



Subdue® GR

Granular Fungicide

For the control of certain diseases in ornamentals, turf, nonbearing citrus, conifers, and nonbearing deciduous fruit and nut trees in nurseries

Active Ingredient:

Mefenoxam* 1.0%

Other Ingredients: 99.0%

Total: 100.0%

*CAS Nos. 70630-17-0 and 69516-34-3

KEEP OUT OF REACH OF CHILDREN.

CAUTION

See additional precautionary statements and directions for use on back of bag.

EPA Reg. No. 100-794

EPA Est. No. 070989-MO-001

Product of Switzerland
Formulated in the USA

PRODUCT ID.

53181

SCP 794B-L2F 0906

25 pounds

Net Weight

syngenta

Subdue® GR

FIRST AID	
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 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 mouth-to-mouth if possible.• Call a poison control center or doctor for further treatment advice.
If on skin	<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.
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) or Chemical Emergency Assistance (Spill, Leak, Fire, or Accident), Call 1-800-888-8372	

PRECAUTIONARY STATEMENTS

Hazards to Humans and Domestic Animals

CAUTION

Causes moderate eye irritation. Harmful if inhaled or absorbed through skin. Avoid contact with skin, eyes, or clothing. Avoid breathing dust.

Personal Protective Equipment (PPE)

Applicators and other handlers must wear:

- Long-sleeved shirt and long pants
- Chemical-resistant gloves made of any waterproof material
- Shoes plus socks

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 or enclosed cabs 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 immediately if pesticide gets inside. Then wash thoroughly and put on clean clothing.

Environmental Hazards

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 water when disposing of equipment wash water.

Groundwater Advisory Statement

This chemical is known to leach through soil into ground water under certain conditions as a result of agricultural use. Use of this chemical in areas where soils are permeable, particularly where the water table is shallow, may result in ground water contamination.

CONDITIONS OF SALE AND LIMITATION OF WARRANTY AND LIABILITY

NOTICE: Read the entire Directions for Use and Conditions of Sale and Limitation of Warranty and Liability before buying or using this product. If the terms are not acceptable, return the product at once, unopened, and the purchase price will be refunded.

The Directions for Use of this product should be followed carefully. It is impossible to eliminate all risks inherently associated with the use of this product. Crop injury, ineffectiveness or other unintended consequences may result because of such factors as manner of use or application, weather or crop conditions, presence of other materials or other influencing factors in the use of the product, which are beyond the control of SYNGENTA CROP PROTECTION, Inc. or Seller. To the extent consistent with applicable law, Buyer and User agree to hold SYNGENTA and Seller harmless for any claims relating to such factors.

Subdue® GR

SYNGENTA warrants that this product conforms to the chemical description on the label and is reasonably fit for the purposes stated in the Directions for Use, subject to the inherent risks referred to above, when used in accordance with directions under normal use conditions. This warranty does not extend to the use of the product contrary to label instructions, or under conditions not reasonably foreseeable to or beyond the control of Seller or SYNGENTA, and Buyer and User assume the risk of any such use. SYNGENTA MAKES NO WARRANTIES OF MERCHANTABILITY OR OF FITNESS FOR A PARTICULAR PURPOSE NOR ANY OTHER EXPRESS OR IMPLIED WARRANTY EXCEPT AS WARRANTED BY THIS LABEL.

IT IS SYNGENTA'S AND SELLER'S INTENTION THAT in no event shall SYNGENTA or Seller be liable for any incidental, consequential or special damages resulting from the use or handling of this product. **TO THE EXTENT CONSISTENT WITH APPLICABLE LAW, THE EXCLUSIVE REMEDY OF THE USER OR BUYER, AND THE EXCLUSIVE LIABILITY OF SYNGENTA AND SELLER FOR ANY AND ALL CLAIMS, LOSSES, INJURIES OR DAMAGES (INCLUDING CLAIMS BASED ON BREACH OF WARRANTY, CONTRACT, NEGLIGENCE, TORT, STRICT LIABILITY OR OTHERWISE) RESULTING FROM THE USE OR HANDLING OF THIS PRODUCT, SHALL BE THE RETURN OF THE PURCHASE PRICE OF THE PRODUCT OR, AT THE ELECTION OF SYNGENTA OR SELLER, THE REPLACEMENT OF THE PRODUCT.**

SYNGENTA and Seller offer this product, and Buyer and User accept it, subject to the foregoing Conditions of Sale and Limitation of Warranty and Liability, which may not be modified except by written agreement signed by a duly authorized representative of SYNGENTA.

