

## Section 1 – Product and Company Identification

### Manufacturer Information

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### Product Information

Product Name: MicroVue C4d Fragment EIA kit (Catalog #: A008, A009)

Intended Use: The MicroVue C4d Fragment Enzyme Immunoassay (EIA) for the quantitation of the C4d-containing fragments of activated C4 of Classical Complement Pathway.

Cat: #A008: For *In Vitro Diagnostic* use. For export only. Not for sale or use in the United States or Canada.

Cat: #A009: For **Research Use Only** in the United States. Not for use in diagnostic procedures.



Components: C4d Standards A → E, Low Control (lyophilized), High Control (lyophilized), Coated Strips, Stop Solution, 20X Wash Solution Concentrate, Specimen Diluent, Substrate Diluent, Substrate Concentrate, C4d Conjugate and Hydrating Reagent.

## Section 2 – Hazards Identification

### Classification of Substance or Mixture

Kit Component	OSHA Hazards	Target Organs	GHS Classification
Stop Solution (<4% Oxalic Acid)	Irritant	Eyes and Skin	Skin Irritation (Category 2) Eye Irritation (Category 2)
20X Wash Solution, Specimen Diluent, Hydrating Reagent (0.035% Proclin 300)	Irritant	Skin	Skin Sensitizer (Category 1)

### GHS Label Elements, Including Precautionary Statements

Component	Pictogram	Hazard Statements	Precautionary Statements
Stop Solution (<4% Oxalic Acid)	 Warning	H315 Causes skin irritation. H319 Causes serious eye irritation.	P264 Wash hands thoroughly after handling. P280 Wear protective gloves and safety glasses. P305+P351+P338: IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
20X Wash Solution, Specimen Diluent, Hydrating Reagent (0.035% Proclin 300)	 Warning	H317 May cause an allergic skin reaction.	P264 Wash hands thoroughly after handling. P303+P361+P353: IF ON SKIN (or hair): Remove immediately all contaminated clothing. Rinse skin with water. P333+P313: If skin irritation or rash occurs: Get medical attention.
<b>Supplemental Hazard Statements</b>		1. Follow Universal Precautions when working with this kit. Refer to additional Universal Precautions information in Section 7, Handling and Storage. 2. Avoid release to the environment.	

### Section 3 – Composition / Information on Ingredients

Kit Component	Chemical Name	CAS #	EINECS #	Conc. (%)	Component Volume
Stop Solution	Oxalic Acid	6153-56-6	205-634-3	<4	6 mL
1. 20X Wash Solution 2. Specimen Diluent 3. Hydrating Reagent	<b>Mixture for Proclin 300:</b> 5-Chloro-2-methyl-2, 3-dihydroisothiazol-3-one; 2-Methyl-2, 3-dihydroisothiazol-3-one (3:1)	55965-84-9	--	0.035	1. 2x50 mL 2. 50 mL 3. 25 mL
Substrate Diluent	Hydrogen Peroxide	7722-84-1	231-765-0	<0.1	25 mL

### Section 4 – First Aid Measures

#### General Advice

Move out of exposure area. Consult a physician. Show this safety data sheet to the doctor in attendance, as necessary.

- If inhaled:* Move the person to fresh air and support breathing as required.
- In case of skin contact:* Wash affected area with soap and water. Seek medical advice if irritation develops.
- In case of eye contact:* Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. If eye irritation persists, get medical attention.
- If swallowed:* Never give anything by mouth to an unconscious person. Rinse mouth with water (do not swallow). Seek medical advice if irritation develops. **Stop Solution:** Do not induce vomiting.
- Note to Physicians:* Treat symptomatically.

### Section 5 – Fire Fighting Measures

#### General Advice

Only individuals properly trained and issued appropriate personal protective equipment should respond and attempt to extinguish a fire.

