

Safety Data Sheet (MSDS)

Revision Number: 1.1	Last updated: January 2015
----------------------	----------------------------

1. Product and Company Identification

<i>Product Name:</i>	SensoLyte® 520 Renin Assay Kit *Fluorimetric*
<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-72040
<i>Unit Size</i>	1 kit

2. Hazards Identification

Emergency Overview:

GHS Hazard Classification:

GHS Physical Hazards

Component A,B,E: Flammable liquid (Category 4)

Component C,D: Not Applicable

GHS Health and Environmental Hazards

Component A,B,E: Irritant to eyes and skin

Component C: Not Applicable

Component D: Irritant to eyes and skin, Acute toxicity, oral

GHS Signal Words:

Component A,B,E: Warning

Component C,D: Not Applicable

GHS Hazard Statements:

Component A,B,E: H227 Combustible liquid

Component C,D: Not Applicable

GHS Precautionary Statements: None

HMIS Classification:

Component A:	Component B:	Component C:	Component D:	Component E:
<i>Health hazard: 0</i>	<i>Health hazard: 0</i>	<i>Health hazard: 0</i>	<i>Health hazard: 0</i>	<i>Health hazard: 0</i>
<i>Flammability: 2</i>	<i>Flammability: 2</i>	<i>Flammability: 0</i>	<i>Flammability: 0</i>	<i>Flammability: 2</i>
<i>Physical hazards: 0</i>	<i>Physical hazards: 0</i>	<i>Physical hazards: 0</i>	<i>Physical hazards: 0</i>	<i>Physical hazards: 0</i>

NFPA Rating:

Component A:	Component B:	Component C:	Component D:	Component E:
<i>Health hazard: 0</i>	<i>Health hazard: 0</i>	<i>Health hazard: 0</i>	<i>Health hazard: 0</i>	<i>Health hazard: 0</i>
<i>Fire: 2</i>	<i>Fire: 2</i>	<i>Fire: 0</i>	<i>Fire: 0</i>	<i>Fire: 2</i>
<i>Reactivity hazard: 0</i>	<i>Reactivity hazard: 0</i>	<i>Reactivity hazard: 0</i>	<i>Reactivity hazard: 0</i>	<i>Reactivity hazard: 0</i>

3. Composition / Information on Ingredients

Ingredients/Components:

<i>Chemical Name:</i>	<i>Description</i>	<i>CAS Number:</i>
Component A	Contains DMSO	67-68-5
Component B	Contains DMSO	67-68-5
Component C	Proprietary	NA
Component D	Proprietary	NA
Component E	Contains DMSO	67-68-5

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

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

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

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

Eyes: Flush eyes with water as a precaution.

Component B

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

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

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

Eyes: Flush eyes with water as a precaution.

Component C

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

Ingestion: Never give anything by mouth to an unconscious person. Rinse mouth with water.

Skin: Wash off with soap and plenty of water.

Eyes: Flush eyes with water as a precaution.

Component D

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

Ingestion: Never give anything by mouth to an unconscious person. Rinse mouth with water. 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.

Component E

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

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

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

Eyes: Flush eyes with water as a precaution.

AnaSpec Inc.

