

## Section 1: IDENTIFICATION OF THE SUBSTANCE/MIXTURE AND OF THE COMPANY/UNDERTAKING

### 1.1. Product Identifier

**SDS #** BIO-011-EU  
**Product Code** IgG 14 Foods Additives ELISA PRODUCT CODE #: 715  
IgG 45 Foods French ELISA PRODUCT CODE #: 7185  
IgG HOB 2 Foods ELISA PRODUCT CODE #: 7186 IgG  
HOB 4 Foods ELISA PRODUCT CODE #: 7187 IgG  
HOB 7 Foods ELISA PRODUCT CODE #: 7189 IgG  
90 Foods ELISA PRODUCT CODE #: 7190  
IgG 90 Med Foods ELISA PRODUCT CODE #: 7191  
IgG 14 Foods ELISA PRODUCT CODE #: 7192  
IgG 90 Custom Foods ELISA PRODUCT CODE #: 7193  
IgG 14 Custom Foods ELISA PRODUCT CODE #: 7194  
IgG 45 Custom Foods ELISA PRODUCT CODE #: 7195  
IgG 90 Custom Foods ELISA PRODUCT CODE #: 7196  
IgG 90 Custom Foods ELISA PRODUCT CODE #: 7197  
IgG 21 Custom Foods ELISA PRODUCT CODE #: 7198  
IgG 90 Foods Korean ELISA PRODUCT CODE #: 7199  
**Product Name** IgG Foods ELISA Kits

Contains Sulfuric Acid

### 1.2. Relevant Identified Uses of the Substance or Mixture and Uses Advised Against

**Recommended Use** For research or in vitro diagnostic use only

**Uses Advised Against** Not for use on or in humans

### 1.3. Details of the Supplier of the Safety Data Sheet

#### Supplier

Biomerica  
17571 Von Karman Avenue  
Irvine, CA 92614, USA

#### For further information, please contact

**Contact Point** Biomerica: (949) 645-2111  
**Email Address** [bmra@biomerica.com](mailto:bmra@biomerica.com)

### 1.4. Emergency telephone number

Emergency Telephone (24 hr) INFOTRAC 1-352-323-3500 (International)  
1-800-535-5053 (North America)

## Section 2: HAZARDS IDENTIFICATION

### 2.1. Classification of the Substance or Mixture *Regulation (EC) No 1272/2008*

This mixture is classified as not hazardous according to regulation (EC) 1272/2008 [GHS]

### 2.2. Label Elements

**Product Identifier**  
Contains Sulfuric Acid

This mixture is classified as not hazardous according to regulation (EC) 1272/2008 [GHS]

**Signal Word**

None

EUH210 - Safety data sheet available on request

**2.3. Other Hazards**

Calibrators are formulated with a buffer base, animal or human serum. The kit components that are made with human serum are tested by a United States Food and Drug Administration (USFDA) licensed method and found to be non-reactive for HIV-1, HIV-2, Hepatitis B surface antigen, and HCV. Because no test method can offer absolute assurance that these agents are absent, reagents should be handled at the Biosafety Level 2, as recommended for any potentially infectious human blood product, in the United States Center for Disease Control (USCDC) and National Institute of Health (USNIH) manual "Biosafety in Microbiological Laboratories", 1988. All bovine serum products used are derived from animals of US origin, processed in USDA licensed facilities Wash Buffer, Serum Diluent and Calibrators in kits are formulated with Sodium Azide as a preservative. Concentrated Sodium Azide may react with copper and lead plumbing to form explosive metal azides. It may also react with acids to form explosive hydrazoic acid. If drain disposed, flush with large amounts of water to prevent azide build-up. Avoid contact with Stop Solution containing 1N H<sub>2</sub>SO<sub>4</sub> (Sulfuric Acid), an irritant to the skin and mucous membranes. Substrate Solution A contains Dimethyl Sulfoxide. In case of contact with any of these reagents, wash thoroughly with water

### Section 3: COMPOSITION/INFORMATION ON INGREDIENTS

**3.2. MIXTURES**

Chemical Name	EC No	CAS No	Weight-%	Classification according to Regulation (EC) No. 1272/2008 [CLP]	REACH Registration Number
Dimethyl sulfoxide	Present	67-68-5	40-50	Not determined	Not determined
Sulfuric Acid	Present	7664-93-9	<5	Skin Corr. 1A (H314)	Not determined
Sodium azide	Present	26628-22-8	<0.1	(EUH032) Acute Tox. 2 (H300) Aquatic Acute 1 (H400) Aquatic Chronic 1 (H410)	Not determined

