

Safety Data Sheet (SDS)

<i>Revision Number: 1.2</i>	<i>Last updated: April 2015</i>
<u>1. Product and Company Identification</u>	
<i>Product Name:</i>	SensoLyte[®] Homogenous AMC Caspase-3/7 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-71118
<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>	
Component A,B and C: Flammable liquid (Category 4) Other Components: Not Applicable	
<i>GHS Health and Environmental Hazards</i>	
All Components: Irritant to eyes and skin	
<i>GHS Signal Words:</i>	
Component A,B,C,E: Warning Component D,F: Danger	
<i>GHS Hazard Statements:</i>	
Component A,B,C: H227 Combustible liquid	
Component D, F: H302 Harmful if swallowed. H314 Causes severe skin burns and eye damage. H410 Very toxic to aquatic life with long lasting effects.	
Component E: H302 Harmful if swallowed. H315 Causes skin irritation. H319 Causes serious eye irritation. H335 May cause respiratory irritation.	
<i>GHS Precautionary Statements:</i>	
Component A,B,C,D: - None Component E: P305 +P351 +P38 -IF NEYS: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing P37 +P31 -If eye irritation persists: Get medical advice/attention	

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P32 +P31 -If skin irritation occurs: Get medical advice/attention
 P264 -Wash hands thoroughly after handling
 P280 -Wear protective gloves/protective clothing/eye protection/face protection
 P362 -Take of contaminated clothing and wash before use

Component F: - None

HMIS Classification:

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

NFPA Rating:

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

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	Contains DMSO	67-68-5
Component D	Proprietary	NA
Component E	Contains DL-Dithiothreitol	3483-12-3
Component F	Proprietary	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 and 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. Take victim immediately to hospital. 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: Do NOT induce vomiting. Never give anything by mouth to an unconscious person. Rinse mouth with water.

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<p>Consult a physician.</p> <p><i>Skin:</i> Take off contaminated clothing and shoes immediately. Wash off with soap and plenty of water. Consult a physician.</p> <p><i>Eyes:</i> Rinse thoroughly with plenty of water for at least 15 minutes and consult a physician. Continue rinsing eyes during transport to hospital.</p> <p>Component E</p> <p>General advice: Consult a physician. Show this safety data sheet to the doctor in attendance. Move out of dangerous area.</p> <p><i>Inhalation:</i> If breathed in, move person into fresh air. If not breathing, give artificial respiration. Consult a physician.</p> <p><i>Ingestion:</i> Never give anything by mouth to an unconscious person. Rinse mouth with water. Consult a physician.</p> <p><i>Skin:</i> Wash off with soap and plenty of water. Consult a physician.</p> <p><i>Eyes:</i> Rinse thoroughly with plenty of water for at least 15 minutes and consult a physician.</p> <p>Component F</p> <p><i>Inhalation:</i> If breathed in, move person into fresh air. If not breathing, give artificial respiration. Consult a physician.</p> <p><i>Ingestion:</i> Do NOT induce vomiting. Never give anything by mouth to an unconscious person. Rinse mouth with water. Consult a physician.</p> <p><i>Skin:</i> Take off contaminated clothing and shoes immediately. Wash off with soap and plenty of water. Consult a physician.</p> <p><i>Eyes:</i> Rinse thoroughly with plenty of water for at least 15 minutes and consult a physician. Continue rinsing eyes during transport to hospital.</p>	
5. Fire Fighting Measures	
<i>Extinguishing media:</i>	<p>Component A, B, and C: 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 D: Not applicable</p> <p>Component E: For small fires, use dry chemical powder. For larger fires, use water spray, fog, or foam.</p> <p>Component F: Not applicable</p>
<i>Special firefighting procedures:</i>	<p>Component A, B, and C: Fire fighters should wear positive pressure self-contained breathing apparatus (SCBA) and full turnout gear.</p> <p>Component D: Not applicable</p> <p>Component E: Fire fighters should wear positive pressure self-contained breathing apparatus (SCBA) and full turnout gear.</p> <p>Component F: Not applicable</p>
<i>Unusual fire and explosions hazards:</i>	<p>Component A, B, and C: 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 D: Not applicable</p> <p>Component E: Hazardous decomposition products formed under fire conditions. - Carbon oxides, Sulphur oxides, Hydrogen sulfide gas</p> <p>Component F: Not applicable</p>
6. Accidental Release Measures	
<i>Containment and spill response</i>	<p>Component A, B, and C: 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</p>

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	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. Component D: Not applicable Component E: Avoid dust formation. Avoid breathing vapors, mist or gas. Ensure adequate ventilation. Evacuate personnel to safe areas. Avoid breathing dust. Do not let product enter drains. Pick up and arrange disposal without creating dust. Sweep up and shovel. Keep in suitable, closed containers for disposal. Component F: Not applicable
<i>PPE</i>	Use personal protective equipment

7. Handling and Storage

Component A, B, and C

Handling: 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.

Storage: 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.

Component D: Not applicable

Component E:

Handling: Avoid contact with skin and eyes. Avoid formation of dust and aerosols. Provide appropriate exhaust ventilation at places where dust is formed.

Storage: Keep container tightly closed in a dry and well-ventilated place. Recommended storage temperature: 2 - 8 °C. Keep in a dry place.

