SAFETY DATA SHEET
Cat# 1655-2, GSK-3β Inhibitor, TWS119
SDS DATE: Mar 2, 2012

SECTION 1: PRODUCT AND COMPANY IDENTIFICATION

PRODUCT NAME:  GSK-3β Inhibitor, TWS119
PRODUCT CODES:  Cat# 1655-2
MANUFACTURER:  BioVision, Inc.
ADDRESS:  155 S. Milpitas Boulevard, Milpitas, CA 95035
EMERGENCY PHONE:  858-373-8066
CHEMTREC PHONE:  408-493-1800
FAX PHONE:  408-493-1801

SECTION 2: COMPOSITION/INFORMATION ON INGREDIENTS

<table>
<thead>
<tr>
<th>Component</th>
<th>Description</th>
<th>Volume</th>
<th>Safety Information</th>
</tr>
</thead>
<tbody>
<tr>
<td>GSK-3β Inhibitor, TWS119</td>
<td>Solid</td>
<td>2 mg</td>
<td>See below</td>
</tr>
</tbody>
</table>

SECTION 3: HAZARDS IDENTIFICATION

<table>
<thead>
<tr>
<th>Product Name/Chemical Name</th>
<th>CAS Number</th>
<th>EC-No.</th>
<th>MW</th>
<th>Chemical Formula</th>
</tr>
</thead>
<tbody>
<tr>
<td>GSK-3β Inhibitor, TWS119</td>
<td>601514-19-6</td>
<td>--</td>
<td>318.33</td>
<td>C_{18}H_{14}N_{4}O_{2}</td>
</tr>
</tbody>
</table>

GSK-3β Inhibitor, TWS119:
Emergency Overview
OSHA Hazards: Harmful by ingestion
GHS Classification: Acute toxicity, Oral (Category 4)
GHS Label elements, including precautionary statements
Pictogram:

⚠️

Signal word: Warning
Hazard statement(s): H302 Harmful if swallowed.
Precautionary statement(s):
P264 Wash hands thoroughly after handling.
P270 Do not eat, drink or smoke when using this product.
P301+P312 IF SWALLOWED: Call a POSISON CENTER or doctor/physician if you feel unwell.
P330 Rinse mouth.

HMIS Classification
Health hazard: 1
Flammability: 0
Physical hazards: 0

NFPA Rating
Health Hazard: 1
Fire: 0
Reactivity Hazard: 0

Potential Health Effects
Inhalation: May be harmful if inhaled. May cause respiratory tract irritation.
Skin: May be harmful if absorbed through skin. May cause skin irritation.
Eyes: May cause eye irritation.
Ingestion: Harmful if swallowed.

SECTION 4: FIRST AID MEASURES

General advice: Consult a physician. Show this safety data sheet to the doctor in attendance.
If inhaled: If breathed in, move person into fresh air. If not breathing, give artificial respiration. Consult a physician.
In case of skin contact: Wash off with soap and plenty of water. Consult a physician.
In case of eye contact: Rinse thoroughly with plenty of water for at least 15 minutes and consult a physician.
If swallowed: Never give anything by mouth to an unconscious person. Rinse mouth with water. Consult a physician.

5: FIRE-FIGHTING MEASURES

Condition of flammability: Not flammable or combustible.
Suitable extinguishing media: Use water spray, alcohol-resistant foam, dry chemical or carbon dioxide.
Special protective equipment for fire-fighters: Wear self-contained breathing apparatus for firefighting if necessary.
Hazardous combustion products: Hazardous combustion products formed under fire conditions— not available.
SECTION 6: ACCIDENTAL RELEASE MEASURES

Personal precautions: Use personal protective equipment. Avoid dust formation. Avoid breathing dust. Ensure adequate ventilation.

Environmental precautions: Do not let product enter drains.

Methods for cleaning up: Pick up and arrange disposal without creating dust. Keep in suitable, closed containers for disposal.

SECTION 7: HANDLING AND STORAGE

Precautions for safe handling
Avoid formation of dust and aerosols. Provide appropriate exhaust ventilation at places where dust is formed. Normal measures for preventive fire protection.

Conditions for safe storage
Keep container tightly closed in a dry and well-ventilated place.

Recommended storage temperature: -20 °C.

SECTION 8: EXPOSURE CONTROLS/PERSONAL PROTECTION

Contains no substances with occupational exposure limit values.

Personal protective equipment
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).

Hand protection
Handle with gloves. For prolonged or repeated contact use protective gloves.

Eye protection
Safety glasses.

Skin and body protection
Choose body protection according to the amount and concentration of the dangerous substance at the work place.

Hygiene measures
Handle in accordance with good industrial hygiene and safety practice. Wash hands before breaks and at the end of the workday.