**Full text of H- and EUH-phrases: see section 16**

**Additional Information**

Substances without a classification are included, because they have established occupational exposure limits  
This product contains one or more candidate substance(s) of very high concern (Regulation (EC) No. 1907/2006 (REACH), Article 59)

Chemical Name	CAS No	SVHC candidates
Polyoxyethylene mono(octylphenyl) ether	9002-93-1	X

### Section 4: FIRST AID MEASURES

**4.1. Description of First Aid Measures**

<b>Eye Contact</b>	Rinse immediately with plenty of water, also under the eyelids, for at least 15 minutes. Get immediate medical advice/attention.
<b>Skin Contact</b>	Take off contaminated clothing. Wash with soap and water.
<b>Inhalation</b>	Remove to fresh air. If person is having difficulty breathing, give oxygen and call a physician immediately.
<b>Ingestion</b>	Flush mouth with copious amounts of water, provided that the person is conscious, and seek medical attention.

**4.2. Most Important Symptoms and Effects, Both Acute and Delayed**

**Symptoms** Causes skin irritation.

**4.3. Indication of any Immediate Medical Attention and Special Treatment Needed**

**Notes to Physician** Treat symptomatically.

**Section 5: FIREFIGHTING MEASURES****5.1. Extinguishing Media****Suitable Extinguishing Media**

Chemical or water fire extinguisher.

**Unsuitable Extinguishing Media**

None known.

**5.2. Special Hazards Arising from the Substance or Mixture**

Calibrators, Serum Diluent and Wash Buffer in kits are formulated with Sodium Azide as a preservative. Sodium Azide may react with copper and lead plumbing to form explosive metal azides that are sensitive to mechanical shock, concussion, friction and sparks. May react with acids to form explosive hydrazoic acid. Dimethyl Sulfoxide in Substrate Solution A is combustible.

**Hazardous Combustion Products**

None known.

**5.3. Advice for Firefighters**

Wear self-contained breathing apparatus and protective suit. Use personal protective equipment as required.

**Section 6: ACCIDENTAL RELEASE MEASURES****6.1. Personal Precautions, Protective Equipment and Emergency Procedures****Personal Precautions**

Wear gloves, impermeable shoe covers, and laboratory coat. Take care not to contaminate body. Ensure adequate ventilation.

**For Emergency Responders**

Use personal protection recommended in Section 8.

**6.2. Environmental Precautions**

Contain the spill to the smallest area possible. See Section 12 for additional Ecological Information.

**6.3. Methods and Material for Containment and Cleaning Up****Methods for Containment**

Prevent further leakage or spillage if safe to do so.

**Methods for Clean-Up**

Neutralize a Stop Solution spill with dilute base, then absorb the material with disposable towels. Soak a calibrator or control spill area with a 10% bleach solution and wipe up with disposable towels. Dispose of all contaminated trash in accordance with local regulations.

**6.4. Reference to Other Sections**

See Section 13: DISPOSAL CONSIDERATIONS.

## Section 7: HANDLING AND STORAGE

### 7.1. Precautions for Safe Handling

#### Advice on Safe Handling

Use personal protection recommended in Section 8. Take care not to splash, spill, or splatter standards, stop solution, or controls. Avoid contact with skin and eyes.

#### General Hygiene Considerations

Handle in accordance with good industrial hygiene and safety practice.

### 7.2. Conditions for Safe Storage. Including any Incompatibilities

#### Storage Conditions

Store kit reagents in 2-8°C in refrigerators designated and labeled to contain human blood products.

### 7.3. Specific End Use(s)

#### Specific Use(s)

For research or in vitro diagnostic use only.

#### Risk Management Methods (RMM)

The information required is contained in this Safety Data Sheet.

