Section 1. Product and Company Identification

Product Name: Ochratoxin A
Product ID: O0829
Chemical Name (Synonyms): Phenylalanine - ochratoxin A

Supplier: LKT Laboratories, Inc
545 Phalen Blvd.
St. Paul, MN 55130 USA
Ph: 651-644-8424 Fax: 651-644-8357
www.lktlabs.com - getinfo@lktlabs.com

Emergency Phone #: 1-800-424-9300

Section 2. Hazards Identification

GHS Classification:
- Acute toxicity, Oral (Category 2) H300
- Carcinogenicity (Category 2) H351
- Reproductive toxicity (Category 2) H361
- Specific Target Organ Toxicity - Repeated Exposure, Inhalation (Category 2) H373

GHS Label elements including precautionary statements

Pictogram
Signal word: Danger
Hazard and precautionary statements:
H300 - Fatal if swallowed.
H351 - Suspected of causing cancer.
H361 - Suspected of damaging fertility or the unborn child.
H373 - May cause damage to organs through prolonged or repeated exposure if inhaled.

Precautionary statements:
P201 - Obtain special instructions before use.
P202 - Do not handle until all safety precautions have been read and understood.
P260 - Do not breathe dust, fumes, gas, mist, vapor, spray.
P264 - Wash skin thoroughly after handling.
P270 - Do not eat, drink or smoke when using this product.
P280 - Wear protective gloves, protective clothing, eye protection, face protection.
P308 + P313 - IF exposed or concerned: Get medical advice/attention.
P405 - Store locked up.
P501 - Dispose of contents/container to an approved waste disposal plant.

HMIS Classification:
- Health hazard: 4
- Chronic health hazard: *
- Flammability: 0
- Physical hazard: 0

NFPA Rating:
- Health hazard: 3
- Fire hazard: 0
- Reactivity hazard: 0

Potential Health Effects:
- Inhalation: May be harmful if inhaled. Causes respiratory tract irritation.
- Aspiration hazard: May cause drowsiness or dizziness.
- Skin: May be harmful if absorbed through skin. Causes skin irritation.
- Eyes: Causes serious eye irritation.
- Ingestion: Acute toxicity. Fatal if swallowed. May be fatal if swallowed and enters airways.
- Carcinogenicity: Suspected of causing cancer.
- Reproductive toxicity: Suspected of damaging fertility or the unborn child.
### Section 3. Composition/Information on Ingredients

<table>
<thead>
<tr>
<th>Substances</th>
<th>Ingredient: Title Compound</th>
<th>Percent: 100</th>
</tr>
</thead>
<tbody>
<tr>
<td>Formula</td>
<td>C$<em>{20}$H$</em>{18}$ClNO$_6$</td>
<td></td>
</tr>
<tr>
<td>CAS No.</td>
<td>303-47-9</td>
<td></td>
</tr>
<tr>
<td>Formula Wt.</td>
<td></td>
<td>403.82</td>
</tr>
<tr>
<td>EC No.</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

### Section 4. First Aid Measures

**General advice**
Consult a physician. Show this safety data sheet to the doctor in attendance. Move out of dangerous area.

**Eye Contact**
Flush eyes with water as a precaution.

**Skin Contact**
Wash off with soap and plenty of water. Take victim immediately to hospital. Consult a physician.

**Inhalation**
If breathed in, move person into fresh air. If not breathing, give artificial respiration. Consult a physician.

**Ingestion**
Never give anything by mouth to an unconscious person. Rinse mouth with water. Consult a physician.

### Section 5. Firefighting Measures

**Flash Point**
Not available.

**Extinguishing Media**
Use water spray, alcohol-resistant foam, dry chemical or carbon dioxide.

**Firefighting Procedures**
Wear self-contained breathing apparatus for firefighting if necessary.

**Unusual Fire Hazards**
Not available.

### Section 6. Accidental Release Measures

**Personal Precautions**
Wear respiratory protection. Avoid dust formation. Avoid breathing dust, vapors, mist, or gas. Ensure adequate ventilation. Evacuate personnel to safe areas.

**Environmental Precautions**
Prevent further leakage or spillage if safe to do so. Do not let product enter drains.

**Methods and materials for containment and cleanup**
Pick up and arrange disposal without creating dust. Sweep up and shovel. Keep in suitable, closed containers for disposal.

### Section 7. Handling and Storage

**Handling**
Avoid contact with skin and eyes. Avoid formation of dust and aerosol. Further processing of solid materials may result in the formation of combustible dusts. The potential for combustible dust formation should be taken into consideration before additional processing occurs. Provide appropriate exhaust ventilation at places where dust is formed.

