

# UNITED STATES ENVIRONMENTAL PROTECTION AGENCY WASHINGTON, DC 20460

OFFICE OF CHEMICAL SAFETY AND POLLUTION PREVENTION

December 21, 2018

Michael A. Peplowski Manager, Product Relations ISK Biosciences Corporation 7470 Auburn Road, Suite A Concord, Ohio 44077

Subject: Label Amendment – reduction to ornamental rate; update to Resistance

Management language

Product Name: Isofetamid Turf Fungicide EPA Registration Number: 71512-23

Application Date: 1/23/2018 Decision Number: 537818

#### Dear Mr. Peplowski:

The amended label referred to above, submitted in connection with registration under the Federal Insecticide, Fungicide and Rodenticide Act, as amended, is acceptable. This approval does not affect any conditions that were previously imposed on this registration. You continue to be subject to existing conditions on your registration and any deadlines connected with them.

A stamped copy of your labeling is enclosed for your records. This labeling supersedes all previously accepted labeling. You must submit one copy of the final printed labeling before you release the product for shipment with the new labeling. In accordance with 40 CFR 152.130(c), you may distribute or sell this product under the previously approved labeling for 18 months from the date of this letter. After 18 months, you may only distribute or sell this product if it bears this new revised labeling or subsequently approved labeling. "To distribute or sell" is defined under FIFRA section 2(gg) and its implementing regulation at 40 CFR 152.3.

Should you wish to add/retain a reference to the company's website on your label, then please be aware that the website becomes labeling under the Federal Insecticide Fungicide and Rodenticide Act and is subject to review by the Agency. If the website is false or misleading, the product would be misbranded and unlawful to sell or distribute under FIFRA section 12(a)(1)(E). 40 CFR 156.10(a)(5) list examples of statements EPA may consider false or misleading. In addition, regardless of whether a website is referenced on your product's label, claims made on the website may not substantially differ from those claims approved through the registration process. Therefore, should the Agency find or if it is brought to our attention that a website contains false or misleading statements or claims substantially differing from the EPA approved registration, the website will be referred to the EPA's Office of Enforcement and Compliance.

Your release for shipment of the product constitutes acceptance of these conditions. If these conditions are not complied with, the registration will be subject to cancellation in accordance

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with FIFRA section 6. If you have any questions, please contact Heather Garvie by phone at 703-308-0034, or via email at garvie.heather@epa.gov.

Sincerely,

Lindsay Roe

Acting Product Manager 22

Hasteldyame for

Fungicide Branch

Registration Division (7505P)

Office of Pesticide Program

Enclosure

## ACCEPTED

12/21/2018

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

71512-23

FIRST AID			
If swallowed	<ul> <li>Call a poison control center or doctor immediately for treatment advice.</li> <li>Have person sip a glass of water if able to swallow.</li> <li>Do not induce vomiting unless told to do so by a poison control center or doctor.</li> <li>Do not give anything by mouth to an unconscious person.</li> </ul>		
If on skin or clothing	<ul> <li>Take off contaminated clothing.</li> <li>Rinse skin immediately with plenty of soap and water for 15-20 minutes.</li> <li>Call a poison control center or doctor for treatment advice.</li> </ul>		
Have the product container or label with you when calling a poison control center or doctor, or going for treatment.			

#### **HOT LINE NUMBER**

For **24-Hour Medical Emergency Assistance** (Human or Animal) Call **1-888-484-7546**.

For Chemical Emergency, Spill, Leak, Fire or Accident, Call CHEMTREC 1-800-424-9300.

ISOFETAMID GROUP 7 FUNGICIDE



### ISOFETAMID TURF FUNGICIDE

ACTIVE INGREDIENT: Isofetamid*	36.0%
OTHER INGREDIENTS:	64.0%
Total	00.0%

\**N*-[1,1-dimethyl-2-[2-methyl-4-(1-methylethoxy)phenyl]-2-oxoethyl]-3-methyl-2-thiophenecarboxamide

Contains 3.33 pounds Isofetamid Per Gallon (400 grams per liter)

#### KEEP OUT OF REACH OF CHILDREN

#### **CAUTION**

See side panel for additional precautionary statements.

Read entire label carefully and use only as directed.

