



STATE OF MAINE
DEPARTMENT OF AGRICULTURE, CONSERVATION AND FORESTRY
BOARD OF PESTICIDES CONTROL
28 STATE HOUSE STATION
AUGUSTA, MAINE 04333

PAUL R. LEPAGE
GOVERNOR

WALTER E. WHITCOMB
COMMISSIONER

To: Board of Pesticides Control Members
From: Mary Tomlinson, Pesticides Registrar
Re: EPA Special Local Need [24(c)] request to extend the use of Avipel Hopper Box (Dry) Corn Seed Treatment, ME-120002, to control depredation of sweet corn seed by grackles, black birds, and crows
Date: May 3, 2017

Please find enclosed the above-referenced FIFRA Section 24(c) label and supporting documents for your consideration.

The Board approved a Section 18 for Avipel Hopper Box (Dry) Corn Seed Treatment, (active ingredient anthraquinone) to control depredation of sweet corn seed by grackles, black birds, and crows on February 24, 2012. The EPA subsequently denied the Section 18, but encouraged states to pursue a 24(c) registration. The Section 24(c) was issued on April 12, 2012.

This request is to extend the use through December 31, 2022. Avipel is a non-lethal alternative to other avian control methods and according to Richard Kersbergen, University of Maine Cooperative Extension Crop Specialist, has been highly effective in reducing crop losses due to bird depredation.

The package includes the additional following documents for review:

- ME-120002 Avipel (Dry) Hopper SLN label
- Cover letter from Doug Lawrence, Product Manager, Arkion Life Sciences
- Support letter from Richard Kersbergen, Ph.D., University of Maine Cooperative Extension
- Support letter from Lauchlin Titus, AgMatters LLC
- Container labels
- SDS

Please review these materials and contact me at (207) 287-7544 if you have any questions.

CAM LAY, DIRECTOR
32 BLOSSOM LANE, MARQUARDT BUILDING



PHONE: (207) 287-2731
WWW.THINKFIRSTSPRAYLAST.ORG

24(c) Special Local Need Registration SLN ME 120002
(For Distribution and Use Only Within the State of Maine)
 This SLN expires and must not be used or distributed after 12/31/2022

Avipel[®] Hopper Box (dry) Corn Seed Treatment
For Protection of Field and Sweet Corn Seed to discourage
consumption by Grackles, Black Birds and Crows.

ACTIVE INGREDIENT

9, 10-Anthraquinone 97.1%
OTHER INGREDIENTS 2.9%
Total 100%

KEEP OUT OF REACH OF CHILDREN

CAUTION

NOT A PLANT FOOD INGREDIENT

Active Ingredient: 9, 10-Anthraquinone

FIRST AID	
If inhaled:	<ul style="list-style-type: none"> • 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.
If on skin or clothing:	<ul style="list-style-type: none"> • 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 in eyes:	<ul style="list-style-type: none"> • 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 Poison Control Center or Doctor for treatment advice.
If swallowed:	<ul style="list-style-type: none"> • Call Poison Control Center or Doctor immediately for treatment advice. • Have person sip a glass of water if able to swallow. • Do not induce vomiting unless told to do so by the Poison Control Center or Doctor. • Do not give anything by mouth to an unconscious person.
<p>FOR MEDICAL EMERGENCIES INVOLVING THIS PRODUCT, CALL TOLL FREE 1-800-535-5053. HAVE THE PRODUCT CONTAINER OR LABEL AVAILABLE WHEN SEEKING TREATMENT ADVICE.</p>	
<p>See side panel for additional precautionary statements.</p>	

MANUFACTURED BY:
ARKION[®] LIFE SCIENCES LLC
 551 Mews Drive Suite J
 New Castle, DE 19720

EPA Establishment No.: 84123-TN-001

NET CONTENTS: 16.0 Ounces

DATE OF MANUFACTURE: _____

PRECAUTIONARY STATEMENTS

HAZARDS TO HUMANS AND DOMESTIC ANIMALS

CAUTION

Harmful if swallowed. Harmful if absorbed through skin. Avoid contact with skin, eyes or clothing. Wash thoroughly with soap and water after handling. Harmful if inhaled. Avoid breathing dust. Remove contaminated clothing and wash clothing before re-use. Causes moderate eye irritation. Avoid contact with eyes or clothing.

PERSONAL PROTECTIVE EQUIPMENT: When handling Avipel, use long-sleeved shirt and long pants, socks, shoes, chemical resistant gloves and goggles. Use a dust/mist filtering respirator (MSHA/NIOSH approval number prefix TC-21C), or a NIOSH approved respirator with any N,R,P or HE filter.

ENVIRONMENTAL HAZARDS:

Do not discharge effluent containing this product into lakes, streams, ponds, estuaries, oceans or other waters unless in accordance with the requirements of a National Pollutant Discharge Elimination System (NPDES) permit and the permitting authority has been notified in writing prior to discharge. Do not discharge effluent containing this product to sewer systems without previously notifying the sewage treatment plant authority. For guidance contact your State Water Board or Regional Office of the EPA. Do not contaminate water by cleaning of equipment or disposal of waste. Apply this product only as specified on this label.

DIRECTIONS FOR USE

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

I. GENERAL INFORMATION

When applied properly **Avipel** forms a bird repellent coating on corn seeds. Birds may sample treated seeds but they will avoid additional consumption. **Thorough, uniform and consistent coverage** is essential for full protection from bird depredation. Use only at the recommended labeled rate. Lower amounts may not give desired control.

DIRECTIONS FOR USE

It is a violation of Federal law to use this product in a manner inconsistent with its labeling. Reformulation or repackaging of this product is prohibited. 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 agency responsible for pesticide regulation.

The State Department of Agriculture must be informed immediately of any adverse effects that may result from the use of this product.

This label must in the possession of the applicator during the application of this product.

