

## MATERIAL SAFETY DATA SHEET

O  
CAROLINA BIOLOGICA L

Revised: 09/05/00  
Replaces: None  
Printed: 24/08/00

### 1. PRODUCT DESCRIPTION

Product Name: Osmocote(R) Controlled Release Fertilizer 14 -14-14  
Product Code(s): 97-1929, D -3131, C10957, 15-8702, E -8730  
Size: N/A  
Chemical Name: Does not apply. Product is a mixture.  
CAS Number: Does not apply. Product is a mixture.  
Formula: See section III  
Synonyms: None  
Distributor: Carolina Biological Supply Company  
2700 York Road  
Burlington, NC 2721

Chemical Information: 800-227-1150 (8a -5pm (ET)M -F)  
Chemtrec (Transportation Spill Response 24 hours): 800 -424-9300

### 2. COMPOSITION/INFORMATION ON INGREDIENTS

Principle Hazardous Components:	OSHA -PEL	ACGIH -TLV
Ammonium Nitrate(CAS# 6484 -52-2)	None	None
Potassium Sulfate(CAS# 7778-80-5)	None	None
Ammonium Phosphates (CAS# 7783-28-0 and 772 -76-1)	None	None
Calcium Phosphates (CAS# 7758-23-8, 775 -93-9, and 7758-87-4)	None	None
Calcium Fluoride(CAS# 778 -75-5)	2.5 mg(F)/m3	2.5 mg(F)/m3

Each prill is coated with a resin made from vegetable oil reacted with a cyclic diene. This product coating is expected to minimize airborne exposures.

### 3. HAZARD IDENTIFICATION

Emergency Overview: Ammonium nitrate is an allergen. Prolonged or repeated direct contact with fertilizer may irritate eyes and skin. Inhalation of dust may irritate nose, throat, and lungs. Prolonged exposure may cause weakness, depression, mental impairment, anemia, methemoglobinemia, and kidney injury. Ingestion of product can cause severe gastrointestinal irritation, muscular weakness, and blue-tinged skin(cyanosis). Infants and children are especially at risk for cyanosis. Ingestion of large amounts may result in death.

### 4. FIRST AID MEASURES

Emergency and First Aid Procedures: Delay absorption of nitrates by giving water, milk, or activated charcoal and remove by gastric lavage or emesis.

Eyes - Flush with water for at least 15 minutes, raising and lowering eyelids occasionally. Get medical attention if irritation persists

Skin - Thoroughly wash exposed area for at least 15 minutes. Remove contaminated clothing. Launder contaminated clothing before reuse.

Get medical attention if irritation persists

Ingestion - If swallowed, if conscious, give plenty of water.

Immediately call a physician or poison control center. Never give anything by mouth to an unconscious person

Inhalation - Remove to fresh air. Give oxygen if breathing is

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difficult; give artificial respiration if breathing has stopped. Keep person warm, quiet, and get medical attention.

### 5. FIREFIGHTING PROCEDURES

Flash Point (Method Used): Decomposes on heating  
NFPA Rating: Health:2 Flammability:0 Reactivity:1  
Extinguisher Media: Water  
Flammable Limits in Air % by Volume: N/A  
Autoignition Temperature: N/A

Special Firefighting Procedures: Flood with water to cool containers. Wear self-contained breathing apparatus to fight large fires.  
Unusual Fire and Explosion Hazards: Decomposes on heating to emit toxic ammonia and oxides of nitrogen, phosphorous, potassium, fluorine, and sulfur. High airborne dust concentrations have the potential for explosion.

### 6. SPILL OR LEAK PROCEDURES

Steps to be taken in case material is released or spilled Avoid dusting or misting conditions during cleanup. If material is uncontaminated, collect and reuse as recommended for product. Keep spills away from drinking water supply. After cleaning up spill, flush area with water.

### 7. SPECIAL PRECAUTIONS

Precautions to be Taken in Handling or Storing: Protect from heat and moisture. Store away from feed and foodstuffs, as well as household cleaning products. Wash hands with soap and water after handling product. Keep out of reach of children.

