# SECTION 1: Identification

## 1.1. Identification

<table>
<thead>
<tr>
<th>Product form</th>
<th>Mixture</th>
</tr>
</thead>
<tbody>
<tr>
<td>Product name</td>
<td>Best Full Season 24-4-8 with Gal-Xe ONE</td>
</tr>
<tr>
<td>Product code</td>
<td>M75541</td>
</tr>
</tbody>
</table>

## 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
**Best Full Season 24-4-8 with Gal-Xe ONE**

**Safety Data Sheet**

according to Federal Register / Vol. 77, No. 58 / Monday, March 26, 2012 / Rules and Regulations

### Name                  | Product identifier          | % | GHS-US classification     
---                      | ---                         | ---| ---                        
urea (57-13-6)          | (CAS No) 57-13-6            |   | Eye Irr. 2B, H320           
ammonium sulfate (7783-20-2) | (CAS No) 7783-20-2          |   | Not classified               
potassium sulfate        | (CAS No) 7778-80-5          |   | Not classified               
Monoammonium Phosphate  | (CAS No) 7722-76-1          |   | Eye Irr. 2B, H320 STOT SE 3, H335 
Polymer Coating         |                            |   | Not classified               
Iron Oxysulfate          |                            |   | Eye Irr. 2B, H320            
Wax                     | (CAS No) 64771-72-8        |   | Not classified               
Sand                    |                            |   | STOT SE 3, H335              
Manganese Oxysulfate     |                            |   | Eye Irr. 2B, H320            

Full text of H-statements: see section 16

### 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: No data available.

#### 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.

Hygiene measures: Wash hands and other exposed areas with mild soap and water before eating, drinking or smoking and when leaving work.

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>Material</th>
<th>Control parameters</th>
</tr>
</thead>
<tbody>
<tr>
<td>Monoammonium Phosphate (7722-76-1)</td>
<td>Not applicable</td>
</tr>
<tr>
<td>potassium sulfate (7778-80-5)</td>
<td>Not applicable</td>
</tr>
<tr>
<td>Iron Oxysulfate</td>
<td>Not applicable</td>
</tr>
<tr>
<td>Manganese Oxysulfate</td>
<td>Not applicable</td>
</tr>
<tr>
<td>Sand</td>
<td>Not applicable</td>
</tr>
<tr>
<td>Polymer Coating</td>
<td>Not applicable</td>
</tr>
<tr>
<td>Wax (64771-72-8)</td>
<td>Not applicable</td>
</tr>
<tr>
<td>urea (57-13-6) (57-13-6)</td>
<td>Not applicable</td>
</tr>
<tr>
<td>ammonium sulfate (7783-20-2) (7783-20-2)</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>Granules</td>
</tr>
<tr>
<td>Colour</td>
<td>Multi-colored</td>
</tr>
</tbody>
</table>
### Odour
- There may be no odour warning properties, odour is subjective and inadequate to warn of overexposure.
- Mixture contains one or more component(s) which have the following odour(s):
  - Odourless
  - Ammonia odour

### Odour threshold
- No data available

### pH
- No data available

### Melting point
- No data available

### Freezing point
- No data available

### Boiling point
- No data available

### Flash point
- No data available

### Relative evaporation rate (butylacetate=1)
- No data available

### Flammability (solid, gas)
- No data available

### Explosive limits
- No data available

### Explosive properties
- No data available

### Oxidising properties
- No data available

### Vapour pressure
- No data available

### Relative density
- No data available

### Relative vapour density at 20 °C
- No data available

### Density
- 65 - 68 lbs/ft³

### Solubility
- Water: Solubility in water of component(s) of the mixture:
  - Monoammonium Phosphate: 38 g/100ml
  - Potassium sulfate: 11 g/100ml
  - Urea (57-13-6): 100 g/100ml
  - Ammonium sulfate (7783-20-2): 77 g/100ml

### Log Pow
- No data available

### Auto-ignition temperature
- No data available

### Decomposition temperature
- No data available

### Viscosity
- No data available

### Viscosity, kinematic
- No data available

### Viscosity, dynamic
- No data available

### Other information
- No additional information available

## SECTION 10: Stability and reactivity

### Reactivity
- No data available.

### Chemical stability
- Stable.

### Possibility of hazardous reactions
- Not established.

### Conditions to avoid
- Extremely high temperatures.

### Incompatible materials

### Hazardous decomposition products
- Extremely high temperatures. The product may reach melting point and decompose to release NH₃, SOₓ, POₓ, or CN. Fume. Carbon monoxide. Carbon dioxide.

