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**SAFETY DATA SHEET**

**HELENA LABORATORIES**  
**1530 Lindbergh Dr. / P.O. Box 752**  
**Beaumont, TX 77704-0752**  
**USA Toll Free 800-231-5663**

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DATE PREPARED: 8/28/2015  
REVISION: 1

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**1. IDENTIFICATION**

**Product Number:** 5293

**Product identifier used on the label:** Monoclonal Free Protein S ELISA Kit

**Other means of identification:**

<b>Component Name</b>	<b>Component Number</b>
Phosphate Buffered Saline (PBS)	551855
Sample Diluent	551856
Free Protein S: Ag Microwells	551857
Free Protein S Conjugate	551858
Substrate Solution	551859
Stopping Solution	551860
ELISA Reference Plasma	551654

**Recommended use of the chemical and restrictions in use:** For In-Vitro Diagnostic use.

**Name, address, and telephone number of the chemical manufacturer, importer, or other responsible party:**

Helena Laboratories  
1530 Lindbergh Dr. / P.O. Box 752  
Beaumont, TX 77704-0752  
Tel: (409) 842-3714  
USE Toll Free 800-231-5663

**Emergency phone number:**  
(409) 842-3714

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**2. HAZARD IDENTIFICATION****Classification of the chemical:**

Component Name	GHS Classification	Hazard Statement
Stopping Solution	Eye/Skin irritation (Category 2)	Irritant
Substrate Solution	Eye/Skin irritation (Category 3)	Irritant
ELISA Reference Plasma (Human)		Biohazard

**NOTE: All other components present no significant physical or chemical hazard.**

**Label elements:**

**Signal word:** Warning

**Precautionary statements:**

**Skin:** May cause skin irritation.

**Eye:** May cause eye irritation.

**Inhalation:** May be harmful if inhaled.

**Ingestion:** Harmful if swallowed.

Wear protective gloves, protective clothing, eye and face protection.

**3. COMPOSITION/INFORMATION ON INGREDIENTS**

Component Name	Chemical Name	CAS #	Concentration
Stopping Solution	Sulfuric Acid	7664-93-9	1.0%
Substrate Solution	3,3,5,5-Tetramethylbenzidine	54827-17-7	<3%

**NOTE: All other components present no significant physical or chemical hazard.**

**4. FIRST AID MEASURES****Description of first aid measures:**

**Inhalation:** If adverse effects occur, remove to uncontaminated area. Give artificial respiration if not breathing. Get immediate medical attention.

**Skin contact:** Wash off with soap and plenty of water. If skin irritation occurs, get medical attention. Take off contaminated clothing.

**Eye contact:** Immediately flush eyes with plenty of water for at least 15 minutes. Consult a physician.

**Ingestion:** If swallowed rinse mouth with water. Consult a physician.

## 5. FIREFIGHTING MEASURES

**Extinguishing media:** Use water spray, alcohol-resistant foam, dry chemical or carbon dioxide.

**Special hazards arising from the substance or mixture:** Slight fire hazard.

**Special protective equipment and precautions for firefighters:** Wear proper protective equipment and self contained breathing apparatus for firefighting if necessary.

## 6. ACCIDENTAL RELEASE MEASURES

**Personal precautions, protective equipment, and emergency procedures:** Wear personal protective equipment. Evacuate personnel to safe areas. Collect spilled material and transfer to container for proper disposal.

**Methods and materials for containment and cleaning up:** Do not allow material to enter drains/surface water/ground water. Ventilate the area.

## 7. HANDLING AND STORAGE

**Precautions for safe handling:** Wear personal protective equipment; do not inhale, avoid contact with skin and eyes.

**Conditions for safe storage, including any incompatibilities:** Keep containers tightly closed and store at 2-8°C.

## 8. EXPOSURE CONTROLS/PERSONAL PROTECTION

**Exposure limits (AGGIH TLV & OSHA PEL):**

Chemical Name	AGGIH TLV	OSHA PEL
Sulfuric Acid	0.2 mg/m <sup>3</sup>	1 mg/m <sup>3</sup>
3,3,5,5-Tetramethylbenzidine	None listed	None listed

**NOTE: All other components present no significant physical or chemical hazard.**

**Exposure controls:**

**Respiratory protection:** Not required.

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**Skin protection:** Wear appropriate protective gloves and suitable protective clothing.

**Eye protection:** Wear appropriate safety glasses or goggles.

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

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## 9. PHYSICAL AND CHEMICAL PROPERTIES

Reagents are aqueous solutions and are color-coded by the addition of non-hazardous coloring agents to ease identification.

Phosphate Buffered Saline (PBS)

**Appearance:** Clear liquid

**Odor:** Not identified

Sample Diluent

**Appearance:** Blue liquid

**Odor:** Not identified

Free Protein S Conjugate

**Appearance:** Red liquid

**Odor:** Not identified

Substrate Solution

**Appearance:** Clear liquid

**Odor:** Not identified

Stopping Solution

**Appearance:** Clear liquid

**Odor:** Not identified

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ELISA Reference Plasma

**Appearance:** Yellowish solid

**Odor:** Not identified

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## 10. STABILITY AND REACTIVITY

**Reactivity:** Not normally reactive

**Chemical stability:** Stable under normal condition

**Possibility of hazard reaction:** Hazardous polymerization does not occur

**Conditions to avoid:** None reported

**Incompatible materials:** None reported

**Hazard decomposition products:** Nature of decomposition products not known.

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## 11. TOXICOLOGICAL INFORMATION

### Information on likely routes of exposure:

The calculated ATE values:

**Stopping Solution LD50 Oral** >100000 mg/kg

See the following table for individual ingredient acute toxicity data

Chemical Name	LD 50 (oral, rat)
Sulfuric Acid	2140 mg/kg

**Carcinogenicity:** Not listed as carcinogens by AGGIH, IARC, OSHA or NTP.

### Potential health effects:

**Inhalation:** May be harmful if inhaled.

**Ingestion:** Harmful if swallowed.

**Skin:** May cause skin irritation

**Eye:** May cause eye irritation

**Potential Chronic Health Effects:** No information available.

**Other important toxicological hazards:** To the best of our knowledge, the chemical, physical and toxicological properties have not been thoroughly investigated.

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## 12. ECOLOGICAL INFORMATION

**Eco-toxicity:** No data available

**Persistence and degradability:** No data available

**Bio-accumulative potential:** No data available

**Mobility in soil:** No data available

**Other adverse effects:** No data available

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## 13. DISPOSAL CONSIDERATION

Observe all federal, state and local regulations.

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## 14. TRANSPORT INFORMATION

**DOT (US):** Not regulated

**UN number:**

**UN proper shipping name:**

**Transport hazard class:**

**Packing group:**

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## 15. REGULATORY INFORMATION

**US State Right to Know Laws:**

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

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## 16. OTHER INFORMATION

**SDS Creation date:** 8/28/2015

**Revision #:** 1

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**Disclaimer**

The above information is believed to be correct but does not purport to be all-inclusive and shall be used only as a guide. Helena Laboratories shall not be held liable for any damage resulting from handling or from contact with the above product.