#### **ISK Biosciences Corporation**

7470 Auburn Road, Suite A Concord, Ohio 44077 U.S.A.

EPA Reg. No. 71512-23

EPA Est. No.

#### **Net Contents:**

#### PRECAUTIONARY STATEMENTS

# HAZARDS TO HUMANS AND DOMESTIC ANIMALS CAUTION

Harmful if swallowed or absorbed through skin. Avoid contact with skin, eyes or clothing. Wash thoroughly with soap and water after handling and before eating, drinking, chewing gum, using tobacco or using the toilet. Remove and wash contaminated clothing before reuse.

#### **Personal Protective Equipment (PPE)**

Applicators and other handlers must wear long-sleeved shirt and long pants, socks, shoes, and chemical resistant gloves made of any waterproof material.

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.

## **Engineering Control Statements**

When handlers use closed systems, enclosed cabs, or aircraft in a manner that meets the requirements listed in the Worker Protection Standard (WPS) for agricultural pesticides [40 CFR 170.240(d)(4-6)], the handler PPE requirements may be reduced or modified as specified in the WPS.

### **User Safety Recommendations**

Users should:

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

This pesticide is toxic to oysters. 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 contaminate waters when disposing of equipment washwaters or rinsate. Do not apply when weather conditions favor drift from the treated areas. Drift and runoff may be hazardous to aquatic organisms in water adjacent to treated areas.

AVOIDING SPRAY DRIFT AT THE APPLICATION SITE IS THE RESPONSIBILITY OF THE APPLICATOR. The interaction of many equipment-and-weather-related factors determine the potential for spray drift. The applicator is responsible for considering all these factors when making decisions. Where states have more stringent regulations, they must be observed.

#### STORAGE AND DISPOSAL

DO NOT contaminate water, food or feed by storage or disposal.

**PESTICIDE STORAGE:** Store in original container, in a secured, dry, cool place separate from fertilizer, food, and feed. Avoid cross-contamination with other pesticides.

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

CONTAINER HANDLING: Nonrefillable container (equal to or less than 5 gallons). 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 ¼ full with water and recap. Shake for 10 seconds. Pour rinsate into application equipment or a mix tank or store rinsate for later use or disposal. Drain for 10 seconds after the flow begins to drip. Repeat this procedure two more times. Then offer for

recycling if available, or puncture and dispose of in a sanitary landfill, or by incineration or, if allowed by state and local authorities, by burning. If burned, stay out of smoke.

Nonrefillable container (greater than 5 gallons). 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. Fill the container ¼ full with water. Recap 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 rinsate into application equipment or a mix tank or store rinsate for later use or disposal. Repeat this procedure two more times. Then offer for recycling if available, 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.

#### **DIRECTIONS FOR USE**

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

DO NOT apply this product in a way that will contact workers or other persons, either directly or through drift. Only protected handlers may be in the area during application. For any requirements specific to your State or Tribe, consult the agency responsible for pesticide regulation.

FAILURE TO FOLLOW THE USE DIRECTIONS AND PRECAUTIONS ON THIS LABEL MAY RESULT IN PLANT INJURY OR POOR DISEASE CONTROL.

ISOFETAMID is a flowable suspension concentrate for control of diseases on turf areas associated with golf courses (greens, tees and fairways), sod farms, seed farms, college and professional sports fields, residential and commercial lawns and on ornamental plants. Intended for use only by professional applicators.

#### AGRICULTURAL USE REQUIREMENTS

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

DO NOT enter or allow worker entry into treated areas during the restricted entry interval (REI) of twelve (12) hours.

PPE required for early entry into 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 made of any waterproof material, shoes plus socks.

Sod and seed farms, commercial greenhouses and nurseries are within the scope of the Worker Protection Standard.

#### 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. Turfgrasses on golf courses and other non-residential turf areas such as industrial parks, tank farms, professionally managed college and professional sports fields, commercial lawns and ornamental landscapes are not within the scope of the Worker Protection Standard.

Keep children, pets, and unprotected persons out of the treated area until sprays have dried.

#### PRODUCT INFORMATION

ISOFETAMID is a broad-spectrum fungicide with preventative, systemic and curative properties for the control of dollar spot and spring dead spot on turfgrasses and diseases on ornamental plants. ISOFETAMID should be used in a regularly scheduled preventative spray program and used in rotation with products with a different mode of action. For control of other diseases not listed on this label, ISOFETAMID may be tank mixed with other fungicides. Tank mixes should follow the use instructions on both labels for application rate and application timings. Failure to follow these instructions may results in inferior disease control and/or phytotoxicity.

