

Safety Data Sheet (SDS)

<i>Revision Number: 1.1</i>	<i>Last updated: April 2015</i>
<u>1. Product and Company Identification</u>	
<i>Product Name:</i>	SensoLyte[®] NADP/NADPH Assay Kit *Colorimetric*
<i>Manufacturer/Supplier:</i>	AnaSpec, Inc. www.anaspec.com 34801 Campus Drive Fremont, CA 94555 Tel: 510-791-9560 Fax: 510-791-9572 Email: service@anaspec.com
<i>Catalog Number</i>	AS-72205
<i>Unit Size</i>	1 kit
<u>2. Hazards Identification</u>	
<i>Emergency Overview:</i>	
<i>GHS Hazard Classification:</i>	
<i>GHS Physical Hazards :</i>	
<p>Component A and B: Skin Irritant 2 Eye Irritant 2 Germ Cell Mutagenicity 1B Component C, D E, F: Not flammable or combustible. Component G: Skin Irritant Component H: Flammable liquid, Target Organ Effect, Irritant</p>	
<i>GHS Health and Environmental Hazards</i>	
<p>Component A and B: Irritant to eyes, skin Component C: Irritant to eyes and skin Component D ,E and F: Irritant to eyes</p> <p>Component G: Skin irritation (Category 3) Component H: Flammable liquid (Category 2) Skin irritation (Category 3) Eye irritation (Category 2A) Specific target organ toxicity - single exposure (Category 3)</p>	
<i>GHS Signal Words:</i>	
<p>Component A and B: Warning Component C ,D E and F: Not applicable Component H: Danger</p>	
<i>GHS Hazard Statements:</i>	
<p>Component A and B: H315 Causes skin irritation. H319 Causes serious eye irritation. H335 May cause respiratory irritation. H341 Suspected of causing genetic defects.</p> <p>Component C,D ,E and F: Not applicable Component G: Warning Component H: H225 Highly flammable liquid and vapor. H316 Causes mild skin irritation. H319 Causes serious eye irritation. H336 May cause drowsiness or dizziness.</p>	
<i>GHS Precautionary Statements:</i>	
Component A and B: P261 Avoid breathing dust/ fume/ gas/ mist/ vapors/ spray.	

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P281 Use personal protective equipment as required.
 P305 + P351 + P338 IF IN EYES: Rinse cautiously with water for several minutes.
 Remove contact lenses, if present and easy to do. Continue rinsing.

Component C, D, E and F: P280 Wear Eye Protection

Component G: None

Component H: P210 Keep away from heat/sparks/open flames/hot surfaces. - No smoking.

P261 Avoid breathing dust/ fume/ gas/ mist/ vapors/ spray.

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 and B:	Component C and F:	Component D and E:	Component G:	Component H:
<i>Health hazard: 2</i>	<i>Health hazard: 0</i>	<i>Health hazard: 1</i>	<i>Health hazard: 0</i>	<i>Health hazard: 2</i>
<i>Flammability: 0</i>	<i>Flammability: 0</i>	<i>Flammability: 0</i>	<i>Flammability: 0</i>	<i>Flammability: 3</i>
<i>Physical hazards: 0</i>				

NFPA Rating:

Component A and B:	Component C and F:	Component D and E:	Component G:	Component H:
<i>Health hazard: 2</i>	<i>Health hazard: 0</i>	<i>Health hazard: 1</i>	<i>Health hazard: 0</i>	<i>Health hazard: 2</i>
<i>Fire: 0</i>	<i>Fire: 0</i>	<i>Fire: 0</i>	<i>Fire: 0</i>	<i>Fire: 3</i>
<i>Reactivity hazard: 0</i>				

3. Composition / Information on Ingredients

Ingredients/Components:

Chemical Name:	Description	CAS Number:
Reagent A	Proprietary	N/A
Reagent B	Proprietary	N/A
Assay Buffer	Proprietary	N/A
Enzyme Cycling Mix	Proprietary	N/A
NADP Standard	Proprietary	N/A
NADP Extraction Buffer	Proprietary	N/A
NADPH Extraction Buffer	Proprietary	NA
Stop solution	Proprietary	NA

4. First Aid Measures

All Components

Inhalation: If breathed in, move person into fresh air. Clear nose by blowing. Consult a physician.

Ingestion: Flush out the mouth with water and drink copious amounts of fresh water. Seek medical advice.

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. Consult a physician.

