Best 46-0-0 UMAXX
Safety Data Sheet
according to Federal Register / Vol. 77, No. 58 / Monday, March 26, 2012 / Rules and Regulations

SECTION 1: Identification

1.1. Identification

Product form : Mixture
Product name : Best 46-0-0 UMAXX
Product code : M11027

1.2. Relevant identified uses of the substance or mixture and uses advised against

No additional information available

1.3. Details of the supplier of the safety data sheet

JR Simplot Company
P.O. Box 70013
Boise, ID 83707
T 1-208-336-2110

1.4. Emergency telephone number

Emergency number : CHEMTREC 1-800-424-9300

SECTION 2: Hazard(s) identification

2.1. Classification of the substance or mixture

GHS-US classification
Serious eye damage/eye irritation, Category 2B H320
Full text of H statements : see section 16

2.2. Label elements

GHS-US labelling
Signal word (GHS-US) : Warning
Hazard statements (GHS-US) : H320 - Causes eye irritation
Precautionary statements (GHS-US) : P264 - Wash hands, forearms and face thoroughly after handling
P305+P351+P338 - If in eyes: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing
P337+P313 - If eye irritation persists: Get medical attention

2.3. Other hazards

No additional information available

2.4. Unknown acute toxicity (GHS US)

Not applicable

SECTION 3: Composition/information on ingredients

3.1. Substance

Not applicable

3.2. Mixture
## SECTION 4: First aid measures

### 4.1. Description of first aid measures

- **First-aid measures general**: Never give anything by mouth to an unconscious person. If you feel unwell, seek medical advice (show the label where possible).

- **First-aid measures after inhalation**: Allow breathing of fresh air. Allow the victim to rest.

- **First-aid measures after skin contact**: Remove affected clothing and wash all exposed skin area with mild soap and water, followed by warm water rinse.

- **First-aid measures after eye contact**: IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.

- **First-aid measures after ingestion**: Rinse mouth. Do NOT induce vomiting. Obtain emergency medical attention.

### 4.2. Most important symptoms and effects, both acute and delayed

**Symptoms/injuries after eye contact**: Causes eye irritation.

### 4.3. Indication of any immediate medical attention and special treatment needed

No additional information available

## SECTION 5: Firefighting measures

### 5.1. Extinguishing media


- **Unsuitable extinguishing media**: Do not use a heavy water stream.

### 5.2. Special hazards arising from the substance or mixture

- **Reactivity**: Stable.

### 5.3. Advice for firefighters

- **Firefighting instructions**: Use water spray or fog for cooling exposed containers. Exercise caution when fighting any chemical fire. Prevent fire-fighting water from entering environment.

- **Protection during firefighting**: Do not enter fire area without proper protective equipment, including respiratory protection.

## SECTION 6: Accidental release measures

### 6.1. Personal precautions, protective equipment and emergency procedures

#### 6.1.1. For non-emergency personnel

- **Emergency procedures**: Evacuate unnecessary personnel.

#### 6.1.2. For emergency responders

- **Protective equipment**: Equip cleanup crew with proper protection.

- **Emergency procedures**: Ventilate area.

### 6.2. Environmental precautions

- **Prevent entry to sewers and public waters. Notify authorities if liquid enters sewers or public waters.**

### 6.3. Methods and material for containment and cleaning up

- **Methods for cleaning up**: On land, sweep or shovel into suitable containers. Minimize generation of dust. Store away from other materials.

### 6.4. Reference to other sections

See Heading 8. Exposure controls and personal protection.
SECTION 7: Handling and storage

7.1. Precautions for safe handling
Precautions for safe handling: Wash hands and other exposed areas with mild soap and water before eating, drinking or smoking and when leaving work. Provide good ventilation in process area to prevent formation of vapour.

7.2. Conditions for safe storage, including any incompatibilities
Storage conditions: Keep only in the original container in a cool, well ventilated place away from: Keep container closed when not in use.
Incompatible products: Strong bases. Strong acids.
Incompatible materials: Sources of ignition. Direct sunlight.

SECTION 8: Exposure controls/personal protection

8.1. Control parameters

<table>
<thead>
<tr>
<th>Chemical</th>
<th>Control parameters</th>
</tr>
</thead>
<tbody>
<tr>
<td>Dicyandiamide (461-58-5)</td>
<td>Not applicable</td>
</tr>
<tr>
<td>1-methyl-2-pyrrolidone (872-50-4)</td>
<td>Not applicable</td>
</tr>
<tr>
<td>N-(n-butyl)-thiophosphoric triamide (94317-64-3)</td>
<td>Not applicable</td>
</tr>
<tr>
<td>Diatomaceous earth (61790-53-2)</td>
<td>Not applicable</td>
</tr>
<tr>
<td>Urea (57-13-6) (57-13-6)</td>
<td>Not applicable</td>
</tr>
</tbody>
</table>

8.2. Exposure controls

Personal protective equipment: Avoid all unnecessary exposure.
Hand protection: Wear protective gloves.
Eye protection: Chemical goggles or safety glasses.
Respiratory protection: Wear appropriate mask.
Other information: Do not eat, drink or smoke during use.