Although ISOFETAMID has been evaluated on several ornamental and turfgrass cultivars, varieties and hybrids with no indication of phytotoxicity, neither the manufacturer nor seller have determined adequate tolerance on all turfgrass under all conditions. The user should determine if ISOFETAMID can be used safely for commercial use by applying the labeled rate to a small test area under conditions to be expected and monitor for adverse effects before applying ISOFETAMID to the targeted area.

#### **USE RESTRICTIONS**

- Do not apply more than 3.65 lb. a.i. per acre per year on turf.
- Do not apply more than 2.65 lb. a.i. per acre per year on ornamental plants.
- Do not apply ISOFETAMID through any type of irrigation system on turf.
- Do not apply ISOFETAMID by aerial application
- Intended for use only by professional applicators.

#### INTEGRATED PEST MANAGEMENT

ISOFETAMID is an excellent disease control agent when used according to label directions. Although ISOFETAMID has preventative, systemic and curative activity, it should be applied as a protectant fungicide before visible symptoms of the disease occur.

ISOFETAMID is recommended for use as part of an Integrated Pest Management (IPM) program, which may include the use of diseaseresistant crop varieties, cultural practices, biological disease control agents, pest scouting and disease forecasting systems aimed at preventing economic pest damage. Practices known to reduce disease development should be followed. Consult your state cooperative extension service or local agricultural authorities for additional IPM strategies established in your area. ISOFETAMID may be used in State Agricultural Extension advisory (disease forecasting) programs that recommend application timing based upon environmental factors that favor disease development.

#### RESISTANCE MANAGEMENT

Some plant pathogens are known to develop resistance to products used repeatedly for disease control. ISOFETAMID's mode/target site of action is complex II; succinate-dehydrogenase, FRAC Group 7. A disease management program that includes alternation or tank mixes between ISOFETAMID and other labeled fungicides that have a different mode of action and/or control pathogens not controlled with ISOFETAMID is essential to prevent disease resistant pathogens populations from developing. ISOFETAMID should not be utilized continuously nor tank mixed with fungicides that have shown to have developed fungal resistance to the target disease.

For resistance management, ISOFETAMID contains a Group 7 fungicide. Any fungal population may contain individuals naturally resistant to ISOFETAMID and other Group 7 fungicides. A gradual or total loss of pest control may occur over time if these fungicides are used repeatedly in the same fields. Appropriate resistance-management strategies should be followed.

To delay fungicide resistance, take one or more of the following steps:

- Rotate ISOFETAMID or other Group 7 fungicides within a growing season with different groups that control the same pathogens.
- Use tank mixtures with fungicides from a different group that are equally effective on the target pest when such use is permitted. Use at least the minimum application rate as labeled by the manufacturer.
- Adopt an integrated disease management program for fungicide use that includes scouting, uses historical

information related to pesticide use, and crop rotation, and which considers host plant resistance, impact of environmental conditions on disease development, disease thresholds, as well as cultural, biological and other chemical control practices.

- Where possible, make use of predictive disease models to effectively time fungicide applications. Note that using predictive models alone is not sufficient to manage resistance.
- Monitor treated fungal populations for resistance development.
- Contact your local extension specialist or certified crop advisor for any additional pesticide resistance-management and/or IPM recommendations for specific crops and pathogens.

Since pathogens differ in their potential to develop resistance to fungicides, follow the directions outlined in the "Directions For Use" section of this label for specific resistance management strategies. Consult with your Federal or State Cooperative Extension Service representatives for guidance on the proper use of ISOFETAMID in programs that seek to minimize the occurrence of disease resistance. ISOFETAMID is not cross-resistant with other classes of fungicides that have different modes of action.

