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**SAFETY DATA SHEET**

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

DATE PREPARED: 2/2/2024

REVISION: 5

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**1. IDENTIFICATION****Product number: 3457****Product identifier used on the label: SPIFE IFE-9 Pentavalent Kit****Other means of identification:**

<b>Component Name</b>	<b>Component Number</b>
552563, SPIFE IFE-9 Gel Kit	
SPIFE IFE-9 Gel	552537
Acid Violet Stain	551758
Citric Acid Destain	551959
Tris Buffered Saline	551715
552229, SPIFE IFE-9 Pentavalent Antisera Kit	
SPIFE IFE-9 Pentavalent Fixative	552232
SPIFE IFE-9 Pentavalent Antisera	552234

**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
552563, SPIFE IFE-9 Gel Kit		
SPIFE IFE-9 Gel	Not Classified	Harmful if swallowed
Citric Acid Destain (Powder)	Eye/Skin (Category 2)	Irritant
Tris Buffered Saline	Eye/Skin (Category 2))	Irritant
552229, SPIFE IFE-9 Pentavalent Antisera Kit		
SPIFE IFE-9 Pentavalent 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:

SPIFE IFE-9 Gel Kit: **Signal word:** Warning

SPIFE IFE-9 Pentavalent Antisera Kit: **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 IFE-9 Gel	Sodium Barbital	144-02-5	1.3%
Citric Acid Destain	Citric Acid	77-92-9	100%
Tris Buffered Saline	Trizma Base	77-86-1	40%
SPIFE IFE-9 Pentavalent Fixative	5-Sulfosalicylic Acid	5965-83-3	4%
	Trichloroacetic Acid	76-03-9	6.7%
	Guanidine Hydrochloride	50-01-1	1.7%

#### 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
Trizma Base	None listed	None listed
5-Sulfosalicylic Acid	None listed	None listed
Trichloroacetic Acid	1 ppm	None listed
Guanidine Hydrochloride	None listed	None listed

**Exposure controls:**

**Respiratory protection:** Use NOISH approved respirators if necessary.

**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-9 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

**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

#### **Tris Buffered Saline**

**Appearance:** White crystalline powder

**Odor:** None

**Odor threshold:** No data available

**pH:** 8.2-8.8 (when dissolved following instructions on label)

**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

#### **SPIFE IFE-9 Pentavalent Fixative**

**Appearance:** Liquid

**Odor:** None

**Odor threshold:** No data available

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**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-9 Gel LD50 oral = 50000 mg/kg

Citric Acid Destain (Powder) LD50 oral = 5040 mg/kg

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

Tris Buffered Saline LD50 oral = 7692 mg/kg

SPIFE IFE-9 Pentavalent Fixative LD50 oral = 16667 mg/kg

See the following table for individual ingredient acute toxicity data:

Chemical Name	LD 50 (oral, rat)
Sodium Barbital	600 mg/kg
Citric Acid	5040 mg/kg
Trizma Base	>3000 mg/kg
5-Sulfosalicylic Acid	2450 mg/kg
Trichloroacetic Acid	3320 mg/kg
Guanidine Hydrochloride	475 mg/kg

**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**Carcinogenicity:** No components are listed as carcinogens by AGGIH, IARC, OSHA or NTP.**Other important toxicological hazards:** To the best of our knowledge, the chemical, physical and toxicological properties have not been thoroughly investigated.**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



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**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-9 Gel Kit** - Not regulated

**SPIFE IFE-9 Pentavalent 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:** This product does not contain a chemical known to the State of California to cause cancer, birth defects or other reproductive harm.

**Other US State "Right to Know" List: The following chemicals are listed by individual States:**

Citric Acid (PA, NJ)

Trizma Base (PA, NJ)

Guanidine Hydrochloride (PA, NJ)

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**16. OTHER INFORMATION**

**SDS Creation date:** 5/7/2014

**Revision #:** 5

**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.