**Storage Conditions**
Keep container tightly closed in a dry and well-ventilated place. Recommended storage temperature: 20°C

**Hazardous Decomposition Products**
Hazardous decomposition products formed under fire conditions. Carbon oxides, nitrogen oxides (NOx), hydrogen chloride gas.

**Other Remarks**
Specific target organ toxicity - repeated exposure - May cause damage to organs through prolonged or repeated exposure if inhaled.
Section 8. Exposure Controls/Personal Protection

**Personal protective equipment**

**EXPOSURE CONTROLS**
Contains no substances with occupational exposure limit values.

**PERSONAL PROTECTION**
Use equipment for eye protection tested and approved under appropriate government standards such as NIOSH (US) or EN 166 (EU).

**Skin protection:** Handle with gloves. Gloves must be inspected prior to use. Use proper glove removal technique (without touching glove’s outer surface) to avoid skin contact with this product. Dispose of contaminated gloves after use in accordance with applicable laws and good laboratory practices. Wash and dry hands. Full and splash contact - Material: Nitrile rubber. Minimum layer thickness: 0.11 mm, Break through time: 480 min., Material tested: Dermatril® (KCL 740 / Aldrich Z677272, Size M).

**Body protection:** Complete suit protecting against chemicals. The type of protective equipment must be selected according to the concentration and amount of the dangerous substance at the specific workplace. Respiratory protection: Where risk assessment shows air-purifying respirators are appropriate, use a full-face particle respirator type N100 (US) or type P3 (EN 143) respirator cartridges as a backup to engineering controls. If the respirator is the sole means of protection, use a full-face supplied air respirator. Use respirators and components tested and approved under appropriate government standards such as NIOSH (US) or CEN (EU).

Section 9. Physical and Chemical Properties

<table>
<thead>
<tr>
<th>Property</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Physical State</strong></td>
<td>Solid.</td>
</tr>
<tr>
<td><strong>Color</strong></td>
<td>White to off-white crystals.</td>
</tr>
<tr>
<td><strong>Boiling Point</strong></td>
<td>Not available.</td>
</tr>
<tr>
<td><strong>Vapor pressure</strong></td>
<td>Not available.</td>
</tr>
<tr>
<td><strong>Melting Point</strong></td>
<td>169°C</td>
</tr>
<tr>
<td><strong>Density</strong></td>
<td>Not available.</td>
</tr>
<tr>
<td><strong>Solubility</strong></td>
<td>Soluble in methanol.</td>
</tr>
<tr>
<td><strong>pH</strong></td>
<td>Not available.</td>
</tr>
<tr>
<td><strong>Flash Point</strong></td>
<td>Not available.</td>
</tr>
<tr>
<td><strong>Ignition temperature</strong></td>
<td>Not available.</td>
</tr>
<tr>
<td><strong>Lower explosion limit</strong></td>
<td>Not available.</td>
</tr>
<tr>
<td><strong>Upper explosion limit</strong></td>
<td>Not available.</td>
</tr>
<tr>
<td><strong>Water solubility</strong></td>
<td>Not available.</td>
</tr>
<tr>
<td><strong>Vapor pressure</strong></td>
<td>Not available.</td>
</tr>
<tr>
<td><strong>Odor</strong></td>
<td>Not available.</td>
</tr>
<tr>
<td><strong>Partition coefficient: n-octanol/water</strong></td>
<td>Not available.</td>
</tr>
<tr>
<td><strong>Odor Threshold</strong></td>
<td>Not available.</td>
</tr>
<tr>
<td><strong>Relative vapor density</strong></td>
<td>Not available.</td>
</tr>
<tr>
<td><strong>Evaporation rate</strong></td>
<td>Not available.</td>
</tr>
</tbody>
</table>

Section 10. Stability and Reactivity

**Stability**
Stable under recommended storage conditions.

**Materials To Avoid**
Strong oxidizing agents.

**Hazardous Decomposition Products**
Hazardous decomposition products formed under fire conditions. Carbon oxides, nitrogen oxides (NOx), hydrogen chloride gas.
### Section 11. Toxicological Information

