



## MATERIAL SAFETY DATA SHEET

### -+Section 1 - IDENTITY OF THE MANUFACTURER AND PRODUCT

**PRODUCT GROUP:** SPECIALTY ELISA Kits

**PRODUCT IDENTITY:** TPMT ELISA Kit

**PRODUCT CODE #:** 7018, 7019

**MANUFACTURER ADDRESS:** Biomerica, Inc.  
17571 Von Karman Avenue  
Irvine, CA 92614, USA

**Telephone:** 949-645-2111  
**Fax:** 949-553-1231  
**E-mail:** bmra@biomerica.com

**Telephone Number in Case of Emergency:** 800 535-5053 - InfoTrac 24 hours

### Section 2 - COMPOSITION AND INGREDIENT INFORMATION

**Chemical Nature of the Preparation:** Stable

**Dangerous Substances in the Preparation:** 6-Mercaptopurine Monohydrate, Dimethyl Sulfoxide, DL-Dithiothreitol, Allopurinol, Thimerosal, Hydrochloric Acid, and Tetramethylbenzidine.

<b>Chemical</b>	<b>CAS#</b>	<b>EC #</b>	<b>Designation</b>	<b>% w/w</b>
6-Mercaptopurine Monohydrate	6112-76-1	200-037-4	Harmful	< 1%
Dimethyl Sulfoxide (DMSO)	67-68-5	200-664-3	Combustible, Harmful	100%
DL-Dithiothreitol	3483-12-3	222-468-7	Harmful	< 0.01%
Allopurinol	315-30-0	206-250-9	Harmful Toxic)	< 0.1%
Thimerosal	54-64-8	200-210-4	High Toxic	< 0.01%
Animal Blood Component	N/A	N/A	Potential Biohazard	<1%
6-methylthio-purine	50-66-8	200-057-3	Chemical Hazard	< 1%
Potassium Borate	12045-78-2	215-575-5	Chemical Hazard	< 2%
Potassium Phosphate Diabasic	7778-77-0	231-913-4	Chemical Hazard	< 1%
Trizma Base	77-86-1	201-064-4	Chemical Hazard	< 2%
Tween-20	9005-64-5	N/A	Chemical Hazard	< 0.1%
Sodium Chloride	7647-14-5	231-598-3	Chemical Hazard	<1%
Hydrochloric Acid	7647-01-0	231-595-7	Harmful, Corrosive	8.0%
Tetramethylbenzidine	64285-73-0	264-769-6	Harmful	<0.1%

### Section 3 - HAZARDS IDENTIFICATION

**Potential Biohazard:**

The TPMT ELISA sample diluent is formulated with a buffer base using small quantities of animal serum components. Antibodies used in the test are derived from rabbit or goat. All bovine, rabbit and goat serum products used are derived from animals of US origin, processed in USDA licensed facilities. There are no human serum components in the test device.

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**Chemical Hazard:**

The calibrators and controls in the TPMT ELISA kit contain 6-methylthio-purine which can cause irritation to the skin and mucous membranes.

The 6-MP reagent is composed of 6-Mercaptopurine Monohydrate in DMSO. 6-Mercaptopurine can be harmful if swallowed. It also can cause skin, eye, and respiratory irritation. Dimethyl Sulfoxide is a combustible liquid and can readily absorb through the skin.

The TPMT sample diluent contains a small amount of Thimerosal. Thimerosal may be fatal if inhaled, swallowed or absorbed through the skin. It also may cause eye irritation.

The TPMT sample reaction buffer contains DL-Dithiothreitol and Allopurinol. Both of these reagents can be toxic if swallowed and many cause allergic skin reactions.

TMB Reagent contains tetramethylbenzidine. Tetramethylbenzidine may cause irritation to the skin, eyes, respiratory, and digestive track.

Avoid contact with Stop Solution containing 1N HCL (Hydrochloric Acid), an irritant to the skin and mucous membranes.

In case of contact with any of these reagents listed above, wash thoroughly with water.

These chemicals mentioned above do not represent a significant chemical hazard at the concentrations present in this product.

<b>Section 4 -</b>	<b>FIRST AID MEASURES</b>
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**Skin Contact:** Remove contaminated clothing and wash the exposed skin area thoroughly with soap and water.

**Eye Contact:** Flush with copious amounts of water for at least 15 minutes. Seek medical attention.

**Inhalation:** Remove to fresh air, give oxygen if breathing becomes difficult and seek medical attention.

**Ingestion:** Flush mouth with copious amounts of water, provided that the person is conscious and seek medical attention.

<b>Section 5 -</b>	<b>FIRE AND EXPLOSION DATA</b>
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**Suitable Extinguishing Media:** Chemical or water fire extinguisher.