- Extinguishing Media:* For small fires, use dry chemical, water spray, carbon dioxide or alcohol-resistant foam.
- General Fire Hazards:* The components within this kit will not significantly contribute to the intensity of a fire.
- Hazardous Combustion Products:* No data available
- Fire Fighting Equipment:* Firefighters should wear full protective gear when responding to fires.

## Section 6 – Accidental Release Measures

### General Advice

Only individuals properly trained and issued appropriate personal protective equipment should respond and attempt to clean up a spill or release. Large spills of the solutions, controls or reagents contained within this kit are unlikely.

*Personal Precautions:* Use personal protective equipment, including protective gloves and safety glasses when cleaning up small spills of the solutions, controls or reagents within this kit. Avoid breathing vapors, mist or gas. Ensure adequate ventilation. Keep all unnecessary personnel away from the spill area.

*Materials and Methods for Clean-Up:* Wipe up with inert absorbent material (e.g., paper towel, etc.). Thoroughly wash the area with soap and water after a spill or release clean-up.

*Recovery and Neutralization:* Collect spilled material and clean-up supplies and place in sealed container for disposal. Refer to Section 13 for disposal guidance.

*Environmental Precautions:* Contain spill to prevent migration to drains, sewers or open water sources. Discharge into the environment must be avoided.

## Section 7 – Handling and Storage

**Specific Use:** Refer to product specific Package Insert.

### Precautions for Safe Handling

As with all chemical and biological substances, avoid getting the components within this kit ON YOU or IN YOU. Wash exposed areas thoroughly after using this kit. Do not eat or drink while using this kit. This kit should be handled only by qualified clinical or laboratory employees trained on the use of this kit and who are familiar with the potential hazards. Universal Precautions should be followed when handling and working with this kit. Keep out of reach of the general public.

### Universal Precautions

No known test method can offer complete assurance that product(s) derived from human blood, serum or plasma used in components of this kit will not transmit infectious agents. All blood products should be treated as potentially infectious; use universal precautions. Users should ensure the use of proper personal protective equipment (PPE), covering of any cuts or abrasions on the skin (hands), and follow standard protocols for the decontamination of work surfaces when testing has been completed. Always wash hands thoroughly after handling the components within this kit.

**Conditions for Safe Storage:** To maintain efficacy, store according to the kit specific Package Insert instructions.

**Incompatibilities** To maintain efficacy, store according to the kit specific Package Insert instructions.

## Section 8 – Exposure Controls and Personal Protection

**Exposure Limits:** No data available for the specific components within this kit.

### Exposure Controls:

**Engineering Measures** Use with adequate ventilation.

#### Personal Protective Equipment

*Respiratory Protection:* None needed under normal conditions of use.

*Hand Protection:* Handle with appropriately rated chemical resistant gloves. Gloves should be inspected prior to use. Use proper glove technique to remove gloves to avoid contact with skin. Wash hands after handling the components within this kit.

### Section 8 – Exposure Controls and Personal Protection (cont'd)

*Eye Protection:* Wear safety glasses with side shields or goggles to prevent eye contact.

*Skin and Body Protection:* Use body protection appropriate for the task. A laboratory coat is recommended.

*Hygiene Measures:* Wash hands before and after use and at the end of the workday.

#### Environmental Exposure Controls

No special environmental controls are required.

### Section 9 – Physical and Chemical Properties

Characteristic	Stop Solution	20X Wash Solution	Specimen Diluent	Hydrating Reagent
Boiling Point (°C)	No data available	No data available	No data available	No data available
Melting Point (°C)	No data available	No data available	No data available	No data available
Specific Gravity (H <sub>2</sub> O = 1)	No data available	No data available	No data available	No data available
Vapor Pressure (mm Hg)	No data available	No data available	No data available	No data available
Vapor Density (Air = 1)	No data available	No data available	No data available	No data available
Evaporation Rate (Ether = 1)	No data available	No data available	No data available	No data available
pH	2	6.1 to 6.6	Neutral	Neutral
Solubility in Water	Soluble	Soluble	Soluble	Soluble
Appearance and Odor	Clear liquid, mild odor	Clear liquid, odorless	Slightly brown liquid, odorless	Clear liquid, odorless