DIRECTIONS FOR USE

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

Subdue GR must be used only in accordance with recommendations on this label or on EPA approved supplemental labeling.

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

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.

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, and emergency assistance. It also contains specific instructions and exceptions pertaining to the statements on this label about personal protective equipment (PPE); notification to workers, 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 48 hours. Exception: If the product is soil-incorporated, the Worker Protection Standard, under certain circumstances, allows workers to enter the treated area if there will be no contact with anything that has been treated.

The REI for soil surface applications is zero hours after sufficient rainfall occurs or overhead or hand held irrigation is used to thoroughly wash the product into the soil and off any foliage.

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 plant, soil, or water is:

- Coveralls
- Chemical-resistant gloves made of any waterproof material
- Shoes plus socks

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.

Do not enter treated areas until dust has settled.

Subdue® GR

GENERAL INFORMATION

Subdue GR is a systemic fungicide for use in ornamentals; turf; nonbearing citrus grown in nurseries and as landscape plantings; conifers grown in nurseries and plantations, including Christmas trees; and nonbearing deciduous fruit and nut trees in nurseries.

Notes: (1) Subdue GR is a systemic fungicide having a specific mode of action. Use of Subdue GR could result in development of insensitive strains of fungi. Development of insensitivity cannot be predicted. Consult with your State Agricultural Experiment Station or Extension Service Specialist for guidance and ways to control any possible Subdue GR insensitive strains of fungi which may occur. (2) To help decrease the chance of downy mildew insensitivity, do not use Subdue GR for control of downy mildew diseases, except for use in turf. Use Subdue GR only as a soil application for control of soil-borne diseases.

Calibration Instructions

It is important to calibrate the granule applicator before use. Even after calibration, it is best to check the actual application rate under your operating conditions. Application rates can vary due to changing moisture conditions, equipment wear, normal variation in product bulk density, and particle size distribution.

Generally, calibrating a granule applicator can be done by following these simple steps:

1. Mark off a known area, usually 1,000 sq. ft.
2. At normal walking speed, simulate an application over the 1,000 sq. ft. area and record the time taken to accomplish this.
3. Fill the applicator hopper with product. Set the applicator meter at a random setting.
4. Operate the applicator for the amount of time obtained in step 2 and collect the output of granules in a plastic bag, catch pans, or other collection device.
5. Weigh the granules collected in ounces and compare this weight with the required application rate in ounces per 1,000 sq. ft. from the product label. Repeat steps 1-4 until the correct meter setting is found that will deliver the required application rate.

Application Instructions

For banded applications, calculate the amount of Subdue GR needed as follows:

$$\frac{\text{band width in inches}}{\text{row width in inches}} \times \text{broadcast rate per acre} = \text{amount needed per acre}$$

ORNAMENTALS

For control of damping-off, and root and stem rot diseases caused by Pythium and Phytophthora, use Subdue GR on container, bench, or bed-grown ornamentals in greenhouses or outdoor nurseries, and for professional use on ornamentals grown for indoor and outdoor landscaping. Use this product either as a soil surface application or pre-potting growing media mix on ornamentals at the time of seeding and transplanting. **Within a rate range given for a specific group of ornamentals, use the lower rate for the shortest interval listed and the higher rate for the longest interval. Under severe disease conditions, use the highest rate and the shortest interval.**

When applying Subdue GR to the soil surface, irrigate with enough water to completely wet the root zone after application. Do not exceed recommended rates or apply more frequently than directed, or plant injury may occur.

Notice to User: Due to the large number of species and varieties of ornamentals and nursery plants, it is impossible to test every one for tolerance to Subdue GR. Neither the manufacturer nor the seller has determined whether or not Subdue GR can be used safely on ornamentals and nursery plants not specified on this label. The professional user should determine if Subdue GR can be used safely prior to commercial use. In a small area, test the recommended rates for a particular group of unlabeled plants, i.e., foliage plants, bedding plants, etc., for plant tolerance prior to widespread use.

