameter is 8 inches or greater.

Broadleaf Weeds

annual sowthistle bindweed buffalobur burdock Canada thistle curly dock dandelion dogbane (hemp) field gromwell fleabane goldenrod horsetail lambsquarters leafy spurge mugwort musk thistle nettle nightshade pennycress piqweed, red root plantain prickly lettuce ragweed Russian thistle tansy mustard velvetleaf vervain Virginia cooperleaf Use Notes

white heath aster wild buckwheat wild mustard wild onion wild rose wild turnip woodsorrel yellow rocket

Grasses and Sedges annual bluegrass bahiagrass barley Bermudagrass carpetgrass crabgrass dallisgrass downy bromegrass fescue guineagrass Kentucky bluegrass nutsedge paragrass quackgrass ryegrass sandbur smooth bromegrass torpedograss vaseygrass wheat wild oat

1. Use higher rates within the recommended rate range for plant sizes listed when vegetation cover is dense or when weeds are growing under stressed conditions such as drought or when average temperatures are below 50°F.

The addition of 8.5 to 17 pounds of ammonium sulfate (spray grade) per 100 gallons of water (1 to 2% by weight) or 2 to 4 pounds of ammonium sulfate per acre may improve the level of weed control.

Use on Woody Species

When applied as recommended, FINALE® Herbicide will provide control, partial control, or suppression of certain perennial woody weed species. Apply 2 to 6 quarts per acre. Use the higher recommended rates per acre of this product when conditions are not optimum for spray penetration, such as when vegetation growth is heavy or dense. Lower recommended rates may be used when the target species is a conifer and when vegetation growth conditions allow for uniform spray coverage.

blackberrv deer brush Douglas fir gallberry hazel honevsuckle huckleberry maple multiflora rose oak pine poison ivy poison oak roundleaf greenbriar salmonberry sweet aum sumac thimbleberry trumpetcreeper. vine maple Western red cedar

Rubus spp. Ceanothus integerrimus Pseudotsuga menziesii llex spp. Corvlus spp. Lonicera spp. Gaylussacia spp. Acer spp. Rosa multiflora Quercus spp. Pinus spp. Toxicodendron radicans Toxicodendron toxicarium Smilax rotundifolia Rubus spectabilis Liquidambar styraciflua Rhus spp. Rubus parviflorus Campsis radicans Acer circinatum Thuja plicata

WHERE TO APPLY

Trimming and Edging

FINALE® Herbicide may be used for trimming and edging landscape areas such as: around individual trees and shrubs, landscape beds, foundations, fences, driveways, paths, and parking areas; also on golf courses along cart paths, around sign and light posts, and around sand traps. For control of weeds emerging from seed, the use of FINALE® Herbicide in a tank mix with preemergence herbicides is recommended. If spraying in areas adjacent to desirable plants, use a shield made of cardboard, plywood, or sheet metal while spraying to help prevent spray from contacting foliage of desirable plants. Refer to the *How to Apply* section of this labeling for appropriate application rates to control specific weeds.

Recreational and Public Areas

When applied as a spot or directed spray application, this product controls annual and perennial weeds listed on this label in areas such as: airports, commercial plants, storage and lumber yards, educational facilities, fence lines, ditch banks, dry ditches, schools, parking lots, tank farms, pumping stations, parks, other public areas and nonfood crop areas. Refer to the *How to Apply* section of this labeling for appropriate application rates to control specific weeds.

Dormant Bermudagrass

FINALE® Herbicide may be used to control winter annual weeds in well-established ornamental dormant hybrid or common Bermudagrass. Apply only when the turf is fully dormant and prior to spring green-up or severe turfgrass injury or delayed green-up may occur. For best results, apply FINALE® Herbicide at a rate of 3 to 6 quarts per acre after most weeds have germinated and are in an early growth stage. Refer to the Weeds Controlled by FINALE® Herbicide section of this label for selecting recommended rates. Applications of FINALE® Herbicide may also be used to suppress or control undesirable biennial or perennial weeds. Do not apply more than 6 quarts of FINALE® Herbicide per acre per year for this use. Avoid high volume and spot applications where spray volume exceeds 80 gallons per acre or injury or delayed green-up may occur.

