



PC00050

BY SCHOOLS

715 E. 12th Ave.  
MILLSBORO, DE 19966

MATERIAL SAFETY DATA SHEET. CM 0192

Grace-Sierra Horticultural Products Co.  
1001 Yosemite Dr.  
Milpitas, CA. 95035  
(408) 263-8083

Product: OSMOCOTE(R)  
CONTROLLED RELEASE  
FERTILIZERS

MSDS No: SIERRA / 0010193  
Revision: 1  
Date: January 15, 1993

National Paint  
and Coatings  
Association  
  
Hazardous Material  
Identification  
System

HEALTH HAZARD	1 - Slight
FLAMMABILITY HAZARD	0 - Minimal
REACTIVITY HAZARD	1 - Slight
PERSONAL PROTECTION	SEE MSDS SECTION VIII

## SECTION I. MATERIAL IDENTIFICATION

Trade/Material Name: OSMOCOTE(R) CONTROLLED RELEASE FERTILIZERS

Description: Mixed Fertilizer Salts As Coated Prills

Other Designations: 13-12-12 Florida, 13-13-13, 13.5-13.5-13.5, 14-14-14, 16-6-12 Florida, 16-7-12 Florida, 17-7-12, 17-9-13, 17-7-12 PNW, 18-6-11 Florida, 18-6-12, 18-6-12 Fast Start, 18-7-12 PNW, 19-6-12, 16-7-16 Florida Foliage, 18-8-13, 18-7-13

## SECTION II. INGREDIENTS AND HAZARDS

Ingredient Name:	CAS Number:	Percent:	Exposure Limits:
Ammonium Nitrate	6484-52-2		None
Potassium Sulfate	7778-80-5		None
Ammonium Phosphate	7783-28-0		None
Calcium Phosphates	1306-06-5		None
Calcium Fluoride	7789-75-5	<2%	2.5 mg/m <sup>3</sup> as F (Fed. OSHA & Cal OSHA Standard, ACGIH TLV). ACGIH Biological Exposure Indices for Fluoride in Urine: 3 mg/L pre-shift, 10 mg/L post-shift.
Magnesium Sulfate	10034-99-8	0-2%	None

Each prill consists of the ingredients listed above coated with a resin made from a vegetable oil (linseed oil or soybean oil) reacted with a cyclic diene.

This product is not classified as a hazardous material for transportation purposes.

All exposure limits are for airborne 8-hour time-weighted averages and apply only to occupational exposures. Product coating is expected to minimize airborne exposures.

The ACGIH Threshold Limit Values for nuisance (inert) dust containing <1% crystalline silica and no asbestos are: 10 mg/m<sup>3</sup> total, 5 mg/m<sup>3</sup> respirable.

Material Safety Data Sheet

Grace-Sierra Horticultural Products Co.  
1001 Yosemite Dr.  
Milpitas, CA. 95035  
(408) 263-8083

Product: OSMOCOTE(R)  
CONTROLLED RELEASE  
FERTILIZERS

MSDS No: SIERRA / 0010193  
Revision: 1  
Date: January 15, 1993

SECTION III. PHYSICAL DATA

Appearance & Odor: Spherical prills. Color: mixed light and dark tan. Odorless.

Boiling point: Decomposes on heating.	Evaporation rate: Not Applicable
Vapor pressure: Not Known	Specific gravity (H <sub>2</sub> O=1): 1.2
Water solubility (%): 80-85	Melting point: Decomposes on heating.
Vapor density (air=1): Not Applicable	% volatile by volume: Not Applicable

Warning Properties of Uncoated Fertilizer: Irritation of eyes, nose, or mouth.

SECTION IV. FIRE AND EXPLOSION DATA

Flash Point (method): Decomposes on heating.	Limits: LEL %: Not Applicable	UEL %: Not Applicable
----------------------------------------------	-------------------------------	-----------------------

NFPA Flammable/Combustible Liquid Classification: Not Applicable

Extinguishing Media: Water	Autoignition Temp: Not Applicable
----------------------------	-----------------------------------

Unusual fire or explosion hazards: Decomposes on heating to emit toxic ammonia and oxides of nitrogen, phosphorous, and sulfur. High airborne dust concentrations have the potential for explosion.

Special fire-fighting procedures: Evacuate area. Flood with water to cool containers. Wear self-contained breathing apparatus to fight large fires.

SECTION V. REACTIVITY DATA

Material is stable. Hazardous polymerization cannot occur.

Chemical incompatibilities: Strong reducing agents. Active metals such as aluminum and magnesium.