When applying Subdue GR as a pre-potting growing media mix, components in the mix should be dry and free of lumps to ensure thorough mixing of the granules throughout the media. When making subsequent applications at the designated intervals, other registered Subdue formulations may be used. Refer to the respective product label for rates, precautions, and limitations relative to its use.

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<p>Foliage Plants</p> <p>Aglaonema Aphelandra Dieffenbachia Peperomia Philodendron* Pothos Schefflera Sedum Sempervivum Zygocactus</p>	<p>SOIL SURFACE APPLICATION: Distribute 8-40 oz. uniformly over 1,000 sq. ft. of bed or bench area. Irrigate with enough water to thoroughly wet the root zone after application. Repeat applications at 2 to 3-month intervals, if necessary.</p> <p>*On Philodendron, use 12-60 oz./1,000 sq. ft.</p> <p><i>Precaution: To minimize the potential for injury to Pothos, do not use more than 22 oz. and do not apply more frequently than once every 3 months.</i></p> <p>Pre-Potting Growing Media Mix: Apply to growing media mix just before planting. Mix only enough for current use. Do not store. Thoroughly mix 1.6-8 oz./cu. yd. of pre-potting growing media. After transplanting, irrigate with sufficient water to thoroughly wet the root zone. After a 2 to 3-month interval, Subdue GR may be reapplied as a soil surface application.</p>
<p>Bedding Plants</p> <p>Ageratum Algerian Ivy Artemisia Aster Begonia Caladium Carnation Chrysanthemum Coleus Daisy English Ivy Foxglove Gaillardia Geranium Impatiens Marigold Pansy Petunia Phlox Pinks Primrose Prostrate Rosemary Salvia Snapdragon Verbena Vinca Zinnia</p>	<p>SOIL SURFACE APPLICATION: At Transplanting (Soil 2-3 inches deep): Uniformly apply 6-30 oz. to 1,000 sq. ft. of bed area. Irrigate with enough water to thoroughly wet soil after application. Repeat applications at 1 to 2-month intervals, if necessary. Do not apply rates of 22 oz. more than once every 6 weeks.</p> <p>Pre-Potting Growing Media Mix, At Seeding and at Transplanting: Apply to growing media mix just before planting. Mix only enough for current use. Do not store. Thoroughly mix 1.6-8 oz./cu. yd. of pre-potting growing media. After transplanting, irrigate with sufficient water to thoroughly wet the root zone. Subdue GR may be reapplied after 6-8 weeks as a soil surface application.</p>
<p>Flowers</p> <p>African violet Anthurium Baby's breath Carnation Chrysanthemum Columbine Delphinium Easter lily Geranium Gloxinia Poinsettia Rose</p>	<p>SOIL SURFACE APPLICATION: Uniformly apply 12-60 oz./1,000 sq. ft. Repeat application at 1 to 2-month intervals, if necessary. Irrigate with enough water to thoroughly wet soil after application. Do not apply rates of 37 oz. more often than every 6 weeks.</p> <p><i>Precaution: Do not apply more than 30 oz. to Easter lilies and only make one at-planting application.</i></p> <p>Pre-Potting Growing Media Mix: Apply to growing media mix just before planting. Mix only enough for current use. Do not store. Thoroughly add 1.6-8 oz./cu. yd. of potting growing media. After transplanting, irrigate with sufficient water to thoroughly wet the root zone. Subdue GR may be reapplied after 6-8 weeks as a soil surface application.</p> <p><i>Precaution: Do not use a pre-potting growing media mix application in Easter lilies.</i></p>

