

## Section 1 – Product and Company Identification

**Manufacturer Information**

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**Product Information**

Product Name: MicroVue Serum PYD EIA kit (Catalog #: 8019)

Intended Use: The MicroVue Serum PYD assay is a competitive enzyme immunoassay in a microtiter plate format. This assay is for Research Use Only and not for diagnostic procedures.



Components: Pyridinoline Standard, Low Controls, High Controls, Coated Strips (Anti-PYD), Stop Solution, 10X Wash Buffer, Assay Buffer, Substrate Buffer, Substrate Tablets, Enzyme Conjugate (lyophilized), Pyridinoline Antibody, Reagent 1, Plate Tape Cover, and NanoSpin Filters.

## Section 2 – Hazards Identification


**Emergency Overview**

Component	OSHA Hazards	Target Organs	GHS Classification
<b>Stop Solution</b> (1.5% Sodium Hydroxide)	Irritant	Eyes and Skin	Skin Irritation (Category 2) Eye Irritation (Category 2)
<b>Substrate Buffer</b> (<14% Diethanolamine)	Irritant	Eyes, Skin and Liver	Eye Irritation (Category 2B) Skin Irritation(Category 2) Specific target organ toxicity (STOT RE2)
<b>Reagent 1</b> (0.05% Proclin 300)	Irritant	Skin	Skin Sensitizer (Category 1)

**GHS Classification and Label Elements**

Component	Pictogram	Hazard Statements	Precautionary Statements
<b>Stop Solution</b> (1.5% Sodium Hydroxide)	 <b>Warning</b>	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.
<b>Substrate Buffer</b> (<14% Diethanolamine)	 <b>Warning</b>	H302 Harmful if swallowed. H315 Causes skin irritation. H319 Causes serious eye irritation. H373 May cause damage to the liver through prolonged or repeated exposure.	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.

### Section 2 – Hazards Identification (cont'd)

Component	Pictogram	Hazard Statements	Precautionary Statements
<b>Reagent 1</b> (0.05% Proclin 300)	 <b>Warning</b>	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. 2. Avoid release to the environment. 3. Sodium Azide is used as a preservative (<0.1%) in various components. Avoid disposal of this material down sanitary or industrial plumbing systems.	

### Section 3 – Composition / Information on Ingredients

Component	Chemical Name	CAS #	EINECS #	Conc. (%)	Component Volume	Chemical Classification
Stop Solution (4702)	Sodium Hydroxide	1310-73-2	215-185-5	1.5	15 mL	Skin Corr. 1A; H314
Substrate Buffer (4705)	Diethanolamine	111-42-2	203-868-0	<14	30 mL (3 x 10 mL)	Acute Tox. 4; H302 Eye Damage 1; H318 Acute Aq. Tox. 3; H402
10X Wash Buffer (4703)	Potassium Chloride	7447-40-7	231-211-8	13	55 mL	Non-hazardous
Reagent 1 (4744)	<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	0.05	6 mL	Acute Tox. 3; Skin Corr. 1B; Eye Dam. 1; Resp. Sens. 1; Acute Aq. 1; Chronic Aq. 1; H301+H311+H331, H314, H334, H410

### 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. Seek medical advice if irritation develops.
- 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.

<i>Extinguishing Media:</i>	For small fires, use dry chemical, water spray, carbon dioxide or alcohol-resistant foam.
<i>General Fire Hazards:</i>	The components within this kit will not significantly contribute to the intensity of a fire.
<i>Hazardous Combustion Products:</i>	No data available.
<i>Fire Fighting Equipment:</i>	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.

<i>Personal Precautions:</i>	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.
<i>Materials and Methods for Clean-Up:</i>	Soak 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.
<i>Recovery and Neutralization:</i>	Collect spilled material and clean-up supplies and place in sealed container for disposal. Refer to Section 13 for disposal guidance.
<i>Environmental Precautions:</i>	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:** For Research Use Only. Not for use by the general public.

### 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.

**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.

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

- Hand Protection:** Handle with appropriately rated chemical resistant gloves (nitrile or equivalent). 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.
- 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 (4702)	Substrate Buffer (4705)	Reagent 1 (4744)
Boiling Point (°C)	N/A	N/A	N/A
Melting Point (°C)	N/A	N/A	N/A
Specific Gravity (H <sub>2</sub> O = 1)	N/A	N/A	N/A
Vapor Pressure (mm Hg)	N/A	N/A	N/A
Vapor Density (Air = 1)	N/A	N/A	N/A
Evaporation Rate (Ether = 1)	N/A	N/A	N/A
pH	<13	9.9	2.5
Solubility in Water	Soluble	Soluble	Soluble
Appearance and Odor	Clear liquid, mild odor	Clear liquid, mild ammonia like odor	Yellow liquid, odorless

