

# Safety Data Sheet (SDS)

<i>Revision Number: 1.1</i>	<i>Last updated: April 2015</i>
<b>1. Product and Company Identification</b>	
<i>Product Name:</i>	<b>SensoLyte® Luminescent Alkaline Phosphatase Assay Kit *Luminometric*</b>
<i>Manufacturer/Supplier:</i>	AnaSpec, Inc. <a href="http://www.anaspec.com">www.anaspec.com</a> 34801 Campus Drive Fremont, CA 94555 Tel: 510-791-9560 Fax: 510-791-9572 Email: <a href="mailto:service@anaspec.com">service@anaspec.com</a>
<i>Catalog Number</i>	AS-72122
<i>Unit Size</i>	1 kit
<b>2. Hazards Identification</b>	
<i>Emergency Overview:</i>	
<i>GHS Hazard Classification:</i>	
<i>GHS Physical Hazards</i>	
Component A, B, C and D: Not flammable or combustible.	
Component E: Corrosive(Category 1A)	
<i>GHS Health and Environmental Hazards</i>	
Component A: Irritant to skin (Category 3)	
Component B and C: Irritant to eyes and skin	
Component D: Irritant to eyes and skin, Acute toxicity, oral	
Component E: Serious eye damage (Category 1)	
<i>GHS Signal Words:</i>	
Component A: Warning	
Component B and C: Not applicable	
Component D and E: Danger	
<i>GHS Hazard Statements:</i>	
Component A: H316 Causes mild skin irritation.	
Component B and C: Not applicable	
Component D: H302 Harmful if swallowed.	
H316 Causes mild skin irritation.	
H318 Causes serious eye damage.	
H411 Toxic to aquatic life with long lasting effects.	
Component E: H314 Causes severe skin burns and eye damage	
<i>GHS Precautionary Statements:</i>	
Component A,B and C: None	
Component D: P273 Avoid release to the environment.	
P280 Wear protective gloves/ eye protection/ face protection.	
P305 + P351 + P338 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.	

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Component E: - P280 Wear protective gloves/ protective clothing/ eye protection/ face protection.

P305 + P351 + P338 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.  
P310 .Immediately call a POISON CENTER or doctor/ physician.

*HMIS Classification:*

Component A:	Component B:	Component C:	Component D:	Component E:
Health hazard: 2	Health hazard: 0	Health hazard: 0	Health hazard: 2	Health hazard: 3
Flammability: 0	Flammability: 0	Flammability: 0	Flammability: 1	Flammability: 0
Physical hazards: 0	Physical hazards: 0	Physical hazards: 0	Physical hazards: 0	Physical hazards: 1

*NFPA Rating:*

Component A:	Component B:	Component C:	Component D:	Component E:
Health hazard: 2	Health hazard: 0	Health hazard: 0	Health hazard: 2	Health hazard: 3
Fire: 0	Fire: 0	Fire: 0	Fire: 1	Fire: 0
Reactivity hazard: 0	Reactivity hazard: 0	Reactivity hazard: 0	Reactivity hazard: 0	Reactivity hazard: 1

### **3. Composition / Information on Ingredients**

*Ingredients/Components:*

<i>Chemical Name:</i>	<i>Description</i>	<i>CAS Number:</i>
Component A	Proprietary	NA
Component B	Proprietary	NA
Component C	Proprietary(contains 2 mM sodium azide)	NA
Component D	Triton X-100	9002-93-1
Component E	Proprietary	1310-73-2

### **4. First Aid Measures**

#### **General advice**

Consult a physician. Show this safety data sheet to the doctor in attendance. Move out of dangerous area.

#### **Component A,B and C**

*Inhalation:* If inhaled, remove to fresh air. If breathing becomes difficult, call a physician.

*Ingestion:* If swallowed, wash out mouth with water provided person is conscious. Call a physician.

*Skin:* In case of contact, immediately wash skin with soap and copious amounts of water.

*Eyes:* In case of contact with eyes, flush with copious amounts of water for at least 15 minutes. Assure adequate flushing by separating the eyelids with fingers. Call a physician.