## Section 8: EXPOSURE CONTROLS/PERSONAL PROTECTION

### 8.1. Control Parameters

#### Exposure Limits

Chemical Name	European Union	United Kingdom	France	Spain	Germany
Dimethyl sulfoxide 67-68-5	-	-	-	-	TWA: 50 ppm TWA: 160 mg/m <sup>3</sup> H*
Sulfuric Acid 7664-93-9	-	STEL: 0.15 mg/m <sup>3</sup> TWA: 0.05 mg/m <sup>3</sup>	TWA: 0.05 mg/m <sup>3</sup> STEL: 3 mg/m <sup>3</sup>	TWA: 0.05 mg/m <sup>3</sup>	TWA: 0.1 mg/m <sup>3</sup>
Sodium azide 26628-22-8	S* TWA 0.1 mg/m <sup>3</sup> STEL 0.3 mg/m <sup>3</sup>	STEL: 0.3 mg/m <sup>3</sup> TWA: 0.1 mg/m <sup>3</sup> Skin	TWA: 0.1 mg/m <sup>3</sup> STEL: 0.3 mg/m <sup>3</sup>	S* STEL: 0.3 mg/m <sup>3</sup> TWA: 0.1 mg/m <sup>3</sup>	TWA: 0.2 mg/m <sup>3</sup>
Chemical Name	Italy	Portugal	Netherlands	Finland	Denmark
Dimethyl sulfoxide 67-68-5	-	-	-	TWA: 50 ppm Skin	TWA: 50 ppm TWA: 160 mg/m <sup>3</sup>
Sulfuric Acid 7664-93-9	TWA: 0.05 mg/m <sup>3</sup>	TWA: 0.05 mg/m <sup>3</sup>	TWA: 0.05 mg/m <sup>3</sup>	TWA: 0.05 mg/m <sup>3</sup> STEL: 0.1 mg/m <sup>3</sup>	TWA: 0.05 mg/m <sup>3</sup>
Sodium azide 26628-22-8	TWA: 0.1 mg/m <sup>3</sup> STEL: 0.3 mg/m <sup>3</sup> Skin	STEL: 0.3 mg/m <sup>3</sup> Ceiling: 0.29 mg/m <sup>3</sup> Ceiling: 0.11 ppm TWA: 0.1 mg/m <sup>3</sup>	Skin STEL: 0.3 mg/m <sup>3</sup> TWA: 0.1 mg/m <sup>3</sup>	TWA: 0.1 mg/m <sup>3</sup> STEL: 0.3 mg/m <sup>3</sup> Skin	TWA: 0.1 mg/m <sup>3</sup> Skin
Chemical Name	Austria	Switzerland	Poland	Norway	Ireland
Dimethyl sulfoxide 67-68-5	Skin TWA: 50 ppm TWA: 160 mg/m <sup>3</sup>	Skin STEL: 100 ppm STEL: 320 mg/m <sup>3</sup> TWA: 50 ppm TWA: 160 mg/m <sup>3</sup>	-	-	-
Sulfuric Acid 7664-93-9	STEL 0.2 mg/m <sup>3</sup> TWA: 0.1 mg/m <sup>3</sup>	STEL: 0.1 mg/m <sup>3</sup> TWA: 0.1 mg/m <sup>3</sup>	TWA: 0.05 mg/m <sup>3</sup>	TWA: 0.1 mg/m <sup>3</sup> STEL: 0.3 mg/m <sup>3</sup>	TWA: 0.05 ppm STEL: 0.15 ppm
Sodium azide 26628-22-8	Skin STEL 0.3 mg/m <sup>3</sup> TWA: 0.1 mg/m <sup>3</sup>	STEL: 0.4 mg/m <sup>3</sup> TWA: 0.2 mg/m <sup>3</sup>	STEL: 0.3 mg/m <sup>3</sup> TWA: 0.1 mg/m <sup>3</sup>	TWA: 0.1 mg/m <sup>3</sup> STEL: 0.3 mg/m <sup>3</sup>	TWA: 0.1 mg/m <sup>3</sup> STEL: 0.3 mg/m <sup>3</sup> Skin

**8.2. Exposure Controls**

**Engineering Controls** Apply technical measures to comply with the occupational exposure limits.

**Personal Protective Equipment****Eye/Face Protection**

Wear approved safety goggles where a splash hazard exists.

**Hand Protection**

Wear non-permeable rubber, neoprene, latex, or nitrile disposable gloves. Change gloves when they become contaminated.

**Skin and Body Protection**

Wear laboratory coat.

**Respiratory Protection**

In case of fire, wear self-contained breathing apparatus.

**Section 9: PHYSICAL AND CHEMICAL PROPERTIES****9.1. Information on Basic Physical and Chemical Properties**

<b>Physical state</b>	Liquid		
<b>Appearance</b>	Clear (Green for Calibrators and Serum Diluent) liquid Red for Conjugate	<b>Odour</b>	None
<b>Colour</b>	Clear (Green for Calibrators and Serum Diluent) Red for Conjugate	<b>Odour Threshold</b>	Not determined

