

# MATERIAL SAFETY DATA SHEET

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

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## I - Product Identification

### Liquid Fertilizer 4-12-8

PRODUCT CODE: 0230

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><br><u>%</u> | <u>OSHA</u><br><u>PEL</u> | <u>ACGIH</u><br><u>TLV</u> | <u>EPA 40 CFR:</u> |            |            | <u>CAS #</u> |
|---------------------|---------------------------|---------------------------|----------------------------|--------------------|------------|------------|--------------|
|                     |                           |                           |                            | <u>302</u>         | <u>355</u> | <u>372</u> |              |
| Total Nitrogen      | 4.00                      | N/E                       | N/E                        | N                  | N          | N          |              |
| Available Phosphate | 12.0                      | N/E                       | N/E                        | N                  | N          | N          |              |
| Soluble Potash      | 8.00                      | 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; no odor.

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

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

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

**pH:** 4.00-5.00

## 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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