



Safety Data Sheet SERENADE OPTIMUM

SDS Number: 102000027848

SDS Version 1.0

Revision Date: 01/30/2013

Print Date: 01/30/2013

SECTION 1. CHEMICAL PRODUCT AND COMPANY INFORMATION

Product name	SERENADE OPTIMUM
SDS Number	102000027848
Product code (UVP)	80925441
EPA Registration No.	264-1160
Product Use	Fungicide, Bactericide

Bayer CropScience
2 T.W. Alexander Drive
Research Triangle PK, NC 27709
USA

For MEDICAL, TRANSPORTATION or other EMERGENCY call: 1-800-334-7577 (24 hours/day)
For Product Information call: 1-866-99BAYER (1-866-992-2937)

SECTION 2. HAZARDS IDENTIFICATION

NOTE: Please refer to Section 11 for detailed toxicological information.

<u>Emergency Overview</u>	Caution! Prolonged or frequently repeated skin contact may cause allergic reactions in some individuals. May cause eye irritation. May cause irritation of respiratory tract. Avoid contact with skin, eyes and clothing. Avoid breathing spray mist.
----------------------------------	---

Physical State	powder
Odor	sweet earthy
Appearance	beige to brown
Exposure routes	Eye contact, Skin contact, Inhalation
Immediate Effects	
Eye	May cause eye irritation.
Skin	Prolonged or frequently repeated skin contact may cause allergic reactions in some individuals.
Inhalation	Mists may cause respiratory tract irritation.

**Safety Data Sheet**
SERENADE OPTIMUMSDS Number: 102000027848
SDS Version 1.0**SECTION 3. COMPOSITION/INFORMATION ON INGREDIENTS**

<u>Hazardous Component Name</u>	<u>CAS-No.</u>	<u>Average % by Weight</u>
Bacillus subtilis, strain QST 713		26.20

SECTION 4. FIRST AID MEASURES

General	When possible, have the product container or label with you when calling a poison control center or doctor or going for treatment.
Eye	Hold eye open and rinse slowly and gently with water for 15-20 minutes. Remove contact lenses, if present, after the first 5 minutes, then continue rinsing eye. Call a physician or poison control center immediately.
Skin	Take off contaminated clothing and shoes immediately. Wash off immediately with plenty of water for at least 15 minutes. Call a physician or poison control center immediately.
Ingestion	Call a physician or poison control center immediately. Rinse out mouth and give water in small sips to drink. DO NOT induce vomiting unless directed to do so by a physician or poison control center. Never give anything by mouth to an unconscious person. Do not leave victim unattended.
Inhalation	Move to fresh air. If person is not breathing, call 911 or an ambulance, then give artificial respiration, preferably mouth-to-mouth if possible. Call a physician or poison control center immediately.
Notes to physician Treatment	Appropriate supportive and symptomatic treatment as indicated by the patient's condition is recommended. There is no specific antidote.

SECTION 5. FIRE FIGHTING MEASURES

Flash point	no data available
Autoignition temperature	no data available
Lower Flammability Limit	no data available
Upper Flammability Limit	no data available
Explosiveness	no data available
Suitable extinguishing media	Use water spray, alcohol-resistant foam, dry chemical or carbon dioxide.



Safety Data Sheet SERENADE OPTIMUM

SDS Number: 102000027848
SDS Version 1.0

Fire Fighting Instructions

Use appropriate extinguishing media for material that is supplying fuel.

Keep out of smoke. Fight fire from upwind position. Cool closed containers exposed to fire with water spray. Do not allow run-off from fire fighting to enter drains or water courses.

Firefighters should wear NIOSH approved self-contained breathing apparatus and full protective clothing.

SECTION 6. ACCIDENTAL RELEASE MEASURES

Personal precautions

Keep unauthorized people away. Isolate hazard area. Avoid contact with spilled product or contaminated surfaces.

Methods for cleaning up

Soak up with inert absorbent material (e.g. sand, silica gel, acid binder, universal binder, sawdust). Collect and transfer the product into a properly labelled and tightly closed container. Clean contaminated floors and objects thoroughly, observing environmental regulations.

Additional advice

Use personal protective equipment. Do not allow to enter soil, waterways or waste water canal.

SECTION 7. HANDLING AND STORAGE

Handling procedures

Ensure adequate ventilation. Handle and open container in a manner as to prevent spillage.

Storing Procedures

Store in a cool, dry place and in such a manner as to prevent cross contamination with other crop protection products, fertilizers, food, and feed. Store in original container and out of the reach of children, preferably in a locked storage area.

Keep away from direct sunlight.

Work/Hygienic Procedures

Remove Personal Protective Equipment (PPE) immediately after handling this product. Remove soiled clothing immediately and clean thoroughly before using again. Wash thoroughly and put on clean clothing.

SECTION 8. EXPOSURE CONTROLS / PERSONAL PROTECTION

General Protection

There are no known hazards associated with this product when used according to the label directions. The following guidelines should be followed.