RATE: Field Corn and Sweet Corn seed: Apply Avipel Hopper Box (dry) at a rate of one scoop, 2.0 ounces of product per 25 pounds of seed (1.94 ounces a.i. per 25 pounds of seed) as a dry mixture in the planter box as a seed treatment just prior to planting. **Do not make more than one (1) application per acre per season.**

MIXING INSTRUCTIONS: Always apply Avipel Hopper Box (dry) to the corn seed and mix thoroughly before additional dry products, i.e. talc or graphite is applied to the seed. For best results, pour 25 pounds of corn seed into the seed hopper and then add 2.0 ounces (one scoop) of Avipel Hopper Box (dry) and mix thoroughly with a paddle or other suitable tool dedicated to mixing this product only. For each additional 25 pounds of seed add 2.0 ounces (one scoop) of Avipel Hopper Box (dry) and mix again to ensure all corn seeds are covered. **DO NOT MIX WITH BARE HANDS.** Use only at the recommended rate. Lower amounts may not give desired control.

Treated seed must be adequately dyed in accordance with 21 CFR 2.25 to prevent use as a food or feed item.

Agricultural Use Restrictions

Use this product only in accordance with its labeling and 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 4 hours. "Exception: if the product is soil-injected or soil-incorporated, the Worker Protection Standard, under certain circumstances, allows workers to enter the treated areas if there will be no contact with anything that has been treated." PPE required for early entry to treated areas that is permitted under the Worker Production Standard and that involves contact with anything that has been treated, such as plants, soil, or water, is: coveralls, waterproof gloves, shoes plus socks, protective eyewear.

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 the product. Wash the outside of gloves before removing. As soon as possible, wash thoroughly and change into clean clothing.

Storage and Disposal:

Pesticide Storage: Store in a sheltered location away from food or feed.

Pesticide Disposal: Improper disposal of excess pesticide is a violation of Federal law. If these wastes cannot be disposed of by use according to label instruction, contact your State Pesticide or Environmental Control Agency or the Hazardous Waste representative at the nearest EPA Regional Office for guidance. Arkion[®] also can be contacted for guidance on the disposal of pesticide wastes.

Container and measuring scoop Disposal: Dispose of in a sanitary landfill or incinerator or, if allowed by state and local authorities, by burning. If burned, stay out of smoke.

CONDITIONS OF SALE AND WARRANTY:

Arkion[®] warrants that the product conforms to its chemical description and is reasonably fit for the purpose stated on the label only when used in accordance with label directions under normal conditions of use. Since timing, method of application, weather and ground conditions, mixture with other chemicals, and other factors affecting the use of this product are beyond our control, no warranty is given concerning the use of this product contrary to label directions, or under conditions which are abnormal or not reasonably foreseeable.

ARKION[®] MAKES NO OTHER WARRANTIES EITHER EXPRESS OR IMPLIED WARRANTIES INCLUDING WARRANTIES OF MERCHANTABILITY OR FITNESS FOR A PARTICULAR USE.

Handling, storage and use of the product by Buyer or User are beyond the control of Arkion[®] and Seller. Risks such as ineffectiveness or other directions will be assumed by the Buyer or User.

IN NO CASE WILL ARKION[®] OR SELLER BE HELD LIABLE FOR CONSEQUENTIAL, SPECIAL OR INDIRECT DAMAGES RESULTING FROM THE HANDLING, STORAGE OR USE OF THIS PRODUCT, NOR HELD RESPONSIBLE FOR INJURY OR LOSS AS A RESULT OF THE HANDLING OR USE OF THIS PRODUCT.

The use of Avipel in agricultural applications is protected by US Patents 6,328,986; 5,885,604; 5,922,774

Avipel[®] and Arkion[®] are registered trademarks of Arkion[®] Life Sciences LLC, 551 Mews Drive, Suite J, New Castle, DE 19720 800/468-6324 and www.Arkionls.com



551 Mews Drive, Suite J
New Castle, DE 19720
302-504-7420
Fax: 302-655-3546
www.ArkionLS.com

May 2, 2017

Ms. Mary E. Tomlinson
Pesticide Registrar/Water Quality Specialist
Maine Board of Pesticide Control
28 State House Station
Augusta, ME 04333

Subject: Avipel SLN Label extension, to control Grackles and Black Birds depredation of corn seed.
We are recommending that a full five (5) renewal period be considered to reduce any further frustration.

Dear Mary Tomlinson:

Mary, as EPA continues to review the use of Avipel for corn seed treatment, both the liquid and hopper box labels because of the change in the review from biopesticides division to registration division. Arkion anticipates a return to biopesticides division over the next 12 months where the decision to issue a section 3 label for corn seed treatment will be made.

Mr. Mark Suarez is the current product manager in EPA for our portfolio and is anticipating the renewals and issuance of new SLNs this year. Please file your labels with him at the earliest convenient time for your office. You can reach Mark directly for further information: (Suarez.mark@epa.gov.)

It is anticipated that the renewal of these labels should be for multiple years and Arkion is recommending asking for the full 5 years to reduce any further frustration. Our company appreciates fully the amount of effort you have put into this process over the years and we anticipate a final resolution to the issue in the near future.

Regards,

Doug Lawrence
Product Manager
AQ - Agriculture Products
515/231-3944

Providing Tomorrow's Innovative Solution's Today®



Putting knowledge to work with the people of Maine

992 Waterville Road, Waldo, Maine 04915 ● 1-800-287-1426 / 207-342-5971 ● Fax: 342-4229
Richard.kersbergen@maine.edu

May 3, 2017

To: Mary Tomlinson, Maine Board of Pesticides Control

From: Richard Kersbergen, Extension Professor, Sustainable Dairy and Forage Systems

A handwritten signature in black ink that reads 'Richard Kersbergen'.

Re: Section 24c label for Avipel

I am writing to request a 5 year extension on the 24c for Avipel, distributed by Arkion. This product with the active ingredient 9,10-Anthraquinone, is labeled and used as a hopper box dry seed treatment to discourage consumption by birds.

Avipel has been an extremely successful product used by a majority of farmers in fields that have had serious predation by birds in corn crops. My area of expertise is forage crops for dairy farmers, so the product has been used as a seed treatment for silage corn.