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<p>Azaleas</p>	<p>SOIL SURFACE APPLICATION: Phytophthora root and crown rot – Uniformly apply 14.8-75 oz./1,000 sq. ft. of bed area. Irrigate with enough water to thoroughly wet the soil after application. Repeat applications at 2 to 4-month intervals, if necessary.</p> <p>Pre-Potting Growing Media Mix: Apply to growing media mix just before planting. Mix only enough for current use. Do not store. Thoroughly mix 1.6-10 oz./cu. yd. of pre-potting growing media. After transplanting, irrigate with sufficient water to thoroughly wet the root zone. After a 2 to 4-month interval, Subdue GR may be reapplied as a soil surface application.</p> <p><i>Precautions: (1) To minimize the potential for injury to azaleas, do not apply repeat applications at rates greater than 75 oz. closer than every 3 months, and do not exceed a total of 125 oz. in six months. (2) Use the lower rate for “Coral Bell” variety.</i></p>
<p>Woody Ornamentals Other Than Azaleas</p> <p><i>Aucuba japonica</i> Arborvitae Boxwood Ceanothus Cotoneaster Dogwood Ficus “Halls” Honeysuckle Ilex <i>Juniperus</i> spp. Photinia <i>Pieris japonica</i> <i>Pinus</i> spp. Pittosporum Rhododendron White cedar White pine Yew</p>	<p>SOIL SURFACE APPLICATION: Uniformly apply 26-125 oz./1,000 sq. ft. Irrigate with enough water to thoroughly wet the soil after application. Repeat applications at 2 to 3-month intervals, if necessary. Do not apply rates greater than 100 oz. more often than once every 10 weeks.</p> <p>Pre-Potting Growing Media Mix: Apply to growing media mix just before planting. Mix only enough for current use. Do not store. Thoroughly mix 1.6-12.5 oz./cu. yd. of pre-potting growing media. After transplanting, irrigate with sufficient water to thoroughly wet the root zone. After a 2 to 3-month interval, Subdue GR may be reapplied as a soil surface application.</p>

CITRUS IN NURSERIES (NONBEARING)

Use Subdue GR on nonbearing citrus for control of citrus foot rot, root rot, and trunk canker caused by *Phytophthora* spp. Apply to the soil surface as a broadcast application under the canopy of the trees. For best efficacy, 1/2 inch of irrigation or rainfall is required within 24 hours after application. For banded applications, use the formula in the **General Information** section of the label to calculate the amount of Subdue GR needed per acre of trees.

Make the first application of Subdue GR at the time of planting and make 2 additional applications at 3-month intervals throughout the growing season. Apply 200 lbs./A as a soil surface application broadcast or banded to the seedbeds, liners, or bedded stock. For banded applications, use a band wide enough to cover the root systems of the plants. Calculate the amount of Subdue GR needed for a banded treatment by using the formula in the **General Information** section of the label.

Note: Do not use in greenhouse citrus nursery stock intended for commercial fruit production.

CONIFERS IN NURSERIES AND PLANTATIONS (INCLUDING CHRISTMAS TREES)

Subdue GR provides control of *Phytophthora* root rot of conifers. For best efficacy, 1/2 inch of irrigation or rainfall is required within 24 hours after application.

Seedbeds and Plug-Plantings	Soil Surface Application: Uniformly apply 6-30 lbs./A (2.2-11 oz./1,000 sq. ft.) in the spring and again in the fall.
2-0 Transplants	Soil Surface Application: Uniformly apply 12-60 lbs./A (4.4-22 oz./1,000 sq. ft.) in the spring and again in the fall.

Conifers in Plantations

Use of Subdue GR will aid in the control of *Phytophthora* root rot when used in conjunction with good cultural practices. The use of Subdue GR will not overcome poor management practices such as planting on sites that are prone to flooding or are poorly drained. Subdue GR fungicide will not revitalize trees showing moderate to severe disease symptoms.

Soil Surface Application: Apply 50-250 lbs. of Subdue GR per acre (1.25-5.75 lbs./1,000 sq. ft.) to the soil surface. Applications should be made in early spring before growth starts and in the fall before the ground freezes. Calculate the amount of Subdue GR needed for a banded treatment by using the formula in the **General Information** section of the label.

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DECIDUOUS FRUITS AND NUTS IN NURSERIES (NONBEARING)

Subdue GR provides control of Pythium root rot and Phytophthora root, crown, and collar rot of non-bearing deciduous fruits and nuts.

Make the first application of Subdue GR at the time of planting. Additional applications should be made at 3-month intervals throughout the growing season. For best efficacy, 1/2 inch of irrigation or rainfall is required within 24 hours after application.

