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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: 7

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**1. IDENTIFICATION**

**Product number: 2300**

**Product identifier used on the label: SPIFE 4000 IFE Kit**

**Other means of identification:**

<b>Component Name</b>	<b>Component Number</b>
552398, SPIFE 4000 IFE Gel Kit	
SPIFE 4000 IFE Gel	552486
Acid Violet Stain	551758
Citric Acid Destain	551959
Tris Buffered Saline	551715
Destain Additive	552538
552440, SPIFE 4000 IFE Antisera Kit	
SPIFE 4000 IFE Protein Fixative	552441
Antiserum to Human IgG	552439
Antiserum to Human IgA	552437
Antiserum to Human IgM	552438
Antiserum to Human Kappa	552436
Antiserum to Human Lambda	552435

**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
552398, SPIFE 4000 IFE Gel Kit		
SPIFE 4000 IFE Gel	Not Classified	Harmful if swallowed
Citric Acid Destain (Powder)	Eye/Skin (Category 2)	Irritant
Destain Additive	Eye/Skin (Category 4)	Irritant
552440, SPIFE 4000 IFE Antisera Kit		
SPIFE 4000 IFE Protein Fixative	Eye/Skin (Category 4)	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:**

SPIFE 4000 IFE Gel Kit: **Signal word:** Warning

SPIFE 4000 IFE Antisera Kit: SPIFE 4000 IFE Protein Fixative **Signal word:** Danger

**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 4000 IFE Gel	Sodium Barbital	144-02-5	1.3%
Citric Acid Destain	Citric Acid	77-92-9	100%
Destain Additive	Octylphenoxypolyethoxyethanol	9036-19-5	<10%
SPIFE 4000 IFE Protein Fixative	5-Sulfosalicylic Acid Trichloroacetic Acid	5965-83-3 76-03-9	<5% <3%

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

#### 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:** Keep containers tightly closed and store in a cool dry place.

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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
Octylphenoxy polyethoxy ethanol	None listed	10 mg/m <sup>3</sup>
5-Sulfosalicylic Acid	None listed	None listed
Trichloroacetic Acid	1 ppm	1 ppm

**Exposure controls:**

**Respiratory protection:** Use NOISH 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.

**9. PHYSICAL AND CHEMICAL PROPERTIES****SPIFE IFE 4000 Gel**

**Appearance:** Solid (gel)

**Odor:** None

**Odor threshold:** No data available

**pH:** 8-9

**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:** No data available

**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

**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

### **Destain Additive**

**Appearance:** Liquid

**Odor:** None

**Odor threshold:** No data available

**pH:** No data available

**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:** Complete

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

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

**Decomposition temperature:** No data available

**Viscosity:** No data available

### **SPIFE 4000 IFE Protein Fixative**

**Appearance:** Liquid

**Odor:** None

**Odor threshold:** No data available

**pH:** < 2

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**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****SPIFE 4000 IFE Gel**

The calculated ATE value: LD50 oral = 50000 mg/kg

Chemical Name	LD 50 (oral, rat)
Sodium Barbital	600 mg/kg

**Carcinogenicity:** No components are listed as carcinogens by AGGIH, IARC, OSHA or NTP.

**Skin:** May cause skin irritation

**Eye:** May cause eye irritation

**Ingestion:** Harmful if swallowed

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

**Citric Acid Destain**

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

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

**Destain Additive**

The calculate ATE Value: LD50 oral = 25000 mg/kg (Category 4)

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

**Potential health effects:**

**Inhalation:** May be harmful if inhaled

**Ingestion:** May be harmful if swallowed

**Skin:** May cause skin irritation

**Eye:** May cause eye irritation

**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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**SPIFE 4000 IFE Protein Fixative**

**The calculated ATE value:** LD50 oral = 58823 mg/kg

<b>Chemical Name</b>	<b>LD 50 (oral, rat)</b>
5-Sulfosalicylic Acid	1850 mg/kg
Trichloroacetic Acid	3320 mg/kg

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

**Potential health effects:**

**Eye:** May cause eye irritation and possible burns

**Skin:** May cause skin irritation and possible burns

**Inhalation:** May be harmful if inhaled

**Ingestion:** May be harmful if swallowed

**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 4000 IFE Gel Kit** - Not regulated

**SPIFE 4000 IFE Antisera Kit** - Regulated as Hazardous Material during transportation.

**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:**

**SPIFE 4000 IFE Gel:** This product can expose you to Barbiturates, which is known to the State of California to cause developmental harm.

**SPIFE 4000 IFE 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:** 10/16/2013

**Revision #:** 7

**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.