A quick survey of distributors who sell this product has indicated that many producers who have tried to reduce costs by not using Avipel in the last few years have been discouraged by the loss of plants and seed, with the result of additional expense required for replanting the crop with Avipel applied to the seed. With corn seed prices increasing dramatically in the last few years, that can create serious economic hardship for producers who are already struggling with poor economic conditions in the dairy industry.

As noted earlier, Avipel is a taste deterrent and has been extremely effective. Last year, I visited a farm where I witnessed a 25 acre field with greater than 50% loss due to birds from corn seed not treated with Avipel. The field was replanted with the product and lost almost no plants. Another client I work with is an organic dairy farmer who used to grow corn silage, but has discontinued to grow it because in part, the bird predation was too severe (Avipel is not approved for use on organic farms) and alternative methods of control (balloons, flash tape and dead crows) were ineffective.

www.umext.maine.edu

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Cooperative Extension provides equal opportunities in programs and employment.
A Member of the University of Maine System

I have included a picture of some corn damage in 2016 on a field that I have been using for research at Gold Top Farm in Knox. As you can see, the row of corn pictured had 100% loss of plants and needed to be completely replanted. Not only did this add the cost of additional seed, it also reduced potential yield due to later than normal planting with a reduced value in terms of forage quality.

Avipel has become a product that is used judiciously by producers to protect their crops in fields with historical bird damage. I hope you will amend the 24c label for an additional 5 year period.

Please let me know if you have any questions.



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AgMatters LLC
Lauchlin W. Titus, CPAg, CCA
1063 Main Street
Vassalboro, ME 04989
Office 207 873-2108 Cell 207 314-2655
lauchlin@agmattersllc.com
www.agmattersllc.com

April 21, 2017

Re: Avipel usage

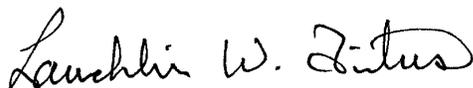
I am a private crop consultant, working with 60 farmer clients who farm a total of 13,000 of crops in Maine. Of this acreage, 5000 acres is field corn or sweet corn. I believe 100% of my clients who grow corn (40 of the 60) use Avipel to reduce bird pulling on some, if not all, of their acreage.

Avipel works extremely well. I have a client with one field that in the past has had close to 80% of the corn kernels pulled by crows and as a result needed to be replanted. The next year, with the use of Avipel, I observed in that field individual corn kernels on the soil surface (common at the end of rows as the planter is either going into or coming out of the soil) that sat there for at least 3 weeks and the birds would not touch it. There were crows in the trees less than 50 feet from these corn kernels! I have never found a field that needed to be replanted as a result of bird pulling if Avipel was used on the seed. I would rate that at 100% effectiveness.

We have other crops that also receive significant damage from bird pulling of seed and it would certainly be helpful to have registration of the product for use on those crops as well. Specifically, pumpkins, squash and related cucurbit family crop are the ones that receive loss similar to what we see in corn. Acreage of these crops in Maine are much less than acreage of corn, but magnitude of injury is similar to untreated corn and the cost of seed and value per acre of the crop both significantly exceed those values for corn.

Lastly, I am also President of the Maine Vegetable and Small Fruit Growers Association and the Association supports continuing registration of Avipel and possible expansion of the label to other crops of concern.

Sincerely yours,



Lauchlin W. Titus



24 (c) Special Local Need Registration SLN ME-120002

(FOR DISTRIBUTION AND USE ONLY WITHIN THE STATE OF MAINE)

This SLN expires and must not be used or distributed after June 30, 2017

Avipel[®] Hopper Box (Dry) Corn Seed Treatment

For Protection of Field and Sweet Corn Seed to discourage consumption by Grackles, Black Birds and Crows

ACTIVE INGREDIENT

9,10- Anthraquinone.....97.1%

OTHER INGREDIENTS.....2.9%

Total 100%

KEEP OUT OF REACH OF CHILDREN

CAUTION

NOT A PLANT FOOD INGREDIENT

Active Ingredient: 9, 10 Anthraquinone

REFER TO PACKAGE LABEL FOR DIRECTIONS FOR USE

FOR MEDICAL EMERGENCIES INVOLVING THIS PRODUCT, CALL TOLL FREE 1-800-535-5033. HAVE THE PRODUCT CONTAINER OR LABEL AVAILABLE WHEN SEEKING TREATMENT ADVICE.

MANUFACTURED BY: ARKION LIFE SCIENCES LLC - 551 Mews Drive, Suite J - New Castle, DE 19720 - 800-468-6324

EPA Establishment No. 84123-TN-001

NET CONTENTS: 12 - 16 Ounce Canisters

Date of Manufacture: 11-30-12

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CONDITIONS OF SALE AND WARRANTY

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ARKION® MAKES NO OTHER WARRANTIES EITHER EXPRESS OR IMPLIED WARRANTIES INCLUDING WARRANTIES OF MERCHANTABILITY OR FITNESS FOR A PARTICULAR USE.

Handling, storage and use of the product by Buyer or User are beyond the control of Arkion® and Seller. Risks such as ineffectiveness or other directions will be assumed by the Buyer or User.

IN NO CASE WILL ARKION® OR SELLER BE HELD LIABLE FOR CONSEQUENTIAL, SPECIAL OR INDIRECT DAMAGES RESULTING FROM THE HANDLING, STORAGE OR USE OF THIS PRODUCT, NOR HELD RESPONSIBLE FOR INJURY OR LOSS AS A RESULT OF THE HANDLING OR USE OF THIS PRODUCT.

DIRECTIONS FOR USE

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

I. GENERAL INFORMATION

When applied properly Avipel® forms a bird repellent coating on corn seeds. Birds may sample treated seeds but they will avoid additional consumption. **Thorough, uniform and consistent coverage** is essential for full protection from bird depredation. Use only at recommended labeled rate. Lower amounts may not give desired control.