34801 Campus Drive, Fremont, CA 94555

Toll-Free: 800-452-5530 • Tel: 510-791-9560 • Fax: 510-791-9573

<u>5. Fire Fighting Measures</u>	
<i>Extinguishing media:</i>	<p>Component A, B and E: For small fires, use alcohol resistant foam, dry chemical, or carbon dioxide. For large fires, use water spray from a safe distance.</p> <p>Component C: Use water spray, alcohol resistant foam, dry chemical, or carbon dioxide</p> <p>Component D: Use extinguishing measures that are appropriate to local circumstances and environment.</p>
<i>Special firefighting procedures:</i>	<p>Component A, B and E: Fire fighters should wear positive pressure self-contained breathing apparatus (SCBA) and full turnout gear.</p> <p>Component C and D: Wear self-contained breathing apparatus (SCBA) if necessary.</p>
<i>Unusual fire and explosions hazards:</i>	<p>Component A, B and E: Combustible liquid and vapor. Vapors are heavier than air and may travel to a source of ignition and flash back. Vapors can spread along the ground and collect in low or confined areas. Hazardous carbon oxides and sulphur oxides formed under fire conditions.</p> <p>Component C: Hazardous carbon oxides, nitrogen oxides, hydrogen chloride gas formed under fire conditions.</p> <p>Component D: None</p>
<u>6. Accidental Release Measures</u>	
<i>Containment and spill response</i>	<p>Component A, B and E: Immediately contact emergency personnel. Prevent further leakage or spillage if safe to do so. Avoid breathing vapors or mist. Remove all sources of ignition and provide ventilation. Collect with an electrically protected vacuum cleaner, by wet-brushing, or by absorbing with vermiculite, sand or earth, and place in appropriate container for disposal. Do not let material enter drains.</p> <p>Component C and D: Do not let material enter drains. Keep in suitable, closed containers for disposal.</p>
<i>PPE</i>	Use personal protective equipment
<u>7. Handling and Storage</u>	
<p>Component A, B and E: <i>Handling:</i> Wash thoroughly after handling. Remove and wash any contaminated clothing. Keep container tightly closed and avoid contact with eyes, skin, and clothing. Use with adequate ventilation and avoid ingestion and inhalation. Keep away from heat and flame. <i>Storage:</i> Store in a tightly closed container away from moisture, heat, and flame. Store away from incompatible substances. Storage under a nitrogen blanket has been recommended.</p> <p>Component C: <i>Storage:</i> Store in a tightly closed container away from moisture. Use well-ventilated place. Hygroscopic.</p> <p>Component D: <i>Handling:</i> Avoid contact with eyes and skin. <i>Storage:</i> Store in a tightly closed container away from moisture. Use well-ventilated place.</p>	

AnaSpec Inc.

34801 Campus Drive, Fremont, CA 94555

Toll-Free: 800-452-5530 • Tel: 510-791-9560 • Fax: 510-791-9573

8. Exposure Controls / Personal Protection	
<i>Engineering controls</i>	Component A, B and E: Facilities storing and using this material should be equipped with a safety shower and eyewash station. Adequate ventilation should also be present. Component C and D: Not applicable.
<i>PPE</i>	Component A, B, and E: <i>Respiratory System:</i> A respiratory protection program that meets OSHA's 29 CFR 1910.134 and ANSI Z88.2 requirements or European Standard EN 149 must be followed whenever workplace conditions warrant respirator use. <i>Skin and Body:</i> Wear appropriate work uniform or laboratory coat to prevent skin exposure. <i>Hands:</i> Use chemical resistant, impervious gloves. Appropriate techniques should be used to remove potentially contaminated gloves. <i>Eyes:</i> Wear chemical splash goggles. Component C and D: <i>Respiratory System:</i> Respiratory protection is not required. <i>Skin and Body:</i> Wear appropriate work uniform or laboratory coat. <i>Hands:</i> Use gloves. Appropriate techniques should be used to remove potentially contaminated gloves. <i>Eyes:</i> Wear chemical splash goggles.
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 C – 8.0 Component D - 6.5
<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>	Component A: PV6210000 Component B: PV6210000 Component C: NA Component D: NA Component E: PV6210000

AnaSpec Inc.

34801 Campus Drive, Fremont, CA 94555

Toll-Free: 800-452-5530 • Tel: 510-791-9560 • Fax: 510-791-9573

<i>Toxicity</i>	<p><i>Component A, Component B and Component E contain DMSO.</i></p> <p>For DMSO</p> <p>Oral LD50 LD50 Oral - rat - 14,500 mg/kg</p> <p>Inhalation LC50 LC50 Inhalation - rat - 4 h - 40250 ppm</p> <p>Dermal LD50 LD50 Dermal - rabbit - > 5,000 mg/kg</p> <p><i>Component C</i></p> <p>Oral LD50 – N/A Inhalation LC50 – N/A Dermal LD50 – N/A</p> <p>Serious eye damage/eye irritation Eyes – rabbit – mild eye irritation</p> <p><i>Component D</i></p> <p>Oral LD50 - rat - 3,000 mg/kg Inhalation LC50 - rat - 1 h - > 42,000 mg/m³ Dermal LD50 - rabbit - > 10,000 mg/kg Skin - rabbit - Mild skin irritation - 24 h Eyes - rabbit - Mild eye irritation - Draize Test</p>
<i>Health Hazards</i>	<i>No data available</i>
<i>Potential Hazards</i>	<p>Potential Health Effects</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>Aggravated Medical Condition: Avoid contact with DMSO solutions containing toxic materials or materials with unknown toxicological properties. Dimethyl sulfoxide is readily absorbed through skin and may carry such materials into the body.</p>
<i>Carcinogenicity:</i>	No data available
<i>OSHA Permissible Exposure Limit(PEL) Data</i>	No data available
<i>ACGIH Threshold Limit Values (TLV)</i>	No data available
<u>12. Ecological Information</u>	

AnaSpec Inc.