Ornamentals and Christmas Trees

When applied as recommend by this label, this product may be used for the control of undesirable vegetation in site preparation prior to planting, around and within shade and greenhouses, and as a directed spray around containers and field-grown established ornamentals and Christmas trees.

DO NOT apply directly to or allow drift to contact desirable green tissue or green, thin, or uncalloused bark of desirable vegetation or injury may result. DO NOT apply FINALE® Herbicide as an over-the-top broadcast spray in ornamentals and shade or Christmas trees.

Directed spray application: FINALE® Herbicide may be applied as a directed spray to control in-row weeds in field-grown woody plants. Refer to the How to Apply section of this labeling for appropriate application rate to control specific weeds. This product may also be used between and around containers and in site preparation for new planting.

Site preparation application: This product may be used for pre-plant site preparation for the control of annual and perennial weeds listed on this label, in ornamental and Christmas tree plantings. Ornamentals and Christmas trees may be planted into the treated area after the restricted entry interval (REI) of 12 hours has elapsed. Refer to the *How to Apply* section of this labeling for appropriate application rates to control specific weeds.

Greenhouse and shade house applications: FINALE® Herbicide may be used to control weeds in greenhouses and shadehouses. Air circulation fans must be turned off during application. Apply FINALE® Herbicide as a directed spray, using large droplet and low-pressure type nozzles. Avoid drift and direct contact with desirable vegetation. Do not use in greenhouses or shade houses containing edible crops.

FARMSTEADS

When applied as recommended, this product controls undesirable plant vegetation in noncrop areas around farmstead building foundations, shelter belts, along fences, and general nonselective farmstead weed control. Refer to the *How to Apply* section of this labeling for appropriate application rates to control specific weeds. Do not allow grazing of treated vegetation.

IMPORTANT: READ BEFORE USE

Read the entire Directions for Use, Conditions, Disclaimer of Warranties and Limitations of Liability before using this product. If terms are not acceptable, return the unopened product container at once.

By using this product, user or buyer accepts the following Conditions, Disclaimer of Warranties and Limitations of Liability.

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

DISCLAIMER OF WARRANTIES: TO THE EXTENT CONSISTENT WITH APPLICABLE LAW, BAYER CROPSCIENCE LP MAKES NO OTHER WARRANTIES, EXPRESS OR IMPLIED, OF MERCHANTABILITY OR OF FITNESS FOR A PARTICULAR PURPOSE OR OTHERWISE, THAT EXTEND BEYOND THE STATEMENTS MADE ON THIS LABEL. No agent of Bayer CropScience LP is authorized to make any warranties beyond those contained herein or to modify the warranties contained herein. TO THE EXTENT CONSISTENT WITH APPLICABLE LAW, BAYER CROPSCIENCE LP DISCLAIMS ANY LIABILITY WHATSOEVER FOR SPECIAL, INCIDENTAL OR CONSEQUENTIAL DAMAGES RESULTING FROM THE USE OR HANDLING OF THIS PRODUCT.

LIMITATIONS OF LIABILITY: TO THE EXTENT CONSISTENT WITH APPLICABLE LAW, THE EXCLUSIVE REMEDY OF THE USER OR BUYER FOR ANY AND ALL LOSSES, INJURIES OR DAMAGES RESULTING FROM THE USE OR HANDLING OF THIS PRODUCT, WHETHER IN CONTRACT, WARRANTY, TORT, NEGLIGENCE, STRICT LIABILITY OR OTHERWISE, SHALL NOT EXCEED THE PURCHASE PRICE PAID, OR AT BAYER CROPSCIENCE LP'S ELECTION, THE REPLACEMENT OF PRODUCT.