DIRECTIONS FOR USE

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The State Department of Agriculture must be informed immediately of any adverse effects that may result from the use of this product.

RATE: Field corn and Sweet Corn Seed: Apply Avipel Hopper Box (dry) at a rate of one scoop, 2.0 ounces of product per 25 pounds of seed (1.94 ounces a.i. per 25 pounds of seed) as a dry mixture in the planter box as a seed treatment just prior to planting. **Do not make more than one (1) application per acre per season.**

MIXING INSTRUCTIONS: Always apply Avipel Hopper Box (dry) to the seed and mix thoroughly before additional dry products, i.e. talc or graphite is applied to the seed. For best results, pour 25 pounds of corn seed into the seed hopper and then add 2.0 ounces (one scoop) of Avipel Hopper Box (dry) and mix thoroughly with a paddle or other suitable tool dedicated to mixing this product only. For each additional 25 pounds of seed add 2.0 ounces (one scoop) of Avipel Hopper Box (dry) and mix again to ensure all seeds are covered. **DO NOT MIX WITH BARE HANDS.** Use only at the recommended rate. Lower amounts may not give desired control. Treated seed must be adequately dyed in accordance with 21 CFR 2.25 to prevent use as a food or feed item.

This label must be in the possession of the applicator during the application of this product.

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 product. Wash the outside of gloves before removing. As soon as possible, wash thoroughly and change into clean clothing.

LOT NUMBER

24 (c) Special Local Need Registration SLN ME 120002

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

Harmful if swallowed. Harmful if absorbed through the skin. Avoid contact with skin, eyes or clothing. Wash thoroughly with soap and water after handling. Harmful if inhaled. Avoid breathing dust. Remove contaminated clothing and wash clothing before re-use. Causes moderate eye irritation. Avoid contact with eyes or clothing.

PERSONAL PROTECTIVE EQUIPMENT: When handling Avipel®, use long-sleeved shirt and long pants, socks, shoes, chemical resistant gloves and goggles. Use a dust/mist filtering respirator (MSHA/NIOSH approved number prefix TC-21C, or a NIOSH approved respirator with any N,R,P or HE filter.

ENVIRONMENTAL HAZARDS: Do not discharge effluent containing this product into lakes, streams, ponds, estuaries, oceans or other waters unless in accordance with the requirements of a National Pollutant Discharge Elimination System (NPDES) permit and the permitting authority has been notified in writing prior to discharge. Do not discharge effluent containing this product to sewer systems without previously notifying the sewage treatment plant authority. For guidance contact your State Water Board or Regional Office of the EPA. Do not contaminate water by cleaning of equipment or disposal of waste. Apply this product only as specified on this label.

II. STORAGE AND DISPOSAL

Pesticide Storage: Store in a sheltered location away from food or feed.

Pesticide Disposal: Improper disposal of excess pesticide or rinsate is a violation of Federal Law. If these wastes cannot be disposed of by use according to label instruction, contact your State Pesticide or Environmental Control Agency or the Hazardous Waste representative at the nearest EPA Regional Office for guidance. Arkion® also can be contacted for guidance on the disposal of pesticide wastes.

Container and Measuring Scoop Disposal: Dispose of in a sanitary landfill or incinerator or, if allowed by state and local authorities, by burning. If burned, stay out of smoke.

Agricultural Use Restrictions

Use this product only in accordance with its labeling and Worker Protection Standard, 40 CFR part 170. This standard contains requirements for the protection of agricultural workers on farms, forests, nurseries, and green-houses, and handlers of agricultural pesticides. It 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 4 hours. "Exception: if the product is soil-injected or soil incorporated, the Worker Protection Standard, under certain circumstances, allows workers to enter the treated areas if there will be no contact with anything that has been treated." PPE required for early entry to treated areas that is permitted under the Worker Production Standard and that involves contact with anything that has been treated, such as plants, soil, or water, is: coveralls, waterproof gloves, shoes plus socks, protective eye wear.

The use of Avipel® in agricultural applications is protected by US Patents 6,328,986; 5,885,604; 5,922,774

**Avipel® and Arkion® are registered trademarks of Arkion® Life Sciences LLC
551 Mews Drive, Suite J - New Castle, DE 19720 - 800-468-6324 www.Arkionls.com**

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Total 100%

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Active Ingredient: 9,10- Anthraquinone

FIRST AID

If inhaled:	<ul style="list-style-type: none"> 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.
If on skin or clothing:	<ul style="list-style-type: none"> 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 in eyes:	<ul style="list-style-type: none"> 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 Poison Control Center or Doctor for treatment advice.
If swallowed:	<ul style="list-style-type: none"> Call poison Control Center or Doctor immediately for treatment advice. Have person sip a glass of water if able to swallow. Do not induce vomiting unless told to do so by the Poison Control Center or Doctor. Do not give anything by mouth to an unconscious person.

FOR MEDICAL EMERGENCIES INVOLVING THIS PRODUCT, CALL TOLL FREE 1-800-535-5053. HAVE THE PRODUCT CONTAINER OR LABEL AVAILABLE WHEN SEEKING TREATMENT ADVISE.

SEE SIDE PANEL FOR ADDITIONAL PRECAUTIONARY STATEMENTS

MANUFACTURED BY:

ARKION LIFE SCIENCES, LLC - 551 MEWS DRIVE, SUITE J - NEW CASTLE, DE 19720

EPA Establishment No.: 84123-TN-001

Date of Manufacture: 11/30/12

Net Contents: 16.0 Ounces

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RATE: Field corn and Sweet Corn Seed: Apply Avipel Hopper Box (dry) at a rate of one scoop, 2.0 ounces of product per 25 pounds of seed (1.94 ounces a.i. per 25 pounds of seed) as a dry mixture in the planter box as a seed treatment just prior to planting. **Do not make more than one (1) application per acre per season.**

MIXING INSTRUCTIONS: Always apply Avipel Hopper Box (dry) to the seed and mix thoroughly before additional dry products, i.e. talc or graphite is applied to the seed. For best results, pour 25 pounds of corn seed into the seed hopper and then add 2.0 ounces (one scoop) of Avipel Hopper Box (dry) and mix thoroughly with a paddle or other suitable tool dedicated to mixing this product only. For each additional 25 pounds of seed add 2.0 ounces (one scoop) of Avipel Hopper Box (dry) and mix again to ensure all seeds are covered. **DO NOT MIX WITH BARE HANDS.** Use only at the recommended rate. Lower amounts may not give desired control. Treated seed must be adequately dyed in accordance with 21 CFR 2.25 to prevent use as a food or feed item.

