

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[®] OPA Protein Quantitation Kit
<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-71015
<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: Corrosive Component B: Corrosive(Category 1B) Component C: Reproductive toxicity (Category 1B) Component D: Not Applicable	
<i>GHS Health and Environmental Hazards</i>	
Component A: Toxic by ingestion, Skin sensitizer, Corrosive Component B: Skin corrosion, Serious eye damage Component C: Irritant to eyes and skin, Reproductive toxicity, target organs- testes Component D: Not Applicable	
<i>GHS Signal Words:</i>	
Component A: Danger Component B: Danger Component C: Danger Component D: Warning	
<i>GHS Hazard Statements:</i>	
Component A: H301 Toxic if swallowed. H313 May be harmful in contact with skin. H314 Causes severe skin burns and eye damage. H317 May cause an allergic skin reaction. H400 Very toxic to aquatic life. Component B: H301 Toxic if swallowed. H314 Causes severe skin burns and eye damage.	

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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 C: H360 May damage fertility or the unborn child.

Component D: H302 Harmful if swallowed.

GHS Precautionary Statements:

Component A: P273 Avoid release to the environment.

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

Component B: 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 C: P201 Obtain special instructions before use.

P308 + P313 IF exposed or concerned: Get medical advice/ attention.

Component D: P280 Wear Eye Protection

HMIS Classification:

Component A:	Component B:	Component C:	Component D:
<i>Health hazard: 3</i>	<i>Health hazard: 3</i>	<i>Health hazard: 2</i>	<i>Health hazard: 1</i>
<i>Flammability: 1</i>	<i>Flammability: 1</i>	<i>Flammability: 0</i>	<i>Flammability: 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:
<i>Health hazard: 3</i>	<i>Health hazard: 3</i>	<i>Health hazard: 2</i>	<i>Health hazard: 0</i>
<i>Fire: 1</i>	<i>Fire: 1</i>	<i>Fire: 0</i>	<i>Fire: 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 OPA	643-79-8
Component B	Proprietary	NA
Component C	Proprietary	NA
Component D	Contains BSA	NA

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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: Take off contaminated clothing and shoes immediately. 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. Continue rinsing eyes during transport to hospital.

Component B

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. Take victim immediately to hospital. 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.

Component C

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: Flush eyes with water as a precaution.

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

5. Fire Fighting Measures**AnaSpec Inc.**

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<i>Extinguishing media:</i>	<p>Component A: Not flammable or combustible.</p> <p>Component B: Use water spray, alcohol-resistant foam, dry chemical or carbon dioxide</p> <p>Component C: Use water spray, alcohol-resistant foam, dry chemical or carbon dioxide.</p> <p>Component D: Not applicable</p>
<i>Special firefighting procedures:</i>	Wear self-contained breathing apparatus for firefighting if necessary.
<i>Unusual fire and explosions hazards:</i>	<p>Component A: Hazardous decomposition products formed under fire conditions. - Carbon oxides</p> <p>Component B: Hazardous decomposition products formed under fire conditions. - Carbon oxides, Sulphur oxides</p> <p>Component C: Avoid breathing dust. 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 decomposition products formed under fire conditions. - Borane/boron oxides</p> <p>Component B:None</p>

6. Accidental Release Measures

<i>Containment and spill response</i>	<p>Component A :</p> <p>Personal precautions Wear respiratory protection. Avoid dust formation. Avoid breathing vapors, mist or gas. Ensure adequate ventilation. Evacuate personnel to safe areas. Avoid breathing dust.</p> <p>Environmental precautions Prevent further leakage or spillage if safe to do so. Do not let product enter drains. Discharge into the environment must be avoided.</p> <p>Component B: Wear respiratory protection. Avoid breathing vapors, mist or gas. Ensure adequate ventilation. Evacuate personnel to safe areas.</p> <p>Component C: Soak up with inert absorbent material and dispose of as hazardous waste. Keep in suitable, closed containers for disposal.</p> <p>Component D: Not applicable.</p>
<i>PPE</i>	Gloves, safety goggles, complete suit protecting against chemicals,

7 . Handling and Storage

Component A

Handling: Avoid contact with skin and eyes. Avoid formation of dust and aerosols.

