SAFETY DATA SHEET
Cat# 1148-1,-5 Caspase-8 Inhibitor Z-IETD-FMK  
SDS DATE: Aug 19, 2011

SECTION 1: PRODUCT AND COMPANY IDENTIFICATION

PRODUCT NAME: Caspase-8 Inhibitor Z-IETD-FMK

PRODUCT CODES: Cat# 1148-1,-5

MANUFACTURER: BioVision, Inc.
DIVISION:  
ADDRESS: 155 S. Milpitas Boulevard, Milpitas, CA 95035

EMERGENCY PHONE: 858-373-8066
CHEMTREC PHONE:
OTHER CALLS: 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>Caspase-8 Inhibitor, Z-IETD-FMK</td>
<td>Solid</td>
<td>1148-1: 1 mg 1148-5: 5 mg</td>
<td>See below</td>
</tr>
<tr>
<td>Z-Ile-Glu(OMe)-Thr-Asp(OMe)-FMK</td>
<td>FMK (fluoromethyl ketone)</td>
<td></td>
<td></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>Z-IETD-FMK</td>
<td>N/A</td>
<td>N/A</td>
<td>654.0</td>
<td>C_30H_43FN_4O_11</td>
</tr>
</tbody>
</table>

Z-IETD-FMK:
Emergency Overview
OSHA Hazards: no known OSHA hazards
GHS Label elements, including precautionary statements
Pictogram: none
Signal word: none
Hazard statement(s): none
Precautionary statement(s): none
HMIS Classification
Health hazard: 0
Flammability: 0
Physical hazards: 0
NFPA Rating
Health hazard: 0
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: May be harmful if swallowed.

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.
If inhaled: If breathed in, move person into fresh air. If not breathing, give artificial respiration.
In case of skin contact: Wash off with soap and plenty of water.
In case of eye contact: Flush eyes with water as a precaution.
If swallowed: Never give anything by mouth to an unconscious person. Rinse mouth with water.

SECTION 5: FIRE-FIGHTING MEASURES

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 fire fighting if necessary.

SECTION 6: ACCIDENTAL RELEASE MEASURES

Personal precautions: Wear protective equipment. Keep unprotected persons away. Ensure adequate ventilation.
Environmental precautions: Do not let product enter drains.
Methods for cleaning up: Sweep up and shovel. Keep in suitable, closed containers for disposal.

SECTION 7: HANDLING AND STORAGE

Precautions for safe handling
Provide appropriate exhaust ventilation. 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
Respiratory protection is not required. Where protection is desired, use multi-purpose combination (US) or type ABEK (EN 14387) respirator cartridges. Use respirators and components tested and approved under appropriate government standards such as NIOSH (US) or CEN (EU).

Hand protection: For prolonged or repeated contact use protective gloves.

Eye protection: Chemical safety goggles

Hygiene measures: General industrial hygiene practice.

SECTION 9: PHYSICAL AND CHEMICAL PROPERTIES

<table>
<thead>
<tr>
<th>Property</th>
<th>Z-IETD-FMK</th>
</tr>
</thead>
<tbody>
<tr>
<td>Appearance:</td>
<td>Lyophilized solid</td>
</tr>
<tr>
<td>pH:</td>
<td>Not available</td>
</tr>
<tr>
<td>Water Solubility:</td>
<td>Not available</td>
</tr>
<tr>
<td>Specific Gravity (g/ml)</td>
<td>Not available</td>
</tr>
<tr>
<td>Boiling Point (°C):</td>
<td>Not available</td>
</tr>
<tr>
<td>Melting Point (°C):</td>
<td>Not available</td>
</tr>
<tr>
<td>Flash Point (°C):</td>
<td>Not available</td>
</tr>
<tr>
<td>Ignition Temperature (°C):</td>
<td>Not available</td>
</tr>
</tbody>
</table>

SECTION 10: STABILITY AND REACTIVITY

<table>
<thead>
<tr>
<th>Property</th>
<th>Z-IETD-FMK</th>
</tr>
</thead>
<tbody>
<tr>
<td>Chemical stability</td>
<td>Stable under recommended storage conditions</td>
</tr>
<tr>
<td>Conditions to avoid:</td>
<td>Not available</td>
</tr>
<tr>
<td>Materials to avoid:</td>
<td>Strong acids, strong bases</td>
</tr>
<tr>
<td>Hazardous decomposition products:</td>
<td>Carbon oxides, nitrogen oxides, hydrogen fluoride</td>
</tr>
</tbody>
</table>

SECTION 11: TOXICOLOGICAL INFORMATION

Z-IETD-FMK
Acute toxicity: no data available
Irritation and corrosion: no data available
Sensitisation: 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.

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: May be harmful if swallowed.

SECTION 12: ECOLOGICAL INFORMATION

Z-IETD-FMK
Elimination information (persistence and degradability): no data available
Ecotoxicity effects: no data available
Further information on ecology: no data available
SECTION 13: DISPOSAL CONSIDERATIONS

Product: Offer surplus and non-recyclable solutions to a licensed disposal company. Observe all federal, state, and local environmental regulations.
Contaminated packaging: Dispose of as unused product.

SECTION 14: TRANSPORT INFORMATION

Z-IETD-FMK

DOT (US): Not dangerous goods
IMDG: Not dangerous goods
IATA: Not dangerous goods

SECTION 15: REGULATORY INFORMATION

Z-IETD-FMK

OSHA Hazards: no known OSHA hazards

DSL Status: All components of this product are on the Canadian DSL list.

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 Hazards: No SARA hazards

Massachusetts Right To Know Components: No components are subject to the Massachusetts Right to Know Act.
Pennsylvania Right To Know Components: No components are subject to the Pennsylvania Right to Know Act.
New Jersey Right To Know Components: No components are subject to the New Jersey Right to Know Act.
California Prop. 65 Components

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

EU regulations: no data available

SECTION 16: OTHER INFORMATION

OTHER INFORMATION:

PREPARATION 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.