*N/A = Do data available*

### Section 10 – Stability and Reactivity

Characteristic	Stop Solution	20X Wash Solution	Specimen Diluent	Hydrating Reagent
Component Stability	Stable	Stable	Stable	Stable
Hazard Reaction Potential	No data available	No data available	No data available	No data available
Conditions to Avoid	No data available	No data available	No data available	No data available
Materials to Avoid	No data available	No data available	No data available	No data available
Hazardous Decomposition Products	No data available	No data available	No data available	No data available

## Section 11 – Toxicological Information

### Acute Toxicity

**Component Analysis – LD50 / LC50 / Irritation** (No data available for specific kit components)

Chemical Name	CAS #	RTECS #	Information		
Oxalic Acid	6153-56-6	RO2450000	Oral LD <sub>50</sub>	Rat	1080 mg/kg
			Inhalation LC <sub>50</sub>	No data available	
			Dermal LD <sub>50</sub>	No data available	
<b>Mixture for Proclin 300:</b> 5-Chloro-2-methyl-2, 3-dihydroisothiazol-3-one; 2-Methyl-2, 3-dihydroisothiazol-3-one (3:1)	55965-84-9	--	Oral LD <sub>50</sub>	Rat	53 mg/kg
			Inhalation LC <sub>50</sub>	No data available	
			Dermal LD <sub>50</sub>	No data available	
Hydrogen Peroxide	7722-84-1	MX0887000	Oral LD <sub>50</sub>	Rat	376 mg/kg
			Inhalation LC <sub>50</sub>	No data available 2 g/m <sup>3</sup> (4-hr)	
			Dermal LD <sub>50</sub>	No data available >2000 mg/kg	

**Potential Health Effects:** Stop Solution, 20X Wash Solution, Specimen Diluent, and Hydrating Reagent – Irritant

<i>Skin Corrosion/ Irritation:</i>	No data available	<i>Inhalation:</i>	May cause respiratory tract irritation.
<i>Serious Eye Damage / Irritation:</i>	No data available	<i>Skin:</i>	May cause skin irritation upon contact.
<i>Respiratory or Skin Sensitization:</i>	No data available	<i>Eyes:</i>	May cause serious eye irritation.
<i>Generative Cell Mutagenicity:</i>	No data available	<i>Ingestion:</i>	May be harmful if swallowed.

### Carcinogenicity

No component of this kit present at levels greater than or equal to 0.1% is identified as probable, possible or confirmed human carcinogen by the ACGIH, IARC, NTP or OSHA.

### Reproductive Toxicity

Stop Solution: Possible risk of congenital malformation in the fetus (oxalic acid).

### Teratogenicity

No data available

### Specified Target Organ General Toxicity (GHS)

*Single Exposure (GHS):* No data available

*Repeated Exposure (GHS):* No data available

### Aspiration Respiratory Organs Hazard

None anticipated under product use conditions.

### Signs and Symptoms of Exposure

To the best of our knowledge, the chemical, physical, and toxicological properties have not been thoroughly investigated for the components contained within this kit.

### Synergistic Effects

No data available

### Additional Information

Stop Solution: Stomach – Irregularities – Based on Human Evidence (Oxalic Acid)

Substrate Diluent: Stomach – Irregularities – Based on Human Evidence (Hydrogen Peroxide)

Sensitization: Contains a small volume of a very dilute, sensitizing preservative (Proclin 300). Though the potential for an allergic response is greatly reduced by the dilution, sensitization threshold is unknown; thus, handle accordingly.