This label must be in the possession of the applicator during the application of this product.

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 product. Wash the outside of gloves before removing. As soon as possible, wash thoroughly and change into clean clothing.

LOT NUMBER

24 (c) Special Local Need Registration SLN ME 120002

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

Harmful if swallowed. Harmful if absorbed through the skin. Avoid contact with skin, eyes or clothing. Wash thoroughly with soap and water after handling. Harmful if inhaled. Avoid breathing dust. Remove contaminated clothing and wash clothing before re-use. Causes moderate eye irritation. Avoid contact with eyes or clothing.

PERSONAL PROTECTIVE EQUIPMENT: When handling Avipel®, use long-sleeved shirt and long pants, socks, shoes, chemical resistant gloves and goggles. Use a dust/mist filtering respirator (MSHA/NIOSH approved number prefix TC-21C, or a NIOSH approved respirator with any N,R,P or HE filter.

ENVIRONMENTAL HAZARDS: Do not discharge effluent containing this product into lakes, streams, ponds, estuaries, oceans or other waters unless in accordance with the requirements of a National Pollutant Discharge Elimination System (NPDES) permit and the permitting authority has been notified in writing prior to discharge. Do not discharge effluent containing this product to sewer systems without previously notifying the sewage treatment plant authority. For guidance contact your State Water Board or Regional Office of the EPA. Do not contaminate water by cleaning of equipment or disposal of waste. Apply this product only as specified on this label.

II. STORAGE AND DISPOSAL

Pesticide Storage: Store in a sheltered location away from food or feed.

Pesticide Disposal: Improper disposal of excess pesticide or rinsate is a violation of Federal Law. If these wastes cannot be disposed of by use according to label instruction, contact your State Pesticide or Environmental Control Agency or the Hazardous Waste representative at the nearest EPA Regional Office for guidance. Arkion® also can be contacted for guidance on the disposal of pesticide wastes.

Container and Measuring Scoop Disposal: Dispose of in a sanitary landfill or incinerator or, if allowed by state and local authorities, by burning. If burned, stay out of smoke.

Agricultural Use Restrictions

Use this product only in accordance with its labeling and Worker Protection Standard, 40 CFR part 170. This standard contains requirements for the protection of agricultural workers on farms, forests, nurseries, and green-houses, and handlers of agricultural pesticides. It 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 4 hours. "Exception: if the product is soil-injected or soil incorporated, the Worker Protection Standard, under certain circumstances, allows workers to enter the treated areas if there will be no contact with anything that has been treated." PPE required for early entry to treated areas that is permitted under the Worker Production Standard and that involves contact with anything that has been treated, such as plants, soil, or water, is: coveralls, waterproof gloves, shoes plus socks, protective eye wear.

The use of Avipel® in agricultural applications is protected by US Patents 6,328,986; 5,885,604; 5,922,774

**Avipel® and Arkion® are registered trademarks of Arkion® Life Sciences LLC
551 Mews Drive, Suite J - New Castle, DE 19720 - 800-468-6324 www.Arkionls.com**

24 (c) Special Local Need Registration SLN ME 120002

(FOR DISTRIBUTION AND USE ONLY WITHIN THE STATE OF MAINE)

This SLN expires and must not be used or distributed after June 30, 2017

Avipel® Hopper Box (Dry) Corn Seed Treatment

For Protection of Field and Sweet Corn Seed to discourage consumption by Grackles, Black Birds and Crows

ACTIVE INGREDIENT
9,10- Anthraquinone.....97.1%
OTHER INGREDIENTS.....2.9%
Total 100%

KEEP OUT OF REACH OF CHILDREN
CAUTION
NOT A PLANT FOOD INGREDIENT
Active Ingredient: 9,10- Anthraquinone

FIRST AID

If inhaled:	<ul style="list-style-type: none"> 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.
If on skin or clothing:	<ul style="list-style-type: none"> 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 in eyes:	<ul style="list-style-type: none"> 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 Poison Control Center or Doctor for treatment advice.
If swallowed:	<ul style="list-style-type: none"> Call poison Control Center or Doctor immediately for treatment advice. Have person sip a glass of water if able to swallow. Do not induce vomiting unless told to do so by the Poison Control Center or Doctor. Do not give anything by mouth to an unconscious person.

FOR MEDICAL EMERGENCIES INVOLVING THIS PRODUCT, CALL TOLL FREE 1-800-535-5053. HAVE THE PRODUCT CONTAINER OR LABEL AVAILABLE WHEN SEEKING TREATMENT ADVISE.

SEE SIDE PANEL FOR ADDITIONAL PRECAUTIONARY STATEMENTS

MANUFACTURED BY:

ARKION LIFE SCIENCES, LLC - 551 MEWS DRIVE, SUITE J - NEW CASTLE, DE 19720

EPA Establishment No.: 84123-TN-001

Date of Manufacture: 11/30/12

Net Contents: 16.0 Ounces

SECTION 1: IDENTIFICATION

1.1. Product Identifier

Product Form: Mixture

Product Name: Avipel® Dry Hopper Box

Product Code: EPA Registration No: SLN 69969-X

1.2. Intended Use of the Product

Use of the substance/mixture: For the protection of Field and Sweet Corn Seed against consumption by various bird species, including Black Birds, Crows, Pheasants and Sand Hill Cranes.

1.3. Name, Address, and Telephone of the Responsible Party

Company

Arkion® Life Sciences LLC.

