

Safety Data Sheet (SDS)

<i>Revision Number: 1.0</i>	<i>Last updated: September 2015</i>
1. Product and Company Identification	
<i>Product Name:</i>	SensoLyte[®] 520 ECEs 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-72243
<i>Unit Size</i>	1 kit
2. Hazards Identification	
<i>Emergency Overview:</i>	
<i>GHS Hazard Classification:</i>	
<i>GHS Physical Hazards</i>	
<ul style="list-style-type: none"> Component A: Flammable liquid (Category 4) Component B: Flammable liquid (Category 4) Component C: Skin irritation (Category 2), Eye irritation (Category 2A) Component D: Skin irritation (Category 2), Eye irritation (Category 2A) Component E: Flammable liquid (Category 4), Acute toxicity, Oral (Category 3), Acute aquatic toxicity (Category 1), Chronic aquatic toxicity (Category 1) 	
<i>GHS Health and Environmental Hazards</i>	
<ul style="list-style-type: none"> Component A: Irritant to eyes and skin Component B: Irritant to eyes and skin Component C: Irritant to eyes and skin Component D: Irritant to eyes and skin Component E: Irritant to eyes and skin 	
<i>GHS Signal Words:</i>	
<ul style="list-style-type: none"> Component A: Warning Component B: Warning Component C: Warning Component D: Warning Component E: Danger 	
<i>GHS Hazard Statements:</i>	
<ul style="list-style-type: none"> Component A: H227 Combustible liquid Component B: H227 Combustible liquid Component C: H315 Causes skin irritation. H319 Causes serious eye irritation. H335 May 	

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cause respiratory irritation.

Component D: H315 Causes skin irritation. H319 Causes serious eye irritation.

Component E: H227 Combustible liquid, H301 Toxic if swallowed, H410 Very toxic to aquatic life with long lasting effects.

GHS Precautionary Statements:

Component A: - None

Component B: - None

Component C: 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 D: P264 Wash skin thoroughly after handling. P270 Do not eat, drink or smoke when using this product. P273 Avoid release to the environment. P280 Wear protective gloves/ eye protection/ face protection

Component E: P264 Wash skin thoroughly after handling. P270 Do not eat, drink or smoke when using this product. P273 Avoid release to the environment. P301 + P310 IF SWALLOWED: Immediately call a POISON CENTER or doctor/ physician.

HMS Classification:

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

3. Composition / Information on Ingredients

Ingredients/Components:

Chemical Name:	Description	CAS Number:
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.

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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. 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 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

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

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. Take victim immediately to hospital. Consult a physician.

Eyes: Flush eyes with water as a precaution.

5. Fire Fighting Measures

<i>Extinguishing media:</i>	<p>Component A, B and E: For small fires, use dry chemical, or carbon dioxide. For large fires, use water spray from a safe distance.</p> <p>Component C and D: Use water spray, dry chemical or carbon dioxide.</p>
<i>Special firefighting procedures:</i>	<p>Component A, B and E: Fire fighters should wear positive pressure self-contained breathing apparatus and full turnout gear.</p> <p>Component C and D: Wear self-contained breathing apparatus if necessary.</p>
<i>Unusual fire and explosions hazards:</i>	<p>Component A and B: 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: Carbon oxides, nitrogen oxides (NO_x), hydrogen chloride gas, and sodium oxides formed under fire conditions.</p> <p>Component D: Hydrogen chloride gas, sodium oxides, carbon oxides, NO_x, and sulphur oxides formed under fire conditions.</p> <p>Component 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, nitrogen oxides formed under fire conditions.</p>

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6. Accidental Release Measures	
<i>Containment and spill response</i>	<p>Component A and B: 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. Discharge into the environment must be avoided.</p> <p>Component C and D: Soak up with inert absorbent material and dispose of as hazardous waste. Keep in suitable, closed containers for disposal.</p> <p>Component 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. Discharge into the environment must be avoided.</p>
<i>PPE</i>	Use personal protective equipment
7. Handling and Storage	
<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 and D: <i>Handling:</i> Avoid contact with skin and eyes. <i>Storage:</i> Keep container tightly closed in a dry and well-ventilated place.</p>	
8. Exposure Controls / Personal Protection	
<i>Engineering controls</i>	<p>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. Avoid contact with skin, eyes and clothing. Wash hands before breaks and immediately after handling the product.</p> <p>Component C and D: Not applicable.</p>
<i>PPE</i>	<p>Components A, B, C, D, 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.</p>