Soil Surface Application: Apply 200-400 lbs. per treated acre (4.75-9.25 lbs./1,000 sq. ft.) uniformly to the soil surface under the canopy of the trees. Treat sufficient surface area in nurseries to cover the root zone of the trees. Use the high rate in areas known to be infested with Phytophthora.

Note: Do not apply to trees that will bear harvestable fruit within 12 months of application, or illegal residues may result.

TURF

Subdue GR controls Pythium blight and Pythium damping-off in turf, yellow tuft (downy mildew) in bluegrass, and downy mildew in St. Augustinegrass. **Within the rate range given for turf, use the lower rate for the shortest interval listed and the higher rate for the longest interval. Under severe disease conditions, use the highest rate and shortest interval.**

Established Turf Pythium Blight Yellow Tuft Downy Mildew	Soil Surface Application: Uniformly apply as a preventative treatment at 12.5-25 oz./1,000 sq. ft. Re-treat at 10 to 14-day intervals during periods favorable for disease development.
Newly Seeded Areas Pythium Damping-Off Pythium Blight Yellow Tuft Downy Mildew	Soil Surface Application: Uniformly apply 12.5-25 oz./1,000 sq. ft. immediately after seeding. Irrigate with 1/4-1/2 inch of water after application. Re-treat at 7 to 14-day intervals if conditions remain favorable for disease.

Precautions: To minimize the potential for insensitivity, (1) Make no more than 3 applications per season of any product in which the Subdue active ingredient is applied alone, and (2) Apply an alternate EPA-registered fungicide for Pythium control at least once during the season.

Rotational Crops

Do not plant any food crop which is not registered for use with the Subdue active ingredient in soil treated with this active ingredient for a period of 12 months.

STORAGE AND DISPOSAL

Do not contaminate water, food, or feed by storage, disposal, or cleaning of equipment. Open dumping is prohibited.

Pesticide Storage

Store in a dry, secure place.

Pesticide Disposal

Wastes resulting from the use of this product are toxic. Improper disposal of unused pesticide is a violation of federal law. Pesticide that cannot be used according to label instructions must be disposed of according to federal, state, or local procedures. For guidance in proper disposal methods, contact your State Pesticide or Environmental Control Agency, or the Hazardous Waste representative at the nearest EPA Regional Office.

Container Disposal

Completely empty bag into application equipment. Dispose of empty bag in a sanitary landfill or by alternatives allowed by state and local authorities.

For minor spills, leaks, etc., follow all precautions indicated on this label and clean up immediately. Take special care to avoid contamination of equipment and facilities during cleanup procedures and disposal of wastes. In the event of a major spill, fire, or other emergency, call 1-800-888-8372, day or night.

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For non-emergency (e.g., current product information), call
Syngenta Crop Protection at 1-800-334-9481.

Product of Switzerland
Formulated in the USA

Manufactured for:
Syngenta Crop Protection, Inc.
Greensboro, North Carolina 27409
www.syngenta-us.com

SCP 794B-L2F 0906

SUBDUE® GR

Date: 8/3/2015
 Replaces: 4/14/2015

1. PRODUCT IDENTIFICATION

Product identifier on label: **SUBDUE® GR**
 Product No.: A9603A
 Use: Granular Fungicide
 Manufacturer: Syngenta Crop Protection, LLC
 Post Office Box 18300
 Greensboro NC 27419
 Manufacturer Phone: 1-800-334-9481

Emergency Phone: 1-800-888-8372

2. HAZARDS IDENTIFICATION

Classifications: Inhalation: Category 3
 Specific Target Organ Toxicity: Repeated Category 2
 Specific Target Organ Toxicity: Respiratory Irritation Category 3
 Carcinogenicity: Category 1A
 Reproductive Toxicity: Category 1B

Signal Word (OSHA): Danger

Hazard Statements: Toxic if inhaled
 May cause respiratory irritation
 May cause cancer
 May damage fertility or the unborn child
 May cause damage to organs through prolonged or repeated exposure

Hazard Symbols:



Precautionary Statements: Obtain special instructions before use.
 Do not handle until all safety precautions have been read and understood.
 Do not breathe dust.
 Use only outdoors or in a well-ventilated area.
 Wear protective gloves, protective clothing, eye protection.
 If inhaled: Remove person to fresh air and keep comfortable for breathing.
 If exposed or concerned: Get medical advice/attention.
 Call a poison center, doctor or Syngenta if you feel unwell.
 See Section 4 First Aid Measures.
 Store locked up.

