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**Section 1. Product and Company Identification**

**Product Name** Okadaic acid  
**Product ID** O4101  
**Chemical Name (Synonyms)** Halochondrine 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

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**Section 2. Hazards Identification**

**GHS Classification** Acute toxicity, Oral (Category 3), H301  
Acute toxicity, Skin (Category 3), H311  
Skin irritation (Category 2), H315  
Acute toxicity, Inhalation (Category 3), H331

**GHS Label elements including precautionary statements**

**Pictogram**



**Signal word** Danger

**Hazard and precautionary statements**

**Hazard statements**

H301 + H311 + H331 - Toxic if swallowed, in contact with skin or if inhaled.  
H315 - Causes skin irritation.

**Precautionary statements**

P261 - Avoid breathing dust, fumes, gas, mist vapors and spray.  
P264 - Wash skin thoroughly after handling.  
P270 - Do not eat, drink or smoke when using this product.  
P271 - Use only outdoors or in a well-ventilated area.  
P280 - Wear protective gloves, and protective clothing.  
P301 + P310 - IF SWALLOWED: Immediately call a POISON CENTER or doctor/physician.  
P302 + P352 - IF ON SKIN: Wash with plenty of soap and water.  
P304 + P340 - IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing.  
P312 - Call a POISON CENTER or doctor/ physician if you feel unwell.  
P322 - Specific measures (see supplemental first aid instructions on this label).  
P330 - Rinse mouth.  
P332 + P313 - If skin irritation occurs: Get medical advice and or attention.  
P361 - Remove or take off immediately all contaminated clothing.  
P362 - Take off contaminated clothing and was before reuse.  
P403 + P233 - Store in a well-ventilated place. Keep container tightly closed.  
P405 - Store locked up.  
P501 - Dispose of contents/ container to an approved waste disposal plant.

**HMIS Classification** Health hazard: 2  
Chronic health hazard: 0  
Flammability: 0  
Physical hazard: 0

**NFPA Rating** Health hazard: 2  
Fire hazard: 0  
Reactivity hazard: 0

**Potential Health Effects** Inhalation - Acute toxicity. Toxic if inhaled. May cause respiratory tract irritation.  
Skin - Acute toxicity. Toxic in contact with skin. Causes skin irritation.  
Eyes - May cause eye irritation.

Ingestion - Acute toxicity. Toxic if swallowed.

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### Section 3. Composition/Information on Ingredients

#### Substances

**Formula** C<sub>44</sub>H<sub>68</sub>O<sub>13</sub>  
**CAS No.** 78111-17-8

**Formula Wt.** 805.00  
**EC No.**

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### 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.

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### 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** Carbon oxides.

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### Section 6. Accidental Release Measures

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

**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.

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### Section 7. Handling and Storage

**Handling** Avoid contact with skin and eyes. Avoid formation of dust and aerosols. Provide appropriate exhaust ventilation at places where dust is formed. Normal measures for preventive fire protection.

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

**Hazardous Decomposition Products** Not available.

**Other Remarks** Protect product from light.

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## Section 8. Exposure Controls/Personal Protection

### Personal protective equipment EXPOSURE CONTROLS

Contains no substances with occupational exposure limit values.

Appropriate engineering controls: Avoid contact with skin, eyes and clothing. Wash hands before breaks and immediately after handling the product.

#### PERSONAL PROTECTION

**Eye/face protection:** Face shield and safety glasses. 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: Dermatrill® (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 N99 (US) or type P2 (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).

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## Section 9. Physical and Chemical Properties

<b>Physical State</b>	Film	<b>Color</b>	Clear film.
<b>Boiling Point</b>	Not available.	<b>Volatility</b>	Not available.
<b>Melting Point</b>	171°C-175°C	<b>Density</b>	Not available.
<b>Solubility</b>	Soluble in DMSO, ethanol or methanol.	<b>pH</b>	Not available.
<b>Flash Point</b>	Not available.	<b>Ignition temperature</b>	Not available.
<b>Lower explosion limit</b>	Not available.	<b>Autoignition temperature</b>	Not available.
<b>Upper explosion limit</b>	Not available.	<b>Vapor pressure</b>	Not available.
<b>Water solubility</b>	Not available.	<b>Odor</b>	Not available.
<b>Partition coefficient: n-octanol/water</b>	Not available.	<b>Odor Threshold</b>	Not available.
<b>Relative vapor density</b>	Not available.	<b>Evaporation rate</b>	Not available.

