SAFETY DATA SHEET

PRILLED UREA 46-0-0

Section 1 – Identification

Product: Urea - Prilled (dry urea, carbamide, carbonyl diamide)
Manufacturer: TradeMark Nitrogen Corp.
Address: 1216 Old Hopewell Road, Tampa, FL 33619
Phone: (813) 626-1181 (800) 452-3107

Recommended Use:
Used in the production of fertilizers, animal feed, SCR for NOx control systems and adhesives.

Section 2 – Hazard Identification

Hazard: Product is not hazardous under normal conditions.

Section 3 – Composition

<table>
<thead>
<tr>
<th>Ingredients</th>
<th>Component</th>
<th>CAS. No.</th>
<th>Percent by Weight</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Urea (CO(NH₂)₂)</td>
<td>57-13-6</td>
<td>97.74%</td>
</tr>
<tr>
<td></td>
<td>Biuret (H₂N(C(Ö)NHC(O)NH₂)</td>
<td>108-19-0</td>
<td>&lt; 0.5%</td>
</tr>
<tr>
<td></td>
<td>Conditioner (Methylenediurea (MDU))</td>
<td></td>
<td>1.76%</td>
</tr>
</tbody>
</table>

Section 4 – First Aid Measures

Inhalation: If inhaled: Remove person to fresh air and keep comfortable for breathing. Provide artificial respiration if necessary. Seek medical attention if necessary.

Skin Contact: If on skin (or hair): Take off all contaminated clothing. Rinse skin with soap and water for at least 15 minutes.

Eye Contact: If in eyes: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing for at least 15 minutes. Seek medical attention if irritation persists.

Ingestion: If swallowed: Do NOT induce vomiting. Drink large amounts of water. Never give anything by mouth to an unconscious person. Seek medical attention.

Acute Health Hazards: Ingestion may cause irritation to the digestive tract including nausea, vomiting and diarrhea. May also depress the central nervous system (feelings of drowsiness)

Chronic Health Hazards: No known long term effects

Section 5 – Fire Fighting Measures

Suitable Extinguishing Techniques & Equipment: This product is non-flammable and presents no fire hazard. Use extinguishing media appropriate to surrounding fire.

Chemical hazards: Thermal decomposition occurs above 270°F and will produce ammonia, carbon dioxide and nitrogen oxides.

Special Fire Fighting Procedures: Use extinguishing agent most appropriate to surrounding materials.

NFPA Rating: Health - 1 (Slight), Fire - 0 (Least), Reactivity - 0 (Least)

Section 6 – Accidental Release Measure

Personal Precautions: Prevent exposure to spilled material with the use of proper PPE.

Protective Equipment: PPE should include gloves, goggles or safety glasses and level C protective suit.

Containment: Control the flow of product using dikes of soil, sand bags or other commercially available inert sorbent socks or booms. Material easily dissolves in water so prevent contact with liquids.

In Case of Spill: Contain and pick up spill in diked area. Prevent discharge to sewers or water ways. If uncontaminated, recover and re-use.
### Section 7 – Safe Handling and Storage

**Precautions for Safe Handling and Storage**
Store in a well ventilated cool dry place.

**Incompatibility**
Nitric acid, hypochlorites, sodium nitrite, nitrosyl perchlorate, gallium perchlorate and phosphorus pentachloride

### Section 8 – Exposure Controls / Personal Protection

<table>
<thead>
<tr>
<th>Exposure Limits</th>
<th>Component</th>
<th>Permissible Exposure Limit</th>
<th>Threshold Limit Value</th>
<th>Short Term Exposure Limit</th>
<th>Immediately Dangerous to Life or Health</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Urea (CO(NH₂)₂)</td>
<td>Not Established</td>
<td>Not Established</td>
<td>Not Established</td>
<td>Not Established</td>
</tr>
<tr>
<td></td>
<td>Biuret (C₂H₅N₃O₂)</td>
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<td>Not Established</td>
<td>Not Established</td>
<td>Not Established</td>
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<td></td>
<td>Conditioner (MDU)</td>
<td>Not Established</td>
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<td>Not Established</td>
</tr>
</tbody>
</table>

**Engineering Controls**
Local or general exhaust. Eyewash facilities should be available.

**Personal Protective Equipment**
- Eyes - Chemical safety goggles or safety glasses.
- Hands - Impervious gloves.
- Respiratory - None required under normal conditions.