Component F: Not applicable

8. Exposure Controls / Personal Protection

<i>Engineering controls</i>	Component A, B, and C: Facilities storing and using this material should be equipped with a safety shower and eyewash station. Adequate ventilation should also be present. Component D: Not applicable Component E: Contains no substances with occupational exposure limit values. Component F: Not applicable
<i>PPE</i>	Component A, B, and C: <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 D: Not applicable Component 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

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	<p>whenever workplace conditions warrant respirator use.</p> <p><i>Skin and Body:</i> Wear appropriate work uniform or laboratory coat to prevent skin exposure.</p> <p><i>Hands:</i> Use chemical resistant, impervious gloves. Appropriate techniques should be used to remove potentially contaminated gloves.</p> <p><i>Eyes:</i> Wear chemical splash goggles (EN166)</p> <p>Component F: Not applicable</p>
<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 D -7.5 Component E - 4-6 Component F -7.5
<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
<u>10. Stability and Reactivity</u>	
<i>Thermal Decomposition</i>	Not applicable
<i>Dangerous Products of Decomposition</i>	Not Applicable
<i>Dangerous Reactions</i>	Not Applicable
<u>11. Toxicological Information</u>	
<i>RTECS Number</i>	Component A: PV6210000 Component B: PV6210000 Component C: PV6210000 Component D: NA Component E: EK1610000 Component F: NA
<i>Health Hazards</i>	No data available
<i>Potential Hazards</i>	<p>Potential Health Effects</p> <p><i>Component A, B, C, and E</i></p> <p>Inhalation May be fatal if inhaled. May cause respiratory tract irritation.</p> <p>Skin May cause skin irritation. May be fatal if absorbed through skin.</p> <p>Eyes May cause eye irritation.</p> <p>Ingestion May be fatal if swallowed.</p> <p>Target Organs Kidney, Nerves.</p>
<i>Carcinogenicity:</i>	No data available
<i>OSHA Permissible Exposure Limit(PEL)</i>	No data available

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<i>Data</i>	
<i>ACGIH Threshold Limit Values (TLV)</i>	No data available
<u>12. Ecological Information</u>	
For Dimethyl sulfoxide (DMSO) CAS-No. 67-68-5 (Component A, B and C contains 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	
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	
For DTT, Component E, CAS-No 3483-12-3	
Toxicity to daphnia and other aquatic invertebrates	
LC50 - Daphnia magna (Water flea) - 27 mg/l - 48 h	
<u>13. Disposal Considerations</u>	
For Dimethyl sulfoxide (DMSO) CAS-No. 67-68-5 (Component A, B and C)	
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.	
For DTT, Component E, CAS-No 3483-12-3	
Product	
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.	
<u>14. Transport Information:</u>	
<i>UN Number</i>	N/A
<i>Hazard Class</i>	N/A
<i>Packing Group</i>	N/A
<i>Proper Shipping Name (DOT)</i>	N/A

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5. Regulatory information					
<i>California Proposition 65:</i>		Component E: This product does not contain any chemicals known to cause cancer, birth defects, or any other reproductive harm.			
US TSCA (Toxic Substance Control Act):		Component A: Listed Component B: Listed Component C: Listed Component D: Not listed Component E: Listed Component F: Not listed			
<i>US CERCLA (Comprehensive Environmental Response, Compensation, and Liability Act):</i>		Component A : 261.33 8(d). Component B : 261.33 8(d). Component C : 261.33 8(d). Component D : Not listed Component E: Not listed Component F: Not listed			
US SARA Title III		Component A,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: Acute Health Hazard, Chronic Health Hazard 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, Chronic Health Hazard SARA 311/312 Hazards: Acute Health Hazard Component F SARA 302 components: N/A SARA 313 components: N/A SARA 311/312 Hazards: N/A			
US Clean Air Act: <i>US Clean Water Act:</i>		Component A, B, C, D, E, and F <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, E, and F Listed under "Hazardous Substances": Not listed <i>Listed under "Priority Pollutants": Not listed</i> Listed under "Toxic Pollutants": Not listed			
US States: Right-to-Know: Listed in the following States:					
Component A:	Component B:	Component C:	Component D:	Component E:	Component F:
Pennsylvania Revision Date 2007-03-01	Pennsylvania Revision Date 2007-03-01	Pennsylvania Revision Date 2007-03-01	N/A	Pennsylvania	N/A
New Jersey Revision Date 2007-03-01	New Jersey Revision Date 2007-03-01	New Jersey Revision Date 2007-03-01	N/A	New Jersey	N/A
N/A	N/A	N/A	N/A	Massachusetts	N/A

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European/International Regulations:						
	Component A	Component B	Component C	Component D	Component E	Component F
EC EINICS	200-664-3	200-664-3	200-664-3	N/A	N/A	N/A
<i>EC Risk statements</i>	36/37/38	36/37/38	36/37/38	N/A	N/A	N/A
<i>WGK</i>	1	1	1	N/A	N/A	N/A
<i>Canada-DSL/NDSL</i>	Listed	Listed	Listed	Not listed	Not Listed	Not listed
<i>Canada-WHMIS classification</i>	D2B	D2B	D2B	N/A	N/A	N/A
<i>Canada-Canadian Ingredient Disclosure List</i>	Listed	Listed	Listed	Not Listed	Not 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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