

Syngenta Crop Protection, Inc.
Post Office Box 18300
Greensboro, NC 27419

In Case of Emergency, Call
1-800-888-8372

1. PRODUCT IDENTIFICATION

Product Name: **SUBDUE GR** Product No.: A9603A
 EPA Signal Word: Caution
 Active Ingredient(%): Mefenoxam (1.0%) CAS No.: 70630-17-0
 Chemical Name: (R,S)-2-[(2,6-dimethylphenyl)-methoxyacetyl-amino]-propionic acid methyl ester
 Chemical Class: Phenylamide Fungicide
 EPA Registration Number(s): 100-794 **Section(s) Revised: 2, 5, 12**

2. HAZARDS IDENTIFICATION
Health and Environmental

Toxic by inhalation. Irritating to eyes, respiratory system and skin.

Hazardous Decomposition Products

May decompose at high temperatures forming toxic gases.

Physical Properties

Appearance: Reddish-brown granules

Odor: Sweet aromatic

Unusual Fire, Explosion and Reactivity Hazards

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

3. COMPOSITION/INFORMATION ON INGREDIENTS

Material	OSHA PEL	ACGIH TLV	Other	NTP/IARC/OSHA Carcinogen
Attapulgate Clay	Not Established	Not Established	2 mg/m ³ TWA *	IARC 2B
Crystalline Silica, Quartz	10 mg/m ³ /(%SiO ₂ +2) (respirable dust)	0.025 mg/m ³ (respirable silica)	0.05 mg/m ³ (respirable dust) **	IARC 1; ACGIH A2
n-Methylpyrrolidone (<= 4%)	Not Established	Not Established	10 ppm TWA ****	No
Mefenoxam (1.0%)	Not Established	Not Established	10 mg/m ³ TWA ***	No

* recommended by manufacturer

** recommended by NIOSH

*** Syngenta Occupational Exposure Limit (OEL)

**** Recommended by AIHA (American Industrial Hygiene Association)

Ingredients not precisely identified are proprietary or non-hazardous. Values are not product specifications.
 Syngenta Hazard Category: C

4. FIRST AID MEASURES

Have the product container, label or Material 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. Have the person sip a glass of water if able to swallow. 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.

Notes to Physician

There is no specific antidote if this product is ingested.

Treat symptomatically.

Medical Condition Likely to be Aggravated by Exposure

None known.

5. FIRE FIGHTING MEASURES

Fire and Explosion

- Flash Point (Test Method): 203°F (Pensky-Martens CC)
- Flammable Limits (% in Air): Lower: Not Applicable Upper: Not Applicable
- Autoignition Temperature: 500°F
- Flammability: Not Applicable

Unusual Fire, Explosion and Reactivity Hazards

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

In Case of Fire

Use dry chemical, foam or CO₂ extinguishing media. 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. Prevent use of contaminated buildings, area, and equipment until decontaminated. Water runoff can cause environmental damage. If water is used to fight fire, dike and collect runoff.

6. ACCIDENTAL RELEASE MEASURES

In Case of Spill or Leak

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

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.

8. EXPOSURE CONTROLS/PERSONAL PROTECTION

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

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

- 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 chemical splash goggles.
- Skin Contact: Where contact is likely, wear chemical-resistant (such as nitrile or butyl) gloves, coveralls, socks and chemical-resistant footwear. For overhead exposure, wear chemical-resistant headgear.
- Inhalation: A respirator is not normally required when handling this substance. Use effective engineering controls to comply with occupational exposure limits.

In case of emergency spills, use a NIOSH approved respirator with any N, R, or P or HE filter.

9. PHYSICAL AND CHEMICAL PROPERTIES

- Appearance: Reddish-brown granules
- Odor: Sweet aromatic
- Melting Point: Not Available
- Boiling Point: Not Applicable
- Specific Gravity/Density: 38.00 lbs./cu.ft.
- pH: 7 - 9 (1% solution in H₂O @ 77°F (25°C))

Solubility in H₂O

Mefenoxam: 26g/l @ 77°F (25°C)

Vapor Pressure

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

10. STABILITY AND REACTIVITY

- Stability: Stable under normal use and storage conditions.
- Hazardous Polymerization: Will not occur.
- Conditions to Avoid: None known.
- Materials to Avoid: None known.
- Hazardous Decomposition Products: May decompose at high temperatures forming toxic gases.

11. TOXICOLOGICAL INFORMATION

Acute Toxicity/Irritation Studies (Finished Product)

- Ingestion: Practically Non-Toxic
- Oral (LD50 Rat) : > 5,000 mg/kg body weight
- Dermal: Slightly Toxic
- Dermal (LD50 Rabbit) : > 2,000 mg/kg body weight
- Inhalation: Slightly Toxic
- 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.

Other Toxicity Information

None

Toxicity of Other Components

Attapulgitte Clay

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

n-Methylpyrrolidone (<= 4%)

May cause respiratory tract irritation. Repeated or prolonged exposure may cause drying and cracking of the skin.

Target Organs

Active Ingredients

Mefenoxam: Liver

Inert Ingredients

Attapulgitte Clay: Respiratory tract

n-Methylpyrrolidone: Eye, skin

12. ECOLOGICAL INFORMATION

Summary of Effects

Mefenoxam:

Practically non-toxic to aquatic organisms and wildlife.

Eco-Acute Toxicity

Mefenoxam:

Fish (Rainbow Trout) 96-hour LC50 > 121 ppm

Fish (Bluegill Sunfish) 96-hour LC50 0.31 ppm

Bird (Bobwhite Quail) LD50 Oral 981 mg/kg

Bee (Contact) LD50 > 25 ug/bee

Invertebrate (Water Flea) 48-hour EC50 > 113 ppm

Bird (Bobwhite Quail) 8-day dietary LC50 > 4830 ppm

Eco-Chronic Toxicity

Mefenoxam:

Not Available

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.

B/L Freight Classification

Fungicides, NOI, O/T Poison

Comments

Water Transport - International
Not regulated.

Air Transport - International
Not regulated.

15. REGULATORY INFORMATION

EPCRA SARA Title III Classification

Section 311/312 Hazard Classes: Acute Health Hazard

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

California Proposition 65

Not Applicable

CERCLA/SARA 302 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: 1
Flammability: 1
Reactivity: 0

0	Minimal
1	Slight
2	Moderate
3	Serious
4	Extreme

For non-emergency questions about this product call:

1-800-334-9481

Original Issued Date: 9/2/1997

Revision Date: 6/18/2007

Replaces: 7/25/2005

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.

End of MSDS