Conditions to avoid: Extreme heat. Contact with fuels and other organic or combustible materials. Strong reducing agents. Active metals such as aluminum and magnesium.

Hazardous decomposition Products: Ammonia and oxides of nitrogen, phosphorous, and sulfur.

Material Safety Data Sheet

Grace-Sierra Horticultural Products Co.  
1001 Yosemite Dr.  
Milpitas, CA. 95035  
(408) 263-8083

Product: OSMOCOTE(R)  
CONTROLLED RELEASE  
FERTILIZERS

MSDS No: SIERRA / 0010193  
Revision: 1  
Date: January 15, 1993

SECTION VI. HEALTH HAZARD INFORMATION

This product is not considered a carcinogen by NTP, IARC, or OSHA.

Summary of risks: Ammonium nitrate is an allergen. Direct contact with uncoated fertilizer may irritate eyes and skin. Inhalation of dust may irritate nose, throat, and lungs, although product coating makes this unlikely. Ingestion of large amounts of product can cause severe gastrointestinal irritation.

Medical conditions which may be aggravated by contact: Ammonium nitrate allergies.  
Skin abrasions and sores.

Target organs: Skin, eyes, respiratory tract, and gastrointestinal tract.

Primary entry route(s): Ingestion, inhalation.

Acute effects: See Summary

Chronic effect(s): Not Known

Signs & symptoms of overexposure:

Eye contact: See Summary

Skin contact: See Summary

Inhalation: See Summary

Ingestion: See Summary

First aid:

Eye contact: Flush thoroughly with running water for 15 minutes.

Skin contact: Wash with soap and water.

Inhalation: Dusty conditions are unlikely if product is used as intended and product coating remains intact. However, if prolonged inhalation of dust occurs, remove victim to fresh air.

Ingestion: Never give anything by mouth to an unconscious or convulsing person. If person is conscious, rinse mouth with water. Give water or milk to dilute material. Induce vomiting. Get medical help.

Seek medical help for further treatment, observation, and support after first aid.

SECTION VII. SPILL, LEAK AND DISPOSAL PROCEDURES

Spill / Leak procedures: Avoid dusting or misting conditions during cleanup. If material is uncontaminated, collect and reuse as recommended for product. If contaminated, put in appropriate container and dispose. Keep spills away from drinking water supplies. After cleaning up spill, flush area with water.

Waste management / Disposal: Apply as fertilizer to field. If product is contaminated, dispose of in an approved landfill disposal facility, in accordance with applicable federal, state, and local regulations.

Material Safety Data Sheet

Grace-Sierra Horticultural Products Co.  
1001 Yosemite Dr.  
Milpitas, CA. 95035  
(408) 263-8083

Product: OSMOCOTE(R)  
CONTROLLED RELEASE  
FERTILIZERS

MSDS No: SIERRA / 0010193  
Revision: 1  
Date: January 15, 1993

SECTION VIII. SPECIAL PROTECTION INFORMATION

Personal protective equipment:

Goggles: None required for routine use as fertilizer. High airborne dust levels or mists of product dissolved in liquid may be irritating; use chemical goggles.

Gloves: None required for normal use. If prolonged or repeated use irritates skin, use neoprene or PVC gloves.

Respirator: If airborne dust levels are high or irritation occurs, use NIOSH/MSHA approved respirator for dusts, mists and fumes.

Workplace considerations:

Ventilation: None required for routine use.

Safety stations:

Running water should be available in case material gets in eyes.

Other: Ingredients with occupational exposure limits comprise a small percentage of the total product. For this reason, it is not expected that these limits will be exceeded unless the nuisance dust standards are exceeded (see Section II).

SECTION IX. SPECIAL PRECAUTIONS

Storage segregation: Store in a cool, dry area away from incompatible materials such as aluminum and magnesium (see Section V of this MSDS for more information). Store away from feed and foodstuffs.

Engineering controls: None Required

Other precautions: Wash hands with soap and water after handling product.

DOT Class: Not Hazardous

UN Register: None

Prepared/revised by: M. Lowman

January 15, 1993

The information provided in this material safety data sheet applies only to the intact product used as directed on the package label.

The information contained herein is provided in good faith and is believed to be correct as of the date hereof. However, Grace-Sierra makes no representations as to the comprehensiveness or accuracy of the information. It is expected that individuals receiving the information will exercise their independent judgement in determining its appropriateness for a particular purpose. Accordingly, Grace-Sierra will not be responsible for damages of any kind resulting from the use of, or reliance upon such information.