Pendulum is a registered trademark of BASF. Barricade and Factor are registered trademarks of Syngenta. Gallery and Surflan are registered trademarks of Dow AgroSciences. Viton is a registered trademark of DuPont Company. Chipco and FINALE are registered trademarks of Bayer. Roundup is a registered trademark of Monsanto

Bayer Environmental Science A Business Group of Bayer CropScience LP Po Box 12014, 2 T.W. Alexander Drive Research Triangle Park, NC 27709

FINALE® (MASTER) EPA 07\05\01, Notification 05/05/08

Certification with Respect to Label Integrity

version: 9/11/02

I certify that the information (including, but not limited to, text, tables, and graphics) contained in the electronic file identified below by file name and submitted with this certification is the same information as that on the paper copies of these documents included with this submission.

PROPOSED LABEL				
EPA Registration #	Date Submitted to EPA	Electronic file name		
432-1229	05/07/08	000432-01229.20080505.finale.pdf 000432.01229.20080507.finale.pdf		

I certify that the statements that I have made on this form are true, accurate, and complete. I acknowledge that any knowingly false or misleading statements may be punishable by fine or imprisonment or both under applicable law.

ature Meshea J. Brodie Name (typed

Marine (typeu)

Label Development Specialist Title 05/07/2008

Date

Bayer Environmental Science



May 7, 2008

Ms. Sherada Hobgood U.S. Environmental Protection Agency Office of Pesticide Programs (7504P) Document Processing Desk (Notif) Room S-4900, One Potomac Yard 2777 South Crystal Drive Arlington, VA 22202-4501

EPA08RMG0507FinaleNotifWarranty Fedex

RE: Finale Herbicide (432-1229) Notification to Revise the Warranty Statement

Dear Ms. Hobgood:

Bayer Environmental Science is submitting a revised Finale label to reflect a change to the warranty statement and to change the word lnert to Other. Enclosed with this letter are the following documents:

- 1. 8570-1 Application Form
- 2. 3 paper copies of the revised label (one copy highlighted)
- 3. 1 electronic disc copy of the revised label

If you have any questions, contact me at (919) 549-2423 or email me at mike.gorrell@bayercropscience.com.

Sincerely,

miter Lond

Richard M. Gorrell Manager, Registrations

Cc: Karen Shearer Ben Cicora Don Myers

Bayer Environmental Science 2 T.W. Alexander Drive RTP, NC 27709 Phone: 919.549,2000

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A Business Group of Bayer CropScience

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1. CHEMICAL PRODUCT AND COMPANY IDENTIFICATION

Product Name: EPA Reg. No.: Product Type:	Quincept [®] Herbicide 228-531 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

PHYSICAL HAZARDS:

Not Hazardous

HEALTH HAZARDS:

Eye irritation Acute Inhalation Toxicity

ENVIRONMENTAL HAZARDS:

Hazardous to aquatic environment, acute Hazardous to aquatic environment, chronic Category 3 Category 3

Category 2B

Category 4

SIGNAL WORD:

WARNING

HAZARD STATEMENTS:

Causes eye irritation. Harmful if inhaled. Harmful to aquatic life with long lasting effects.



PRECAUTIONARY STATEMENTS

Wash thoroughly after handling. Avoid breathing vapors or spray. Use only outdoors or in a well-ventilated area. . Avoid release to the environment.

IF INHALED: Remove person to fresh air and keep comfortable for breathing. Call a POISON CENTER or doctor if you feel unwell.

IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. If eye irritation persists: Get medical attention.

Dispose of contents in accordance with local, state, and federal regulations.

3. COMPOSITION / INFORMATION ON INGREDIENTS

COMPONENT	CAS NO.	% BY WEIGHT
Dimethylamine Salt of 2,4-Dichlorophenoxyacetic Acid	2008-39-1	12.6 – 13.9
Quinclorac	84087-01-4	7.8 – 8.7
Dicamba Acid	1918-00-9	1.3 – 1.5
Glycerin	56-81-5	<5
Dipropyleneglycol monomethyl ether	34590-94-8	<5
Other Ingredients	Trade Secret	Trade Secret

Synonyms: Mixture of 2,4-D DMA Salt, Quinclorac, 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. Get medical attention if irritation persists.