SECTION 9: Physical and chemical properties

9.1. Information on basic physical and chemical properties

<table>
<thead>
<tr>
<th>Property</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Physical state</td>
<td>Solid</td>
</tr>
<tr>
<td>Appearance</td>
<td>Light green granules.</td>
</tr>
<tr>
<td>Colour</td>
<td>Light green</td>
</tr>
<tr>
<td>Odour</td>
<td>No data available on odour</td>
</tr>
<tr>
<td>Odour threshold</td>
<td>No data available</td>
</tr>
<tr>
<td>pH</td>
<td>7.2</td>
</tr>
<tr>
<td>Melting point</td>
<td>No data available</td>
</tr>
<tr>
<td>Freezing point</td>
<td>No data available</td>
</tr>
<tr>
<td>Boiling point</td>
<td>No data available</td>
</tr>
<tr>
<td>Flash point</td>
<td>No data available</td>
</tr>
<tr>
<td>Relative evaporation rate (butylacetate=1)</td>
<td>No data available</td>
</tr>
<tr>
<td>Flammability (solid, gas)</td>
<td>No data available</td>
</tr>
<tr>
<td>Explosive limits</td>
<td>No data available</td>
</tr>
<tr>
<td>Explosive properties</td>
<td>No data available</td>
</tr>
<tr>
<td>Oxidising properties</td>
<td>No data available</td>
</tr>
<tr>
<td>Vapour pressure</td>
<td>No data available</td>
</tr>
<tr>
<td>Relative density</td>
<td>No data available</td>
</tr>
</tbody>
</table>
Relative vapour density at 20 °C: No data available
Solubility: Soluble.
  Water: Solubility in water of component(s) of the mixture:
  - Dicyandiamide: 3.2 g/100ml
  - 1-methyl-2-pyrrrolidone: Complete
  - diatomaceous earth: insoluble
  - urea (57-13-6): 100 g/100ml
Log Pow: No data available
Auto-ignition temperature: No data available
Decomposition temperature: 135 °C
Viscosity: No data available
Viscosity, kinematic: No data available
Viscosity, dynamic: No data available

9.2. Other information
No additional information available

SECTION 10: Stability and reactivity

10.1. Reactivity
Stable.

10.2. Chemical stability
Stable.

10.3. Possibility of hazardous reactions
Not established.

10.4. Conditions to avoid
Extremely high temperatures. Direct sunlight.

10.5. Incompatible materials

10.6. Hazardous decomposition products
Thermal decomposition will produce oxides of carbon, nitrogen, and sulfur. fume. Carbon monoxide. Carbon dioxide.

SECTION 11: Toxicological information

11.1. Information on toxicological effects
Acute toxicity: Not classified

<table>
<thead>
<tr>
<th>Dicyandiamide (461-58-5)</th>
</tr>
</thead>
<tbody>
<tr>
<td>LD50 oral rat</td>
</tr>
<tr>
<td>LD50 dermal rabbit</td>
</tr>
<tr>
<td>LC50 inhalation rat (mg/l)</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>1-methyl-2-pyrrrolidone (872-50-4)</th>
</tr>
</thead>
<tbody>
<tr>
<td>LD50 oral rat</td>
</tr>
<tr>
<td>LD50 dermal rat</td>
</tr>
<tr>
<td>LD50 dermal rabbit</td>
</tr>
<tr>
<td>LC50 inhalation rat (mg/l)</td>
</tr>
<tr>
<td>ATE US (oral)</td>
</tr>
<tr>
<td>ATE US (dermal)</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>N-(n-butyl)-thiophosphonic triamide (94317-64-3)</th>
</tr>
</thead>
<tbody>
<tr>
<td>LD50 oral rat</td>
</tr>
<tr>
<td>LD50 dermal rat</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>urea (57-13-6) (57-13-6)</th>
</tr>
</thead>
<tbody>
<tr>
<td>LD50 oral rat</td>
</tr>
<tr>
<td>LD50 dermal rat</td>
</tr>
<tr>
<td>LD50 dermal rabbit</td>
</tr>
<tr>
<td>ATE US (oral)</td>
</tr>
</tbody>
</table>
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Skin corrosion/irritation : Not classified
pH: 7.2

Serious eye damage/irritation : Causes eye irritation.
pH: 7.2

Respiratory or skin sensitisation : Not classified

Germ cell mutagenicity : Not classified
Based on available data, the classification criteria are not met

Carcinogenicity : Not classified

<table>
<thead>
<tr>
<th>diatomaceous earth (61790-53-2)</th>
</tr>
</thead>
<tbody>
<tr>
<td>IARC group</td>
</tr>
</tbody>
</table>

Reproductive toxicity : Not classified

Specific target organ toxicity (single exposure) : Not classified
Based on available data, the classification criteria are not met

Specific target organ toxicity (repeated exposure) : Not classified

Aspiration hazard : Not classified

Potential adverse human health effects and symptoms : Based on available data, the classification criteria are not met.