551 Mews Drive Suite J

New Castle, DE 19720

[302-504-7400](tel:302-504-7400); [800-468-6324](tel:800-468-6324)

1.4. Emergency Telephone Number

Emergency Number : 1-800-535-5053

INFOTRAC – TOLL FREE 24 HOUR EMERGENCY TELEPHONE NUMBER

SECTION 2: HAZARDS IDENTIFICATION

2.1. Classification of the Substance or Mixture

Classification (GHS-US)

Comb. Dust

Eye Irrit. 2B H320

Skin Sens. 1 H317

Carc. 2 H351

Full text of H-phrases: see section 16

2.2. Label Elements

GHS-US Labeling

Hazard Pictograms (GHS-US)



Signal Word (GHS-US)

: Warning

Hazard Statements (GHS-US)

: May form combustible dust concentrations in air.

H317 - May cause an allergic skin reaction.

H320 - Causes eye irritation.

H351 - Suspected of causing cancer.

Precautionary Statements (GHS-US)

: P201 - Obtain special instructions before use.

P202 - Do not handle until all safety precautions have been read and understood.

P261 - Avoid breathing dust, mist, vapors.

P264 - Wash hands, forearms, and other exposed areas thoroughly after handling.

P272 - Contaminated work clothing must not be allowed out of the workplace.

P280 - Wear eye protection, protective clothing, protective gloves.

P302+P352+P362+P364 - IF ON SKIN: Wash with plenty of water. Take off contaminated clothing and wash it before reuse.

P305+P351+P338 - IF IN EYES: Rinse cautiously with water for several minutes.

Remove contact lenses, if present and easy to do. Continue rinsing.

P308+P313 - If exposed or concerned: Get medical advice/attention.

P333+P313 - If skin irritation or rash occurs: Get medical advice/attention.

P337+P313 - If eye irritation persists: Get medical advice/attention.

P405 - Store locked up.

P501 - Dispose of contents/container in accordance with local, regional, national, and international regulations.

2.3. Other Hazards

Exposure may aggravate those with pre-existing eye, skin, or respiratory conditions. May form combustible dust concentrations in air.

Avipel® Dry Hopper Box

Safety Data Sheet

According to Federal Register / Vol. 77, No. 58 / Monday, March 26, 2012 / Rules and Regulations

2.4. Unknown Acute Toxicity (GHS-US)

No data available

SECTION 3: COMPOSITION/INFORMATION ON INGREDIENTS

3.1. Substance

Not applicable

3.2. Mixture

Name	Product Identifier	%	Classification (GHS-US)
Anthraquinone	(CAS No) 84-65-1	98	Comb. Dust Skin Sens. 1A, H317 Carc. 2, H351
Water	(CAS No) 7732-18-5	< 2	Not classified

Full text of H-phrases: see section 16

SECTION 4: FIRST AID MEASURES

4.1. Description of First Aid Measures

First-aid Measures General: Never give anything by mouth to an unconscious person. If you feel unwell, seek medical advice (show the label if possible).

First-aid Measures After Inhalation: Remove to fresh air and keep at rest in a position comfortable for breathing. Obtain medical attention if breathing difficulty persists.

First-aid Measures After Skin Contact: Remove contaminated clothing. Drench affected area with water or soap and water for at least 15 minutes. Wash contaminated clothing before reuse. Obtain medical attention if irritation develops or persists.

First-aid Measures After Eye Contact: Rinse cautiously with water for at least 15 minutes. Remove contact lenses, if present and easy to do. Continue rinsing. Obtain medical attention.

First-aid Measures After Ingestion: Do NOT induce vomiting. Rinse mouth. Immediately call a POISON CENTER or doctor/physician.

4.2. Most important symptoms and effects, both acute and delayed

Symptoms/Injuries: May cause an allergic skin reaction. Suspected of causing cancer. Causes eye irritation.

Symptoms/Injuries After Inhalation: May cause respiratory irritation.

Symptoms/Injuries After Skin Contact: May cause an allergic skin reaction. Symptoms may include: Redness, pain, swelling, itching, burning, dryness, and dermatitis.

Symptoms/Injuries After Eye Contact: Causes eye irritation. Symptoms may include: Redness, pain, swelling, itching, burning, tearing, and blurred vision.

Symptoms/Injuries After Ingestion: Ingestion is likely to be harmful or have adverse effects.

Chronic Symptoms: Suspected of causing cancer.

4.3. Indication of Any Immediate Medical Attention and Special Treatment Needed

If you feel unwell, seek medical advice (show the label where possible).

SECTION 5: FIRE-FIGHTING MEASURES

5.1. Extinguishing Media

Suitable Extinguishing Media: Use extinguishing media appropriate for surrounding fire.

Unsuitable Extinguishing Media: Do not use a heavy water stream. Use of heavy stream of water may spread fire.

5.2. Special Hazards Arising From the Substance or Mixture

Fire Hazard: Combustible Dust. Dust explosion hazard in air. Supports combustion at high temperatures.

Explosion Hazard: Avoid dust clouds in combination with static electricity. Dust clouds can be explosive.

Reactivity: Hazardous reactions will not occur under normal conditions.

5.3. Advice for Firefighters

Precautionary Measures Fire: Exercise caution when fighting any chemical fire. Under fire conditions, hazardous fumes will be present.

Firefighting Instructions: Use water spray or fog for cooling exposed containers. In case of fire: Evacuate area. Fight fire remotely due to the risk of explosion. Do not allow run-off from firefighting to enter drains or water courses. Stop leak if safe to do so.

Protection During Firefighting: Do not enter fire area without proper protective equipment, including respiratory protection.

Other Information: Refer to Section 9 for flammability properties.

SECTION 6: ACCIDENTAL RELEASE MEASURES

6.1. Personal Precautions, Protective Equipment and Emergency Procedures

General Measures: Avoid all contact with skin, eyes, or clothing. Avoid breathing dust. Avoid generating dust. Keep away from open flames, hot surfaces and sources of ignition. Use special care to avoid static electric charges.

