Applied Biological Materials Inc.
MATERIAL SAFETY DATA SHEET

Section 1 - Product and Company Information

Product Code: G497
Product Name: Kodaq 2X PCR MasterMix
Company: Applied Biological Materials Inc.
Address: 1-3671 Viking Way
Richmond BC V6V 2J5 Canada
Technical Phone: 604-247-2416
Fax: 604-247-2414
Emergency Phone: 866-757-2414

Section 2 - Hazards Identification

GHS-Classification

Signal Word
Not Hazardous

Health Hazard
Not Hazardous

Physical Hazards
Not Hazardous

Principle Routes of Exposure/Potential Health Effects

Eyes: May cause eye irritation with susceptible persons.
Skin: May cause skin irritation in susceptible persons.
Inhalation: May be harmful by inhalation.
Ingestion: May be harmful if swallowed.

Specific Effects
Carcinogenic Effects: None
Mutagenic Effects: None
Reproductive Toxicity: None
Sensitization: None

Target Organ Effects: No known effects under normal use conditions.

WHMIS

<p>| | |</p>
<table>
<thead>
<tr>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Health</td>
<td>0</td>
</tr>
<tr>
<td>Flammability</td>
<td>0</td>
</tr>
<tr>
<td>Reactivity</td>
<td>0</td>
</tr>
</tbody>
</table>
Section 3 - Composition/Information on Ingredient

<table>
<thead>
<tr>
<th>Chemical Name</th>
<th>CAS-No</th>
<th>EINECS-No</th>
<th>Weight %</th>
</tr>
</thead>
<tbody>
<tr>
<td>Trade Secret</td>
<td>Proprietary</td>
<td>Proprietary</td>
<td>7-13</td>
</tr>
<tr>
<td>Trade Secret</td>
<td>Proprietary</td>
<td>Proprietary</td>
<td>1-5</td>
</tr>
<tr>
<td>Trade Secret</td>
<td>Proprietary</td>
<td>Proprietary</td>
<td>&lt;0.1</td>
</tr>
<tr>
<td>Trade Secret</td>
<td>Proprietary</td>
<td>Proprietary</td>
<td>&lt;0.1</td>
</tr>
<tr>
<td>Trade Secret</td>
<td>Proprietary</td>
<td>Proprietary</td>
<td>&lt;0.1</td>
</tr>
<tr>
<td>Trade Secret</td>
<td>Proprietary</td>
<td>Proprietary</td>
<td>&lt;0.1</td>
</tr>
</tbody>
</table>

The product contains no substances which at their given concentration, are considered to be hazardous to health. We recommend handling all chemicals with caution.

Section 4 - First Aid Measures

**Eye contact**
Rinse thoroughly with plenty of water for at least 15 minutes and consult a physician.

**Skin contact**
Wash off with soap and plenty of water. 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.

**Notes to physician**
Treat symptomatically.

Section 5 - Fire Fighting Measures

**Suitable extinguishing media**
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.

**Unusual Fire and Explosions Hazard(s)**
N/A

**Flash Point**
N/A

**Autoignition Temp**
N/A

**Flammability**
N/A

Section 6 - Accidental Release Measures

**Personal Precautions**
Exercise appropriate precautions to minimize direct contact with skin or eyes and prevent inhalation of vapors. Wear disposable coveralls and discard them after use.

**Methods for Cleaning-up**
Soak up with inert absorbing materials and place in a closed container for disposal. Ventilate area and wash spill site after material pickup is complete.
Environmental Precautions
Prevent further leakage or spillage if safe to do so. See Section 12 for additional information.

Section 7 - Handling and Storage

Handling
Always wear recommended Personal Protective Equipment. No special handling required.

Storage
Keep cap tightly closed. Store at -20°C.

Section 8 - Exposure Controls / PPE

Exposure Limits

<table>
<thead>
<tr>
<th>Chemical Name</th>
<th>OSHA PEL (Ceiling)</th>
<th>ACGIH OEL (TWA)</th>
<th>ACGIH OEL (STEL)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Trade Secret</td>
<td>15mg/m³</td>
<td>-</td>
<td>-</td>
</tr>
</tbody>
</table>

Engineering Measures
Ensure adequate ventilation, especially in confined areas.

Personal Protective Equipment
Personal Protective Equipment requirements are dependent of the user institution’s risk assessment, and are specific to the risk assessment for each laboratory where this material may be used.

Respiratory Protection
Wear Suitable respiratory equipment if ventilation is insufficient.

Hand
Compatible chemical-resistant gloves.

Eye
Compatible safety goggles.

Skin and body protection
Lightweight protective clothing.

Hygiene measures
Handle in accordance with good industrial hygiene and safety practice.

Environmental Exposure Controls
Prevent product entering drains

Section 9 - Physical and Chemical Properties

General Physical Properties

<table>
<thead>
<tr>
<th>Property</th>
<th>Value</th>
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<tbody>
<tr>
<td>Form</td>
<td>Liquid</td>
</tr>
<tr>
<td>Appearance</td>
<td>Colorless</td>
</tr>
<tr>
<td>Odor</td>
<td>Mild</td>
</tr>
<tr>
<td>Boiling Point/Range</td>
<td>No information available</td>
</tr>
<tr>
<td>Melting Point/Range</td>
<td>No information available</td>
</tr>
<tr>
<td>Flash Point</td>
<td>No information available</td>
</tr>
<tr>
<td>Auto-ignition Temperature</td>
<td>No information available</td>
</tr>
<tr>
<td>Oxidizing Properties</td>
<td>No information available</td>
</tr>
<tr>
<td>Solubility</td>
<td>No information available</td>
</tr>
<tr>
<td>pH Range</td>
<td>No information available</td>
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</tbody>
</table>
Section 10 - Stability and Reactivity

Stability
Stable under normal conditions.