Provide appropriate exhaust ventilation at places where dust is formed.

Storage: Light sensitive. Moisture sensitive. Keep in a dry place.

Component B

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

Normal measures for preventive fire protection.

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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.

Store under inert gas

Component C:

Handling: Avoid inhalation of vapor or mist.

Normal measures for preventive fire protection

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 D: Not applicable

8. Exposure Controls / Personal Protection

<i>Engineering controls</i>	Facilities storing and using this material should be equipped with a safety shower and eyewash station. Adequate ventilation should also be present.
<i>PPE</i>	<p>Component A <i>Skin and Body:</i> Complete suit protecting against chemicals, The type of protective equipment must be selected according to the concentration and amount of the dangerous substance at the specific workplace.</p> <p><i>Hands:</i> Use chemical resistant, impervious gloves. Appropriate techniques should be used to remove potentially contaminated gloves.</p> <p><i>Eye:</i> Face shield and safety glasses Use equipment for eye protection tested and approved under appropriate government standards such as NIOSH (US) or EN 166(EU).</p> <p>Component B</p> <p><i>Respiratory System:</i> Where risk assessment shows air-purifying respirators are appropriate use a full-face respirator with multi-purpose combination (US) or type ABEK (EN 14387) respirator cartridges as a backup to engineering controls.</p> <p><i>Skin and Body:</i> Complete suit protecting against chemicals, The type of protective equipment must be selected according to the concentration and amount of the dangerous substance at the specific workplace.</p> <p><i>Hands:</i> Handle with gloves. Gloves must be inspected prior to use. Use proper glove removal technique (without touching glove's outer surface) to avoid skin contact with this product. Dispose of contaminated gloves after use in accordance with applicable laws and good laboratory practices. Wash and dry hands.</p> <p><i>Eyes:</i> Tightly fitting safety goggles. Face shield (8-inch minimum). Use equipment for eye protection tested and approved under appropriate government standards such as NIOSH (US) or EN 166(EU).</p> <p>Component C:</p> <p><i>Respiratory System:</i> Where risk assessment shows air-purifying respirators are appropriate use a full-face respirator with multi-purpose combination (US) or type ABEK (EN 14387) respirator cartridges as a backup to engineering controls. If the respirator is the sole means of protection, use a full-face supplied air respirator. Use respirators and components tested and approved under appropriate government standards such as NIOSH (US) or CEN (EU).</p> <p><i>Skin and Body:</i> impervious clothing, The type of protective equipment must be selected according to the concentration and amount of the dangerous substance at the specific workplace.</p>

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	<p><i>Eyes:</i> Safety glasses with side-shields conforming to EN166 Use equipment for eye protection tested and approved under appropriate government standards such as NIOSH (US) or EN 166(EU).</p> <p>Component D: 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 C:pH-9.5
<i>Boiling Point</i>	Component B: 110 - 111 °C (230 - 232 °F) at 20 hPa (15 mmHg) - lit.
<i>Melting Point</i>	Component B: Melting point/range: 15 - 18 °C (59 - 64 °F) - lit.
<i>Flash Point</i>	Component B:93.4 °C (200.1 °F) - closed cup
<i>Vapor Pressure:</i>	Not determined
<i>Vapor Density:</i>	Not determined
<u>10.Stability and Reactivity</u>	
<i>Thermal Decomposition</i>	Components: Stable under recommended storage conditions.
<i>Dangerous Products of Decomposition</i>	<p>Component A: Hazardous decomposition products formed under fire conditions. - Carbon oxides</p> <p>Component B: Hazardous decomposition products formed under fire conditions. - Carbon oxides, Sulphur oxides</p> <p>Other decomposition products - no data available</p> <p>Component C - Borane/boron oxides</p> <p>Other decomposition products - no data available</p> <p>Component D: NA</p>
<i>Dangerous Reactions</i>	Not Applicable
<u>11.Toxicological Information</u>	
<i>RTECS Number</i>	<p>Component A:For OPA, TH6950000</p> <p>Other components: Not Applicable</p>
<i>Toxicity</i>	<p>Component A</p> <p>Acute toxicity</p> <p>Oral LD50</p> <p>LD50 Oral - rat - 178 mg/kgSigma-Aldrich - P0657 Page 5 of 7</p> <p>Inhalation LC50</p> <p>no data available</p> <p>Dermal LD50</p> <p>LD50 Dermal - rat - > 2,000 mg/kg</p> <p>Other information on acute toxicity</p>