*N/A = No data available*

### Section 10 – Stability and Reactivity

Characteristic	Stop Solution (4702)	Substrate Buffer (4705)	Reagent 1 (4744)
Component Stability	Stable	Stable	Stable
Hazard Reaction Potential	No data available	No data available	No data available
Conditions to Avoid	No data available	No data available	No data available
Materials to Avoid	No data available	No data available	No data available
Hazardous Decomposition Products	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
Sodium Hydroxide	1310-73-2	WB490000	Oral LD <sub>50</sub> No data available Inhalation LC <sub>50</sub> No data available Dermal LD <sub>50</sub> No data available
Diethanolamine	111-42-2	KL2975000	Oral LD <sub>50</sub> Rat 750 mg/kg Inhalation LC <sub>50</sub> No data available Dermal LD <sub>50</sub> Rabbit <12,200 mg/kg
<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	Not available	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

**Potential Health Effects: Stop Solution (4702), Substrate Buffer (4705) and Reagent 1 (4474)**

<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

Substrate Buffer IARC: 2B – Group 2B Diethanolamine Possibly carcinogenic to humans.

**Reproductive Toxicity** No data available.

**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** Substrate Buffer (Diethanolamine) Liver Irregularities – Based on human evidence.

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.  <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 (e.g., Canada, EU, Japan, etc.), 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 (4702): Irritant	Reagent 1 (4474): Irritant
	Substrate Buffer (4705): Irritant	
<b>SARA 302</b>	The following chemicals are subject to reporting levels established by SARA Title III, Section 302: No chemicals in this kit are subject to the reporting requirements of SARA Title III, Section 302.	
<b>SARA 313</b>	The following chemicals are subject to reporting levels established by SARA Title III, Section 313:	
	Diethanolamine CAS#: 111-42-2	Revision Date: 2011-07-01
	Proclin 300 CAS#: 55965-84-9	Acute Health Hazard
<b>SARA 311/312</b>	Sodium Hydroxide CAS#: 1310-73-2	Acute Health Hazard
	Diethanolamine CAS#: 111-42-2	Acute Health Hazard, Chronic Health Hazard

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

### State Regulations

The following chemicals appear on one or more of the following state hazardous substances lists:

Chemical Name	CAS #	CA	MA	MN	NJ	PA	RI
Sodium Hydroxide	1310-73-2	Yes	Yes	Yes	Yes	Yes	Yes
Diethanolamine	111-42-2	Yes	Yes	Yes	Yes	Yes	Yes
<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

**California Prop 65:** Warning! This kit contains a chemical known to the State of California to cause cancer.

Diethanolamine

CAS#: 111-42-2

Revision Date: 2012-07-20

### Canadian - WHMIS IDL



Chemical Name	CAS #	Minimum Concentration
Sodium Hydroxide	1310-73-2	1%
Diethanolamine	111-42-2	1%
<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

### Additional Regulatory Information

**Safety, Health and Environmental regulations/legislation specific for the mixture:** No data available.

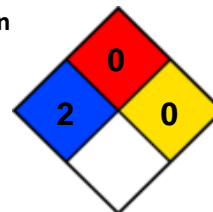
**Chemical Safety Assessment:** Not completed for the components contained within this kit.

### European Directive 67/548/EEC as amended

Danger Symbol	Risk Phrases	Safety Phrases
<b>Stop Solution (15 mL)</b>   Xi Irritant	R36/38: Irritating to eyes and skin.	S24/25: Avoid contact with skin and eyes. S26: In case of contact with eyes, rinse immediately with plenty of water and seek medical advice. S28: After contact with skin, wash immediately with plenty of water. S37/39: Wear suitable gloves and eye protection.
<b>Substrate Buffer (3X10 mL)</b>   Xn Harmful	R22: Harmful if swallowed. R38: Irritating to skin. R48: Danger of serious damage to health by prolonged exposure.	S26: In case of contact with eyes, rinse immediately with plenty of water and seek medical advice. S36/37/39: Wear suitable protective clothing, gloves, and eye/face protection. S46: If swallowed, seek medical advice immediately and show this container or label.

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

**HMIS Kit Classification:**

**NFPA Kit Classification**


### Section 16 – Other Information

**Text of H-code(s) mentioned in Section 3:**

H314	Causes severe skin burns and eye damage.	Eye Irrit.	Eye irritation
H318	Causes serious eye damage.	Eye Dam.	Eye Damage
H334	Causes severe skin burns and eye damage.	Skin Irrit.	Skin irritation
H402	Harmful to aquatic life.	Skin Corr.	Skin Corrosion
H410	Very toxic to aquatic life with long lasting effects.	Resp. Sens.	Respiratory sensitizer
H301+H311+H331	Toxic if swallowed, in contact with skin or inhaled	Acute Tox.	Acute toxicity
		Acute Aq. Tox.	Acute aquatic toxicity
		Chronic Aq.	Chronic Aquatic

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**SUPERCEDES:** November 25, 2008

**REVISIONS:** Updated to GHS format.

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