### 8. SPECIAL PROTECTION INFORMATION

Respiratory Protection (Specify Type): If airborne dust levels are high, use a combination of ventilation and NIOSH/MSHA approved respirator for dusts, mists, and fumes to reduce exposures to acceptable levels.

Ventilation:

Local Exhaust:	Recommended
Mechanical (General):	Acceptable
Special:	No
Other:	No

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

Eye Protection: None required for routine use. However, chemical goggles are always recommended in potential dusting situations.

Other Protective Clothing or Equipment: Running water should be available in case material gets in eyes.

### 9. PHYSICAL DATA

Molecular Weight:	Product is a mixture.
Melting Point:	Decomposes on heating
Boiling Point:	Not known
Vapor Pressure:	Not known
Vapor Density (Air=1):	Nonvolatile

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Specific Gravity(H<sub>2</sub>O=1): 1.2  
Percent Volatile by Volume: Not known  
Evaporation Rate(H<sub>2</sub>O=1): Not known  
Solubility in Water: 0 8 - 85 %  
Appearance and Odor: Odorless, mixed light and dark tan prills

### 10. REACTIVITY DATA

Stability: Stable  
Conditions to Avoid: Temperatures above 300 F. Contact with fuels and other combustible materials.  
Incompatibility(Materials to Avoid): Strong reducing agents, active metals such as aluminum and magnesium.  
Hazardous Decomposition Products: Ammonia and oxides of nitrogen, phosphorous potassium, and sulfur.  
Hazardous Polymerization: Will not occur

### 11. TOXICITY DATA

Toxicity Data: For calcium fluoride, orl-rat LD50: 4250 mg/kg  
For ammonium nitrate, orl-rat LD50: 2217 mg/kg  
For calcium phosphate monobasic, orl-rat LD50: 17500 mg/kg  
For potassium sulfate, orl-rat LD50: 6600 mg/kg

Effects of Overexposure:

Acute: See section 3

Chronic: No chronic effects data cited. Not listed as causing cancer by IARC, NTP, or OSHA.

Conditions Aggravated by Overexposure: Ammonium nitrate allergies and skin abrasions and sores.

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

Primary Route(s) of Entry: Ingestion, inhalation.

### 12. ECOLOGICAL DATA

EPA Waste Numbers: N/A

### 13. DISPOSAL INFORMATION

Waste Disposal Methods: Dispose in accordance with all applicable Federal, State and Local regulations.

Always contact a permitted waste disposer (TSD) to assure compliance.

### 14. TRANSPORT INFORMATION

N/A

### 15. REGULATORY INFORMATION

EPA TSCA Status: On TSCA Inventory RTECS ON CDROM

Hazard Category for SARA Section 311/312 Reporting: Acute 40CFR370.40

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Product or Components	SARA EHS	SARA Sec. 313		CERCLA	RCRA
	Sec. 302 TPQ	Chemicals Name	Chemical List	Sec. 103 RQ lbs.	Sec.
261.33					
Ammonium nitrate	No	No	No	No	No
Calcium phosphate	No	No	No	No	No
Ammonium phosphate	No	No	No	No	No
Calcium fluoride	No	No	No	No	No
Potassium sulfate	No	No	No	No	No

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### 16. ADDITIONAL INFORMATION

The information provided in this Material Safety Data Sheet represents a compilation of data drawn directly from various sources available to us. Carolina Biological Supply makes no representation or guarantee as to the suitability of this information to a particular application of the substance covered in the Material Safety Data Sheet. Any employer must carefully assess the applicability of any information contained herein in regards to the particular use to which the employer puts the material.

#### Glossary

ACGIH.....American Conference of Governmental Industrial Hygienists  
CAS Number..Chemical Services Abstract Number  
CERCLA.....Comprehensive Environmental Response, Compensation, and Liability Act  
DOT.....U.S. Department of Transportation  
IARC.....International Agency of Research on Cancer  
N/A.....Not Available  
NTP.....National Toxicology Program  
OSHA.....Occupational Safety and Health Administration  
PEL.....Permissible Exposure Limit  
ppm.....parts per million  
RCRA.....Resource Conservation and Recovery Act  
SARA.....Superfund Amendments and Reauthorization Act  
TLV.....Threshold Limit Value  
TSCA.....Toxic Substances Control Act