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**SAFETY DATA SHEET**

**HELENA LABORATORIES**  
**1530 Lindbergh Dr.**  
**Beaumont, TX 77707**  
**USA Toll Free 800-231-5663**

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DATE PREPARED: 5/14/2024  
REVISION: 3

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**1. IDENTIFICATION**

**Product number: 3406W**

**Product identifier used on the label: SPIFE Immunofix-3 Kit**

**Other means of identification:**

<b>Component Name</b>	<b>Component Number</b>
552560, SPIFE IFE-3 Gel Kit	
SPIFE IFE-3 Gel	552557
552668, IFE Accessory Kit	
Acid Violet Stain	551758
Citric Acid Destain	551959
Clear Wash	552666
551832, SPIFE IFE-3 Antisera Kit	
SPIFE IFE-3 Protein Fixative	551833
Antiserum to Human IgG	551827
Antiserum to Human IgA	551828
Antiserum to Human IgM	551829
Antiserum to Human Kappa	551830
Antiserum to Human Lambda	551831

**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.  
Beaumont, TX 77707  
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
552560, SPIFE IFE-3 Gel Kit		
SPIFE IFE-3 Gel	Not Classified	Harmful if swallowed
552668, IFE Accessory Kit		
Citric Acid Destain	Eye/Skin (Category 2)	Irritant
551832, SPIFE IFE-3 Antisera Kit		
SPIFE IFE-3 Protein Fixative	Eye/Skin (Category 2)	Corrosive

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

**NOTE: Citric Acid Destain Solution is not hazardous (< 1%) when dissolved following instructions on label.**

**Label elements:**

**Signal word:** Warning

**Signal word:** Danger                      SPIFE IFE-3 Antisera Kit

**Precautionary statements:**

**Skin:** May cause skin irritation

**Eye:** May cause eye irritation

**Inhalation:** May be harmful if inhaled

**Ingestion:** May be harmful if swallowed

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

**3. COMPOSITION/INFORMATION ON INGREDIENTS**

Component Name	Chemical Name	CAS #	Concentration
SPIFE IFE-3 Gel	Sodium Barbital	144-02-5	1.3%
Citric Acid Destain	Citric Acid	77-92-9	100%
SPIFE IFE-3 Protein Fixative	5-Sulfosalicylic Acid	5965-83-3	< 5%
	Trichloroacetic Acid	76-03-9	< 3%

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

**NOTE: Citric Acid Destain Solution is not hazardous (< 1%) when dissolved following instructions on label.**

#### 4. FIRST AID MEASURES

**Description of first aid measures:**

**Inhalation:** Remove person to fresh air. If not breathing, give artificial respiration. Consult a physician.

**Skin contact:** Immediately 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:** Do not induce vomiting. Rinse mouth with water. Consult a physician.

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#### 5. FIREFIGHTING MEASURES

**Extinguishing media:** Water spray, dry chemical, carbon dioxide, or alcohol resistant foam.

**Special hazards arising from the substance or mixture:** Carbon dioxides, sulfur.

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

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#### 6. ACCIDENTAL RELEASE MEASURES

**Personal precautions, protective equipment, and emergency procedures:** Wear personal protective equipment. Evacuate personnel to safe areas. Soak up with inert absorbent 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.

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#### 7. HANDLING AND STORAGE

**Precautions for safe handling:** Wear personal protective equipment; avoid contact with skin and eyes.

**Conditions for safe storage, including any incompatibilities:** Store all kit components as per specified instructions.

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## 8. EXPOSURE CONTROLS/PERSONAL PROTECTION

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

Chemical Name	AGGIH TLV	OSHA PEL
Sodium Barbital	None listed	None listed
Citric Acid	None listed	None listed
5-Sulfosalicylic Acid	None listed	None listed
Trichloroacetic Acid	1 ppm	1 ppm

### Exposure controls:

**Respiratory protection:** Use NIOSH approved respirators.

**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

### SPIFE IFE-3 Gel

**Appearance:** Solid (gel)

**Odor:** None

**Odor threshold:** No data available

**pH:** Not applicable

**Melting point/Freezing point:** No data available

**Initial boiling point and range:** No data available

**Flash point:** No data available

**Evaporation rate:** No data available

**Flammability (solid, gas):** No data available

**Upper/lower flammability or explosive limits:** No data available

**Vapor pressure:** No data available

**Relative density:** No data available

**Solubility in water:** Soluble

**Partition coefficient: n-octanol/water:** No data available

**Auto-ignition temperature:** No data available

**Decomposition temperature:** No data available

**Viscosity:** No data available

### **Citric Acid Destain (Powder)**

**Appearance:** White crystalline powder

**Odor:** None

**Odor threshold:** No data available

**pH:** 1.8 at 50 g/L

**Melting point/Freezing point:** 153-159°C

**Initial boiling point and range:** No data available

**Flash point:** No data available

**Evaporation rate:** No data available

**Flammability (solid, gas):** No data available

**Upper/lower flammability or explosive limits:** No data available

**Vapor pressure:** No data available

**Relative density:** No data available

**Solubility in water:** Soluble

**Partition coefficient: n-octanol/water:** No data available

**Auto-ignition temperature:** No data available

**Decomposition temperature:** No data available

**Viscosity:** No data available

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**SPIFE IFE-3 Protein Fixative**

**Appearance:** Liquid

**Odor:** None

**Odor threshold:** No data available

**pH:** < 2

**Melting point/Freezing point:** No data available

**Initial boiling point and range:** No data available

**Flash point:** No data available

**Evaporation rate:** No data available

**Flammability (solid, gas):** No data available

**Upper/lower flammability or explosive limits:** No data available

**Vapor pressure:** No data available

**Relative density:** No data available

**Solubility in water:** Soluble

**Partition coefficient: n-octanol/water:** No data available

**Auto-ignition temperature:** No data available

**Decomposition temperature:** No data available

**Viscosity:** No data available

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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:** Avoid contact with incompatible materials and heat.

**Incompatible materials:** Oxidizing agents, strong bases

**Hazard decomposition products:** Hazard decomposition products formed under fire conditions:  
Carbon oxides

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## 11. TOXICOLOGICAL INFORMATION

**The calculated ATE value:**

SPIFE IFE-3 Gel LD50 oral = 50000 mg/kg

Citric Acid Destain Solution is not hazardous (< 1%) when dissolved following instructions on label.

SPIFE IFE-3 Protein Fixative LD50 oral = 58823 mg/kg

See the following table for individual ingredient acute toxicity data:

Chemical Name	LD 50 (oral, rat)
Sodium Barbital	600 mg/kg
5-Sulfosalicylic Acid	1850 mg/kg
Trichloroacetic Acid	3320 mg/kg

**Potential health effects:**

**Skin:** May cause skin irritation

**Eye:** May cause eye irritation

**Inhalation:** May be harmful if inhaled

**Ingestion:** May be harmful if swallowed

**Carcinogenicity:** Trichloroacetic Acid is listed as carcinogen by AGGIH, IARC, OSHA.

**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):**

**SPIFE IFE-3 Antisera Kit** – Regulated as Hazardous Material during transportation.

**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:**

SPIFE IFE-3 Gel: This product can expose you to Barbiturates, which is known to the State of California to cause developmental harm.

SPIFE Nexus IFE-3 Protein Fixative: This product can expose you to Trichloroacetic Acid, which is known to the State of California to cause cancer.

For more information, go to [www.p65warnings.ca.gov](http://www.p65warnings.ca.gov).

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**16. OTHER INFORMATION**

**SDS Creation date:** 10/8/2020

**Revision #:** 3

**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.