1. PRODUCT AND COMPANY IDENTIFICATION

Product Identifier

Product Name TERRAMEND INORGANIC

Other means of identification

Synonyms Calcium carbonate: Carbonic acid, calcium salt (1:1); Precipitated chalk; Monoammonium phosphate: Ammonium phosphate, monobasic; Phosphoric acid, monoammonium salt; Ammonium dihydrogen phosphate; Ammonium monobasic phosphate; Ammonium phosphate; Dihydrogen ammonium phosphate; Monoammonium acid phosphate; Monoammonium dihydrogen phosphate; Monoammonium orthophosphate; Ammonium dihydrogen orthophosphate

Alternate Commercial Name TERRAMEND INORGANIC M1, TERRAMEND INORGANIC M2

Recommended use of the chemical and restrictions on use

Recommended Use: Bioremediation product for the remediation of contaminated soil and groundwater.

Restrictions on Use: Not for drinking water purification treatment.

Manufacturer/Supplier

PeroxyChem LLC
2005 Market Street
Suite 3200
Philadelphia, PA 19103
Phone: +1 267/ 422-2400  (General Information)
E-Mail: sdsinfo@peroxychem.com

Emergency telephone number

For leak, fire, spill or accident emergencies, call:
1 800 / 424 9300 (CHEMTREC - U.S.A.)
1 703 / 527 3887 (CHEMTREC - Collect - All Other Countries)
1 303/ 389-1409 (Medical - U.S. - Call Collect)

2. HAZARDS IDENTIFICATION

Classification

OSHA Regulatory Status

This chemical is not considered hazardous by the 2012 OSHA Hazard Communication Standard (29 CFR 1910.1200).

GHS Label elements, including precautionary statements

EMERGENCY OVERVIEW

Page 1 / 7
**3. COMPOSITION/INFORMATION ON INGREDIENTS**

<table>
<thead>
<tr>
<th>Chemical name</th>
<th>CAS-No</th>
<th>Weight %</th>
</tr>
</thead>
<tbody>
<tr>
<td>Monoammonium phosphate</td>
<td>7722-76-1</td>
<td>40-60</td>
</tr>
<tr>
<td>Calcium carbonate</td>
<td>471-34-1</td>
<td>20-30</td>
</tr>
<tr>
<td>Organic Amendment</td>
<td>Proprietary</td>
<td>15-25</td>
</tr>
<tr>
<td>Lecithin</td>
<td>8002-43-5</td>
<td>2</td>
</tr>
</tbody>
</table>

Synonyms are provided in Section 1.

**4. FIRST AID MEASURES**

**Eye Contact**
Immediately flush with plenty of water. After initial flushing, remove any contact lenses and continue flushing for at least 15 minutes. Get medical attention if symptoms occur.

**Skin Contact**
Wash off immediately with soap and plenty of water while removing all contaminated clothes and shoes. Get medical attention if irritation develops and persists.

**Inhalation**
Move victim to fresh air. If breathing is irregular or stopped, administer artificial respiration. Get medical attention immediately if symptoms occur.

**Ingestion**
Rinse mouth with water and afterwards drink plenty of water or milk. Do not induce vomiting or give anything by mouth to an unconscious person. Call a poison control center or doctor immediately for treatment advice. Never give anything by mouth to an unconscious person.

**Most important symptoms and effects, both acute and delayed**
Irritation

**Indication of immediate medical attention and special treatment needed, if necessary**
Treat symptomatically

**5. FIRE-FIGHTING MEASURES**

**Suitable Extinguishing Media**
Water, Foam, Carbon dioxide (CO₂). Use extinguishing measures that are appropriate to local circumstances and the surrounding environment.

**Specific Hazards Arising from the Chemical**
Combustible material

**Hazardous Combustion Products**
Phosphorus oxides; Nitrogen oxides (NOₓ); Ammonia.
**Explosion data**

| Sensitivity to Mechanical Impact | Not sensitive. |
| Sensitivity to Static Discharge    | Not sensitive. |

**Protective equipment and precautions for firefighters**

As in any fire, wear self-contained breathing apparatus and full protective gear.