## SECTION 11: Toxicological information

### Information on toxicological effects

#### Acute toxicity
- Not classified

<table>
<thead>
<tr>
<th>Component</th>
<th>LD₅₀ oral rat</th>
<th>LD₅₀ dermal rat</th>
</tr>
</thead>
<tbody>
<tr>
<td>Monoammonium Phosphate (7722-76-1)</td>
<td>5750 mg/kg (Rat)</td>
<td>&gt; mg/kg</td>
</tr>
</tbody>
</table>
### Monoammonium Phosphate (7722-76-1)

<table>
<thead>
<tr>
<th>LD50 dermal rabbit</th>
<th>&gt; 7940 mg/kg (Rabbit)</th>
</tr>
</thead>
<tbody>
<tr>
<td>ATE US (oral)</td>
<td>5750.000 mg/kg bodyweight</td>
</tr>
</tbody>
</table>

### Potassium Sulfate (7778-80-5)

<table>
<thead>
<tr>
<th>LD50 oral rat</th>
<th>6600 mg/kg (Rat)</th>
</tr>
</thead>
<tbody>
<tr>
<td>ATE US (oral)</td>
<td>6600.000 mg/kg bodyweight</td>
</tr>
</tbody>
</table>

### Manganese Oxysulfate

<table>
<thead>
<tr>
<th>LD50 oral rat</th>
<th>2150 mg/kg</th>
</tr>
</thead>
<tbody>
<tr>
<td>ATE US (oral)</td>
<td>2150.000 mg/kg bodyweight</td>
</tr>
</tbody>
</table>

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

<table>
<thead>
<tr>
<th>LD50 oral rat</th>
<th>8471 mg/kg (Rat; OECD 401: Acute Oral Toxicity; Literature study; 14300 mg/kg bodyweight; Rat; Experimental value)</th>
</tr>
</thead>
<tbody>
<tr>
<td>LD50 dermal rat</td>
<td>&gt; 3200 mg/kg (Rat; Literature study)</td>
</tr>
<tr>
<td>LD50 dermal rabbit</td>
<td>&gt; 21000 mg/kg (Rabbit; Literature study)</td>
</tr>
<tr>
<td>ATE US (oral)</td>
<td>8471.000 mg/kg bodyweight</td>
</tr>
</tbody>
</table>

### Ammonium Sulfate (7783-20-2) (7783-20-2)

<table>
<thead>
<tr>
<th>LD50 oral rat</th>
<th>2840 mg/kg (Rat)</th>
</tr>
</thead>
<tbody>
<tr>
<td>LD50 dermal rat</td>
<td>&gt; 2000 mg/kg</td>
</tr>
<tr>
<td>ATE US (oral)</td>
<td>2840.000 mg/kg bodyweight</td>
</tr>
</tbody>
</table>

### Skin corrosion/irritation

Not classified

### Serious eye damage/irritation

Causes eye irritation.

### Respiratory or skin sensitisation

Not classified

### Germ cell mutagenicity

Not classified

Based on available data, the classification criteria are not met

### Carcinogenicity

Not classified

### Reproductive toxicity

Not classified

Based on available data, the classification criteria are not met

### Specific target organ toxicity (single exposure)

Not classified

### 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

<table>
<thead>
<tr>
<th>Monoammonium Phosphate (7722-76-1)</th>
</tr>
</thead>
<tbody>
<tr>
<td>LC50 fish 1</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Potassium Sulfate (7778-80-5)</th>
</tr>
</thead>
<tbody>
<tr>
<td>LC50 fish 1</td>
</tr>
<tr>
<td>LC50 other aquatic organisms 1</td>
</tr>
<tr>
<td>EC50 Daphnia 1</td>
</tr>
<tr>
<td>LC50 fish 2</td>
</tr>
<tr>
<td>EC50 Daphnia 2</td>
</tr>
<tr>
<td>TLM fish 1</td>
</tr>
<tr>
<td>Threshold limit other aquatic organisms 1</td>
</tr>
</tbody>
</table>
### Best Full Season 24-4-8 with Gal-Xe ONE

#### Safety Data Sheet

According to Federal Register / Vol. 77, No. 58 / Monday, March 26, 2012 / Rules and Regulations