34801 Campus Drive, Fremont, CA 94555

Toll-Free: 800-452-5530 • Tel: 510-791-9560 • Fax: 510-791-9573

For Dimethyl sulfoxide (DMSO) CAS-No. 67-68-5 (Component A, B and E contain DMSO)

Toxicity

Toxicity to fish LC50 - Pimephales promelas (fathead minnow) - 34,000 mg/l - 96 h

LC50 - Oncorhynchus mykiss (rainbow trout) - 35,000 mg/l - 96 h

Toxicity to daphnia and other aquatic invertebrates. EC50 - Daphnia pulex (Water flea) - 27,500 mg/l

Toxicity to algae EC50 - Lepomis macrochirus (Bluegill) - > 400,000 mg/l - 96 h

Component C

Toxicity

Toxicity to daphnia and other aquatic invertebrates. EC50 - Daphnia pulex (Water flea) -> 100 mg/l – 48 h

Toxicity to algae EC50 - Lepomis macrochirus (Bluegill) - > 1,000 mg/l - 3 h

Component D:NA

13. Disposal Considerations

For Dimethyl sulfoxide (DMSO) CAS-No. 67-68-5 (Component A, B and E):

This combustible material may be burned in a chemical incinerator equipped with an afterburner and scrubber.

Offer surplus and non-recyclable solutions to a licensed disposal company.

Contaminated packaging

Dispose of as unused product.

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

Contaminated packaging

Dispose of as unused product.

14. Transport Information:

<i>UN Number</i>	N/A
<i>Hazard Class</i>	N/A
<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>	N/A
US TSCA (Toxic Substance Control Act):	Component A,B,E : Listed Component C, D : Not listed
<i>US CERCLA (Comprehensive Environmental Response, Compensation, and Liability Act):</i>	Component A,B,D,E : 261.33 8(d) Component C : Not listed
US SARA Title III	Component A,B,E SARA 302 components: N/A SARA 313 components: N/A SARA 311/312 Hazards: Fire Hazard, Chronic Health Hazard Component C,D SARA 302 components: N/A SARA 313 components: N/A SARA 311/312 Hazards: N/A

AnaSpec Inc.

34801 Campus Drive, Fremont, CA 94555

Toll-Free: 800-452-5530 • Tel: 510-791-9560 • Fax: 510-791-9573

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>
US Clean Water Act:	Components A, B, C, D and E <i>Listed under "Hazardous Substances": Not listed</i> <i>Listed under "Priority Pollutants": Not listed</i> <i>Listed under "Toxic Pollutants": Not listed</i>

US States: Right-to-Know: Listed in the following States:

Component A:	Component B:	Component C:	Component D:	Component E:
Pennsylvania Revision Date 2007-03-01 CAS-No 67-68-5	Pennsylvania Revision Date 2007-03-01 CAS-No 67-68-5	Pennsylvania	NA	Pennsylvania Revision Date 2007-03-01 CAS-No 67-68-5
New Jersey Revision Date 2007-03-01 CAS-No 67-68-5	New Jersey Revision Date 2007-03-01 CAS-No 67-68-5	New Jersey	NA	New Jersey Revision Date 2007-03-01 CAS-No 67-68-5
Massachusetts N/A	Massachusetts N/A	Massachusetts N/A	NA	Massachusetts N/A

European/International Regulations:

	Component A	Component B	Component C	Component D	Component E
EC EINICS	200-664-3	200-664-3	N/A	N/A	200-664-3
EC Risk statements	36/37/38	36/37/38	36/37/38	N/A	36/37/38
WGK	1	1	3	1	1
Canada- DSL/NDSL	Listed	Listed	Not listed	Not listed	Listed
Canada- WHMIS classification	D2B	D2B	D2B	NA	D2B
Canada- Canadian Ingredient Disclosure List	Listed	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.

AnaSpec Inc.

34801 Campus Drive, Fremont, CA 94555

Toll-Free: 800-452-5530 • Tel: 510-791-9560 • Fax: 510-791-9573