If Swallowed: 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 symptoms develop, get medical advice.

If on Skin or Clothing: Take off contaminated clothing. Wash thoroughly with soap and water. Get medical attention if irritation or symptoms develop.

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, acute and delayed: May cause moderate eye irritation. Harmful if inhaled. May cause respiratory irritation, headache, dizziness, nausea, vomiting, gastrointestinal irritation, weakness and central nervous system depression.

Indication of Immediate medical attention and special treatment if needed: None expected. For ingestion there is no specific antidote available. 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 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, contain runoff, using dikes to prevent contamination of water supplies. Dispose of fire control water later.

Hazardous Decomposition Materials (Under Fire Conditions): May produce gases such as hydrogen chloride, hydrochloric acid, 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:

Avoid contact with eyes, skin and clothing. Avoid breathing spray mist. Use with adequate ventilation. 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, 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 32° F. If allowed to freeze, remix 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 chemical goggles or shielded 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 pants, long-sleeved shirt, socks, shoes and chemical-resistant gloves. 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:

	OSHA		ACGIH		
Component	TWA	STEL	TWA	STEL	Unit
DMA Salt of 2,4-D	10*	NE	10* (inhalable, skin)	NE	mg/m ³
Quinclorac	NE	NE	NE	NE	
Dicamba	NE	NE	NE	NE	
Glycerin	5 (respirable) 15 (total)	NE	NE	NE	mg/m3
Dipropyleneglycol monomethyl ether	100 skin	NE	100 skin	150	ppm
*Based on adopted limit for 2,4-D			NE = Not	Establish	ned

9. PHYSICAL AND CHEMICAL PROPERTIES

Appearance: Odor:	Dark amber liquid Mild amine odor
Odor threshold:	No data available
pH:	7.5 – 8.5
Melting point/freezing point:	No data available
Initial boiling point and boiling range	No data available
Flash point:	>230° F (>110° C) Setaflash
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:	
Relative density:	
Solubility(ies):	
Partition coefficient: n-octanol/water:	
Autoignition temperature:	
Decomposition temperature:	
Viscosity:	

No data available 1.088 g/cc @ 25° C Soluble No data available No data available No data available 5.44 cPs @ 25° C

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: Hazardous polymerization 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, hydrochloric acid, and oxides of carbon and nitrogen.

11. TOXICOLOGICAL INFORMATION

Likely Routes of Exposure: Eye contact, Skin contact

Symptoms of Exposure:

Eye Contact: Moderately irritating based on toxicity studies. Vapors and mist can cause irritation.

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

Ingestion: May be harmful if swallowed. May cause headache, dizziness, nausea, vomiting, gastrointestinal irritation, weakness and central nervous system depression.

Inhalation: Harmful if inhaled. May cause respiratory irritation, headache, dizziness, nausea, vomiting, gastrointestinal irritation, weakness and central nervous system depression.

Delayed, immediate and chronic effects of exposure: None reported.

Toxicological Data:

Data from laboratory studies on this product are summarized below:

Oral: Rat LD₅₀: 3,129 mg/kg (female)

Dermal: Rat LD₅₀: >5,000 mg /kg

Inhalation: Rat 4-hr LC₅₀: >2.10 mg/L

Eye Irritation: Rabbit: Moderately irritating (MMTS=40.3)

Skin Irritation: Rabbit: Slightly irritating (PDII=0.7)

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

Subchronic (Target Organ) Effects: Repeated overexposure to phenoxy herbicides may cause effects to liver, kidneys, blood chemistry, 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. Repeated overexposure to quinclorac may cause effects to kidneys, liver and blood. Repeated overexposure to dicamba may cause liver changes or a decrease in body weight. The surfactant component of this product is reported to cause irritation to the eyes and skin and may contribute to the irritation potential reported for this herbicide. Ingestion may produce gastrointestinal irritation, nausea, vomiting and diarrhea.

