1. IDENTIFICATION OF THE SUBSTANCE/PREPARATION AND OF THE COMPANY/UNDERTAKING

GHS Product Information
Product Name: Prince Selenium Yeast 3000
Business Unit: Prince Agri
Other means of identification: Not available
Safety data sheet number: 5018-500 -US-E

Recommended use of the chemical and restrictions on use
Recommended use: Animal Feed Additive.
Uses advised against: No information available

Details of the supplier of the safety data sheet
Supplier: Prince Agri Products, Inc
229 Radio Road
Quincy, IL 62305
Tel: 217-222-8854
Fax: 217-222-5098
Toll Free: 800-677-4623
Email: prince@princeagri.com

Manufacturer: Prince Agri Products, Inc
229 Radio Road
Quincy, IL 62305
Tel: 217-222-8854
Fax: 217-222-5098
Toll Free: 800-677-4623
Email: prince@princeagri.com

SDS Contact (email of responsible person): prince@princeagri.com

24 Hour Emergency Phone Number: Chemtrec 1-800-424-9300 (CCN17224)
International: +1 703-527-3887

2. HAZARDS IDENTIFICATION

Classification
OSHA Regulatory Status
This chemical is not considered hazardous by the 2012 OSHA Hazard Communication Standard (29 CFR 1910.1200)
Not a dangerous substance or mixture according to the Globally Harmonized System (GHS)

Label elements

Emergency Overview
3. COMPOSITION/INFORMATION ON INGREDIENTS

<table>
<thead>
<tr>
<th>Pure substance/mixture</th>
<th>Mixture</th>
</tr>
</thead>
</table>

<table>
<thead>
<tr>
<th>Chemical Name</th>
<th>CAS No</th>
<th>Weight-%</th>
<th>Trade Secret</th>
</tr>
</thead>
<tbody>
<tr>
<td>Selenium</td>
<td>7782-49-2</td>
<td>0.1 - 1</td>
<td>*</td>
</tr>
</tbody>
</table>

*The exact percentage (concentration) of composition has been withheld as a trade secret.

4. FIRST AID MEASURES

First aid measures

Eye contact: Rinse thoroughly with plenty of water for at least 15 minutes, lifting lower and upper eyelids. Consult a physician.

Inhalation: Remove to fresh air.

Skin Contact: Wash skin with soap and water.

Ingestion: Consult a physician if necessary.

Most important symptoms and effects, both acute and delayed

Symptoms: No information available.

Indication of any immediate medical attention and special treatment needed

Note to physicians: Treat symptomatically.

5. FIRE-FIGHTING MEASURES

Extinguishing media

Suitable extinguishing media: Use extinguishing measures that are appropriate to local circumstances and the surrounding environment.

Unsuitable extinguishing media: Caution: Use of water spray when fighting fire may be inefficient.

Specific hazards arising from the chemical:

Explosion data

Sensitivity to Mechanical Impact: None.
This material safety data sheet complies with the requirements of Regulation (EC) No. 1907/2006

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Sensitivity to Static Discharge: None.

Protective equipment and precautions for firefighters: As in any fire, wear self-contained breathing apparatus pressure-demand, MSHA/NIOSH (approved or equivalent) and full protective gear.

6. ACCIDENTAL RELEASE MEASURES

Personal precautions, protective equipment and emergency procedures

Personal precautions: Ensure adequate ventilation, especially in confined areas.

For emergency responders: Use personal protection recommended in Section 8. Use personal protective equipment as required.

Environmental precautions: See Section 12 for additional ecological information.

Methods and material for containment and cleaning up

Methods for containment: Prevent further leakage or spillage if safe to do so.

Methods for cleaning up: Use personal protective equipment as required. Cover powder spill with plastic sheet or tarp to minimize spreading and keep powder dry. Take up mechanically, placing in appropriate containers for disposal. Avoid creating dust. Clean contaminated surface thoroughly.

7. HANDLING AND STORAGE

Precautions for safe handling

Advice on safe handling: Handle in accordance with good industrial hygiene and safety practice.