---

### 6. ACCIDENTAL RELEASE MEASURES

**Personal Precautions**

Avoid dust formation. For personal protection see Section 8.

**Other**

For further clean-up instructions, call PeroxyChem Emergency Hotline number listed in Section 1 “Product and Company Identification” above.

**Environmental Precautions**

No special environmental precautions required.

**Methods for Containment**

Sweep or vacuum up spillage and return to container. Avoid dust formation. Material may be recycled when contamination is not a problem.

**Methods for cleaning up**

After cleaning, flush away traces with water. Dispose of waste as indicated in Section 13.

---

### 7. HANDLING AND STORAGE

**Handling**

Provide appropriate exhaust ventilation at places where dust is formed. In case of insufficient ventilation, wear suitable respiratory equipment if release of airborne dust is expected.

**Storage**

Keep tightly closed in a dry and cool place. Any vessel that contains wet TERRAMEND must be vented due to potential pressure build up from fermentation gases.

**Incompatible products**

- Powdered magnesium
- Strong acids
- Strong bases
- Strong oxidizing agents

---

### 8. EXPOSURE CONTROLS/PERSONAL PROTECTION

**Control parameters**

**Exposure Guidelines**

Ingredients with workplace control parameters.

<table>
<thead>
<tr>
<th>Chemical name</th>
<th>ACGIH TLV</th>
<th>OSHA PEL</th>
<th>NIOSH</th>
<th>Mexico</th>
</tr>
</thead>
<tbody>
<tr>
<td>Calcium carbonate 471-34-1</td>
<td>-</td>
<td>-</td>
<td>TWA: 10 mg/m³</td>
<td>-</td>
</tr>
<tr>
<td>Calcium carbonate 471-34-1</td>
<td>British Columbia</td>
<td>Quebec</td>
<td>Ontario TWAEV</td>
<td>Alberta</td>
</tr>
<tr>
<td>Calcium carbonate 471-34-1</td>
<td>-</td>
<td>TWA: 10 mg/m³</td>
<td>-</td>
<td>TWA: 10 mg/m³</td>
</tr>
</tbody>
</table>

**Appropriate engineering controls**

**Engineering measures**

None under normal use conditions.

**Individual protection measures, such as personal protective equipment**

**Eye/Face Protection**

Safety glasses with side-shields.

**Skin and Body Protection**

Wear suitable protective clothing. Protective shoes or boots.

**Hand Protection**

Protective gloves.

**Respiratory Protection**

If exposure limits are exceeded or irritation is experienced, NIOSH/MSHA approved respiratory protection should be worn.

**Hygiene measures**

Clean water should be available for washing in case of eye or skin contamination. Remove and wash contaminated clothing before re-use. Wash skin prior to eating, drinking, chewing gum or using tobacco. Shower or bathe at the end of working. Launder work clothing.
separately from regular household laundry.

