1. PRODUCT AND COMPANY IDENTIFICATION

Product identifier: PrimeraOne 25-0-25 No Phos Nutra-Lock Enhanced N

Recommended uses:
- Fertilizer end-use, preparation of fertilizers mixtures.
- Dry fertilizer for mixing with water for foliar and soil applications.

Restrictions on uses:
None

Manufacturer: SQM North America
2727 Paces Ferry Rd, Building Two, Suite 1425
Atlanta, GA 30339

Company Telephone/Fax: (770) 916 9400 / (770) 916 9404
Emergency Telephone Number: (800) 424 9300 (CHEMTREC)

2. HAZARDS IDENTIFICATION

Classification of the mixture
Classification of the chemical in accordance with 29CFR §1910.1200
Not classified as hazardous.

Label elements

Hazard pictograms: None applicable
Signal word: None applicable
Hazard Statements: None applicable
Precautionary Statements: None applicable
Other hazards: None

3. COMPOSITION/INFORMATION ON INGREDIENTS

This product is to be considered as a mixture/preparation

Substance name | CAS No | EC No | Concentration
--- | --- | --- | ---
Contains some or all of the following: phosphate salts, sulfate salts, potassium salts, secondary nutrients and micronutrients.

4. FIRST AID MEASURES

Description of first aid measures

General information
In case of persisting adverse effects consult a physician.
Never give anything by mouth to an unconscious person or a person with cramps.

In case of inhalation
Remove to fresh air and keep at rest in a position comfortable for breathing.
Get medical attention for any breathing difficulty.

In case of skin contact
Wash with plenty of soap and water.
If skin irritation occurs: Get medical advice/attention.

In case of eye contact
Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
If eye irritation persists: Get medical advice/attention.

In case of ingestion
Rinse mouth and drink plenty of water. Call a POISON CENTER or doctor/physician if you feel unwell.

Most important symptoms and effects, both acute and delayed
The following symptoms may occur:
In case of inhalation: Irritation to respiratory tract
Delayed lung effects after short term exposure to thermal degradation products

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SAFETY DATA SHEET

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Product Code: NL.225002STURFLOCK_114_01_US
Date of issue: May 2016

In case of skin contact: May cause redness or irritation
In case of eye contact: May cause redness or irritation
In case of ingestion: Ingestion of large amounts may cause: gastrointestinal disturbances

Indication of any immediate medical attention and special treatment needed: Treat symptomatically.

5. FIRE FIGHTING MEASURES

Extinguishing media
Suitable extinguishing media: Use any suitable mean for extinguishing surrounding fire.
Unsuitable material: None, but attention should be paid to compatibility with chemicals surrounding.

Specific hazards arising from the chemical
Thermal decomposition can lead to the escape of toxic/corrosive gases and vapours.
Thermal decomposition products: Nitrous oxides (NOx), nitrites, phosphorus oxides, ammonia and metallic oxides.

Protective equipment and precautions for firefighters
Wear self-contained breathing apparatus and a chemical protective clothing.

6. ACCIDENTAL RELEASE MEASURES

Personal precautions
Provide adequate ventilation. Wear personal protection equipment (Section 8).

Environmental precautions
Do not allow to enter into surface water or drains. Ensure waste is collected and contained.

Methods and material for containment and cleaning up
Take up mechanically, placing in appropriate containers for disposal or recovery.
Unsuitable material for containment/taking up: None specified

Other information
None

7. HANDLING AND STORAGE

Precautions for Safe Handling
Avoid generation of dust. Provide adequate ventilation. Wear personal protective equipment, when required. Wash hands thoroughly after handling. Do not eat, drink or smoke when using this product. Keep away from flammable, combustible, strong acids, and reducing substances.

Conditions for safe storage, including any incompatibilities
Keep/store only in original container. Store in a well-ventilated place. Keep container tightly closed.
Do not store together with: Flammable substance, reducing agents, strong acids, empty wood pallets.

Perchlorate containing product - Special handling may apply. See www.dtsc.ca.gov/hazardouswaste/perchlorate and Section 15 for more information regarding California State regulations.