<table>
<thead>
<tr>
<th>Substance</th>
<th>Persistence and degradability</th>
<th>Endpoints</th>
</tr>
</thead>
<tbody>
<tr>
<td>potassium sulfate (7778-80-5)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Threshold limit algae 1</td>
<td></td>
<td>2900 mg/l (72 h; Scenedesmus subspicatus)</td>
</tr>
<tr>
<td>urea (57-13-6) (57-13-6)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>LC50 fish 1</td>
<td>&gt; 6810 mg/l (96 h; Leuciscus idus; Nominal concentration)</td>
<td></td>
</tr>
<tr>
<td>EC50 Daphnia 1</td>
<td>&gt; 10000 mg/l (48 h; Daphnia magna; Nominal concentration)</td>
<td></td>
</tr>
<tr>
<td>LC50 fish 2</td>
<td>17500 mg/l (96 h; Poecilia reticulata)</td>
<td></td>
</tr>
<tr>
<td>EC50 Daphnia 2</td>
<td>&gt; 10000 mg/l (24 h; Daphnia magna)</td>
<td></td>
</tr>
<tr>
<td>TLM fish 1</td>
<td>17500 ppm (96 h; Poecilia reticulata)</td>
<td></td>
</tr>
<tr>
<td>Threshold limit other aquatic organisms 1</td>
<td>120000 mg/l (16 h; Bacteria; Toxicity test)</td>
<td></td>
</tr>
<tr>
<td>Threshold limit other aquatic organisms 2</td>
<td>&gt; 10000 mg/l (Pseudomonas pulida)</td>
<td></td>
</tr>
<tr>
<td>Threshold limit algae 1</td>
<td>&gt; 10000 mg/l (168 h; Scenedesmus quadricauda; Growth rate)</td>
<td></td>
</tr>
<tr>
<td>Threshold limit algae 2</td>
<td></td>
<td>47 mg/l (192 h; Microcystis aeruginosa; Growth rate)</td>
</tr>
<tr>
<td>ammonium sulfate (7783-20-2)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>LC50 fish 1</td>
<td>126 mg/l (96 h; Poecilia reticulata)</td>
<td></td>
</tr>
<tr>
<td>EC50 Daphnia 1</td>
<td>202 mg/l (96 h; Daphnia magna)</td>
<td></td>
</tr>
<tr>
<td>LC50 fish 2</td>
<td>250 - 480 mg/l (96 h; Brachydanio rerio)</td>
<td></td>
</tr>
<tr>
<td>EC50 Daphnia 2</td>
<td>433 mg/l (50 h; Daphnia magna)</td>
<td></td>
</tr>
<tr>
<td>TLM fish 1</td>
<td>1290 ppm (96 h; Gambusia affinis)</td>
<td></td>
</tr>
</tbody>
</table>

### 12.2. Persistence and degradability

**Best Full Season 24-4-8 with Gal-Xe ONE**

Persistence and degradability: Not established.

**Monoammonium Phosphate (7722-76-1)**

Persistence and degradability: Biodegradability in water: no data available. Not established.

**potassium sulfate (7778-80-5)**

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

**Iron Oxysulfate**

Persistence and degradability: Not established.

**Sand**

Persistence and degradability: Not established.

**Wax (64771-72-8)**

Persistence and degradability: Not established.

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


- ThOD: 0.27 g O₂/g substance

**ammonium sulfate (7783-20-2) (7783-20-2)**

Persistence and degradability: Biodegradability in water: no data available. Not established.

### 12.3. Bioaccumulative potential

**Best Full Season 24-4-8 with Gal-Xe ONE**

Bioaccumulative potential: Not established.

**Monoammonium Phosphate (7722-76-1)**

Bioaccumulative potential: Not bioaccumulative. Not established.

**potassium sulfate (7778-80-5)**

Bioaccumulative potential: Not bioaccumulative. Not established.

**Iron Oxysulfate**

Bioaccumulative potential: Not established.
Best Full Season 24-4-8 with Gal-Xe ONE
Safety Data Sheet
according to Federal Register / Vol. 77, No. 58 / Monday, March 26, 2012 / Rules and Regulations

### Sand
- **Bioaccumulative potential**: Not established.

### Wax (64771-72-8)
- **Bioaccumulative potential**: Not established.

### urea (57-13-6) (57-13-6)
- **BCF fish 1**: 1 (72 h; Brachydanio 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.

### ammonium sulfate (7783-20-2) (7783-20-2)
- **Log Pow**: -5.1
- **Bioaccumulative potential**: Bioaccumulation: not applicable. Not established.

#### 12.4. Mobility in soil
- No additional information available

#### 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
- **Best Full Season 24-4-8 with Gal-Xe ONE**
  - Not listed on the United States TSCA (Toxic Substances Control Act) inventory except for:
    - **Iron Oxysulfate**: CAS No.
    - **Manganese Oxysulfate**: CAS No.
    - **Sand**: CAS No.
    - **Polymer Coating**: CAS No.

This product or mixture does not contain a toxic chemical or chemicals in excess of the applicable de minimis concentration as specified in 40 CFR §372.38(a) subject to the reporting requirements of section 313 of Title III of the Superfund Amendments and Reauthorization Act of 1986 and 40 CFR Part 372.
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 does not contain any substances known to the state of California to cause cancer, developmental and/or reproductive harm

SECTION 16: Other information


Other information : None.

Full text of H-statements:

<table>
<thead>
<tr>
<th>H320</th>
<th>Causes eye irritation</th>
</tr>
</thead>
<tbody>
<tr>
<td>H335</td>
<td>May cause respiratory irritation</td>
</tr>
</tbody>
</table>

SDS US (GHS HazCom 2012)

Disclaimer: This information relates to the specific material designated and may not be valid for such material used in combination with any other materials or in any process. Such information is to the best of our knowledge and belief, accurate and reliable as of the date compiled. However, no representation, warranty or guarantee is made as to its accuracy, reliability or completeness. NO WARRANTY OF MERCHANTABILITY, FITNESS FOR ANY PARTICULAR PURPOSE, OR ANY OTHER WARRANTY, EXPRESS OR IMPLIED, IS MADE CONCERNING THE INFORMATION HEREIN PROVIDED. It is the user's responsibility to satisfy himself as to the suitability and completeness of such information for his own particular use. We do not accept liability for any loss or damage that may occur from the use of this information nor do we offer warranty against patent infringement.