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<u>5. Fire Fighting Measures</u>	
<i>Extinguishing media:</i>	Component A, B, C, D, E, F and G: Water spray, carbon dioxide, dry chemical powder or appropriate foam. Prevent contact with skin and eyes. Component H: Use water spray, alcohol-resistant foam, dry chemical or carbon dioxide.
<i>Special firefighting procedures:</i>	Component A, B, C, D, E, F and G: Not applicable. Component H: Wear self-contained breathing apparatus for firefighting if necessary.
<i>Unusual fire and explosions hazards:</i>	Component A, B, C, D, E, F and G: Not applicable. Component H: Hazardous decomposition products formed under fire conditions – Carbon dioxides
<u>6. Accidental Release Measures</u>	
<i>Containment and spill response</i>	Component A, B, C, D, E, F and G: Wear respirator, chemical safety goggles, rubber boots and heavy rubber gloves. Spilled material should be carefully wiped up with water and removed. Component H: <i>Personal precautions:</i> Use personal protective equipment. Avoid breathing vapors, mist or gas. Ensure adequate ventilation. Evacuate personnel to safe areas. <i>Environmental precautions:</i> Prevent further leakage or spillage if safe to do so. Do not let product enter drains.
<i>PPE</i>	Wear suitable protective clothing, including gloves, safety glasses, dust mask, and a laboratory coat.
<u>7. Handling and Storage</u>	
Components: Upon receipt, keep the components at -20C except Component D at -80C	
<u>8. Exposure Controls / Personal Protection</u>	
<i>Engineering controls</i>	Safety shower and eye bath, mechanical exhaust required. Wash thoroughly after handling. Wash contaminated clothing before reuse. Avoid inhalation. Avoid contact with eyes, skin and clothing. Store as indicated on product label. Avoid prolonged or repeated exposure.
<i>PPE</i>	Wear suitable protective clothing, including gloves, safety glasses, dust mask, and a laboratory coat.
<u>9. Physical and Chemical Properties</u>	
<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 C: 8
<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
<u>10. Stability and Reactivity</u>	
<i>Thermal Decomposition</i>	Not applicable
<i>Dangerous Products of Decomposition</i>	Not Applicable

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Dangerous Reactions	Vapors may form explosive mixture with air.
11. Toxicological Information	
RTECS Number	Not available
Toxicity	<p>Component A and B:</p> <p><i>Oral LD50</i> No data available <i>Inhalation LC50</i> No data available <i>Dermal LD50</i> No data available <i>Skin corrosion/irritation</i> no data available <i>Serious eye damage/eye irritation</i> no data available <i>Respiratory or skin sensitization</i> no data available <i>Germ cell mutagenicity</i> <i>In vitro tests showed mutagenic effects</i> Genotoxicity in vitro - S. typhimurium – positive</p> <p>Component F:</p> <p><i>Oral LD50</i> LD50 Oral - rat - 5,045 mg/kg Remarks: Behavioral: Altered sleep time (including change in righting reflex). Behavioral: Somnolence (general depressed activity). <i>Inhalation LC50</i> LC50 Inhalation - rat - 8 h - 16000 ppm <i>Dermal LD50</i> LD50 Dermal - rabbit - 12,800 mg/kg <i>Other information on acute toxicity</i> no data available <i>Skin corrosion/irritation</i> Skin - rabbit - Mild skin irritation Serious eye damage/eye irritation Eyes - rabbit - Eye irritation - 24 h <i>Respiratory or skin sensitization</i> no data available <i>Germ cell mutagenicity</i> no data available <i>Carcinogenicity</i> This product is or contains a component that is not classifiable as to its carcinogenicity based on its IARC, ACGIH, NTP, or EPA classification.</p>
Health Hazards	No data available
Potential Hazards	<p>Components</p> <p>Inhalation: May be harmful if inhaled. Causes respiratory tract irritation. Ingestion: May be harmful if swallowed. Skin: May be harmful</p>
Carcinogenicity:	NA
OSHA Permissible Exposure Limit(PEL) Data	No data available
ACGIH Threshold Limit Values (TLV)	No data available

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12. Ecological Information:**Component H**

Toxicity

Toxicity to fish LC50 - Pimephales promelas (fathead minnow) - 9,640.00 mg/l - 96 h

Toxicity to daphnia and other aquatic invertebrates

EC50 - Daphnia magna (Water flea) - 5,102.00 mg/l - 24 h

Immobilization EC50 - Daphnia magna (Water flea) - 6,851 mg/l - 24 h

Toxicity to algae EC50 - Desmodesmus subspicatus (green algae) - > 2,000.00 mg/l - 72 h