Avipel® Dry Hopper Box

Safety Data Sheet

According to Federal Register / Vol. 77, No. 58 / Monday, March 26, 2012 / Rules and Regulations

6.1.1. For Non-emergency Personnel

Protective Equipment: Use appropriate personal protection equipment (PPE).

Emergency Procedures: Evacuate unnecessary personnel.

6.1.2. For Emergency Responders

Protective Equipment: Equip cleanup crew with proper protection.

Emergency Procedures: Upon arrival at the scene, a first responder is expected to recognize the presence of dangerous goods, protect oneself and the public, secure the area, and call for the assistance of trained personnel as soon as conditions permit.

6.2. Environmental Precautions

Prevent entry to sewers and public waters. Notify authorities if liquid enters sewers or public waters.

6.3. Methods and Material for Containment and Cleaning Up

For Containment: Avoid generation of dust during clean-up of spills. Contain and collect as any solid.

Methods for Cleaning Up: Clear up spills immediately and dispose of waste safely. Avoid actions that cause dust to become airborne during clean-up such as dry sweeping or using compressed air. Use HEPA vacuum or thoroughly wet with water to clean-up dust. Use PPE described in Section 8. Vacuum clean-up is preferred. If sweeping is required use a dust suppressant. Use only non-sparking tools. Contact competent authorities after a spill.

6.4. Reference to Other Sections

See Heading 8. Exposure controls and personal protection. For further information refer to section 13.

SECTION 7: HANDLING AND STORAGE

7.1. Precautions for Safe Handling

Precautions for Safe Handling: Obtain special instructions before use. Do not handle until all safety precautions have been read and understood. Avoid creating or spreading dust. Fine dust of the product is capable of dust explosion. Avoid all sources of ignition: heat, sparks, open flame. Take precautionary measures against static discharge.

Hygiene Measures: Handle in accordance with good industrial hygiene and safety procedures. Wash hands and other exposed areas with mild soap and water before eating, drinking or smoking and when leaving work. Wash contaminated clothing before reuse.

7.2. Conditions for Safe Storage, Including Any Incompatibilities

Technical Measures: Comply with applicable regulations.

Storage Conditions: Store in a dry, cool and well-ventilated place. Store locked up. Keep container closed when not in use. Keep/Store away from direct sunlight, and extremely high or low temperatures. Store in a sheltered location away from food or feed.

Incompatible Products: None known.

Storage Temperature: < 50 °C (122 °F) and above freezing

7.3. Specific End Use(s)

For the protection of Field and Sweet Corn Seed against consumption by various bird species, including Black Birds, Crows, Pheasants and Sand Hill Cranes.

SECTION 8: EXPOSURE CONTROLS/PERSONAL PROTECTION

8.1. Control Parameters

For substances listed in section 3 that are not listed here, there are no established exposure limits from the manufacturer, supplier, importer, or the appropriate advisory agency including: ACGIH (TLV), NIOSH (REL), or OSHA (PEL).

8.2. Exposure Controls

Appropriate Engineering Controls

: Emergency eye wash fountains should be available in the immediate vicinity of any potential exposure. Provide adequate general and local exhaust ventilation. Power equipment should be equipped with proper dust collection devices. Ensure that all electrical components/systems are in compliance with the National Electrical Code. Proper grounding procedures to avoid static electricity should be followed. Use explosion-proof equipment. Ensure all national/local regulations are observed.

Personal Protective Equipment

: Protective goggles. Gloves. Protective clothing. Insufficient ventilation: wear respiratory protection.



Materials for Protective Clothing

: Chemically resistant materials and fabrics.

Hand Protection

: Wear chemically resistant protective gloves.

Eye Protection

: Chemical safety goggles.

Avipel® Dry Hopper Box

Safety Data Sheet

According to Federal Register / Vol. 77, No. 58 / Monday, March 26, 2012 / Rules and Regulations

Skin and Body Protection	: Wear suitable protective clothing.
Respiratory Protection	: If exposure limits are exceeded or irritation is experienced, approved respiratory protection should be worn.
Environmental Exposure Controls	: Do not allow the product to be released into the environment.
Consumer Exposure Controls	: Do not eat, drink or smoke during use.

SECTION 9: PHYSICAL AND CHEMICAL PROPERTIES

9.1. Information on Basic Physical and Chemical Properties

Physical State	: Solid
Appearance	: Light Gray powder
Odor	: Weak aromatic
Odor Threshold	: No data available
pH	: 6.5 - 8.5
Evaporation Rate	: No data available
Melting Point	: 284.7 °C (544.46 °F)
Freezing Point	: No data available
Boiling Point	: No data available
Flash Point	: No data available
Auto-ignition Temperature	: No data available
Decomposition Temperature	: > 270 °C (> 518 °F)
Flammability (solid, gas)	: No data available
Vapor Pressure	: No data available
Relative Vapor Density at 20 °C	: No data available
Relative Density	: No data available
Solubility	: Not soluble in water
Partition Coefficient: N-Octanol/Water	: No data available
Viscosity	: No data available
Minimum Ignition Energy	: < 3 mJ
Minimum Ignition Temperature	: > 500 °C (> 932 °F)
Limiting Oxygen Concentration	: 9 - 10%

9.2. Other Information No additional information available

SECTION 10: STABILITY AND REACTIVITY

- 10.1. Reactivity:** Hazardous reactions will not occur under normal conditions.
- 10.2. Chemical Stability:** Stable under recommended handling and storage conditions (see section 7).
- 10.3. Possibility of Hazardous Reactions:** Hazardous polymerization will not occur.
- 10.4. Conditions to Avoid:** Direct sunlight, extremely high or low temperatures, open flames, and sources of ignition.
- 10.5. Incompatible Materials:** None known.
- 10.6. Hazardous Decomposition Products:** Under conditions of fire this material may produce: Carbon oxides (CO, CO₂).