#### **Component D**

*Inhalation:* If breathed in, move person into fresh air. If not breathing, give artificial respiration. Consult a physician.

*Skin:* Wash off with soap and plenty of water. Consult a physician

*Eyes:* Rinse thoroughly with plenty of water for at least 15 minutes and consult a physician.

*Ingestion:* Never give anything by mouth to an unconscious person. Rinse mouth with water. Consult a physician.

#### **Component E**

*Inhalation:* If breathed in, move person into fresh air. If not breathing, give artificial respiration. Consult a physician.

*Skin:* Take off contaminated clothing and shoes immediately. Wash off with soap and plenty of water. Consult a physician.

*Eyes:* Rinse thoroughly with plenty of water for at least 15 minutes and consult a physician. Continue rinsing eyes during transport to hospital.

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*Ingestion:* Do NOT induce vomiting. Never give anything by mouth to an unconscious person. Rinse mouth with water. Consult a physician.

### **5. Fire Fighting Measures**

<i>Extinguishing media:</i>	<b>Component A, B, C and D:</b> Water, Foam, Dry chemical, CO <sub>2</sub> . <b>Component E:</b> Use water spray, alcohol resistant foam, dry chemical, or carbon dioxide
<i>Special firefighting procedures:</i>	<b>Component A:</b> Use respirator and protective clothing. Toxic fumes could be emitted when water is evaporated with fire. <b>Component B:</b> Not applicable <b>Component C:</b> Not applicable <b>Component D and E:</b> Wear self-contained breathing apparatus (SCBA) if necessary.
<i>Unusual fire and explosions hazards:</i>	<b>Component A, B and C:</b> Not applicable <b>Component B:</b> Not Applicable <b>Component D:</b> Hazardous decomposition products formed under fire conditions - Carbon oxides <b>Component E:</b> Hazardous decomposition products formed under fire conditions - Sodium oxides

### **6. Accidental Release Measures**

<i>Containment and spill response</i>	<b>Component A, B and C:</b> Contain spill, then clean up with copious amounts of soap and water. Avoid contact with skin or clothing. <b>Component D and E:</b> Avoid breathing vapors, mist or gas. Ensure adequate ventilation. Evacuate personnel to safe areas
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<i>PPE</i>	Use personal protective equipment
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### **7. Handling and Storage**

<p><b>Component A:</b> <i>Handling:</i> Keep container tightly closed in a dry and well-ventilated place. <i>Storage:</i> Keep tightly closed. Store at 2-8°C</p> <p><b>Component B:</b> <i>Handling:</i> Keep container tightly closed in a dry and well-ventilated place. Containers which are opened must be carefully resealed and kept upright to prevent leakage. <i>Storage:</i> Recommended storage temperature: 2 - 8 °C</p> <p><b>Component C:</b> <i>Handling:</i> Keep container tightly closed in a dry and well-ventilated place. Containers which are opened must be carefully resealed and kept upright to prevent leakage. <i>Storage:</i> Recommended storage temperature: 2 - 8 °C</p> <p><b>Component D:</b> <i>Handling:</i> Avoid contact with skin and eyes. Avoid inhalation of vapor or mist. <i>Storage:</i> Keep container tightly closed in a dry and well-ventilated place. Containers which are opened must be carefully resealed and kept upright to prevent leakage.</p> <p><b>Component E:</b> <i>Handling:</i> Avoid inhalation of vapor or mist.</p>
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*Storage:* Keep container tightly closed in a dry and well-ventilated place. Containers which are opened must be carefully resealed and kept upright to prevent leakage.

### **8. Exposure Controls / Personal Protection**

<i>Engineering controls</i>	<b>Component A:</b> Safety shower and eye bath. Mechanical exhaust required. <b>Component B, C and D:</b> Contains no substances with occupational exposure limit values. <b>Component E:</b> Use only with adequate ventilation. If user operations generate dust, fumes, vapor or mist, use process enclosures, local exhaust ventilation or other engineering controls to keep worker exposure to airborne contaminants below any recommended or statutory limits.
<i>PPE</i>	Wear goggles, gloves and lab coat when handling this product.