8. EXPOSURE CONTROLS/PERSOANL PROTECTION

Exposure Guidelines
Occupational exposure limits

<table>
<thead>
<tr>
<th></th>
<th>OSHA</th>
<th>PEL</th>
<th>STEL/ceiling</th>
<th>ACGIH (2012 TLVs® and BEIs*)</th>
</tr>
</thead>
<tbody>
<tr>
<td>TWA</td>
<td></td>
<td>Not Established</td>
<td></td>
<td></td>
</tr>
<tr>
<td>STEL/ceiling</td>
<td></td>
<td>Not Established</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Derived No-Effect Level (DNEL) suggested by the manufacturer

<table>
<thead>
<tr>
<th>Derived No-Effect Level (DNEL) suggested by the manufacturer</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Workers (industrial/professional):</td>
<td></td>
</tr>
<tr>
<td>DNEL Human, dermal, long term (repeated):</td>
<td>20 mg/kg/day (systemic)</td>
</tr>
<tr>
<td>DNEL Human, inhalation, long term (repeated):</td>
<td>30 mg/m³ (systemic)</td>
</tr>
</tbody>
</table>

Derived No-Effect Level (DNEL) is the level of exposure to the substance above which humans should not be exposed.
Engineering controls
Use exhaust ventilation to keep airborne concentrations below exposure limits.

Personal Protective Equipment
Eye/face protection: Chemical goggles, recommended.
Skin Protection: Nitrile rubber gloves, recommended.
Respiratory Protection: Wear respiratory protection, where airborne concentrations are expected to exceed exposure limits.

General Hygiene Considerations
Avoid contact with eyes and skin. Wash hands thoroughly after handling. Do not eat, drink or smoke when using this product.

9. PHYSICAL AND CHEMICAL PROPERTIES

<table>
<thead>
<tr>
<th>Property</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Appearance</td>
<td>Solid, crystalline powder</td>
</tr>
<tr>
<td>Colour</td>
<td>White</td>
</tr>
<tr>
<td>Odour</td>
<td>Odourless</td>
</tr>
<tr>
<td>Odour Threshold</td>
<td>No applicable</td>
</tr>
<tr>
<td>pH value</td>
<td>No data available</td>
</tr>
<tr>
<td>Melting point / freezing range</td>
<td>No data available</td>
</tr>
<tr>
<td>Boiling temperature / boiling range</td>
<td>Not applicable</td>
</tr>
<tr>
<td>Flash point</td>
<td>Not applicable</td>
</tr>
<tr>
<td>Vapourisation rate / Evaporation rate</td>
<td>No data available</td>
</tr>
<tr>
<td>Flammable solids</td>
<td>Not flammable</td>
</tr>
<tr>
<td>Explosion limits (LEL, UEL)</td>
<td>Not applicable</td>
</tr>
<tr>
<td>Vapour pressure</td>
<td>Not applicable</td>
</tr>
<tr>
<td>Vapour density</td>
<td>Not applicable</td>
</tr>
<tr>
<td>Relative Density</td>
<td>No data available</td>
</tr>
<tr>
<td>Solubility</td>
<td>&gt; 100 g/L at 20°C/68°F (water)</td>
</tr>
<tr>
<td>Partition coefficient n-octanol /water</td>
<td>Not applicable</td>
</tr>
<tr>
<td>Auto Ignition temperature (AIT)</td>
<td>Not applicable</td>
</tr>
<tr>
<td>Decomposition temperature</td>
<td>No data available</td>
</tr>
<tr>
<td>Viscosity</td>
<td>Not applicable</td>
</tr>
<tr>
<td>Explosive properties</td>
<td>Not explosive</td>
</tr>
<tr>
<td>Oxidizing properties</td>
<td>Not oxidizer</td>
</tr>
<tr>
<td>Other information</td>
<td>None</td>
</tr>
</tbody>
</table>

10. STABILITY AND REACTIVITY

Reactivity
No hazardous reaction when handled and stored according to provisions.

Chemical stability
Stable under normal storage and temperature conditions.

Possibility of hazardous reactions
None identified

Conditions to avoid
Keep away from flammable, combustible, strong acids, and reducing materials.

Incompatible materials
Flammable, combustible, strong acids, and reducing substances under specific conditions.

Hazardous decomposition products
Thermal decomposition products: Nitrous oxides (NOx), nitrites, phosphorus oxides, ammonia and metallic oxides.
11. TOXICOLOGICAL INFORMATION

The following information mostly refers to the major component of the product.

Likely routes of exposure (inhalation, ingestion, skin and eye contact)

Eye contact, skin contact and inhalation. Exposure by ingestion is not expected to occur through normal industrial or agricultural use.

Symptoms related to the physical, chemical and toxicological characteristics

May be irritant to the respiratory tract. May cause redness or irritation to the skin and eyes. Ingestion of large amounts may cause gastrointestinal disturbances. May cause delayed lung effects after short term exposure to thermal degradation products.