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	no data available Skin corrosion/irritation <i>Skin - rabbit - Corrosive - OECD Test Guideline 4</i> Other components: <i>No data available</i>
Health Hazard: Component A, B and C: <i>Inhalation:</i> May be harmful if inhaled. Material is extremely destructive to the tissue of the mucous membranes and upper respiratory tract. <i>Ingestion:</i> Toxic if swallowed. <i>Skin:</i> May be harmful if absorbed through skin. Causes skin burns. <i>Eyes:</i> Causes eye burns. Component D: Not Applicable	
<i>Potential Hazards</i>	Components A, B and C <i>Inhalation:</i> May be harmful if inhaled. Material is extremely destructive to the tissue of the mucous membranes and upper respiratory tract. <i>Skin:</i> May be harmful if absorbed through skin. Causes skin burns. <i>Eyes:</i> Causes eye burns. <i>Ingestion:</i> Toxic if swallowed. Component D: Not Applicable
<i>Carcinogenicity:</i>	None
<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>	
Component A: Toxicity Toxicity to fish LC50 - <i>Oncorhynchus mykiss</i> (rainbow trout) - 0.072 mg/l - 96.0 h Toxicity to daphnia and other aquatic invertebrates EC50 - <i>Daphnia magna</i> (Water flea) - 0.087 mg/l - 48 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 An environmental hazard cannot be excluded in the event of unprofessional handling or disposal. Very toxic to aquatic life. Other Components: No data available	
<u>13. Disposal Considerations</u>	

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All Components

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:

<i>UN Number</i>	3316
<i>Hazard Class</i>	9
<i>Identification Number</i>	N/A
<i>Packing Group</i>	II
<i>Proper Shipping Name (DOT)</i>	Chemical Kit

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15. Regulatory information				
<i>California Proposition 65:</i>		None		
US TSCA (Toxic Substance Control Act):		Component A : Listed Component B : Listed Component C : Listed Component D : Not listed		
<i>US CERCLA (Comprehensive Environmental Response, Compensation, and Liability Act):</i>		Component A : Listed Component B : Listed Component C : Not Listed Component D : Not listed		
US SARA Title III		Component A SARA 302 components: N/A SARA 313 components: N/A SARA 311/312 Hazards: Chronic Health Hazard Component B SARA 302 components: N/A SARA 313 components: N/A SARA 311/312 Hazards: Acute Health Hazard Component C SARA 302 components: N/A SARA 313 components: N/A SARA 311/312 Hazards: Chronic Health Hazard Component D SARA 302 components: N/A SARA 313 components: N/A SARA 311/312 Hazards: N/A		
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>		
<i>US Clean Water Act:</i>		Components A, B, C, and D Listed under "Hazardous Substances": Not listed <i>Listed under "Priority Pollutants": Not listed</i> Listed under "Toxic Pollutants": Not listed		
<i>US States: Right-to-Know: Listed in the following States:</i>				
Component A:	Component B:	Component C:	Component D:	
Pennsylvania Revision Date	Pennsylvania Revision Date	Pennsylvania Revision Date 2009-07-17	N/A	
New Jersey Revision Date	New Jersey Revision Date	New Jersey Revision Date 2009-07-17	N/A	
<i>European/International Regulations:</i>				
	Component A	Component B	Component C	Component D
EC EINICS	210-935-8	203-537-0	233-139-2	N/A
<i>EC Risk statements</i>	R52/53	R25/R34	R36/38	N/A
WGK	2	3	1	N/A

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<i>Canada- DSL/NDSL</i>	Listed	Listed	Listed	Not listed
<i>Canada- WHMIS classification</i>	D2A	B3	D2A	N/A
<i>Canada- Canadian Ingredient Disclosure List</i>	Listed	Not Listed	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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