Conditions for safe storage, including any incompatibilities

Storage Conditions: Keep containers tightly closed in a dry, cool and well-ventilated place.

Incompatible materials: None known based on information supplied.

8. EXPOSURE CONTROLS/PERSONAL PROTECTION

Control parameters

Exposure Guidelines

<table>
<thead>
<tr>
<th>Chemical Name</th>
<th>CAS No</th>
<th>ACGIH TLV</th>
<th>OSHA PEL</th>
<th>NIOSH IDLH</th>
</tr>
</thead>
<tbody>
<tr>
<td>Selenium</td>
<td>7782-49-2</td>
<td>TWA: 0.2 mg/m³ TWA: 0.2 mg/m³ Se</td>
<td>TWA: 0.2 mg/m³ Se (vacated) TWA: 0.2 mg/m³ (vacated) TWA: 0.2 mg/m³ Se</td>
<td>TWA: 0.2 mg/m³ TWA: 0.2 mg/m³ Se</td>
</tr>
</tbody>
</table>

NIOSH IDLH Immediately Dangerous to Life or Health

Other Information: Vacated limits revoked by the Court of Appeals decision in AFL-CIO v. OSHA, 965 F.2d 962 (11th Cir., 1992).

Appropriate engineering controls

Engineering Controls: Showers Eyewash stations Ventilation systems.
Individual protection measures, such as personal protective equipment

General Hygiene Considerations: Handle in accordance with good industrial hygiene and safety practice.

Eye/face protection: No special technical protective measures are necessary.

Skin and body protection: No special technical protective measures are necessary.

Respiratory protection: If exposure limits are exceeded or irritation is experienced, NIOSH/MSHA approved respiratory protection should be worn. Positive-pressure supplied air respirators may be required for high airborne contaminant concentrations. Respiratory protection must be provided in accordance with current local regulations.

9. PHYSICAL AND CHEMICAL PROPERTIES

Information on basic physical and chemical properties

<table>
<thead>
<tr>
<th>Property</th>
<th>Values</th>
<th>Remarks • Method</th>
</tr>
</thead>
<tbody>
<tr>
<td>Physical state</td>
<td>Solid</td>
<td></td>
</tr>
<tr>
<td>Appearance</td>
<td>Powder</td>
<td>Odor</td>
</tr>
<tr>
<td>Color</td>
<td>Tan</td>
<td>Odor threshold</td>
</tr>
<tr>
<td>Odor threshold</td>
<td>Yeast Like</td>
<td></td>
</tr>
<tr>
<td>pH</td>
<td>No information available</td>
<td></td>
</tr>
<tr>
<td>Melting Point / Freezing Point</td>
<td>No information available</td>
<td></td>
</tr>
<tr>
<td>Boiling point / boiling range</td>
<td>No information available</td>
<td></td>
</tr>
<tr>
<td>Flash point</td>
<td>No information available</td>
<td></td>
</tr>
<tr>
<td>Evaporation rate</td>
<td>No information available</td>
<td></td>
</tr>
<tr>
<td>Flammability (solid, gas)</td>
<td>No information available</td>
<td></td>
</tr>
<tr>
<td>Flammability Limit in Air</td>
<td>No information available</td>
<td></td>
</tr>
<tr>
<td>Upper flammability limit</td>
<td>No information available</td>
<td></td>
</tr>
<tr>
<td>Lower flammability limit</td>
<td>No information available</td>
<td></td>
</tr>
<tr>
<td>Vapor pressure</td>
<td>No information available</td>
<td></td>
</tr>
<tr>
<td>Vapor density</td>
<td>No information available</td>
<td></td>
</tr>
<tr>
<td>Specific Gravity</td>
<td>No information available</td>
<td></td>
</tr>
<tr>
<td>Water solubility</td>
<td>Insoluble in water</td>
<td></td>
</tr>
<tr>
<td>Solubility in other solvents</td>
<td>No information available</td>
<td></td>
</tr>
<tr>
<td>Partition coefficient</td>
<td>No information available</td>
<td></td>
</tr>
<tr>
<td>Autoignition temperature</td>
<td>No information available</td>
<td></td>
</tr>
<tr>
<td>Decomposition temperature</td>
<td>No information available</td>
<td></td>
</tr>
<tr>
<td>Kinematic viscosity</td>
<td>No information available</td>
<td></td>
</tr>
<tr>
<td>Dynamic viscosity</td>
<td>No information available</td>
<td></td>
</tr>
<tr>
<td>Explosive properties</td>
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<td></td>
</tr>
<tr>
<td>Oxidizing properties</td>
<td>No information available</td>
<td></td>
</tr>
<tr>
<td>Softening point</td>
<td>No information available</td>
<td></td>
</tr>
<tr>
<td>Molecular weight</td>
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<td></td>
</tr>
<tr>
<td>VOC Content (%)</td>
<td>No information available</td>
<td></td>
</tr>
<tr>
<td>Density</td>
<td>No information available</td>
<td></td>
</tr>
<tr>
<td>Bulk density</td>
<td>No information available</td>
<td></td>
</tr>
<tr>
<td>Percent Volatile</td>
<td>No information available</td>
<td></td>
</tr>
</tbody>
</table>