Symptoms/injuries after eye contact : Causes eye irritation.

SECTION 12: Ecological information

12.1. Toxicity

Dicandiamide (461-58-5)

<p>| | |</p>
<table>
<thead>
<tr>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>LC50 fish 1</td>
<td>7700 mg/l (96 h; Salmo gairdneri (Oncorhynchus mykiss); Cool water)</td>
</tr>
<tr>
<td>EC50 Daphnia 1</td>
<td>3177 mg/l (48 h; Daphnia magna)</td>
</tr>
<tr>
<td>LC50 fish 2</td>
<td>7900 mg/l (96 h; Pisces)</td>
</tr>
</tbody>
</table>

1-methyl-2-pyrrolidone (872-50-4)

<p>| | |</p>
<table>
<thead>
<tr>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>LC50 fish 1</td>
<td>3048 mg/l (96 h; Salmo gairdneri (Oncorhynchus mykiss); Cool water)</td>
</tr>
<tr>
<td>EC50 Daphnia 1</td>
<td>4897 mg/l (48 h; Daphnia magna)</td>
</tr>
<tr>
<td>LC50 fish 2</td>
<td>832 mg/l (96 h; Lepomis macrochirus; Warm water)</td>
</tr>
<tr>
<td>EC50 Daphnia 2</td>
<td>4655 mg/l (Gammarus sp.)</td>
</tr>
<tr>
<td>Threshold limit algae 1</td>
<td>&gt; 500 mg/l (Scenedesmus subspicatus)</td>
</tr>
<tr>
<td>Threshold limit algae 2</td>
<td>600.5 mg/l (72 h; Desmodesmus subspicatus; Growth rate)</td>
</tr>
</tbody>
</table>

urea (57-13-6) (57-13-6)

<p>| | |</p>
<table>
<thead>
<tr>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>LC50 fish 1</td>
<td>&gt; 6810 mg/l (96 h; Leuciscus idus; Nominal concentration)</td>
</tr>
<tr>
<td>EC50 Daphnia 1</td>
<td>&gt; 10000 mg/l (48 h; Daphnia magna; Nominal concentration)</td>
</tr>
<tr>
<td>LC50 fish 2</td>
<td>17500 mg/l (96 h; Poecilia reticulata)</td>
</tr>
<tr>
<td>EC50 Daphnia 2</td>
<td>&gt; 10000 mg/l (24 h; Daphnia magna)</td>
</tr>
<tr>
<td>TLM fish 1</td>
<td>17500 ppm (96 h; Poecilia reticulata)</td>
</tr>
<tr>
<td>Threshold limit other aquatic organisms 1</td>
<td>120000 mg/l (16 h; Bacteria; Toxicity test)</td>
</tr>
<tr>
<td>Threshold limit other aquatic organisms 2</td>
<td>&gt; 10000 mg/l (Pseudomonas putida)</td>
</tr>
<tr>
<td>Threshold limit algae 1</td>
<td>&gt; 10000 mg/l (168 h; Scenedesmus quadricauda; Growth rate)</td>
</tr>
<tr>
<td>Threshold limit algae 2</td>
<td>47 mg/l (192 h; Microcystis aeruginosa; Growth rate)</td>
</tr>
</tbody>
</table>

12.2. Persistence and degradability

Best 46-0-0 UMAXX

Persistence and degradability : Not established.

Dicandiamide (461-58-5)

<p>| | |</p>
<table>
<thead>
<tr>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>BOD (% of ThOD)</td>
<td>0.022 % ThOD</td>
</tr>
</tbody>
</table>

01/20/2016 EN (English)
1. Methy1-2-pyrr~dolone (872-50-4)

Biochemical oxygen demand (BOD): 1.07 g O₂/g substance
Chemical oxygen demand (COD): 1.56 g O₂/g substance
ThOD: 1.9 g O₂/g substance
BOD (% of ThOD): 0.56 % ThOD

N-(n-butyl)-thiophosphonic triamide (94317-64-3)
Persistence and degradability: Not established.

Diatomaceous earth (61790-53-2)
Persistence and degradability: Biodegradability: not applicable. Not established.

Biochemical oxygen demand (BOD): Not applicable
Chemical oxygen demand (COD): Not applicable
ThOD: Not applicable
BOD (% of ThOD): Not applicable

Urea (57-13-6) (57-13-6)
ThOD: 0.27 g O₂/g substance

12.3. Bioaccumulative potential

Best 46-0-0 UMAXX
Bioaccumulative potential: Not established.