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Dispose of contents and container in accordance with local regulations.

Other Hazard Statements: May form combustible dust concentrations in air.

3. COMPOSITION/INFORMATION ON INGREDIENTS

Chemical Name	Common Name	CAS Number	Concentration
Crystalline Silica, Quartz and Cristobalite	Crystalline Silica, Quartz and Cristobalite	14808-60-7	<10.0%
Attapulgite Clay	Attapulgite Clay	8031-18-3	Trade Secret
n-Methylpyrrolidone	n-Methylpyrrolidone	872-50-4	<5.0%
Other ingredients	Other ingredients	Trade Secret	<84.0%
(R,S)-2-[(2,6-dimethylphenyl)-methoxyacetyl-amino]-propionic acid methyl ester	Mefenoxam	70630-17-0 & 69516-34-3	1.0%

Ingredients not precisely identified are proprietary or non-hazardous. Values are not product specifications.

4. FIRST AID MEASURES

Have the product container, label or Safety Data Sheet with you when calling Syngenta (800-888-8372), a poison control center or doctor, or going for treatment.

Ingestion: If swallowed: Call Syngenta (800-888-8372), a poison control center or doctor immediately for treatment advice. Do not give any liquid to the person. Do not induce vomiting unless told to do so after calling 800-888-8372 or by a poison control center or doctor. Do not give anything by mouth to an unconscious person.

Eye Contact: If in eyes: Hold eye open and rinse slowly and gently with water for 15-20 minutes. Remove contact lenses, if present, after 5 minutes, then continue rinsing eye. Call Syngenta (800-888-8372), a poison control center or doctor for treatment advice.

Skin Contact: If on skin or clothing: Take off contaminated clothing. Rinse skin immediately with plenty of water for 15-20 minutes. Call Syngenta (800-888-8372), a poison control center or doctor for treatment advice.

Inhalation: 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 Syngenta (800-888-8372), a poison control center or doctor for further treatment advice.

Most important symptoms/effects:

Respiratory irritation

Indication of immediate medical attention and special treatment needed:

There is no specific antidote if this product is ingested.

Treat symptomatically.

5. FIRE FIGHTING MEASURES

Suitable (and unsuitable) extinguishing media:

Use dry chemical, foam or CO₂ extinguishing media. If water is used to fight fire, dike and collect runoff.

Specific Hazards:

During a fire, irritating and possibly toxic gases may be generated by thermal decomposition or combustion.

Special protective equipment and precautions for firefighters:

Wear full protective clothing and self-contained breathing apparatus. Evacuate nonessential personnel from the area to prevent human exposure to fire, smoke, fumes or products of combustion.

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6. ACCIDENTAL RELEASE MEASURES

Personal precautions, protective equipment, and emergency procedures:

Follow exposure controls/personal protection outlined in Section 8.

Methods and materials for containment and cleaning up:

Control the spill at its source. Contain the spill to prevent from spreading or contaminating soil or from entering sewage and drainage systems or any body of water. Clean up spills immediately, observing precautions in Protective Equipment Section. Sweep up material and place in a compatible disposal container. Scrub area with hard water detergent (e.g. commercial products such as Tide, Joy, Spic and Span). Pick up wash liquid with additional absorbent and place into compatible disposal container. Once all material is cleaned up and placed in a disposal container, seal container and arrange for disposition.

7. HANDLING AND STORAGE

Precautions for safe handling:

Store the material in a well-ventilated, secure area out of reach of children and domestic animals. Do not store food, beverages or tobacco products in the storage area. Prevent eating, drinking, tobacco use, and cosmetic application in areas where there is a potential for exposure to the material. Wash thoroughly with soap and water after handling.

Conditions for safe storage, including any incompatibilities:

Store locked up.