10. STABILITY AND REACTIVITY

Reactivity
No data available
This material safety data sheet complies with the requirements of Regulation (EC) No. 1907/2006

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**Chemical stability**

Stable under recommended storage conditions.

**Possibility of Hazardous Reactions**

None under normal processing.

**Conditions to avoid**

Extremes of temperature and direct sunlight.

**Incompatible materials**

None known based on information supplied.

**Hazardous Decomposition Products**

None known based on information supplied.

---

**11. TOXICOLOGICAL INFORMATION**

**Information on likely routes of exposure**

Product Information: No data available.

Inhalation: No data available.

Eye contact: No data available.

Skin Contact: No data available.

Ingestion: No data available.

<table>
<thead>
<tr>
<th>Chemical Name</th>
<th>CAS No</th>
<th>Oral LD50</th>
<th>Dermal LD50</th>
<th>Inhalation LC50</th>
</tr>
</thead>
<tbody>
<tr>
<td>Selenium</td>
<td>7782-49-2</td>
<td>= 6700 mg/kg (Rat)</td>
<td>-</td>
<td>-</td>
</tr>
</tbody>
</table>

**Information on toxicological effects**

Symptoms: No information available.

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

**Sensitization:** No information available.

**Germ cell mutagenicity:** No information available.

**Carcinogenicity:** The table below indicates whether each agency has listed any ingredient as a carcinogen.

<table>
<thead>
<tr>
<th>Chemical Name</th>
<th>CAS No</th>
<th>ACGIH</th>
<th>IARC</th>
<th>NTP</th>
<th>OSHA</th>
</tr>
</thead>
<tbody>
<tr>
<td>Selenium</td>
<td>7782-49-2</td>
<td>-</td>
<td>Group 3</td>
<td>-</td>
<td>-</td>
</tr>
</tbody>
</table>

IARC (International Agency for Research on Cancer)

Not classifiable as a human carcinogen

Reproductive toxicity: No information available.

STOT - single exposure: No information available.

STOT - repeated exposure: No information available.

**Chronic toxicity:** May cause adverse effects on the bone marrow and blood-forming system. May cause adverse liver effects.

**Target Organ Effects:** Blood, Eyes, kidney, liver, Respiratory system, Skin, spleen.

**Aspiration hazard:** No information available.

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**Numerical measures of toxicity - Product Information**

The following values are calculated based on chapter 3.1 of the GHS document.

mg/kg mg/l 1000000

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**12. ECOLOGICAL INFORMATION**
Ecotoxicity
Harmful to aquatic life

99.33% of the mixture consists of components(s) of unknown hazards to the aquatic environment

Persistence and degradability
No information available.

Bioaccumulation
No information available.

Mobility
No information available.

Other adverse effects: No information available

13. DISPOSAL CONSIDERATIONS

Waste treatment methods

Disposal of wastes: Refer to all federal, state and local regulations prior to disposal of container and unused contents by reuse, recycle or disposal. Disposal should be in accordance with applicable regional, national and local laws and regulations. Avoid runoff to waterways and sewers. Recover or recycle if possible. Send to a licensed recycler, reclaimer or incinerator.