SECTION 9: PHYSICAL AND CHEMICAL PROPERTIES

<table>
<thead>
<tr>
<th>Property</th>
<th>GSK-3β Inhibitor, TWS119</th>
</tr>
</thead>
<tbody>
<tr>
<td>Appearance</td>
<td>Slightly pink solid</td>
</tr>
<tr>
<td>pH</td>
<td>No data available</td>
</tr>
<tr>
<td>Water Solubility</td>
<td>No data available</td>
</tr>
<tr>
<td>Other Solubility</td>
<td>DMSO (20 mg/ml)</td>
</tr>
<tr>
<td>Specific Gravity (g/ml)</td>
<td>No data available</td>
</tr>
<tr>
<td>Boiling Point (°C)</td>
<td>No data available</td>
</tr>
<tr>
<td>Melting Point (°C)</td>
<td>No data available</td>
</tr>
<tr>
<td>Flash Point (°C)</td>
<td>No data available</td>
</tr>
<tr>
<td>Ignition Temperature (°C)</td>
<td>No data available</td>
</tr>
<tr>
<td>Density</td>
<td>No data available</td>
</tr>
</tbody>
</table>

SECTION 10: STABILITY AND REACTIVITY

<table>
<thead>
<tr>
<th>Property</th>
<th>GSK-3β Inhibitor, TWS119</th>
</tr>
</thead>
<tbody>
<tr>
<td>Chemical stability</td>
<td>Stable under recommended storage conditions</td>
</tr>
<tr>
<td>Conditions to avoid</td>
<td>No data available</td>
</tr>
<tr>
<td>Materials to avoid</td>
<td>Strong oxidizing agents</td>
</tr>
<tr>
<td>Hazardous decomposition products</td>
<td>Carbon oxides, nitrogen oxides</td>
</tr>
</tbody>
</table>

SECTION 11: TOXICOLICAL INFORMATION

GSK-3β Inhibitor, TWS119:

Acute toxicity: no data available

Skin corrosion/irritation: no data available

Serious eye damage/eye irritation: no data available

Respiratory or skin sensitization: no data available

Germ cell mutagenicity: no data available

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.

Reproductive toxicity: no data available

Teratogenicity: no data available

Specific target organ toxicity – single exposure (GHS): no data available

Specific target organ toxicity – repeated exposure (GHS): no data available

Aspiration hazard: no data available

Potential Health Effects

Inhalation: May be harmful if inhaled. May cause respiratory tract irritation.

Skin: May be harmful if absorbed through skin. May cause skin irritation.

Eyes: May cause eye irritation.

Ingestion: Harmful if swallowed.

Signs and Symptoms of Exposure: To the best of our knowledge, the chemical, physical, and toxicological properties have not been thoroughly investigated.

Synergistic effects: no data available

Additional information: RTECS: not available

SECTION 12: ECOLOGICAL INFORMATION

GSK-3β Inhibitor, TWS119:

Persistence and degradability: no data available

Toxicity: no data available

Bioaccumulative potential: no data available

Mobility in soil: no data available

PBT and vPvB assessment: no data available

Other adverse effects: no data available

SECTION 13: DISPOSAL CONSIDERATIONS

Product: Observe all federal, state, and local environmental regulations.

Contaminated packaging: Dispose of as unused product.

SECTION 14: TRANSPORT INFORMATION

GSK-3β Inhibitor, TWS119:

DOT (US): Not dangerous goods.

IMDG: Not dangerous goods.

IATA: Not dangerous goods.

SECTION 15: REGULATORY INFORMATION

GSK-3β Inhibitor, TWS119:

OSHA Hazards: Harmful by ingestion

DSL Status: This product contains the following components that are not on the Canadian DSL nor NDSL lists.

3-[[6-(3-Aminophenyl)-1H-pyrazolo[2,3-d]pyrimidin-4-yl]oxy]-phenol, CAS-No. 601514-19-6

SARA 302 Components: SARA 302: No chemical 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 II, Section 313.

SARA 311/312 Hazards: Acute Health Hazard

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

Pennsylvania Right To Know Components: 3-[[6-(3-Aminophenyl)-1H-pyrazolo[2,3-d]pyrimidin-4-yl]oxy]-phenol, CAS-No. 601514-19-6

New Jersey Right To Know Components: 3-[[6-(3-Aminophenyl)-1H-pyrazolo[2,3-d]pyrimidin-4-yl]oxy]-phenol, CAS-No. 601514-19-6

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.

EU regulations

<table>
<thead>
<tr>
<th>Component</th>
<th>Risk Phrases</th>
<th>Safety Phrases</th>
</tr>
</thead>
<tbody>
<tr>
<td>GSK-3β Inhibitor, TWS119</td>
<td>R22, S68</td>
<td>S24/25, S37/39</td>
</tr>
</tbody>
</table>

SECTION 16: OTHER INFORMATION

DISCLAIMER:
The above information is believed to be correct but does not purport to be all inclusive and shall be used only as a guide. The information in this document is based on the present state of our knowledge and is applicable to the product with regard to appropriate safety precautions. It does not represent any guarantee of the properties of the product. BioVision, Inc., shall not be held liable for any damage resulting from handling or from contact with the above product. See reverse side of invoice or packing slip for additional terms and conditions of sale.