EC50 - Algae - > 1,000.00 mg/l - 24 h

Persistence and degradability

no data available

Bio accumulative potential

no data available

Mobility in soil

no data available

PBT and vPvB assessment

no data available

Other adverse effects

no data available

*Other components:**Toxicity*

no data available

Persistence and degradability

no data available

Bioaccumulative potential

no data available

Mobility in soil

no data available

PBT and vPvB assessment

no data available

Other adverse effects

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

13. Disposal Considerations

Contact a licensed professional waste disposal service to dispose of this material. Observe all federal, state and local environmental regulations. When disposing of this reagent through lead or copper plumbing, flush with copious volumes of water to prevent azide buildup in drains.

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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15. Regulatory information																																	
California Proposition 65:	NA																																
US TSCA (Toxic Substance Control Act):	Component A,B,C: Listed																																
US CERCLA (<i>Comprehensive Environmental Response, Compensation, and Liability Act</i>):	Component A and B: Listed																																
US SARA Title III	Component A and B SARA 302 components: N/A SARA 313 components: N/A SARA 311/312 Hazards: Acute Health Hazard, Chronic Health Hazard Component C,D ,E ,F,and G: SARA 302 components: N/A SARA 313 components: N/A SARA 311/312 Hazards: N/A Component H SARA 302 components: NA SARA 313 components: Listed SARA 311/312 Hazards: Fire Hazard, Acute Health Hazard, Chronic Health Hazard																																
US Clean Air Act:	Component A, B, C, D, E F, G <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> Component H: <i>Listed under Hazardous Air Pollutants: Listed</i> <i>Listed under Class 1 Ozone Depletors: Not listed</i> <i>Listed under Class 2 Ozone Depletors: Not listed</i>																																
US Clean Water Act:	Components Listed under "Hazardous Substances": Not listed Listed under "Priority Pollutants": Not listed Listed under "Toxic Pollutants": Not listed																																
US States: Right-to-Know: Listed in the following States: <table border="1"> <thead> <tr> <th>Component A:</th> <th>Component B:</th> <th>Component C:</th> <th>Component D:</th> <th>Component E:</th> <th>Component F:</th> <th>Component G:</th> <th>Component H:</th> </tr> </thead> <tbody> <tr> <td>Pennsylvania Revision date</td> <td>Pennsylvania Revision date</td> <td>N/A</td> <td>N/A</td> <td>N/A</td> <td>N/A</td> <td><i>Pennsylvania Revision Date</i></td> <td>Pennsylvania Revision date 2007-07-01</td> </tr> <tr> <td>New Jersey Revision date</td> <td>New Jersey Revision date</td> <td>N/A</td> <td>N/A</td> <td>N/A</td> <td>N/A</td> <td><i>New Jersey Right</i></td> <td>New Jersey Revision date 2007-07-01</td> </tr> <tr> <td>N/A</td> <td>N/A</td> <td>N/A</td> <td>N/A</td> <td>N/A</td> <td>N/A</td> <td>N/A</td> <td><i>Massachusetts Revision Date 2007-07-01</i></td> </tr> </tbody> </table>		Component A:	Component B:	Component C:	Component D:	Component E:	Component F:	Component G:	Component H:	Pennsylvania Revision date	Pennsylvania Revision date	N/A	N/A	N/A	N/A	<i>Pennsylvania Revision Date</i>	Pennsylvania Revision date 2007-07-01	New Jersey Revision date	New Jersey Revision date	N/A	N/A	N/A	N/A	<i>New Jersey Right</i>	New Jersey Revision date 2007-07-01	N/A	<i>Massachusetts Revision Date 2007-07-01</i>						
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European/International Regulations:

	Component A:	Component B:	Component C:	Component D:	Component E:	Component F:	Component G:	Component H:
EC EINICS	N/A	200-661-7						
EC Risk statements	36/37/38	36/37/38	N/A	N/A	N/A	N/A	N/A	16/24/25/26
WGK	2	2	1	N/A	N/A	N/A	N/A	2
Canada-DSL/NDSL	Listed	Listed	Not listed	Not Listed	Not Listed	Not Listed	Not Listed	Listed
Canada-WHMIS classification	D2B	D2B	N/A	N/A	N/A	N/A	N/A	D2B
Canada-Canadian Ingredient Disclosure List	NA	NA	Listed	Not Listed	Not Listed	Not Listed	Not 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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