Information on toxicological effects from short and long term exposure

There is no data for the mixture itself.

Acute toxicity

Acute oral toxicity
LD50:
Acute Toxicity Estimate for the mixture >2000 mg/kg bw (additivity formula)

Acute dermal toxicity
LD50:
Acute Toxicity Estimate for the mixture >2000 mg/kg pc (additivity formula)

Acute inhalation toxicity
LC50:
Acute Toxicity Estimate for the mixture Does not contain acutely toxic ingredients/impurities.

Assessment / classification: Based on available data for the ingredients of the mixture, the classification criteria are not met.

Irritant and corrosive effects

There is no data for the mixture itself.

Irritation to the skin

The product does not contain relevant ingredients classified as corrosive or irritant to the skin in accordance with OSHA, 29 CFR 1910.1200.

Irritation to eyes

The product does not contain relevant ingredients classified as serious eye damage / eye irritant in accordance with OSHA, 29 CFR 1910.1200.

Assessment / classification: Based on available data for the ingredients of the mixture, the classification criteria are not met.

Respiratory or skin sensitisation

There is no data for the mixture itself. The product does not contain ingredients classified as a respiratory or skin sensitizer present at or above their cut-off value in accordance with OSHA, 29 CFR 1910.1200.

Assessment / classification: Based on available data for the ingredients of the mixture, the classification criteria are not met.

Genetic effects

The product does not contain ingredients classified as germ cell mutagens present at or above their cut-off value in accordance with OSHA, 29 CFR 1910.1200.

Assessment / classification: Based on available data for the ingredients of the mixture, the classification criteria are not met.

Reproductive toxicity

The product does not contain ingredients classified as a category 1 or category 2 reproductive toxicant or for effects on or via lactation present at or above their cut-off value in accordance with OSHA, 29 CFR 1910.1200.

Assessment / classification: Based on available data for the ingredients of the mixture, the classification criteria are not met.

Specific target organ toxicity (single exposure)

There is no data for the mixture itself.

The product does not contain relevant ingredients classified as Target Organ Toxicant in accordance with OSHA, 29 CFR 1910.1200.

Assessment / classification: Based on available data for the ingredients of the mixture, the classification criteria are not met.

Specific target organ toxicity (repeated exposure)

There is no data for the mixture itself.

The product does not contain relevant ingredients classified as Target Organ Toxicant in accordance with OSHA, 29 CFR 1910.1200.

Assessment / classification: Based on available data for the ingredients of the mixture, the classification criteria are not met.
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Date of issue: May 2016

Aspiration hazard
Physicochemical data and toxicological information does not indicate an aspiration hazard.
Assessment / classification: Based on available data for the ingredients of the mixture, the classification criteria are not met.

Carcinogenicity
International Agency for Research on Cancer (IARC)
No component of this product present at levels ≥0.1% is identified as probable, possible or confirmed human carcinogen by IARC.
National Toxicology Program (NTP)
No component of this product present at levels ≥0.1% is identified as known or anticipated carcinogen by NTP.
29 CFR part 1910, subpart Z
No component of this product present at levels ≥0.1% is identified as carcinogen or potential carcinogen by OSHA.
California Proposition 65
No component of this product present at levels ≥0.1% is identified as carcinogen by California Prop.65.
WHO (2003) Nitrate in drinking water
No association between nitrate exposure in humans and the risk of cancer
Assessment / classification: Based on available data, the classification criteria are not met.

Other Toxicological Information
This product contains trace amounts of naturally-occurring perchlorate and iodate. Like other goitrogenic substances, perchlorate may affect iodine uptake by thyroid under specific conditions.

12. ECOLOGICAL INFORMATION

There is no data for the mixture itself. The following information mostly refers to the major component of the product.

Ecotoxicity
Aquatic Toxicity
Toxicity estimate for the mixture (summation method)

<table>
<thead>
<tr>
<th></th>
<th>96-h L(E)C50</th>
<th>24-h E(E)C50</th>
<th>72-h E(E)C50</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>&gt;100 mg/L</td>
<td>&gt;100 mg/L</td>
<td>&gt; 100 mg/L</td>
</tr>
<tr>
<td></td>
<td>Fish</td>
<td>Daphnia magna (fresh water flea).</td>
<td>Algae</td>
</tr>
</tbody>
</table>

Assessment / classification: Based on available data for the ingredients of the mixture, the classification criteria are not met.

