Section 1. Product and Company Identification

<table>
<thead>
<tr>
<th>Product Name</th>
<th>Wortmannin</th>
</tr>
</thead>
<tbody>
<tr>
<td>Product ID</td>
<td>W5769</td>
</tr>
<tr>
<td>Chemical Name (Synonyms)</td>
<td>Wortmannin; KY 12420; SL-2052</td>
</tr>
<tr>
<td>Supplier</td>
<td>LKT Laboratories, Inc</td>
</tr>
<tr>
<td></td>
<td>545 Phalen Blvd.</td>
</tr>
<tr>
<td></td>
<td>St. Paul, MN 55130 USA</td>
</tr>
<tr>
<td></td>
<td>Ph: 651-644-8424 Fax: 651-644-8357</td>
</tr>
<tr>
<td></td>
<td><a href="http://www.lktlabs.com">www.lktlabs.com</a> - <a href="mailto:getinfo@lktlabs.com">getinfo@lktlabs.com</a></td>
</tr>
<tr>
<td>Emergency Phone #</td>
<td>1-800-424-9300</td>
</tr>
</tbody>
</table>

Section 2. Hazards Identification

GHS Classification
Acute toxicity, Oral (Category 1) H300
Acute toxicity, Skin (Category 2) H310
Acute toxicity, Inhalation (Category 1) H330

GHS Label elements including precautionary statements

Pictogram

Signal word Danger

Hazard and precautionary statements

H300 + H310 + H330 - Fatal if swallowed, in contact with skin or if inhaled.

Precautionary statements
P260 - Do not breathe dust, fumes, gas, mist, vapors, spray.
P262 - Do not get in eyes, on skin, or on clothing.
P264 - Wash skin thoroughly after handling.
P270 - Do not eat, drink or smoke when using this product.
P271 - Use only outdoors on in a well-ventilated area.
P280 - Wear protective gloves/ protective clothing.
P284 - Wear respiratory protection.
P301 + P310 - IF SWALLOWED: Immediately call a POISON CENTER/ doctor.
P302 + P350 - IF ON SKIN: Gently 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.
P310 - Immediately call a POISON CENTER/ doctor.
P320 - Specific treatment is urgent (see supplemental first aid instruction on this label).
P330 - Rinse mouth.
P361 - Remove/Take off immediately all contaminated clothing.
P363 - Wash contaminated clothing 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: 4
Chronic health hazard: 0
Flammability: 0
Physical hazard: 1

NFPA Rating
Health hazard: 4
Fire hazard: 0
Reactivity hazard: 1

Potential Health Effects
Inhalation - Acute toxicity. Fatal if inhaled. May cause respiratory tract irritation.
Skin - Acute toxicity. Fatal if in contact with skin. May cause skin irritation.
Eyes - May cause eye irritation.
**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_{23}H_{24}O_{8}</td>
<td>428.43</td>
</tr>
<tr>
<td>CAS No.</td>
<td>19545-26-7</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 fire fighting 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 aerosols. 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.

**Other Remarks**
This product is light sensitive. Store with desiccant.

Ingestion - Acute toxicity. Fatal if swallowed.
Section 8. Exposure Controls/Personal Protection

Personal protective equipment
EXPOSURE CONTROLS
Contains no substances with occupational exposure limit values. 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: 460 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


Boiling Point: Not available. Volatility: Not available.

Melting Point: 240°C. Density: Not available.

Solubility: Soluble in methanol and DMSO. pH: Not available.

Flash Point: Not available. Ignition temperature: Not available.

Lower explosion limit: Not available. Autoignition temperature: Not available.

Upper explosion limit: Not available. Vapor pressure: Not available.

Water solubility: Not available. Odor: Not available.

Partition coefficient: n-octanol/water. Odor Threshold: Not available.

Relative vapor density: Not available. Evaporation rate: Not available.

Section 10. Stability and Reactivity

Stability: Stable under recommended storage conditions.

Materials To Avoid: Strong acids, strong bases.

Hazardous Decomposition Products: Hazardous decomposition products formed under fire conditions. Carbon oxides.
Section 11. Toxicological Information

Oral LD50  Rat - 4mg/kg

Inhalation LC50  Not available.

Dermal LD50  Not available.

Other information on acute toxicity  Not available.

Skin corrosion/irritation  Not available.

Serious eye damage/irritation  Not available.

Respiratory or skin sensitization  Not available.

Germ cell mutagenicity  Not available.

Reproductive Toxicity  Not available.

Aspiration Hazard  Not available.

Synergistic effects  Not available.

Specific organ toxicity single exposure (GHS)  Not available.

Specific organ toxicity repeated exposure (GHS)  Not available.

Additional Information RTECS: CB9641000

Teratogenicity  Not available.

Signs and symptoms of exposure Gastric hemorrhage, myocardial hemorrhage.

Liver - irregularities - Based on Human Evidence, stomach, irregularities, based human evidence.

Potential Health Effects Inhalation - Acute toxicity. Fatal if inhaled. May cause respiratory tract irritation.

Skin - Acute toxicity. Fatal if in contact with skin. May cause skin irritation.

Eyes - May cause eye irritation.

Ingestion - Acute toxicity. Fatal if swallowed.

Carcinogenicity 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.

Section 12. Ecological Information

Toxicity  Not available.

Mobility in soil  Not available.

PBT and vPvB assessment Not available as chemical safety assessment not required/not
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: I  
Proper shipping name: Toxins, extracted from living sources, solid, n.o.s. (Wortmannin)  
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. (Wortmannin)

**IMDG**

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

**Further Information**

**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.

**Pennsylvania Right To Know Components**

Wortmannin  
CAS #: 19545-26-7  
Revision Date:

**New Jersey Right To Know Components**

Wortmannin  
CAS #: 19545-26-7  
Revision Date:

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

**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.