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	Eyes: Wear chemical splash goggles (EN166)
9. Physical and Chemical Properties	
<i>Physical State</i>	Liquid
<i>Odor</i>	Not determined
<i>Solubility in Water</i>	Soluble
<i>Specific Gravity</i>	Not determined
<i>pH</i>	Component C – 7.5 Component D – 6.0
<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: N/A Component D: N/A Component E: PV6210000
<i>Toxicity</i>	<i>Component A, Component B and Component E contain DMSO.</i> <i>For DMSO</i> Oral LD50 LD50 Oral - rat - 14,500 mg/kg Inhalation LC50 LC50 Inhalation - rat - 4 h - 40250 ppm Dermal LD50 LD50 Dermal - rabbit - > 5,000 mg/kg <i>Component C and Component D</i> Not Applicable <i>Component E</i> Acute toxicity LD50 Oral - rat - 132 mg/kg
<i>Health Hazards</i>	No data available
<i>Potential Hazards</i>	Potential Health Effects <i>Inhalation:</i> May be harmful if inhaled. Causes respiratory tract irritation. <i>Ingestion:</i> Harmful if swallowed. <i>Skin:</i> May be harmful if absorbed through skin. May cause skin irritation. <i>Eyes:</i> Causes eye irritation. 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

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	body.
<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>	
<i>For Dimethyl sulfoxide (DMSO) CAS-No. 67-68-5 (Component A, B and E contain DMSO)</i>	
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	
<i>Components C and D</i>	
No data available	
<i>Components A, B, C, D and E</i>	
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	
No data available	
<u>13. Disposal Considerations</u>	
<i>For Components A, B, C, D, and E</i>	
The combustible material (Component A, B and E) 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.	
<u>14. Transport Information: IATA Exempted quantities labeling</u>	
<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

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15. Regulatory information	
California Proposition 65	N/A
US TSCA (Toxic Substance Control Act)	Component A : Listed Component B : Listed Component C : N/A Component D : N/A Component E : Listed
US CERCLA (Comprehensive Environmental Response, Compensation, and Liability Act)	Component A : 261.33 8(d). Component B : 261.33 8(d). Component C : N/A Component D : N/A Component E : 261.33 8(d).
US SARA Title III	Component A SARA 302 components: N/A SARA 313 components: N/A SARA 311/312 Hazards: Fire Hazard, Chronic Health Hazard Component B SARA 302 components: N/A SARA 313 components: N/A SARA 311/312 Hazards: Fire Hazard, Chronic Health Hazard Component C SARA 302 components: N/A SARA 313 components: N/A SARA 311/312 Hazards: N/A Component D SARA 302 components: N/A SARA 313 components: N/A SARA 311/312 Hazards: N/A Component E SARA 302 components: N/A SARA 313 components: N/A SARA 311/312 Hazards: Fire Hazard, Chronic Health Hazard, 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>
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>

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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 67-68-5	Pennsylvania Revision Date 2007-03-01 CAS 67-68-5	Pennsylvania Revision Date 2007-03-01 CAS 7647-14-5 CAS 77-86-1 CAS 7646-85-7	Pennsylvania Revision Date N/A CAS7647-14-5 CAS9002-92-0	Pennsylvania Revision Date 2007-03-01 CAS 67-68-5 CAS 66-71-7
New Jersey Revision Date 2007-03-01 CAS 67-68-5	New Jersey Revision Date 2007-03-01 CAS 67-68-5	New Jersey Revision Date 2007-03-01 CAS 56-81-5 CAS 77-86-1 CAS 7646-85-7	New Jersey Revision Date N/A CAS7647-14-5 CAS9002-92-0	New Jersey Revision Date 2007-03-01 CAS 67-68-5 CAS 66-71-7
Massachusetts N/A	Massachusetts N/A	Massachusetts Revision Date 2007-03-01 CAS 7646-85-7	Massachusetts N/A	Massachusetts N/A

European/International Regulations:

	Component A:	Component B:	Component C:	Component D:	Component E:
EC EINECS	200-664-3	200-664-3	231-598-3 201-064-4	231-598-3 224-632-3	200-664-3 200-629-2
<i>EC Risk statements</i>	36/37/38	36/37/38	36/37/38, 22 36/37/38	36/37/38, 22 36/37/38	36/37/38 25/50/53
<i>WGK</i>	1	1	1 2	1 3	1 3
<i>Canada-DSL/NDSL</i>	Listed	Listed	Listed	Listed Listed	Listed
<i>Canada-WHMIS classification</i>	D2B	D2B	D1A, E D2B	D1A, E N/A	D2B D1B
<i>Canada-Canadian Ingredient Disclosure List</i>	Listed	Listed	Not Listed	Not Listed N/A	Listed Not 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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