General information

These recommendations apply to the product as supplied

9. PHYSICAL AND CHEMICAL PROPERTIES

Information on basic physical and chemical properties

<table>
<thead>
<tr>
<th>Property</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Appearance</td>
<td>Beige, Powder</td>
</tr>
<tr>
<td>Physical State</td>
<td>Solid</td>
</tr>
<tr>
<td>Color</td>
<td>Beige</td>
</tr>
<tr>
<td>Odor</td>
<td>odorless</td>
</tr>
<tr>
<td>Odor threshold</td>
<td>Not applicable</td>
</tr>
<tr>
<td>pH</td>
<td>5.1 - 5.4 (as aqueous solution)</td>
</tr>
<tr>
<td>Melting point/freezing point</td>
<td>Not applicable No information available</td>
</tr>
<tr>
<td>Boiling Point/Range</td>
<td>No information available Not applicable</td>
</tr>
<tr>
<td>Flash point</td>
<td>Not applicable</td>
</tr>
<tr>
<td>Evaporation Rate</td>
<td>No information available</td>
</tr>
<tr>
<td>Flammability (solid, gas)</td>
<td>Combustible material</td>
</tr>
<tr>
<td>Flammability Limit in Air</td>
<td></td>
</tr>
<tr>
<td>Upper flammability limit</td>
<td>No information available</td>
</tr>
<tr>
<td>Lower flammability limit</td>
<td>No information available</td>
</tr>
<tr>
<td>Vapor pressure</td>
<td>Not applicable</td>
</tr>
<tr>
<td>Vapor density</td>
<td>No information available</td>
</tr>
<tr>
<td>Density</td>
<td>No information available</td>
</tr>
<tr>
<td>Specific gravity</td>
<td>No information available</td>
</tr>
<tr>
<td>Water solubility</td>
<td>slightly soluble</td>
</tr>
<tr>
<td>Solubility in other solvents</td>
<td>No information available</td>
</tr>
<tr>
<td>Partition coefficient</td>
<td>No information available</td>
</tr>
<tr>
<td>Autoignition temperature</td>
<td>No information available</td>
</tr>
<tr>
<td>Decomposition temperature</td>
<td>No information available</td>
</tr>
<tr>
<td>Viscosity, kinematic</td>
<td>No information available (Solid)</td>
</tr>
<tr>
<td>Viscosity, dynamic</td>
<td>No information available</td>
</tr>
<tr>
<td>Explosive properties</td>
<td>Not explosive</td>
</tr>
<tr>
<td>$K_a$</td>
<td>0 bar-m/sec</td>
</tr>
<tr>
<td>Oxidizing properties</td>
<td>No information available</td>
</tr>
<tr>
<td>Molecular weight</td>
<td>No information available</td>
</tr>
<tr>
<td>Bulk density</td>
<td>No information available</td>
</tr>
</tbody>
</table>

10. STABILITY AND REACTIVITY

None under normal use conditions

Chemical Stability

Stable under recommended storage conditions.

Possibility of Hazardous Reactions

None under normal processing.

Hazardous polymerization

Hazardous polymerization does not occur.

Conditions to avoid

Excessive heat. Humid air.

Incompatible materials

Powdered magnesium, Strong acids, Strong bases. Strong oxidizing agents.

Hazardous Decomposition Products

Burning produces obnoxious and toxic fumes.

11. TOXICOLOGICAL INFORMATION

Product Information

Product does not present an acute toxicity hazard based on known information.

LD50 Oral

5,750 mg/kg (rat) (calculated)

LD50 Dermal

No information available

LC50 Inhalation

No information available
Sensitization

None known.

Information on toxicological effects

**Symptoms**

Dust is irritating eyes, nose, throat, and lungs.

**Delayed and immediate effects as well as chronic effects from short and long-term exposure**

**Irritation**

Not expected to be irritating based on the components.

**Corrosivity**

None.

**Carcinogenicity**

Contains no ingredient listed as a carcinogen.

**Mutagenicity**

This product is not recognized as mutagenic by Research Agencies

**Reproductive toxicity**

This product does not contain any known or suspected reproductive hazards.

**STOT - single exposure**

No information available.

**STOT - repeated exposure**

No information available.

**Aspiration hazard**

No information available.

12. ECOLOGICAL INFORMATION

**Ecotoxicity**

**Ecotoxicity effects**

There are no data available for this product. Not expected to have significant environmental effects.

**Persistence and degradability**

No product level data available. The organic components are biodegradable and can be expected to contribute to BOD.

**Bioaccumulation**

Bioaccumulation is unlikely.

**Mobility**

Is not likely mobile in the environment due its low water solubility.

**Other Adverse Effects**

None known.

13. DISPOSAL CONSIDERATIONS

**Waste disposal methods**

This material, as supplied, is not a hazardous waste according to Federal regulations (40 CFR 261). This material could become a hazardous waste if it is mixed with or otherwise comes in contact with a hazardous waste, if chemical additions are made to this material, or if the material is processed or otherwise altered. Consult 40 CFR 261 to determine whether the altered material is a hazardous waste. Consult the appropriate state, regional, or local regulations for additional requirements.