### Section 9 – Physical and Chemical Properties

- **Appearance and Odor**
  White solid spherical or granular shape with slight ammonia smell

- **Boiling Point**
  Decomposes above 275°F

- **Melting Point**
  271°F

- **Density**
  44-48 lb/ft³

- **Solubility in Water**
  Highly soluble

- **Flammable**
  Not Flammable

### Section 10 – Stability and Reactivity

- **Reactivity**
  Product is not reactive under normal conditions.

- **Stability**
  Product is stable under normal conditions.

- **Hazardous Reactions**
  Hazardous polymerization will not occur.

- **Conditions to Avoid**
  Elevated temperatures may cause container to rupture.

- **Incompatible Materials**
  Nitric acid, hypochlorites, sodium nitrite, nitrosyl perchlorate, sodium nitrite, gallium perchlorate and phosphorus pentachloride

- **Hazardous Decomposition Products**
  Extreme heat may cause decomposition to ammonia and carbon dioxide and possibly nitrogen oxides.

### Section 11 – Toxicology Information

- **Routes of Exposure**

- **Symptoms and Signs of Exposure**
  - **Eyes & Skin** mild irritant. Repeated exposure may cause inflammation and redding.
  - **Inhalation** severe irritation may occur from drying and scratching.
  - **Ingestion** general irritation of the respiratory tract.

- **Long Term Effects**
  Prolonged skin contact may result in dermatitis (inflammation and redness of skin). Repeated ingestion of small amounts may cause weakness, depression, headaches, neurological effects and mental impairment.

- **Toxicity**
  No limits have been set for this material.

- **Carcinogen**
  The International Agency for Research on Cancer has not classified urea for its carcinogenic potential (IARC 1987).
Section 12 – Ecological Information

Water
Low concentrations are not toxic to fish or other aquatic organisms. High concentrations may encourage excessive algae growth.

Section 13 – Disposal Considerations

Waste
Urea is not considered a hazardous waste. Disposal must be done in accordance with local, state and federal environmental regulations. Place waste in an appropriate container with correct labeling.

Section 14 – Transport Information

Shipping
This material is not hazardous as defined by 49 CFR 172.101 by the US Department of Transportation

Section 15 – Regulatory Information

United States - SARA Hazard Category
This product has been reviewed according to the EPA Hazard Categories promulgated under Sections 311 and 312 of Title III of the Superfund Amendments and Reauthorization Act (SARA) and is considered, under applicable definitions, to meet the following categories:

Fire - No
Pressure - No
Reactive - No
Acute - Yes
Chronic - No

Ammonia nitrate is on the TSCA inventory list.

SARA Title III Information
This product contains the following substances subject to the reporting requirements of Title III (EPCRA) of the Superfund Amendments and Reauthorization Act of 1986 and 40 CFR Part 372:

<table>
<thead>
<tr>
<th>Chemical</th>
<th>CAS No.</th>
<th>CERCLA RQ (pounds)</th>
<th>SARA Reporting</th>
</tr>
</thead>
<tbody>
<tr>
<td>Urea</td>
<td>57-13-6</td>
<td>N/A</td>
<td>N/A</td>
</tr>
</tbody>
</table>

CERCLA / Superfund, 40 CFR Part 117, 302
If this product contains components subject to substances designated as CERCLA reportable Quantity (RQ) Substances, it will be designated in the above table with the RQ value in pounds. If there is a release of RQ Substance to the environment, notification to the National Response Center, Washington DC (800-424-8802) is required.

Section 16 – Other Information

Date of Revision
May 2014 TSCA statement revised. February 2013 revision prepared in accordance with 29 CFR 1910.1200 Appendix D to meet Global Harmonization Standards

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