

Safety Data Sheet (SDS)

Revision Number: 1.0

Last updated: October 2013

1. Product and Company Identification

Product Name:	SensoLyte® pNPP Secreted Alkaline Phosphatase Reporter Gene Assay *Colorimetric*
Manufacturer/Supplier:	AnaSpec, Inc. www.anaspec.com 34801 Campus Drive Fremont, CA 94555 Tel: 510-791-9560 Fax: 510-791-9572 Email: service@anaspec.com
Catalog Number	72144
Unit Size	1 kit

2. Hazards Identification

Emergency Overview:

GHS Hazard Classification:

GHS Physical Hazards

Component A, B D and E: Not flammable or combustible.
Component C: Corrosive(Category 1A)

GHS Health and Environmental Hazards

Component A: Not Applicable
Component B and E: Irritant to eyes and skin
Component C: Serious eye damage (Category 1)
Component D: Irritant to eyes and skin, Acute toxicity, oral

GHS Signal Words:

Component A,B and E: Not applicable
Component C and D: Danger

GHS Hazard Statements:

Component A,B and E: Not applicable
Component C: H314 Causes severe skin burns and eye damage
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.

GHS Precautionary Statements:

Component A,B and E: None
Component C: - 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.
Component D: P273 Avoid release to the environment.

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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.

HMIS Classification:

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

NFPA Rating:

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

3. Composition / Information on Ingredients

Ingredients/Components:

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

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 E

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 C

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.

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

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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.

5. Fire Fighting Measures

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

6. Accidental Release Measures

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

7. Handling and Storage**Component A:**

Handling: User Exposure: Avoid inhalation. Avoid contact with eyes, skin, and clothing. Avoid prolonged or repeated exposure.

Storage: Keep tightly closed. Store at 2-8°C

Component B:

Handling: 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.

Storage: Recommended storage temperature: 2 - 8 °C

Component C:

Handling: Avoid inhalation of vapor or mist.

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.

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Component D:

Handling: Avoid contact with skin and eyes. Avoid inhalation of vapor or mist.

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.

Component E:

Handling: 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.

Storage: Recommended storage temperature: 2 - 8 °C

8. Exposure Controls / Personal Protection

<i>Engineering controls</i>	Component A: Safety shower and eye bath. Mechanical exhaust required. Component B, D and E: Contains no substances with occupational exposure limit values. Component C: 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>	Component A:100 ⁰ C
<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>	Component A,B,C and E: NA Component D: MD0907700
<i>Toxicity</i>	Component A, B and E: Not available Component C: Dermal LD50: Corrosive Oral LD50: 400 mg/kg (rabbit) LDLo [PB 234-899 1974] Inhalation LC50: Corrosive TARGET ORGANS: Skin, eyes, mucous membranes

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	<p>Acute effects from overexposure: Sodium hydroxide is corrosive and may produce severe eye, skin and respiratory tract irritation and upper gastrointestinal tract damage.</p> <p>Ingestion of concentrated solutions has caused death in animals and humans. [Gosselin, Smith & Hodge, 1984; PB 234-899 1974]</p> <p>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 & Hodge 1984)</p> <p>Component D:</p> <p>Oral LD50</p> <p>LD50 Oral - rat - female - 707 mg/kg</p> <p>LD50 Oral - rat - male - 500 mg/kg</p> <p>Inhalation LC50</p> <p>no data available</p> <p>Dermal LD50</p> <p>LD50 Dermal - rabbit - 8,000 mg/kg</p> <p>Other information on acute toxicity</p> <p>no data available</p>
<i>Health Hazards</i>	<i>No data available</i>
<i>Potential Hazards</i>	<p>Potential Health Effects</p> <p>Component A,B ,D and E:</p> <p>Inhalation: May be harmful if inhaled. May cause respiratory tract irritation.</p> <p>Ingestion: May be harmful if swallowed.</p> <p>Skin: May be harmful if absorbed through skin. May cause skin irritation.</p> <p>Eyes: May cause eye irritation</p> <p>Component C:</p> <p>Inhalation: May be harmful if inhaled. Material is extremely destructive to the tissue of the mucous membranes and upper respiratory tract.</p> <p>Ingestion: May be harmful if swallowed.</p> <p>Skin: May be harmful if absorbed through skin. Causes skin burns.</p> <p>Eyes: Causes eye burns. Causes severe eye burns.</p> <p>Signs and Symptoms of Exposure</p> <p>Material is extremely destructive to tissue of the mucous membranes and upper respiratory tract, eyes, and skin.</p> <p>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

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12. Ecological Information**Component A, B and E:** No data available**Component C****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

Component D**Toxicity**

Toxicity to fish LC50 - Pimephales promelas (fathead minnow) - 8.9 mg/l - 96.0 h

Toxicity to daphnia and other aquatic invertebrates

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.

13. Disposal Considerations**Component A, B, D and E:** Offer surplus and non-recyclable solutions to a licensed disposal company.**Component C:** 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: IATA Exempted quantities labeling

<i>UN Number</i>	N/A
<i>Hazard Class</i>	3
<i>Identification Number</i>	N/A
<i>Packing Group</i>	N/A
<i>Proper Shipping Name (DOT)</i>	N/A

15. Regulatory information

<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	Component A, B and E SARA 302 components: N/A SARA 313 components: N/A SARA 311/312 Hazards: N/A

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	Component C SARA 302 components: N/A SARA 313 components: N/A SARA 311/312 Hazards: Acute Health Hazard Component D SARA 302 components: N/A SARA 313 components: N/A SARA 311/312 Hazards: Acute Health Hazard				
US Clean Air Act:	Component A, B, C, D and E <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> Components A, B, C, D and E Listed under “Hazardous Substances”: Not listed <i>Listed under “Priority Pollutants”: Not listed</i> Listed under “Toxic Pollutants”: Not listed				
US Clean Water Act:					
US States: Right-to-Know: Listed in the following States:					
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	Massachusetts Revision Date 2007-03-01	NA	NA	
European/International Regulations:					
	Component A	Component B	Component C	Component D	Component E
EC EINICS	N/A	N/A	215-185-5	N/A	N/A
EC Risk statements	N/A	N/A	35	N/A	N/A
WGK	1	1	1	1	1
Canada- DSL/NDSL	Not Listed	Not listed	Listed	Listed	Not listed
Canada- WHMIS classification	N/A	N/A	E	D2B	N/A
Canada- Canadian Ingredient Disclosure List	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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