Disposal methods: Do not reuse container.

14. TRANSPORT INFORMATION

Note: Store in a closed container. Keep container upright.

DOT Not regulated

IATA Not regulated

IMDG Not regulated

15. REGULATORY INFORMATION

International Inventories

TSCA: Not Determined
DSL/NDSL: Not Determined
EINECS/ELINCS: Not Determined
ENCS: Not Determined
IECSC: Not Determined
KECL: Not Determined
PICCS: Not Determined
AICS: Not Determined

Legend:
TSCA - United States Toxic Substances Control Act Section 8(b) Inventory
DSL/NDSL - Canadian Domestic Substances List/Non-Domestic Substances List
EINECS/ELINCS - European Inventory of Existing Chemical Substances/European List of Notified Chemical Substances
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ENCS - Japan Existing and New Chemical Substances
IECSC - China Inventory of Existing Chemical Substances
KECL - Korean Existing and Evaluated Chemical Substances
PICCS - Philippines Inventory of Chemicals and Chemical Substances
AICS - Australian Inventory of Chemical Substances

US 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
- Acute health hazard: No
- Chronic Health Hazard: No
- Fire hazard: No
- Sudden release of pressure hazard: No
- Reactive Hazard: No

CWA (Clean Water Act)
This product contains the following substances which are regulated pollutants pursuant to the Clean Water Act (40 CFR 122.21 and 40 CFR 122.42)

<table>
<thead>
<tr>
<th>Chemical Name</th>
<th>CAS No</th>
<th>CWA - Reportable Quantities</th>
<th>CWA - Toxic Pollutants</th>
<th>CWA - Priority Pollutants</th>
<th>CWA - Hazardous Substances</th>
</tr>
</thead>
<tbody>
<tr>
<td>Selenium</td>
<td>7782-49-2</td>
<td>-</td>
<td>X</td>
<td>X</td>
<td>-</td>
</tr>
</tbody>
</table>

CERCLA
This material, as supplied, contains one or more substances regulated as a hazardous substance under the Comprehensive Environmental Response Compensation and Liability Act (CERCLA) (40 CFR 302)

<table>
<thead>
<tr>
<th>Chemical Name</th>
<th>CAS No</th>
<th>Hazardous Substances RQs</th>
<th>CERCLA/SARA RQ</th>
<th>Reportable Quantity (RQ)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Selenium</td>
<td>7782-49-2</td>
<td>100 lb</td>
<td>-</td>
<td>RQ 100 lb final RQ</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>RQ 45.4 kg final RQ</td>
</tr>
</tbody>
</table>

US State Regulations

California Proposition 65
This product does not contain any Proposition 65 chemicals

U.S. State Right-to-Know Regulations
No information available

<table>
<thead>
<tr>
<th>Chemical Name</th>
<th>CAS No</th>
<th>New Jersey</th>
<th>Massachusetts</th>
<th>Pennsylvania</th>
</tr>
</thead>
<tbody>
<tr>
<td>Selenium</td>
<td>7782-49-2</td>
<td>X</td>
<td>X</td>
<td>X</td>
</tr>
</tbody>
</table>

Canada
No information available

16. OTHER INFORMATION

<table>
<thead>
<tr>
<th>NFPA</th>
<th>Health hazards</th>
<th>Flammability</th>
<th>Instability</th>
<th>Physical &amp; Chemical Properties</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>HMIS</th>
<th>Health hazards</th>
<th>Flammability</th>
<th>Physical hazards</th>
<th>Personal protection</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>C</td>
</tr>
</tbody>
</table>
This material safety data sheet complies with the requirements of Regulation (EC) No. 1907/2006

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Document Review
Revision Number: 1

Revision Note: No information available

Key or legend to abbreviations and acronyms used in the safety data sheet:

- Bioconcentration factor (BCF)
- International Air Transport Association (IATA)
- Globally Harmonized System (GHS)
- International Maritime Dangerous Goods (IMDG)

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End of Safety Data Sheet