SECTION 11: TOXICOLOGICAL INFORMATION

11.1. Information On Toxicological Effects

Acute Toxicity: Not classified

Avipel® Dry Hopper Box	
LD50 Oral Rat	> 5000 mg/kg
LD50 Dermal Rat	> 5000 mg/kg
LC50 Inhalation Rat	> 2.04 mg/l
Anthraquinone (84-65-1)	
LD50 Oral Rat	> 5000 mg/kg
LC50 Inhalation Rat	> 1300 mg/m ³ (Exposure time: 4 h)
Water (7732-18-5)	
LD50 Oral Rat	> 90000 mg/kg

Skin Corrosion/Irritation: Not classified (Slightly irritant but not relevant for classification)

pH: 6.5 - 8.5

Avipel® Dry Hopper Box

Safety Data Sheet

According to Federal Register / Vol. 77, No. 58 / Monday, March 26, 2012 / Rules and Regulations

Serious Eye Damage/Irritation: Causes eye irritation

pH: 6.5 - 8.5

Respiratory or Skin Sensitization: May cause an allergic skin reaction.

Germ Cell Mutagenicity: Not classified (Based on available data, the classification criteria are not met)

Carcinogenicity: Suspected of causing cancer

Anthraquinone (84-65-1)	
IARC group	2B
National Toxicology Program (NTP) Status	Evidence of Carcinogenicity.

Reproductive Toxicity: Not classified

Specific Target Organ Toxicity (Single Exposure): Not classified

Specific Target Organ Toxicity (Repeated Exposure): Not classified

Aspiration Hazard: Not classified

Symptoms/Injuries After Inhalation: May cause respiratory irritation

Symptoms/Injuries After Skin Contact: May cause an allergic skin reaction. Symptoms may include: Redness, pain, swelling, itching, burning, dryness, and dermatitis

Symptoms/Injuries After Eye Contact: Causes eye irritation. Symptoms may include: Redness, pain, swelling, itching, burning, tearing, and blurred vision

Symptoms/Injuries After Ingestion: Ingestion is likely to be harmful or have adverse effects

Chronic Symptoms: Suspected of causing cancer

SECTION 12: ECOLOGICAL INFORMATION

12.1. Toxicity

Avipel® Dry Hopper Box	
LC50 Fish 1	> 190 µg/l
EC50 Daphnia 1	> 240 µg/l
Anthraquinone (84-65-1)	
LC50 Fish 1	2650 mg/l (Exposure time: 96 h - Species: Pimephales promelas)

12.2. Persistence and Degradability No additional information available

12.3. Bioaccumulative Potential

Anthraquinone (84-65-1)	
Log Pow	3.39

12.4. Mobility in Soil No additional information available

12.5. Other Adverse Effects

Other Information : Avoid release to the environment.

SECTION 13: DISPOSAL CONSIDERATIONS

13.1. Waste treatment methods

Sewage Disposal Recommendations: Do not dispose of waste into sewer.

Waste Disposal Recommendations: Dispose of waste material in accordance with all local, regional, national, and international regulations. If these wastes cannot be disposed of by use according to label instruction, contact your State Pesticide or Environmental Control Agency or the Hazardous Waste representative at the nearest EPA Regional Office for guidance. Arkion® also can be contacted for guidance on the disposal of pesticide wastes.

SECTION 14: TRANSPORT INFORMATION

14.1. In Accordance with DOT Not regulated for transport

14.2. In Accordance with IMDG Not regulated for transport

14.3. In Accordance with IATA Not regulated for transport

SECTION 15: REGULATORY INFORMATION

15.1 US Federal Regulations

Avipel® Dry Hopper Box	
SARA Section 311/312 Hazard Classes	Immediate (acute) health hazard Delayed (chronic) health hazard
EPA FIFRA Pesticide Product Notice	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

Avipel® Dry Hopper Box

Safety Data Sheet

According to Federal Register / Vol. 77, No. 58 / Monday, March 26, 2012 / Rules and Regulations

	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.
EPA FIFRA Signal Word	Caution
EPA FIFRA Hazard Statements	Harmful if swallowed. HARMFUL IF ABSORBED THROUGH SKIN. Harmful if inhaled. Moderate eye irritant.
EPA FIFRA Precautionary Statements	HAZARDOUS TO HUMANS AND DOMESTIC ANIMALS. NOT A PLANT FOOD INGREDIENT. Keep out of the reach of children. Avoid contact with eyes, skin and clothing. Wash thoroughly after handling. Avoid breathing dust. Remove contaminated clothing and wash clothing before re-use.

Anthraquinone (84-65-1)

Listed on the United States TSCA (Toxic Substances Control Act) inventory

EPA TSCA Regulatory Flag

T - T - indicates a substance that is the subject of a Section 4 test rule under TSCA.

Water (7732-18-5)

Listed on the United States TSCA (Toxic Substances Control Act) inventory

15.2 US State Regulations

Anthraquinone (84-65-1)

U.S. - California - Proposition 65 - Carcinogens List

WARNING: This product contains chemicals known to the State of California to cause cancer.

Anthraquinone (84-65-1)

U.S. - New Jersey - Right to Know Hazardous Substance List

SECTION 16: OTHER INFORMATION, INCLUDING DATE OF PREPARATION OR LAST REVISION

Revision Date	: 04/01/2015
Other Information	: This document has been prepared in accordance with the SDS requirements of the OSHA Hazard Communication Standard 29 CFR 1910.1200.

GHS Full Text Phrases:

Carc. 2	Carcinogenicity Category 2
Comb. Dust	Combustible Dust
Eye Irrit. 2B	Serious eye damage/eye irritation Category 2B
Skin Sens. 1	Skin sensitization Category 1
Skin Sens. 1A	Skin sensitization Category 1A
	May form combustible dust concentrations in air
H317	May cause an allergic skin reaction
H320	Causes eye irritation
H351	Suspected of causing cancer

This information is based on our current knowledge and is intended to describe the product for the purposes of health, safety and environmental requirements only. It should not therefore be construed as guaranteeing any specific property of the product.

SDS US (GHS HazCom)

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