Avoid inhalation of vapour or mist. Avoid contact with skin and eyes.

**Safety Data Sheet**
SERENADE OPTIMUMSDS Number: 102000027848
SDS Version 1.0

Wash hands thoroughly with soap and water after handling and before eating, drinking, chewing gum, using tobacco, using the toilet or applying cosmetics.

Eye/Face Protection	Safety glasses with side-shields
Hand protection	Chemical-resistant gloves made of waterproof material such as neoprene, butyl rubber, barrier laminate or nitrile rubber.
Body Protection	Wear long-sleeved shirt and long pants and shoes plus socks.
Respiratory protection	No personal respiratory protective equipment normally required. When respirators are required, select NIOSH approved equipment based on actual or potential airborne concentrations and in accordance with the appropriate regulatory standards and/or industry recommendations.

SECTION 9. PHYSICAL AND CHEMICAL PROPERTIES

Appearance	beige to brown
Physical State	powder
Odor	sweet earthy
pH	6.0 - 7.0 (1 %)
Vapor Pressure	no data available
Vapor Density (Air = 1)	no data available
Evaporation rate	no data available
Boiling Point	not applicable
Melting / Freezing Point	not applicable
Water solubility	dispersible
Minimum Ignition Energy	no data available
Partition coefficient: n-octanol/water	no data available
Viscosity	not applicable

SECTION 10. STABILITY AND REACTIVITY

Conditions to avoid	freezing
----------------------------	----------



Safety Data Sheet SERENADE OPTIMUM

SDS Number: 102000027848
SDS Version 1.0

	Extremes of temperature and direct sunlight.
Incompatibility	no data available
Hazardous Decomposition Products	no data available
Hazardous reactions	No hazardous reactions when stored and handled according to prescribed instructions.
Chemical Stability	Stable under normal conditions.

SECTION 11. TOXICOLOGICAL INFORMATION

Acute toxicity studies have not been performed on this formulation. Acute data provided is from a similar formulation.

Acute oral toxicity	rat: LD50: > 5,000 mg/kg
Acute dermal toxicity	rabbit: LD50: > 5,050 mg/kg
Acute inhalation toxicity	rat: LC50: 2.15 mg/l Determined in the form of liquid aerosol. Highest attainable concentration. No deaths
Skin irritation	rabbit: Slight irritation
Eye irritation	rabbit: Moderate eye irritation.
Sensitisation	guinea pig: Sensitising

ACGIH
None.
NTP
None.
IARC
None.
OSHA
None.

SECTION 12. ECOLOGICAL INFORMATION

Environmental precautions	Do not allow to get into surface water, drains and ground water. Do not contaminate surface or ground water by cleaning equipment or disposal of wastes, including equipment wash water. Apply this product as specified on the label.
----------------------------------	--



Safety Data Sheet SERENADE OPTIMUM

SDS Number: 102000027848
SDS Version 1.0

SECTION 13. DISPOSAL CONSIDERATIONS

General Disposal Guidance	It is best to use all of the product in accordance with label directions. If it is necessary to dispose of unused product, please follow container label instructions and applicable local guidelines. Never place unused product down any indoor or outdoor drain.
Container Disposal	Consult state and local regulations regarding the proper disposal of container. Follow advice on product label and/or leaflet.
RCRA Information	Characterization and proper disposal of this material as a special or hazardous waste is dependent upon Federal, State and local laws and are the user's responsibility. RCRA classification may apply.

SECTION 14. TRANSPORT INFORMATION

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

SECTION 15. REGULATORY INFORMATION

EPA Registration No.	264-1160
US Federal Regulations	
TSCA list	None.
US. Toxic Substances Control Act (TSCA) Section 12(b) Export Notification (40 CFR 707, Subpt D)	None.
SARA Title III - Section 302 - Notification and Information	None.
SARA Title III - Section 313 - Toxic Chemical Release Reporting	None.
US States Regulatory Reporting	
CA Prop65	This product does not contain any substances known to the State of California to cause cancer.
	This product does not contain any substances known to the State of California to cause reproductive harm.
US State Right-To-Know Ingredients	None.
Canadian Regulations	
Canadian Domestic Substance List	None.

Environmental



Safety Data Sheet

SERENADE OPTIMUM

SDS Number: 102000027848
SDS Version 1.0

CERCLA

None.

Clean Water Section 307 Priority Pollutants

None.

Safe Drinking Water Act Maximum Contaminant Levels

None.

SECTION 16. OTHER INFORMATION

NFPA 704 (National Fire Protection Association):

Health - 0 Flammability - 1 Instability - 0 Others - none

HMIS (Hazardous Materials Identification System, based on the Third Edition Ratings Guide)

Health - 0 Flammability - 1 Physical Hazard - 0 PPE -

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

Reason for Revision: New Safety Data Sheet.

Revision Date: 01/30/2013

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