<table>
<thead>
<tr>
<th>Parameter</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Oral LD50</td>
<td>Rat - 20.0 mg/kg  Remarks: Lungs, thorax or respiration;Chronic pulmonary edema. Nutritional and gross metabolic:Weight loss or decreased weight gain.</td>
</tr>
<tr>
<td>Inhalation LC50</td>
<td>Not available.</td>
</tr>
<tr>
<td>Dermal LD50</td>
<td>Not available.</td>
</tr>
<tr>
<td>Other information on acute toxicity</td>
<td>Not available.</td>
</tr>
<tr>
<td>Reproductive Toxicity</td>
<td>Laboratory experiments have shown teratogenic effects.</td>
</tr>
<tr>
<td>Specific organ toxicity single exposure (GHS)</td>
<td>Not available.</td>
</tr>
<tr>
<td>Specific organ toxicity repeated exposure (GHS)</td>
<td>Not available.</td>
</tr>
<tr>
<td>Teratogenicity</td>
<td>Not available.</td>
</tr>
<tr>
<td>Skin corrosion/irritation</td>
<td>Not available.</td>
</tr>
<tr>
<td>Serious eye damage/irritation</td>
<td>Not available.</td>
</tr>
<tr>
<td>Respiratory or skin sensitization</td>
<td>Not available.</td>
</tr>
<tr>
<td>Germ cell mutagenicity</td>
<td>Laboratory experiments have shown mutagenic effects.</td>
</tr>
<tr>
<td>Aspiration Hazard</td>
<td>Not available.</td>
</tr>
<tr>
<td>Synergistic effects</td>
<td>Not available.</td>
</tr>
<tr>
<td>Additional Information</td>
<td>RTECS: Not available.</td>
</tr>
</tbody>
</table>

### Potential Health Effects

**Potential Health Effects**
- Inhalation - May be harmful if inhaled. Causes respiratory tract irritation. Aspiration hazards - May cause coughing or dizziness.
- Skin - May be harmful if absorbed through skin. Causes skin irritation. Eyes - Causes serious eye irritation.
- Carcinogenicity - Suspected of causing cancer. Reproductive toxicity - Suspected of damaging fertility or the unborn child.
- Specific target organ toxicity - repeated exposure - May cause damage to organs through prolonged or repeated exposure if inhaled.

### Carcinogenicity

This product is or contains a component that has been reported to be possibly carcinogenic based on its IARC, ACGIH, NTP or EPA classification. Limited evidence of carcinogenicity in animal studies.
- IARC: 2B - Group 2B: Possibly carcinogenic to humans ((+)-Ochratoxin A)
- NTP: RAHC - Reasonably anticipated to be a human carcinogen ((+)-Ochratoxin A)
- OSHA: No component of this product present at levels greater than or equal to 0.1% is identified as a carcinogen or potential carcinogen by OSHA.

### Section 12. Ecological Information

<table>
<thead>
<tr>
<th>Parameter</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Toxicity</td>
<td>Not available.</td>
</tr>
<tr>
<td>Mobility in soil</td>
<td>Not available.</td>
</tr>
<tr>
<td>PBT and vPvB assessment</td>
<td>PBT/vPvB assessment not available as chemical safety assessment not required/not</td>
</tr>
</tbody>
</table>
Section 13. Disposal Considerations

Waste Disposal

Dispose of material according to all federal, state and local regulations. Offer material to a licensed, professional waste disposal company to dispose of as unused product. Dissolve or mix the material with a combustible solvent and burn in a chemical incinerator equipped with an afterburner and scrubber.

Section 14. Transport Information

DOT (US)  
UN number: 3462  
Class: 6.1  
Packing Group: II  
Proper shipping name: Toxins, extracted from living sources, solid, n.o.s. (Ochratoxin A)  
Reportable Quantity (RQ): Yes  
Poison Inhalation Hazard: NO.

IATA  
UN number: 3462  
Class: 6.1  
Packing group: II  
Proper shipping name: Toxins, extracted from living sources, solid, n.o.s. (Ochratoxin A)

IMDG  
UN number: 3462  
Class: 6.1  
Packing group II  
EMS #: F-A, S-A  
Proper shipping name: TOXINS, EXTRACTED FROM LIVING SOURCES, SOLID, N.O.S. (Ochratoxin A)

Section 15. Regulatory Information

SARA 302 Components  
SARA 302: No chemicals in this material are subject to the reporting requirements of SARA Title III, Section 302.

SARA 313 Components  
SARA 313: This material does not contain any chemical components with known CAS numbers that exceed the threshold (De Minimis) reporting levels established by SARA Title III, Section 313.

SARA 311/312 Components  
Acute health hazard, chronic health hazard.

Massachusetts Right To Know Components  
No components are subject to the Massachusetts Right to Know Act.  
Ochratoxin A  
CAS #: 303-47-9  
Revision Date: 1993-04-24

Pennsylvania Right To Know Components  
Ochratoxin A  
CAS #: 303-47-9  
Revision Date: 1993-04-24

New Jersey Right To Know Components  
Ochratoxin A  
CAS #: 303-47-9  
Revision Date: 1993-04-24

California Prop 65 Components  
WARNING! This product contains a chemical known to the State of California to cause cancer.  
Ochratoxin A  
CAS #: 303-47-9  
Revision Date: 2007-09-28

Section 16. Other Information

The information in this document is believed to be correct but is not necessarily complete. LKT does not guarantee the accuracy of the information. The burden of verifying the information in this document rests solely upon the user.