### **9. Physical and Chemical Properties**

<i>Physical State</i>	Liquid
<i>Odo</i>	Not determined
<i>Solubility in Water</i>	Soluble
<i>Specific Gravity</i>	Not determined
<i>pH</i>	Component B :7.4
<i>Boiling Point</i>	Not determined
<i>Melting Point</i>	Not determined
<i>Flash Point</i>	Not determined
<i>Vapor Pressure:</i>	Not determined
<i>Vapor Density:</i>	Not determined

### **10. Stability and Reactivity**

<i>Thermal Decomposition</i>	Not applicable
<i>Dangerous Products of Decomposition</i>	Not Applicable
<i>Dangerous Reactions</i>	Not Applicable

### **11. Toxicological Information**

<i>RTECS Number</i>	<b>Component A,B,C and E:</b> NA <b>Component D:</b> MD0907700
<i>Toxicity</i>	<b>Component A, B and C:</b> Not available <b>Component D:</b> <b>Oral LD50</b> LD50 Oral - rat - female - 707 mg/kg LD50 Oral - rat - male - 500 mg/kg <b>Inhalation LC50</b> no data available <b>Dermal LD50</b> LD50 Dermal - rabbit - 8,000 mg/kg <b>Other information on acute toxicity</b> no data available <b>Component E:</b>

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	<p>Dermal LD50: Corrosive  Oral LD50: 400 mg/kg (rabbit) LDLo [PB 234-899 1974]  Inhalation LC50: Corrosive  <b>TARGET ORGANS:</b> Skin, eyes, mucous membranes  Acute effects from overexposure: Sodium hydroxide is corrosive and may produce severe eye, skin and respiratory tract irritation and upper gastrointestinal tract damage.  Ingestion of concentrated solutions has caused death in animals and humans. [Gosselin, Smith &amp; Hodge, 1984; PB 234-899 1974]  Chronic effects from overexposure: Sodium hydroxide may produce inflammation of the eyes, skin, and mucous membranes. Esophageal carcinoma at the site of a chronic lye stricture has been reported. (Gosselin, Smith &amp; Hodge 1984)</p>
<i>Health Hazards</i>	<i>No data available</i>
<i>Potential Hazards</i>	<p><b>Potential Health Effects</b>  <b>Component A,B ,C and D:</b>  Inhalation: May be harmful if inhaled. May cause respiratory tract irritation.  Ingestion: May be harmful if swallowed.  Skin: May be harmful if absorbed through skin. May cause skin irritation.  Eyes: May cause eye irritation  <b>Component E:</b>  Inhalation: May be harmful if inhaled. Material is extremely destructive to the tissue of the mucous membranes and upper respiratory tract.  Ingestion: May be harmful if swallowed.  Skin: May be harmful if absorbed through skin. Causes skin burns.  Eyes: Causes eye burns. Causes severe eye burns.  <b>Signs and Symptoms of Exposure</b>  Material is extremely destructive to tissue of the mucous membranes and upper respiratory tract, eyes, and skin.  Inhalation of vapors may cause:, spasm, inflammation and edema of the bronchi, spasm, inflammation and edema of the larynx, Symptoms of exposure may include burning sensation, coughing, wheezing, laryngitis, shortness of breath, headache, nausea, and vomiting.</p>
<i>Carcinogenicity:</i>	N/A
<i>OSHA Permissible Exposure Limit(PEL) Data</i>	No data available
<i>ACGIH Threshold Limit Values (TLV)</i>	No data available
<p><b>12.Ecological Information</b>  <b>Component A,B and C:</b> No data available  <b>Component D</b>  <b>Toxicity</b>  Toxicity to fish LC50 - Pimephales promelas (fathead minnow) - 8.9 mg/l - 96.0 h  Toxicity to daphnia and other aquatic invertebrates</p>	

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EC50 - Daphnia - 26 mg/l - 48 h

**Persistence and degradability**

Biodegradability Biotic/Aerobic Biochemical oxygen demand

Result: 36 % - Not readily biodegradable.

