

# MATERIAL SAFETY DATA SHEET

Total Solutions  
P.O. Box 240014  
Milwaukee, WI 53224



GENERAL INFORMATION NUMBER: (414) 354-6417  
CHEMTREC: (800) 424-9300

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## I - Product Identification

### Liquid Fertilizer 16-8-4

PRODUCT CODE: 0245

CHEMICAL FORMULATION: Liquid fertilizer.

NFPA HAZARD IDENTIFICATION SYSTEM:

HAZARD RATING:

4 - Extreme;

HEALTH: 1

3 - High;

FLAMMABILITY: 0

2 - Moderate;

1 - Slight;

REACTIVITY: 0

0 - Insignificant

## II - Hazardous Ingredients

Values reported as TWA unless noted.

<u>SUBSTANCE</u>	<u>APPROX</u>	<u>OSHA</u>	<u>ACGIH</u>	<u>EPA 40 CFR:</u>			<u>CAS #</u>
	<u>%</u>	<u>PEL</u>	<u>TLV</u>	<u>302</u>	<u>355</u>	<u>372</u>	
Total Nitrogen	16.0	N/E	N/E	N	N	N	
Available Phosphate	8.00	N/E	N/E	N	N	N	
Soluble Potash	4.00	N/E	N/E	N	N	N	

Key: **PEL**: Permissible Exposure Limit    **TLV**: Threshold Limit Value    **C**: Ceiling level    **STEL**: Short Term Exposure Limit  
**N/A**: Not Applicable    **N/D**: Not Determined    **N/E**: Not Established    **Y**: Yes    **N**: No  
**302**: CERCLA List of Hazardous Substances and Reportable Quantities (40 CFR 302.4).  
**355**: SARA TITLE III / List of Extremely Hazardous Substances for Emergency Planning and Notification (40 CFR 355).  
**372**: SARA TITLE III / List of Toxic Chemicals subject to Release Reporting (Community Right to Know) (40 CFR 372).

## III - Physical Data

**BOILING POINT (°F)**: > 200

**VAPOR PRESSURE (mm Hg)**: N/D

**VAPOR DENSITY (AIR = 1)**: N/D

**SOLUBILITY IN WATER**: Soluble

**APPEARANCE AND ODOR**: Clear, green liquid; characteristic odor.

**SPECIFIC GRAVITY (WATER = 1)**: 1.21

**VOC CONTENT (% by weight)**: N/D

**EVAPORATION RATE (WATER = 1)**: N/D

**pH**: N/D

## IV - Fire and Explosion Hazard Data

**FLASH POINT (°F)**: None

**(TEST METHOD)**: N/A

**FLAMMABLE LIMITS IN AIR (VOLUME %)**

**UPPER**: N/A

**LOWER**: N/A

**EXTINGUISHING MEDIA**: Foam, carbon dioxide, dry chemical.

**SPECIAL FIRE FIGHTING PROCEDURES**: Fire may produce hazardous fumes. Firefighters should be equipped with full protective gear including self-contained breathing apparatus.

**UNUSUAL FIRE AND EXPLOSION HAZARD**: None.

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**V - Reactivity Data**

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**STABILITY:** Stable

**INCOMPATIBILITY:** Strong alkalis or acids and calcium.

**CONDITIONS TO AVOID:** None

**HAZARDOUS DECOMPOSITION PRODUCTS:** Thermal decomposition may produce oxides of carbon.

**HAZARDOUS POLYMERIZATION:** Will not occur.

**CONDITIONS TO AVOID:** None

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**VI - Health Hazard Data**

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**ROUTES OF ENTRY**      **INHALATION:** X      **EYE CONTACT:** X      **SKIN CONTACT:** X      **INGESTION:** X

**INGREDIENTS THAT ARE CONSIDERED BY OSHA, NTP, IARC TO BE SUSPECTED HUMAN CARCINOGENS:** None.

**EFFECTS OF OVEREXPOSURE**

**IF IN EYES:** Corrosive. May cause severe irritation, burns, tearing.

**IF ON SKIN:** Irritation with prolonged or repeated exposure.

**IF SWALLOWED:** May cause nausea, vomiting, diarrhea and gastric distress.

**IF INHALED:** Irritation of respiratory tract.

**EMERGENCY AND FIRST AID PROCEDURES**

**IF IN EYES:** Flush eyes and under eyelids with plenty of cool water for at least 15 minutes. If irritation persists, obtain medical attention.

**IF ON SKIN:** Remove contaminated clothing and launder before re-use. Wash with soap and water. If irritation persists, obtain medical attention.

**IF SWALLOWED:** Contact physician or poison control center immediately. Give affected person large amounts of water. Do not induce vomiting unless instructed by a physician or poison control center. Never give anything by mouth to an unconscious person.

**IF INHALED:** Remove person to fresh air. If breathing has stopped, administer artificial respiration.

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**VII - Spill or Leak Protection**

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**STEPS TO BE TAKEN IF MATERIAL IS RELEASED OR SPILLED:** Ventilate area. Soak up spilled material with inert absorbent material or flush away with water.

**WASTE DISPOSAL METHOD:** Consult local environmental authorities.

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**VIII - Special Protection Information**

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**RESPIRATORY PROTECTION:** Use with adequate ventilation. Do not breathe mists. If mists are generated wear a NIOSH approved respirator, following manufacturer's recommendations.

**VENTILATION**

**LOCAL:** Not required

**MECHANICAL:** Not required

**PROTECTIVE GLOVES:** Chemical resistant.

**EYE PROTECTION:** Safety glasses or chemical goggles.

**OTHER PROTECTIVE EQUIPMENT:** Eye wash station.

**PRECAUTIONS TO BE TAKEN IN HANDLING AND STORAGE:** Store in a cool, dry place. Keep container tightly closed when not in use.

**OTHER PRECAUTIONS:** Keep out of reach of children.

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**IX - Transportation Information (ground transportation only)**

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**DOT PROPER SHIPPING NAME:** None

**DOT CLASS:** None

**DOT ID NUMBER:** None

**DOT PACKING GROUP:** None

The shipping information listed above applies only to non-bulk (< 119 gallons) containers of this product. This product may have more than one proper shipping name depending on packaging, product properties, & mode of shipment. If any alteration of packaging, product, or mode of transportation is further intended, different shipping names and labeling may apply.

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