<b><u>Property</u></b>	<b><u>Values</u></b>	<b><u>Remarks • Method</u></b>
<b>pH</b>	5.5-7.4	Stop Solution pH <2
<b>Melting Point/Freezing Point</b>	Not applicable	
<b>Boiling Point/Boiling Range</b>	Not applicable	
<b>Flash Point</b>	Not applicable	
<b>Evaporation Rate</b>	Not determined	
<b>Flammability (Solid, Gas)</b>	Not flammable	
<b>Flammability Limits in Air</b>		
<b>Upper Flammability Limits</b>	Not applicable	
<b>Lower Flammability Limit</b>	Not applicable	
<b>Vapour Pressure</b>	Not determined	
<b>Vapour Density</b>	Not determined	
<b>Relative Density</b>	Not determined	
<b>Water Solubility</b>	Completely soluble	
<b>Solubility(ies)</b>	Not determined	
<b>Partition Coefficient</b>	Not determined	
<b>Auto-ignition Temperature</b>	Will not occur	
<b>Decomposition Temperature</b>	Not determined	
<b>Kinematic Viscosity</b>	Not determined	
<b>Dynamic Viscosity</b>	Not determined	
<b>Explosive Properties</b>	Not determined	
<b>Oxidising Properties</b>	Not determined	

**Section 10: STABILITY AND REACTIVITY****10.1. Reactivity**

Not reactive under normal conditions.

**10.2. Chemical stability**

Stable under normal conditions.

**10.3. Possibility of Hazardous Reactions****Possibility of Hazardous Reactions**

None under normal processing.

**10.4. Conditions to Avoid**

None known.

**10.5. Incompatible Materials**

Lead. Copper.

**10.6. Hazardous Decomposition Products**

None known.

**Section 11: TOXICOLOGICAL INFORMATION****11.1. Information on Toxicological Effects****Acute Toxicity****Product Information**

Potential biohazard.

<b>Inhalation</b>	Avoid breathing vapours or mists.
<b>Eye Contact</b>	Avoid contact with eyes.
<b>Skin Contact</b>	Causes skin irritation.
<b>Ingestion</b>	Do not taste or swallow.

The following values are calculated based on chapter 3.1 of the GHS document

<b>ATEmix (oral)</b>	39,233.00 mg/kg
<b>ATEmix (dermal)</b>	88,889.00 mg/kg
<b>ATEmix (inhalation-dust/mist)</b>	4.68 mg/L

**Unknown Acute Toxicity**

48 % of the mixture consists of ingredient(s) of unknown toxicity.

45 % of the mixture consists of ingredient(s) of unknown acute oral toxicity. 3

% of the mixture consists of ingredient(s) of unknown acute dermal toxicity.

48 % of the mixture consists of ingredient(s) of unknown acute inhalation toxicity (gas).

48 % of the mixture consists of ingredient(s) of unknown acute inhalation toxicity (vapour).

45 % of the mixture consists of ingredient(s) of unknown acute inhalation toxicity (dust/mist).

**Component Information**

Chemical Name	Oral LD50	Dermal LD50	Inhalation LC50
Dimethyl sulfoxide	= 28300 mg/kg (Rat) = 14500 mg/kg (Rat)	= 40 g/kg (Rat)	> 5.33 mg/L (Rat) 4 h
Sulfuric Acid	= 2140 mg/kg (Rat)		= 510 mg/m <sup>3</sup> (Rat) 2 h
Polyoxyethylene mono(octylphenyl) ether	= 1800 mg/kg (Rat)		
Sodium azide	= 27 mg/kg (Rat)	= 50 mg/kg (Rat) = 20 mg/kg (Rabbit)	

**Skin corrosion/irritation** Causes skin irritation.

**Serious eye damage/eye irritation** Not classified.

**Sensitisation** Not classified.

**Germ cell mutagenicity** Not classified.

**Carcinogenicity** Not classified.

**Reproductive toxicity** Not classified.

**STOT - single exposure** Not classified.

**STOT - repeated exposure** Not classified.

Aspiration hazard Not classified.

**Section 12: ECOLOGICAL INFORMATION**

**12.1.Toxicity**

An environmental hazard cannot be excluded in the event of unprofessional handling or disposal.

Chemical Name	Algae/aquatic plants	Fish	Crustacea
Dimethyl sulfoxide	12350 - 25500: 96 h Skeletonema costatum mg/L EC50	40: 96 h Lepomis macrochirus g/L LC50 static 34000: 96 h Pimephales promelas mg/L LC50 41.7: 96 h Cyprinus carpio g/L LC50 33 - 37: 96 h Oncorhynchus mykiss g/L LC50 static	7000: 24 h Daphnia species mg/L EC50
Sulfuric Acid		500: 96 h Brachydanio rerio mg/L LC50 static	29: 24 h Daphnia magna mg/L EC50
Sodium azide		0.7: 96 h Lepomis macrochirus mg/L LC50 5.46: 96 h Pimephales promelas mg/L LC50 flow-through 0.8: 96 h Oncorhynchus mykiss mg/L LC50	

**12.2.Persistence and Degradability**

Not determined.