Method: Closed Bottle test

**Bioaccumulative potential**

no data available

**Mobility in soil**

no data available

**PBT and vPvB assessment**

no data available

**Other adverse effects**

Chemical Oxygen

Demand (COD)

2.19 mg/g

An environmental hazard cannot be excluded in the event of unprofessional handling or disposal.

**Component E**

**Toxicity**

Bluegill sunfish: 48-hour LC50 = 99 mg/L

Mosquito fish: 96-hour LC50 = 125 mg/L

Brown shrimp (Crangon crangon): 48-hour LC50 = 30 - 100 mg/L

**13. Disposal Considerations**

**Component A, B, C and D:** Offer surplus and non-recyclable solutions to a licensed disposal company.

**Component E:** Offer surplus and non-recyclable solutions to a licensed disposal company. Contact a licensed professional waste disposal service to dispose of this material. Dissolve or mix the material with a combustible solvent and burn in a chemical incinerator equipped with an afterburner and scrubber.

**Contaminated packaging**

Dispose of as unused product

**14. Transport Information:**

<i>UN Number</i>	3316
<i>Hazard Class</i>	9
<i>Identification Number</i>	N/A
<i>Packing Group</i>	III
<i>Proper Shipping Name (DOT)</i>	Chemical kit

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<b>15. Regulatory information</b>				
<i>California Proposition 65:</i>		None		
US TSCA (Toxic Substance Control Act):		Not listed		
<i>US CERCLA (Comprehensive Environmental Response, Compensation, and Liability Act)</i>		Not listed		
US SARA Title III		<p><b>Component A:</b> SARA 302 components: N/A SARA 313 components: N/A SARA 311/312 Hazards: Acute Health Hazard</p> <p><b>Component B and C</b> SARA 302 components: N/A SARA 313 components: N/A SARA 311/312 Hazards: N/A</p> <p><b>Component D</b> SARA 302 components: N/A SARA 313 components: N/A SARA 311/312 Hazards: Acute Health Hazard</p> <p><b>Component E</b> SARA 302 components: N/A SARA 313 components: N/A SARA 311/312 Hazards: Acute Health Hazard</p>		
US Clean Air Act:		<p><b>Component A, B, C, D and E</b> <i>Listed under Hazardous Air Pollutants: Not listed</i> <i>Listed under Class 1 Ozone Depletors: Not listed</i> <i>Listed under Class 2 Ozone Depletors: Not listed</i></p>		
<i>US Clean Water Act:</i>		<p><b>Components A, B, C, D and E</b> Listed under "Hazardous Substances": Not listed <i>Listed under "Priority Pollutants": Not listed</i> Listed under "Toxic Pollutants": Not listed</p>		
<b><i>US States: Right-to-Know: Listed in the following States:</i></b>				
Component A:	Component B:	Component C:	Component D:	Component E:
NA	Pennsylvania Revision Date: NA	Pennsylvania	Pennsylvania Revision Date :NA	Pennsylvania Revision Date: NA
NA	New Jersey Revision Date: NA	New Jersey	New Jersey Revision Date: NA	New Jersey Revision Date: NA
NA	NA	NA	NA	Massachusetts Revision Date 2007-03-01

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**European/International Regulations:**

	Component A	Component B	Component C	Component D	Component E
EC EINICS	N/A	N/A	N/A	N/A	215-185-5
<i>EC Risk statements</i>	N/A	N/A	N/A	N/A	35
<i>WGK</i>	1	1	1	1	1
<i>Canada-DSL/NDSL</i>	Not Listed	Not listed	Not listed	Listed	Listed
<i>Canada-WHMIS classification</i>	N/A	N/A	N/A	D2B	E
<i>Canada-Canadian Ingredient Disclosure List</i>	N/A	Listed	Listed	Listed	Listed

**16. Other Information**

It is not intended for food, drug, household, agricultural or cosmetic use. A technically qualified individual experienced in handling potentially hazardous chemicals must supervise its use. The above information is believed to be correct but does not purport to be all-inclusive and shall be used only as a guide. Users should make independent decisions regarding completeness of the information based on all sources available. AnaSpec shall not be held liable for any damage resulting from handling or from contact with the above product.

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