#### MIXING AND SPRAYING

For maximum efficacy ISOFETAMID should be applied prior to or in the very early stages of disease development. ISOFETAMID must be applied at the label rates and timings listed in the Directions for Use section in 2 to 4 gallons of water per 1000 square feet (87 to 174 gallons per acre). Slowly invert container several times to assure uniform mixture of formulation before adding this product to the spray tank. The required amount of ISOFETAMID should be added slowly into the spray tank during filling. With concentrate sprays, pre-mix the required amount of ISOFETAMID in a clean container and add to the spray tank as it is being filled. Keep agitator running when filling spray tank and during spray operations. DO NOT allow spray mixture to stand overnight or for prolonged periods. Prepare only the amount of spray

required for immediate use. Spraying equipment should be thoroughly cleaned immediately after the application.

Under conditions favorable for disease development, the highest rate specified and shortest application interval should be used.

ISOFETAMID may be applied with all types of spray equipment normally used for ground applications on turfgrasses and ornamental plants.

#### TANK MIX COMPATIBILITY

ISOFETAMID is physically compatible (no nozzle or screen blockage) with many products labeled for control of diseases and insects on turfgrasses and ornamental plants. It is the pesticide user's responsibility to ensure that all products are registered for the intended use. Read and follow the applicable restrictions, limitations and directions for use on all product labels involved in tank mixing. Users must follow the most restrictive directions for use and precautionary statements of each product in the tank mixture. ISOFETAMID is generally compatible with other insecticides, fungicides, adjuvants, fertilizers and micronutrient products provided sufficient free water is available for dispersion of all the tank mix products. Under some conditions, the use of adjuvants and/or surfactants at the rate of 0.025% to 0.1% of the spray tank volume may improve the performance of ISOFETAMID. However, the physical compatibility of ISOFETAMID with tank mix partners must be evaluated before use. Conduct a jar test with intended tank-mix pesticides prior to preparation of large volumes. Use the following procedure: 1) Pour the recommended proportions of the products into a suitable container of water; 2) Mix thoroughly and; 3) Allow to stand for 5 minutes. If the combination remains mixed or can be re-mixed readily, it is considered physically compatible. Any physical incompatibility in the jar test indicates that ISOFETAMID should not be used in the tank-mix.

User should note that not all turf or ornamental plant varieties have been tested with all possible tank mix combinations. Thus the combination should be tested for safety on a small portion of the turf or target plant to ensure that a phytotoxic response will not occur.

#### WARRANTY AND LIMITATION OF DAMAGES

Seller warrants to those persons lawfully acquiring title to this product that at the time of first sale of this product by Seller that this product conformed to its chemical description and was reasonably fit for the purposes stated on the label when used in accordance with Seller's directions under normal conditions of use. To the extent consistent with applicable law, Buyers and users of this product assume the risk of any use contrary to such directions. EXCEPT AS PROVIDED ELSEWHERE IN WRITING CONTAINING AN EXPRESS REFERENCE TO THIS WARRANTY AND LIMITATION OF DAMAGES, SELLER MAKES NO OTHER EXPRESS OR IMPLIED WARRANTY OR GUARANTY, INCLUDING ANY OTHER EXPRESS OR IMPLIED WARRANTY OF FITNESS OR OF MERCHANTABILITY, AND NO AGENT OF SELLER IS AUTHORIZED TO DO SO. In no event shall Seller's liability for any breach of warranty or guaranty exceed the purchase price of the product as to which a claim is made. To the extent consistent with applicable law, Buyers and users of this product are responsible for all loss or damage from use or handling of this product which results from conditions beyond the control of Seller, including, but not limited to, incompatibility with other products unless otherwise expressly provided in Directions for Use of this product, weather conditions, cultural practices, moisture conditions or other environmental conditions outside of the ranges that are generally recognized as being conducive to good agricultural and/or horticultural practices.

## **TURF**

Table 1. Application Rates and Intervals for Dollar Spot on Turf

Disease	Rate	Rate	Application	Instructions
	(fl oz/1000 sq ft)	(fl oz / acre)	Interval	
			(days)	
Dollar spot (Sclerotinia homoeocarpa)	0.4 to 0.5	17.4 to 21.8 (0.452 to 0.567 lb. a.i./A)	14	Apply as a preventative treatment prior to or in the very early stage of development. Use the highest rate during periods of prolonged favorable disease conditions.  Do not apply more than two consecutive applications of ISOFETAMID or other Group 7 containing fungicides before rotating to a registered fungicide with a different mode of action.  Do not apply the next application of ISOFETAMID within 28 days of the previous two consecutive ISOFETAMID applications.  Do not apply more than 3.2 fl oz/1000 sq ft per year or 140 fl oz per acre per year on turf. This is equal to 8 applications at the low rate (0.452 lb a.i./A/application) or 6 applications at the high rate (0.567 lb a.i./A/application).  In the State of New York, do not apply more than 3 applications per year at the high rate of 0.567 lb a.i./A/application (1.70 lb a.i./acre/year) on turf.