Persistence and degradability
The product contains mainly inorganic nitrate and phosphate salts. In aqueous solutions, these salts dissociate into their respective ions. Phosphate ions are finally incorporated into the Phosphorus cycle. Under anoxic conditions, denitrification occurs and nitrate is ultimately converted into molecular nitrogen as part of the Nitrogen cycle.
Bioaccumulative potential
Low potential for bioaccumulation based on physicochemical properties of main components.

Mobility in soil
The components of this mixture have a low potential for adsorption. Portion not taken up by plants, can leach to groundwater.

Other adverse effects
Excess nitrate leaching may enrich waters leading to eutrophication.

13. DISPOSAL CONSIDERATIONS

Disposal should be in accordance with applicable federal and state laws.
It is the responsibility of the waste generator to determine the toxicity and physical properties of the material generated to determine the proper waste identification and disposal method in compliance with applicable regulations.
This product is not listed as dangerous waste in the Resource Conservation and Recovery Act (RCRA) 40 CFR 261.

Perchlorate containing product - Special handling may apply. See www.dtsc.ca.gov/hazardouswaste/perchlorate and Section 15 for more information regarding California State regulations.
### 14. TRANSPORTATION INFORMATION

**US DOT (49CFR part 172)**
- **UN-No.** Non dangerous good
- **UN Proper Shipping Name** Not applicable
- **Hazard class** Not applicable
- **Packing group** Not applicable
- **Marine pollutant** No
- **Hazard label(s)** Not applicable
- **Special marking** No
- **Special Provision** No

**International Maritime Organization (IMDG Code)**
- **UN-No.** Non dangerous good
- **UN Proper Shipping Name** Not applicable
- **Hazard class** Not applicable
- **Packing group** Not applicable
- **Marine pollutant** No
- **Hazard label(s)** Not applicable
- **Special marking** No

**International Civil Aviation Organization (ICAO) and International Air Transport Association (IATA)**
- **UN-No.** Non dangerous good
- **UN Proper Shipping Name** Not applicable
- **Hazard class** Not applicable
- **Packing group** Not applicable
- **Hazard label** Not applicable
- **Special marking** No

**Special handling procedure**
None

**Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code**
Not applicable

**Other special precautions**
None

### 15. REGULATORY INFORMATION

**US Federal**

**SARA Title III Rules**

<table>
<thead>
<tr>
<th>Section 311/312 Hazard Classes</th>
<th>Acute Health Hazard</th>
<th>Chronic Health Hazard</th>
<th>Fire Hazard</th>
<th>Release of Pressure</th>
<th>Reactive Hazard</th>
</tr>
</thead>
<tbody>
<tr>
<td>No</td>
<td>No</td>
<td>No</td>
<td>No</td>
<td>No</td>
<td>No</td>
</tr>
</tbody>
</table>

**Section 313 Toxic Chemicals**

N511 Nitrate compounds (water dissociable; reportable only when in aqueous solution)

**Section 302 Extremely Hazardous Substances (EHS)/CERCLA Hazardous Substances**
None ingredient is listed.

**NFPA 704/2012: National Fire Protection Association**

<table>
<thead>
<tr>
<th>Health</th>
<th>Fire</th>
<th>Reactivity</th>
<th>Special</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>0</td>
<td>0</td>
<td>None</td>
</tr>
</tbody>
</table>

**US State Regulations**

- **California Proposition 65** None ingredient is listed.
- **California Code of Regulations Title 22 (Health & Safety Code), Chapter 33** See http://www.dtsc.ca.gov/hazardouswaste/perchlorate/
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PRODUCT NAME: PRIMERAONE 25-0-25 NO PHOS NUTRA-LOCK ENHANCED N

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Canada
This product has been classified according to the hazard criteria of the 2015 Hazardous Products Regulations (HPR) and the SDS contains all the information required by the HPR.

Chemical Inventories
- United States TSCA: All ingredients are listed
- Canada DSL: All ingredients are listed
- European Union (EINECS): All ingredients are listed
- Japan (METI): All ingredients are listed

16. OTHER INFORMATION
This SDS complies with 29 CFR part 1910 subpart Z (2012), Hazardous Products Regulations (HPR, 2015) and ANSI Standard Z400.1-2004

Data source: REACH Registration Dossiers for major components
Prepared by: Regulatory Affairs Department, SQM
E-mail: product_safety@sqm.com, spn-northamerica@sqm.com
Date of issue: May 2016
Supersedes

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Indication of changes