Materials to Avoid
No dangerous reaction known under normal conditions.

Hazardous Decomposition Products
None under normal conditions.

Hazardous Polymerization
Does not occur.

Section 11 - Toxicological Information

Acute Toxicity

<table>
<thead>
<tr>
<th>Chemical Name</th>
<th>LD (oral, rat/mouse)</th>
<th>LD50 (dermal, rat/rabbit)</th>
<th>LC50 (inhalation, rat/mouse)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Trade Secret</td>
<td>&gt;90 mL/kg (Rat)</td>
<td>-</td>
<td>-</td>
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<tr>
<td>Trade Secret</td>
<td>=12600 mg/kg (Rat)</td>
<td>&gt;10 g/kg (Rabbit)</td>
<td>&gt;570 mg/m³ (Rat) 1h</td>
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<tr>
<td>Trade Secret</td>
<td>=14500 mg/kg (Rat)</td>
<td>=40 g/kg (Rat)</td>
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<tr>
<td>Trade Secret</td>
<td>=2600 mg/kg (Rat)</td>
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</tr>
</tbody>
</table>

Principle Route of Exposure/Potential Health Effects
Eye
May cause eye irritation with susceptible persons.

Skin
May cause skin irritation in susceptible persons.

Inhalation
May be harmful by inhalation.

Ingestion
May be harmful if swallowed.

Carcinogenic Effects
None

Mutagenic Effects
None

Reproductive Toxicity
None

Sensitization
None

Target Organ Effects
No known effects under normal use conditions.

Section 12 - Ecological Information

Ecotoxicity Effects
No information available.

Mobility
No information available.

Biodegradation
Inherently biodegradable.

Bioaccumulation
Does not bioaccumulate.

<table>
<thead>
<tr>
<th>Chemical Name</th>
<th>Freshwater Algae Data</th>
<th>Water Flea Data</th>
<th>Freshwater Fish Species Data</th>
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</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>500: 24 h Daphnia magna mg/L EC50</td>
<td>51-57: 96 h Oncorhynchus mykiss mL/L LC50 static</td>
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<tr>
<td></td>
<td></td>
<td>7000: 24 h Daphnia species mg/L EC50</td>
<td>34000: 96 h Pimephales promelas mg/L LC50 33 - 37: 96 h Oncorhynchus mykiss g/L LC50 static 40: 96 h Lepomis macrochirus g/L LC50 static 41.7: 96 h Cyprinus carpio g/L LC50</td>
</tr>
<tr>
<td></td>
<td></td>
<td>2500: 72 h</td>
<td>1060: 96 h Lepomis</td>
</tr>
</tbody>
</table>

Chemical Name: Trade Secret
Water Flea Data: 500: 24 h Daphnia magna mg/L EC50
Freshwater Fish Species Data: 51-57: 96 h Oncorhynchus mykiss mL/L LC50 static
<table>
<thead>
<tr>
<th></th>
<th>Desmodesmus subspicatus mg/L EC50</th>
<th>magna mg/L EC50 83: 48 h Daphnia magna mg/L EC50 Static</th>
<th>macrochirus mg/L LC50 static 750 – 1020: 96 h Pimephales promelas mg/L LC50 static</th>
</tr>
</thead>
<tbody>
<tr>
<td>Trade Secret</td>
<td></td>
<td></td>
<td>431 – 495: 96 h Pimephales promelas mg/L LC50 flow-through</td>
</tr>
</tbody>
</table>

**Section 13 - Disposal Considerations**

Dispose of in accordance with local regulations.

**Section 14 - Transportation Information**

**IATA**

- **Proper Shipping Name**: Not classified as dangerous under the transport regulations.
- **Hazard Class**: None
- **Subsidiary Class**: None
- **Packing Group**: None
- **Un-No**: None

**Section 15 - Regulatory Information**

<table>
<thead>
<tr>
<th>Component</th>
<th>TSCA</th>
</tr>
</thead>
<tbody>
<tr>
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**U.S. Federal Regulations**

**SARA 313**

Not Regulated by SARA.

**Clean Air Act, Section 112 Hazardous Air Pollutants (HAPs)**

Contains no HAPs.

**U.S. State Regulations**

**California Proposition 65**

Contains no chemical listed under Proposition 65.

**Canadian Regulations**

This product has been classified in accordance with the hazard criteria of the Controlled Products Regulations (CPR) and the MSDS contains all the information required by CPR.
WHMIS Hazard Class
Not controlled.

This product has been classified according to the hazard criteria of the CPR and the MSDS contains all of the information required by the CPR.

Section 16 - Other Information

DISCLAIMER: For R&D use only. Not for drug, household or other uses.

The information contained in this Material Safety Datasheet is believed to be accurate but it is the responsibility of the user or supplier to determine the applicability of these data to the formulation of necessary safety precautions.

Applied Biological Materials Inc. shall not be held responsible for any damage resulting from the use of the above product or the information contained in this Material Safety Datasheet.