**12.3.Bioaccumulative Potential**

Chemical Name	Partition Coefficient
Dimethyl sulfoxide	-2.03

**12.4.Mobility in Soil**

**Mobility**

Not determined.

**12.5.Results of PBT and vPvB Assessment**

Not determined.

**12.6.Other Adverse Effects**

Not determined.

**Section 13: DISPOSAL CONSIDERATIONS**

**13.1. Waste Treatment Methods**

**Waste from Residues / Unused Products** Disposal should be in accordance with applicable regional, national and local laws and regulations.

**Contaminated Packaging** Improper disposal or reuse of this container may be dangerous and illegal.

**Section 14: TRANSPORT INFORMATION**

- 14.1 UN No. ADR, AND, IMDG, IATA- Void
- 14.2 Proper Shipping Name ADR, AND, IMDG, IATA- Void
- 14.3 Transport Hazard Class(es) ADR, AND, IMDG, IATA- Void
- 14.4 Packing Group ADR, AND, IMDG, IATA- Void
- 14.5 Environmental Hazards Not applicable
- 14.6 Special precautions for user Not applicable
- 14.7 Transport in bulk according to Annex II of MARPOL73/78 and the IBC Code Not applicable

**15.1. Safety, Health and Environmental Regulations/Legislation Specific for the Substance or Mixture****National Regulations**

France

**Occupational Illnesses (R-463-3, France)**

Chemical Name	French RG number	Title
Dimethyl sulfoxide 67-68-5	RG 84	

**European Union**

Take note of Directive 98/24/EC on the protection of the health and safety of workers from the risks related to chemical agents at work.

**Authorisations and/or restrictions on use:**

This product does not contain substances subject to authorisation (Regulation (EC) No. 1907/2006 (REACH), Annex XIV) This product does not contain substances subject to restriction (Regulation (EC) No. 1907/2006 (REACH), Annex XVII)

**Persistent Organic Pollutants**

Not applicable

**Ozone-depleting substances (ODS) regulation (EC) 1005/2009**

Not applicable

**International Inventories**

Component	TSCA	DSL/NDSL	EINECS/ELINCS	PICCS	ENCS	IECSC	AICS	KECL
Dimethyl sulfoxide 67-68-5 (40-50)	X	X	X	X	Present	X	X	Present
Sulfuric Acid 7664-93-9 (<5)	X	X	X	X	Present	X	X	Present
Sodium azide 26628-22-8 (<0.1)	X	X	X	X	Present	X	X	Present

**Legend**

**TSCA** - United States Toxic Substances Control Act Section 8(b) Inventory

**EINECS/ELINCS** - European Inventory of Existing Chemical Substances/European List of Notified Chemical Substances

**DSL/NDSL** - Canadian Domestic Substances List/Non-Domestic Substances List

**PICCS** - Philippines Inventory of Chemicals and Chemical Substances

**ENCS** - Japan Existing and New Chemical Substances

**IECSC** - China Inventory of Existing Chemical Substances

**AICS** - Australian Inventory of Chemical Substances

**KECL** - Korean Existing and Evaluated Chemical Substances

**15.2. Chemical Safety Assessment**

No Chemical Safety Assessment has been carried out for this substance/mixture by the supplier.

**Section 16: OTHER INFORMATION****Full text of H-Statements referred to under section 3**

H300 - Fatal if swallowed H400

- Very toxic to aquatic life

H410 - Very toxic to aquatic life with long lasting effects

H314 - Causes severe skin burns and eye damage

EUH032 - Contact with acids liberates very toxic gas

**Legend**

SVHC: Substances of Very High Concern for Authorisation:



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<b>Legend</b>	<b>Section 8: EXPOSURE CONTROLS/PERSONAL PROTECTION</b>		
TWA	TWA (time-weighted average)	STEL	STEL (Short Term Exposure Limit)
Ceiling	Maximum limit value	*	Skin designation

**Classification Procedure**

Calculation method

**Issue Date:** 06-Apr-2011

**Revision Date:** 20-Nov-2017

**Revision Note:** Regulatory update.

This safety data sheet complies with the requirements of Regulation (EC) No. 1907/2006, as amended by Commission Regulation (EU) No. 2015/830

**Disclaimer**

The information provided in this Safety Data Sheet is correct to the best of our knowledge, information and belief at the date of its publication. The information given is designed only as a guidance for safe handling, use, processing, storage, transportation, disposal and release and is not to be considered a warranty or quality specification. The information relates only to the specific material designated and may not be valid for such material used in combination with any other materials or in any process, unless specified in the text.

End of Safety Data Sheet