Table 2. Dilution Table for Applications on Turf

fl oz of ISOFETAMID per 100 gallons of spray solutions					
Use Rate	Spray Volume	Spray Volume	Spray Volume		
(fl oz per 1000 sq ft)	: 1000 sq ft 2 gallons per 1000 sq ft 3 gallons per 1000 sq ft		4 gallons per 1000 sq ft		
0.4	20 fl oz/ 100 gal	13.3 fl oz/ 100 gal	10 fl oz/ 100 gal		
0.5	25 fl oz/ 100 gal	16.7 fl oz/ 100 gal	12.5 fl oz/ 100 gal		

Table 3. Application Rates and Intervals for Spring Dead Spot on Turf

Disease	Rate	Rate	Application	Instructions
	(fl oz/1000 sq ft)	(fl oz / acre)	Interval	
			(days)	
Spring Dead Spot	Application	Application	Application	Apply as a preventative treatment either as a single
(Gaeumannomyces graminis	Program A	Program A	Program A	treatment (Program A) or two treatments (Program B)
var. graminis,	3.2	140	None	beginning one month prior to dormancy to southern-
Leptosphaeria korrae,		(3.65 lb. a.i./A)		type turf grasses, or when soil temperatures have
Ophiosphaerella spp.)				declined to 65°F (18°C). Apply in a minimum spray
				volume of 2 gallons/1000 sq. ft. (88 gallons/acre) and
				immediately water in with 1/8" irrigation.
	Application	Application	Application	
	Program B	Program B	Program B	Program B
				Use lower rates where damage to turf from spring dead
	1st application:	1st application:	14-28 days	spot is less noticeable and/or more tolerable (i.e. on
	0.5 to 2	22 to 87		higher cut turf such as tees and fairways. Use higher
		(0.56 to 2.27 lb.		rates where damage to turf form spring dead spot is not
		a.i./A)		tolerable (i.e. greens).
	2nd application:	2nd application:		Do not apply more than 3.2 fl oz/1000 sq. ft. (3.65 lb.
	0.5 to 1.2	22 to 52.3		a.i./A) of this product to turf grass per year.
		(0.56 to 1.36 lb.		
		a.i./A)		This use is prohibited in the state of New York.

## ORNAMENTAL PLANTS

Table 4. Application Rates and Intervals on Ornamentals

Disease	Rate	Rate	Instructions
	(fl oz/100 gal)	(fl oz / acre)	
Gray mold	10 to 17 fl. oz.	10 to 17 fl. oz.	Container and Field Grown (Bed) Plants
(Botrytis cinerea)		ISOFETAMID can be applied to ornamentals, including conifers, grown in containers in greenhouses and outdoor nurseries.  Apply ISOFETAMID as a foliar spray in sufficient spray solution to thoroughly wet the foliage to the point of run-off, generally not to exceed 100 gallons per acre. If a larger volume is needed to wet the foliage, do not exceed the maximum rate of 17 fl. oz. per acre.	
			Applications of ISOFETAMID should begin when conditions are favorable for disease development or when plants first exhibit disease symptoms, from germination to mature crop. Within the rate range, use the lower rate and shortest interval and the higher rate at the longest interval. When disease is severe use the highest rate at the shortest interval.
			Make applications on a 7-14 day interval.
			Do not apply more than two consecutive applications of ISOFETAMID or other Group 7 containing fungicides before rotating to a registered fungicide with a different mode of action. Do not apply the next application of ISOFETAMID within 28 days of the previous two consecutive ISOFETAMID applications.
			Do not make more than 6 applications of ISOFETAMID per acre per year. (Maximum annual application is 102 fl. oz./acre (2.65 lb a.i./acre))
			In the State of New York, the maximum annual application is 68 fl. oz./ acre (1.77 lb a.i./acre) on ornamental plants.

## **ISK Biosciences Corporation**

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