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## Section 10. Stability and Reactivity

<b>Stability</b>	Stable under recommended storage conditions.
<b>Materials To Avoid</b>	Not available.
<b>Hazardous Decomposition Products</b>	Not available.

**Possibility of hazardous reactions** Not available.

**Conditions to avoid** Not available.

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## Section 11. Toxicological Information

**Oral LD50** Mouse - 0.15 mg/kg

**Skin corrosion/irritation** Not available.

**Inhalation LC50** Not available.

**Serious eye damage/irritation** Not available.

**Dermal LD50** Not available.

**Respiratory or skin sensitization** Not available.

**Other information on acute toxicity** Not available.

**Germ cell mutagenicity** Human lymphocyte Sister chromatid exchange Hamster, lungs and mutation in mammalian somatic cells.

**Reproductive Toxicity** Not available.

**Aspiration Hazard** Not available.

**Specific organ toxicity single exposure (GHS)** Not available.

**Synergistic effects** Not available.

**Specific organ toxicity repeated exposure (GHS)** Not available.

**Additional Information** RTECS: AA8227800  
Tumor promoter and gastrointestinal disturbance.

**Teratogenicity** Not available.

**Signs and symptoms of exposure** Not available.

**Potential Health Effects** Inhalation - Acute toxicity. Toxic if inhaled. May cause respiratory tract irritation.  
Skin - Acute toxicity. Toxic in contact with skin. Causes skin irritation.  
Eyes - May cause eye irritation.  
Ingestion - Acute toxicity. Toxic if swallowed.

**Carcinogenicity** **Mouse - Skin Tumorigenic:** Equivocal tumorigenic agent by RTECS criteria. **Skin & Appendages:** **Other:** Tumors.  
**IARC:** No component of this product present at levels greater than or equal to 0.1% is identified as probable, possible, or confirmed human carcinogen by IARC.  
**ACGIH:** No component of this product present at levels greater than or equal to 0.1% is identified as a carcinogen or potential carcinogen by ACGIH  
**NTP:** No component of this product present at levels greater than or equal to 0.1% is identified as a known or anticipated carcinogen by NTP.  
**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.

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## Section 12. Ecological Information

**Toxicity** Not available.

**Mobility in soil** Not available.

**PBT and vPvB assessment** PBT/vPvB assessment not available as chemical safety assessment not required/not

conducted.

**Persistence and degradability** Not available.

**Other adverse effects** Not available.

**Bioaccumulative potential** Not available.

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### Section 13. Disposal Considerations

**Waste Disposal** Dispose of material according to all federal, state and local regulations.  
Offer surplus and non-recyclable solutions to a licensed disposal company. Contact a licensed, professional waste disposal service to dispose of this material. Dissolve or mix the material with a combustible solvent and burn in a chemical incinerator equipped with an afterburner and scrubber. Dispose of as unused product.

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### Section 14. Transport Information

**DOT (US)** UN number: 3462 Class: 6.1 Packing group: I  
Proper shipping name: Toxins, extracted from living sources, solid, n.o.s. (Okadaic acid)  
Marine pollutant: No Poison inhalation hazard: No

**IATA** UN number: 3462 Class: 6.1 Packing group: I  
Proper shipping name: Toxins, extracted from living sources, solid, n.o.s. (Okadaic acid)

**IMDG** UN number: 3462 Class: 6.1 Packing group: I EMS-No: F-A, S-A  
Proper shipping name: TOXINS, EXTRACTED FROM LIVING SOURCES, SOLID, N.O.S. (Okadaic acid)  
Marine pollutant: No

#### Further Information

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### Section 15. Regulatory Information

#### Reach No.

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

**SARA 313 Components** 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.

**Massachusetts Right To Know Components** No components are subject to the Massachusetts Right to Know Act.

**Pennsylvania Right To Know Components** Okadaic acid CAS #: 78111-17-8 Revision Date:

**New Jersey Right To Know Components** Okadaic acid CAS #: 78111-17-8 Revision Date:

**California Prop 65 Components** This product does not contain any chemicals known to State of California to cause cancer, birth defects or any other reproductive harm.

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### Section 16. Other Information

**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.

**Updated** 4/11/2019

For emergencies in the USA, call  
CHEMTREC 800-424-9300