8. EXPOSURE CONTROLS/PERSONAL PROTECTION

THE FOLLOWING RECOMMENDATIONS FOR EXPOSURE CONTROLS/PERSONAL PROTECTION ARE INTENDED FOR THE MANUFACTURE, FORMULATION AND PACKAGING OF THIS PRODUCT.

FOR COMMERCIAL APPLICATIONS AND/OR ON-FARM APPLICATIONS CONSULT THE PRODUCT LABEL.

Occupational Exposure Limits:

Chemical Name	OSHA PEL	ACGIH TLV	Other	Source
Crystalline Silica, Quartz and Cristobalite	10 mg/m ³ /(%SiO ₂ +2) (respirable dust)	0.025 mg/m ³ (respirable silica)	0.05 mg/m ³ (respirable dust)	NIOSH
Attapulgite Clay	Not Established	Not Established	2 mg/m ³ TWA	Manufacturer
n-Methylpyrrolidone	Not Established	Not Established	10 ppm TWA, Skin	AIHA
Other ingredients	Not Applicable	Not Applicable	Not Applicable	Not Applicable
Mefenoxam	Not Established	Not Established	5 mg/m ³ TWA	Syngenta

Appropriate engineering controls:

Use effective engineering controls to comply with occupational exposure limits (if applicable).

Individual protection measures:

Ingestion:

Prevent eating, drinking, tobacco usage and cosmetic application in areas where there is a potential for exposure to the material. Wash thoroughly with soap and water after handling.

Eye Contact:

Where eye contact is likely, use dust-proof chemical goggles.

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Skin Contact:

Where contact is likely, wear chemical-resistant gloves (such as barrier laminate, butyl rubber, nitrile rubber, neoprene rubber, natural rubber, polyethylene, polyvinyl chloride [PVC] or Viton), coveralls, socks and chemical-resistant footwear.

Inhalation:

A particulate filter respirator may be necessary until effective engineering controls are installed to comply with occupational exposure limits. Use NIOSH certified respirator with any N, R, P or HE filter. Use a self-contained breathing apparatus in cases of emergency spills, when exposure levels are unknown, or under any circumstances where air-purifying respirators may not provide adequate protection.

9. PHYSICAL AND CHEMICAL PROPERTIES

Appearance: Reddish-brown granules

Odor: Sweet aromatic

Odor Threshold: Not Available

pH: 7 - 9 (1% solution in H₂O @ 77°F (25°C))

Melting point/freezing point: Not Available

Initial boiling point and boiling range: Not Applicable

Flash Point (Test Method): 203°F (Pensky-Martens CC)

Flammable Limits (% in Air): Not Available

Flammability: Not Applicable

Vapor Pressure: Mefenoxam 2.5 x 10⁻⁵ mmHg @ 77°F (25°C)

Vapor Density: Not Available

Relative Density: 38 lbs/ft³

Solubility (ies): Mefenoxam 26 g/l @ 77°F (25°C)

Partition coefficient: n-octanol/water: Not Available

Autoignition Temperature: 500°F

Decomposition Temperature: Not Available

Viscosity: Not Available

Other: None

10. STABILITY AND REACTIVITY

Reactivity: Not reactive.

Chemical stability: Stable under normal use and storage conditions.

Possibility of hazardous reactions: Will not occur.

Conditions to Avoid: None known.

Incompatible materials: None known.

Hazardous Decomposition Products: None known.

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11. TOXICOLOGICAL INFORMATION

Health effects information

Likely routes of exposure: Dermal, Inhalation

Symptoms of exposure: Respiratory irritation

Delayed, immediate and chronic effects of exposure: Possible carcinogenicity, Respiratory irritation

Numerical measures of toxicity (acute toxicity/irritation studies (finished product))

Ingestion:	Oral (LD50 Rabbit) :	> 5000 mg/kg body weight
Dermal:	Dermal (LD50 Rat) :	> 2000 mg/kg body weight
Inhalation:	Inhalation (LC50 Rat) :	0.776 mg/l air - 4 hours
Eye Contact:	Minimally Irritating (Rabbit)	
Skin Contact:	Slightly Irritating (Rabbit)	
Skin Sensitization:	Not a Sensitizer (Guinea Pig)	

Reproductive/Developmental Effects

Mefenoxam: None observed.