**Contaminated Packaging**

Empty containers should be taken to an approved waste handling site for recycling or disposal.

14. TRANSPORT INFORMATION

**DOT**

NOT REGULATED
15. REGULATORY INFORMATION

U.S. Federal Regulations

SARA 313
Section 313 of Title III of the Superfund Amendments and Reauthorization Act of 1986 (SARA). This product does not contain any chemicals which are subject to the reporting requirements of the Act and Title 40 of the Code of Federal Regulations, Part 372

SARA 311/312 Hazard Categories

<table>
<thead>
<tr>
<th>Category</th>
<th>No</th>
</tr>
</thead>
<tbody>
<tr>
<td>Acute health hazard</td>
<td></td>
</tr>
<tr>
<td>Chronic health hazard</td>
<td></td>
</tr>
<tr>
<td>Fire hazard</td>
<td></td>
</tr>
<tr>
<td>Sudden release of pressure hazard</td>
<td></td>
</tr>
<tr>
<td>Reactive Hazard</td>
<td></td>
</tr>
</tbody>
</table>

Clean Water Act
This product does not contain any substances regulated as pollutants pursuant to the Clean Water Act (40 CFR 122.21 and 40 CFR 122.42)

CERCLA/EPCRA
This material, as supplied, does not contain any substances regulated as hazardous substances under the Comprehensive Environmental Response Compensation and Liability Act (CERCLA) (40 CFR 302) or the Superfund Amendments and Reauthorization Act (SARA) (40 CFR 355). There may be specific reporting requirements at the local, regional, or state level pertaining to releases of this material

International Inventories

<table>
<thead>
<tr>
<th>Component</th>
<th>TSCA (United States)</th>
<th>DSL (Canada)</th>
<th>EINECS/EL (Europe)</th>
<th>ENCS (Japan)</th>
<th>China (IECSC)</th>
<th>KECL (Korea)</th>
<th>PICCS (Philippines)</th>
<th>AICS (Australia)</th>
<th>NZIoC (New Zealand)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Monoammonium phosphate 7722-76-1 (40-60)</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td>X</td>
</tr>
<tr>
<td>Calcium carbonate 471-34-1 (20-30)</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td>X</td>
</tr>
<tr>
<td>Lecithin 8002-43-5 (2)</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td>X</td>
</tr>
</tbody>
</table>

Mexico - Grade
Minimum risk, Grade 0

CANADA

WHMIS Statement
This product has been classified in accordance with the hazard criteria of the Controlled Products Regulations (CPR) and the SDS contains all the information required by the CPR.

WHMIS Hazard Class
Non-controlled

16. OTHER INFORMATION
NFPA | Health Hazards | 1 | Flammability | 0 | Stability | 0 | Special Hazards | - |
--- | --- | --- | --- | --- | --- | --- | --- | --- |
HMIS | Health Hazards | 1 | Flammability | 0 | Physical hazard | 0 | Special precautions | - |

Revision date: 2016-02-03
Revision note: (M)SDS sections updated: 2, 9.
Issuing Date: 2015-08-07

Disclaimer
PeroxyChem believes that the information and recommendations contained herein (including data and statements) are accurate as of the date hereof. NO WARRANTY OF FITNESS FOR ANY PARTICULAR PURPOSE, WARRANTY OF MERCHANTABILITY OR ANY OTHER WARRANTY, EXPRESSED OR IMPLIED, IS MADE CONCERNING THE INFORMATION PROVIDED HEREIN. The information provided herein relates only to the specified product designated and may not be applicable where such product is used in combination with any other materials or in any process. Further, since the conditions and methods of use are beyond the control of PeroxyChem, PeroxyChem expressly disclaims any and all liability as to any results obtained or arising from any use of the products or reliance on such information.

Prepared By: PeroxyChem
© 2016 PeroxyChem. All Rights Reserved.

End of Safety Data Sheet