Dicyandiamide (461-58-5)

BCF fish 1: < 3.1 (Cyprinus carpio; Test duration: 6 weeks)
Log Pow: -1.5 (Experimental value)
Bioaccumulative potential: Bioaccumulation: not applicable. Not established.

1-methyl-2-pyrrolidone (872-50-4)
Log Pow: -0.73 - 0.46 (Experimental value)
Bioaccumulative potential: Not bioaccumulative. Not established.

N-(n-butyl)-thiophosphonic triamide (94317-64-3)
Bioaccumulative potential: Not established.

Diatomaceous earth (61790-53-2)
Bioaccumulative potential: No bioaccumulation data available. Not established.

Urea (57-13-6) (57-13-6)

BCF fish 1: 1 (72 h; Brachydano rerio; Fresh water)
BCF other aquatic organisms 1: 11700 (Chlorella sp.)
Log Pow: < -1.73 (Experimental value; EU Method A.8: Partition Coefficient)
Bioaccumulative potential: Bioaccumulation: not applicable. Not established.

12.4. Mobility in soil

1-methyl-2-pyrrolidone (872-50-4)
Surface tension: 0.407 N/m

12.5. Other adverse effects

Effect on the global warming: No known ecological damage caused by this product.

Other information: Avoid release to the environment.

SECTION 13: Disposal considerations

13.1. Waste treatment methods
Waste disposal recommendations: Dispose in a safe manner in accordance with local/national regulations.
Ecology - waste materials : Avoid release to the environment.

SECTION 14: Transport information

Department of Transportation (DOT)
In accordance with DOT
Not regulated for transport
TDG
No additional information available

Transport by sea
No additional information available

Air transport
No additional information available

SECTION 15: Regulatory information

15.1. US Federal regulations

All components of this product are listed, or excluded from listing, on the United States Environmental Protection Agency Toxic Substances Control Act (TSCA) inventory
Chemical(s) subject to the reporting requirements of Section 313 or Title III of the Superfund Amendments and Reauthorization Act (SARA) of 1986 and 40 CFR Part 372.

<table>
<thead>
<tr>
<th>Chemical</th>
<th>CAS No</th>
<th>%</th>
</tr>
</thead>
<tbody>
<tr>
<td>1-methyl-2-pyrrolidone</td>
<td>872-50-4</td>
<td></td>
</tr>
</tbody>
</table>

15.2. International regulations

CANADA
No additional information available

EU-Regulations
No additional information available

National regulations
No additional information available

15.3. US State regulations

California Proposition 65 - This product contains, or may contain, trace quantities of a substance(s) known to the state of California to cause cancer, developmental and/or reproductive harm

<table>
<thead>
<tr>
<th>Substance</th>
<th>U.S. - California - Proposition 65 - Carcinogens List</th>
<th>U.S. - California - Proposition 65 - Developmental Toxicity</th>
<th>U.S. - California - Proposition 65 - Reproductive Toxicity - Female</th>
<th>U.S. - California - Proposition 65 - Reproductive Toxicity - Male</th>
<th>Non-significant risk level (NSRL)</th>
</tr>
</thead>
<tbody>
<tr>
<td>1-methyl-2-pyrrolidone</td>
<td>No</td>
<td>Yes</td>
<td>No</td>
<td>No</td>
<td>No</td>
</tr>
</tbody>
</table>

1-methyl-2-pyrrolidone (872-50-4)

U.S. - New Jersey - Right to Know Hazardous Substance List

diatomaceous earth (61790-53-2)

U.S. - New Jersey - Right to Know Hazardous Substance List

SECTION 16: Other information


Other information : None.
<table>
<thead>
<tr>
<th>H-number</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>H227</td>
<td>Combustible liquid</td>
</tr>
<tr>
<td>H315</td>
<td>Causes skin irritation</td>
</tr>
<tr>
<td>H317</td>
<td>May cause an allergic skin reaction</td>
</tr>
<tr>
<td>H319</td>
<td>Causes serious eye irritation</td>
</tr>
<tr>
<td>H320</td>
<td>Causes eye irritation</td>
</tr>
<tr>
<td>H335</td>
<td>May cause respiratory irritation</td>
</tr>
<tr>
<td>H361</td>
<td>Suspected of damaging fertility or the unborn child</td>
</tr>
</tbody>
</table>

Full text of H-statements:

- **H227**: Combustible liquid
- **H315**: Causes skin irritation
- **H317**: May cause an allergic skin reaction
- **H319**: Causes serious eye irritation
- **H320**: Causes eye irritation
- **H335**: May cause respiratory irritation
- **H361**: Suspected of damaging fertility or the unborn child

**SDS US (GHS HazCom 2012)**

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