## Section 12 – Ecological Information

<b>Ecotoxicity</b>	No data available	<b>Mobility in Soil</b>	No data available
<b>Persistence / Degradability</b>	No data available	<b>PBT and vPvB Assessment</b>	No data available
<b>Bioaccumulation</b>	No data available		
<b>Other Adverse Effects</b>	An environmental hazard cannot be excluded in the event of unprofessional handling or disposal. Avoid release to the environment.  <i>Proclin 300 is very toxic to aquatic life with long lasting effects.</i>		

## Section 13 – Disposal Considerations

### Waste Disposal Instructions

Utilize appropriate personal protective equipment and spill control when handling wastes generated from using this kit. Do not discharge any of the solutions, reagents or controls into drains, water courses or onto the ground.

### Disposal of Product and Contaminated Packaging

Dispose of waste materials, unused components and contaminated packaging in compliance with country, federal, state and local regulations. If unsure of the applicable regulatory requirements, contact a licensed professional waste disposal service to dispose of this material.

## Section 14 – Transportation Information

<b>U.S. Department of Transportation (DOT)</b>	This kit is not regulated for transport.
<b>International Air Transportation (IATA)</b>	This kit is not regulated for transport.
<b>International Maritime Dangerous Goods (IMDG)</b>	This kit is not regulated for transport.

## Section 15 – Regulatory Information

### Regulatory Information

#### U.S. Federal Regulations

<b>OSHA Hazards</b>	Stop Solution: Irritant		
	20X Wash Solution, Sample Diluent, and Hydrating Reagent: Sensitizer		
<b>SARA 302</b>	The following chemicals are subject to reporting levels established by SARA Title III, Section 302:		
	Hydrogen Peroxide	CAS #: 7722-84-1	Revision Date: 1993-04-24
<b>SARA 313</b>	The following chemicals are subject to reporting levels established by SARA Title III, Section 313:		
	No chemicals in this kit are subject to the reporting requirements of SARA Title III, Section 313.		
<b>SARA 311/312</b>	Oxalic Acid	CAS#: 6153-56-6	Acute Health Hazard, Chronic Health Hazard
	Proclin 300	CAS#: 55965-84-9	Acute Health Hazard
	Hydrogen Peroxide	CAS #: 7722-84-1	Acute Health Hazard, Chronic Health Hazard, Reactivity Hazard

## Section 15 – Regulatory Information (cont'd)

**State Regulations**

The following chemical(s) appear on one or more of the following state hazardous substances lists:

Chemical Name	CAS #	CA	MA	MN	NJ	PA	RI
Oxalic Acid	6153-56-6	No	Yes	No	Yes	Yes	No
<b>Mixture for Proclin 300:</b> 5-Chloro-2-methyl-2, 3-dihydroisothiazol-3-one; 2-Methyl-2, 3-dihydroisothiazol-3-one (3:1)	55965-84-9	No	No	No	Yes	Yes	No
Hydrogen Peroxide	7722-84-1	Yes	Yes	Yes	Yes	Yes	Yes

**California Prop 65:** This product does not contain any chemicals known to the State of California to cause cancer, birth defects, or any other reproductive harm.

**Canadian – WHMIS Classification (Raw Material)**

Chemical Name	CAS #	Classification
Oxalic Acid	6153-56-6	D2A Very toxic material causing other toxic effects - Teratogen
<b>Mixture for Proclin 300:</b> 5-Chloro-2-methyl-2, 3-dihydroisothiazol-3-one; 2-Methyl-2, 3-dihydroisothiazol-3-one (3:1)	55965-84-9	No data available
Hydrogen Peroxide	7722-84-1	D2B Toxic material causing other toxic effects - Severe eye irritant

**Additional Regulatory Information**
**Safety, Health and Environmental regulations/legislation specific for the mixture:**

European Union – Regulation (EC) 1907/2006.

**Chemical Safety Assessment:**

Not completed for the components contained within this kit.

**NFPA Kit Classification:**

Health Hazard (blue): 1  
 Fire Hazard (red): 0  
 Reactivity Hazard (yellow): 0  
 Special Hazards (white): None



**Section 16 – Other Information**

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**REVISIONS:** General format updates.

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