Chronic/Subchronic Toxicity Studies

Mefenoxam: Liver effects at high dose animal tests.

Carcinogenicity

Mefenoxam: None observed.

Chemical Name	NTP/IARC/OSHA Carcinogen
Crystalline Silica, Quartz and Cristobalite	IARC 1; ACGIH A2
Attapulgate Clay	IARC 2B
n-Methylpyrrolidone	No
Other ingredients	No
(R,S)-2-[(2,6-dimethylphenyl)-methoxyacetyl-amino]-propionic acid methyl ester	No

Other Toxicity Information

None

Toxicity of Other Components

Attapulgate Clay

Repeated and prolonged inhalation may cause delayed injury to lungs (silicosis). Exposure may result in shortness of breath, cough, and sputum production.

Crystalline Silica, Quartz and Cristobalite

Chronic inhalation exposure to crystalline silica is known to cause silicosis and pulmonary fibrosis in humans. Experimental animals exposed to crystalline silica developed respiratory tract cancers.

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Other ingredients
 Not Applicable

n-Methylpyrrolidone
 Harmful if absorbed through the skin. May cause respiratory tract irritation. Repeated or prolonged exposure may cause drying and cracking of the skin.
 Possible developmental hazard.

Target Organs

Active Ingredients

Mefenoxam: Liver

Inert Ingredients

Attapulgate Clay: Respiratory tract

Crystalline Silica, Quartz and Cristobalite: Respiratory tract

Other ingredients: Not Applicable

n-Methylpyrrolidone: Eye, skin

12. ECOLOGICAL INFORMATION

Eco-Acute Toxicity

Mefenoxam:
 Fish (Rainbow Trout) 96-hour LC50 > 121 ppm
 Invertebrate (Water Flea) Daphnia Magna 48-hour EC50 > 113 ppm
 Bird (Bobwhite Quail) 14-day LD50 981 mg/kg

Environmental Fate

Mefenoxam:
 The information presented here is for the active ingredient, mefenoxam.
 Does not bioaccumulate. Not persistent in soil or water. Moderate mobility in soil. Mixes/sinks (after 24 h).

13. DISPOSAL CONSIDERATIONS

Disposal:

Do not reuse product containers. Dispose of product containers, waste containers, and residues according to local, state, and federal health and environmental regulations.

Characteristic Waste: Not Applicable

Listed Waste: Not Applicable

14. TRANSPORT INFORMATION

DOT Classification

Ground Transport - NAFTA
 Not regulated

Comments

Water Transport - International
 Not regulated.

Air Transport

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Not regulated.

15. REGULATORY INFORMATION

Pesticide Registration:

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 as required on the pesticide label:

Caution: Causes moderate eye irritation. Harmful if inhaled or absorbed through skin. Avoid contact with skin, eyes, or clothing. Avoid breathing dust.

EPA Registration Number(s):
 100-794

EPCRA SARA Title III Classification:

Section 311/312 Hazard Classes: Acute Health Hazard

Section 313 Toxic Chemicals: n-Methylpyrrolidone <5.0% (CAS No. 872-50-4)

CERCLA/SARA 304 Reportable Quantity (RQ):

None

RCRA Hazardous Waste Classification (40 CFR 261):

Not Applicable

TSCA Status:

Exempt from TSCA, subject to FIFRA

16. OTHER INFORMATION

NFPA Hazard Ratings

Health: 2
 Flammability: 1
 Instability: 0

HMIS Hazard Ratings

Health: 2*
 Flammability: 1
 Reactivity: 0

0	Minimal
1	Slight
2	Moderate
3	Serious
4	Extreme
*	Chronic

Syngenta Hazard Category: D

For non-emergency questions about this product call:

1-800-334-9481

Original Issued Date: 9/2/1997

Revision Date: 8/3/2015

Replaces: 4/14/2015

Section(s) Revised: 2, 4, 11, 16

The information and recommendations contained herein are based upon data believed to be correct. However, no guarantee or warranty of any kind, expressed or implied, is made with respect to the information contained herein.

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