Carcinogenicity / **Chronic Health Effects:** Prolonged overexposure to phenoxy herbicides can cause liver, kidney and muscle damage. Prolonged overexposure to quinclorac may cause effects to liver and kidneys. The International Agency for Research on Cancer (IARC) lists exposure to chlorophenoxy herbicides as a class 2B carcinogen, the category for limited evidence for carcinogenicity in humans. However, more current 2,4-D lifetime feeding studies in rats and mice did not show carcinogenic potential. Dicamba did not cause cancer in long-term animal studies. The U.S. EPA has given 2,4-D and dicamba a Class D classification (not classifiable as to human carcinogenicity). Quinclorac did not cause cancer in laboratory animal studies.

Reproductive Toxicity: No impairment of reproductive function attributable to 2,4-D has been noted in laboratory animal studies. The results of animal studies with quinclorac gave no indication of a fertility impairing effect. 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. Quinclorac did not cause developmental effects in rats. In rabbit studies, effects were observed only at maternally toxic dose levels. 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 quinclorac 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:

	Regulatory Agency Listing As Carcinogen			
Component	ACGIH	IARC	NTP	OSHA
Chlorophenoxy Herbicides (2,4-D)	No	2B	No	No
Quinclorac	No	No	No	No
Dicamba Acid	No	No	No	No
Glycerin	No	No	No	No
Dipropyleneglycol monomethyl ether	No	No	No	No
Other Ingredients	No	No	No	No

12. ECOLOGICAL INFORMATION

Ecotoxicity:

Data on 2,4-D, Dimethylamine Salt: 96-hour LC_{50} Bluegill: 96-hour LC_{50} Rainbow Trout: 48-hour EC_{50} Daphnia:	524 mg/l 250 mg/l 184 mg/l	Bobwhite Quail Oral LD ₅₀ : Mallard Duck 8-day Dietary LC ₅₀ :	500 mg/kg >5,620 ppm
Data on Quinclorac: 96-hour LC ₅₀ Bluegill: 96-hour LC ₅₀ Rainbow Trout: 48-hour EC ₅₀ Daphnia:	>100 mg/l >100 mg/l 113 ppm	96-hour Bee LD ₅₀ : Bobwhite Quail Oral LD ₅₀ : Mallard Duck 8-day Dietary LC ₅₀ :	>100 µg/bee >2,000 mg/kg >5,000 ppm
Data on Dicamba: 96-hour LC_{50} Bluegill: 96-hour LC_{50} Rainbow Trout: 48-hour EC_{50} Daphnia:	135 mg/l 135 mg/l 110 mg/l	Bobwhite Quail 8-day Dietary LC_{50} : Mallard Duck 8-day Dietary LC_{50} : 48-hour Honey Bee Contact LD_{50} :	>10,000 ppm >10,000 ppm >100 µg/bee

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. Quinclorac can be moderately persistent in the soil. Soil mobility of quinclorac is highly variable and depends on soil type and organic matter. The Koc, depending on soil type, ranged from 13 to 54. Quinclorac is stable to hydrolysis and photolysis. 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. 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 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 and, if possible, spray all sides while adding 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.

14. TRANSPORTATION INFORMATION

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

DOT:

- ≤ 83 gallons per complete package Non Regulated
- > 83 gallons per complete package

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

IMDG:

Non Regulated

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.

CAUTION. Harmful if swallowed. Causes moderate eye irritation. Avoid contact with eyes or on clothing.

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):

Acute Health

Section 313 Toxic Chemical(s): Dicamba (CAS No. 1918-00-9), 1.3 – 1.5% by weight in product

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

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

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:1Flammability:1Reactivity:0Hazards Scale:0 = Minimal1 = Slight2 = Moderate3 = Serious4 = 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.

Date of Issue: April 15, 2015

Supersedes:

October 31, 2014

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