**Extinguishing Media Not to be Used:** None known.

**Special Fire Fighting Procedures:** None Known.

**Unusual Fire and Explosion Hazards:** None known.

**NFPA Rating:** Health: 3, Flammability: 0, Reactivity: 2 (for concentrated hydrochloric acid)

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<b>Section 6 -</b>	<b>MEASURES IN CASE OF ACCIDENTAL SPILL</b>
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| <b>Body Precautions:</b>          | Wear gloves, impermeable shoe covers and laboratory coat.   |
| <b>Environmental Precautions:</b> | Contain the spill to the smallest area possible.  |
| <b>Cleaning Measures:</b>         | Take care not to contaminate body. Neutralize a Stop Solution spill with dilute base, then absorb the material with disposable towels. Soak a sample diluent and conjugate spill with a 10% bleach solution and wipe up with disposable towels. Dispose of all contaminated trash in accordance with local regulations. |

<b>Section 7 -</b>	<b>HANDLING AND STORAGE</b>
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| <b>Handling:</b> | Wear suitable personal protective equipment. Take care not to splash, spill or splatter standards, stop solution or controls. |
| <b>Storage:</b>  | Store kit reagents in 2 - 8° C in refrigerators designated and labeled to contain human blood products.                       |

<b>Section 8 -</b>	<b>EXPOSURE CONTROL AND PERSONAL PROTECTION</b>
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| <b>Body Protection:</b>        | Wear laboratory coat.   |
| <b>Respiratory protection:</b> | In case of fire, wear self-contained breathing apparatus.   |
| <b>Hand Protection:</b>        | Wear non-permeable rubber, neoprene, latex or nitrile disposable gloves. Change gloves when they become contaminated. |
| <b>Eyes Protection:</b>        | Wear safety glasses or goggles when a splash hazard exists.   |
| <b>Others:</b>                 | None known.   |

<b>Section 9 -</b>	<b>PHYSICAL AND CHEMICAL CHARACTERISTICS</b>
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| <b>Physical State:</b> | Liquid except for lyophilized SAM reagent and 6-MMP coated microwell.   |
| <b>Color:</b>          | Green for the specimen reaction buffer and clear for all other liquid reagents.   |
| <b>Odor:</b>           | None detectable.  |
| <b>pH:</b>             | 5.56 – 7.4 for all components except:<br>1) ELISA Stop Solution where pH is <2 (highly acidic).<br>2) Reaction Stop Solution where pH is > 10 (highly basic). |
| <b>Boiling Point:</b>  | Not applicable.   |
| <b>Melting Point:</b>  | Not applicable.   |

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**Flash Point:** Not applicable.

**Flammability:** Not Flammable.

**Auto flammability:** Will not occur.

**Vapor Pressure:** Not applicable.

**Relative Density:** 1-3 mg/mL

**Water Solubility:** 100% soluble, except the 6-MP reagent which is in 100% DMSO.

<b>Section 10 -</b>	<b>STABILITY AND REACTIVITY DATA</b>
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**Stability:** Stable in Normal Conditions.

**Conditions to Avoid:** None known.

**Materials to Avoid:** None known.

**Hazardous Decomposition Products:** None Known.

<b>Section 11 -</b>	<b>TOXICOLOGY INFORMATION</b>
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**Effects of Dangerous Substances at the Concentrations Present in the Preparation:**

**Toxic Effects:** Potential Biohazard (See Section 3).

**Harmful Effects:** Potential Biohazard (See Section 3).

**Sensitizing Effects:** None known.

**Carcinogenic/Mutagenic/Teratogen Effects:** None known.

<b>Section 12 -</b>	<b>ECOLOGICAL INFORMATION</b>
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None Known.

<b>Section 13 -</b>	<b>DISPOSAL CONSIDERATIONS</b>
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**Disposal of Preparation Left:** Dispose according to current regional and national rules.

**Contaminated Containers:** Dispose of following current regulations.

<b>Section 14 -</b>	<b>TRANSPORTATION INFORMATION</b>
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**Road / Railway Haulage ADR/RID:** Not restricted.

**Sea Freight IMO (IMDG):** Not restricted.

**Air Freight IATA (ICAO):** Not restricted.

**UN Number:** Not applicable.

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<b>Section 15 -</b>	<b>OTHER REGULATORY INFORMATION</b>
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**Classification:** This preparation is classified and labeled according to EEC Directive n. 88/379.

**Symbols of Danger:** None.

**"R" Phrases Indicating Specific Risks:** R 35 – (for concentrated Sulfuric Acid) Causes severe burns.

**"S" Phrases Indicating Caution:** S 26 – (for concentrated Sulfuric Acid) In case of contact with eyes, rinse immediately with plenty of water and seek medical advise.

<b>Section 16 -</b>	<b>OTHER INFORMATION</b>
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**Recommended Use:** For research or *in vitro* diagnostic use only. Not for use on or in humans and animals.

The information contained herein is believed to be correct as of the date of issue but is provided without warranty of any kind. Biomerica shall not be held liable for any damage resulting from handling or from contact with the above product. The recipient is responsible for observing any applicable laws and guidelines. Use the product according to the package insert.