Safety Data Sheet (SDS)

Revision Number: 1.0  Last updated: AUG 2020

1. Product and Company Identification

Product Name: SensoLyte® 520 SARS-CoV-2 Papain-like Protease/Deubiquitinase Activity Assay Kit *Fluorimetric*

Manufacturer/Supplier: AnaSpec, Inc.
www.anaspec.com
34801 Campus Drive
Fremont, CA 94555
Tel: 510-791-9560
Fax: 510-791-9572
Email: service@anaspec.com

Catalog Number AS-72263
Unit Size 1 kit

2. Hazards Identification

Emergency Overview:

GHS Hazard Classification:

GHS Physical Hazards

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)

GHS Health and Environmental Hazards

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

GHS Signal Words:

Component A: Warning
Component B: Warning
Component C: Not applied
Component D: Not applied
Component E: Warning

GHS Hazard Statements:

Component A: H227 Combustible liquid
Component B: H227 Combustible liquid
Component C: H315 Causes skin irritation. H319 Causes serious eye irritation.
Component D: H315 Causes skin irritation. H319 Causes serious eye irritation.
Component E: H227 Combustible liquid

GHS Precautionary Statements:
Component A: - None
Component B: - None
Component C: - None
Component D: - None
Component E: - None

HMIS Classification:

<table>
<thead>
<tr>
<th>Component</th>
<th>Health Hazard</th>
<th>Flammability</th>
<th>Physical Hazard</th>
</tr>
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<td>0</td>
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<tr>
<td>Component C</td>
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<td>N/A</td>
<td>N/A</td>
</tr>
<tr>
<td>Component D</td>
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<tr>
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NFPA Rating:

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<td>N/A</td>
<td>N/A</td>
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3. Composition / Information on Ingredients

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<tr>
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<th>CAS Number</th>
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<tbody>
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<td>Component A</td>
<td>Contains DMSO</td>
<td>67-68-5</td>
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<tr>
<td>Component B</td>
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<td>67-68-5</td>
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<td>Component C</td>
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<tr>
<td>Component D</td>
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<tr>
<td>Component E</td>
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<td>67-68-5</td>
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</tbody>
</table>

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. 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:** 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:** Flush eyes with water as a precaution.  

**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.  

### 5. Fire Fighting Measures

| Extinguishing media:                      | **Component A, B and E:** For small fires, use dry chemical, or carbon dioxide. For large fires, use water spray from a safe distance.  
**Component C, D:** Use water spray, alcohol-resistant foam, dry chemical or carbon dioxide. |
|------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Special firefighting procedures:        | **Component A, B and E:** Fire fighters should wear positive pressure self-contained breathing apparatus and full turnout gear.  
**Component C, D:** Wear self-contained breathing apparatus if necessary. |
| Unusual fire and explosions hazards:    | **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.  
**Component C:** Carbon oxides, Oxides of phosphorus, Hydrogen chloride gas, Nitrogen oxides (NOx), Sulphur oxides, Sodium oxides.  
**Component D:** Carbon oxides, Nitrogen oxides (NOx). |

### 6. Accidental Release Measures

| Containment and spill response | **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. Discharge into the environment must be avoided.  
**Component C, D:** Avoid breathing vapors, mist or gas. Ensure adequate ventilation. |
<table>
<thead>
<tr>
<th></th>
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</tr>
</thead>
<tbody>
<tr>
<td>PPE</td>
<td>Use personal protective equipment</td>
</tr>
</tbody>
</table>
## 7. Handling and Storage

**Component A, B and E:**

*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 C and D:**

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

*Storage:* Keep container tightly closed in a dry and well-ventilated place.

## 8. Exposure Controls / Personal Protection

**Engineering controls**

**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.

**Component C and D:** General industrial hygiene practice.

**PPE**

**Components A-E:**

*Respiratory System:* 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.

*Skin and Body:* Wear appropriate work uniform or laboratory coat to prevent skin exposure.

*Hands:* Use chemical resistant, impervious gloves. Appropriate techniques should be used to remove potentially contaminated gloves.

*Eyes:* Wear chemical splash goggles (EN166)

## 9. Physical and Chemical Properties

<table>
<thead>
<tr>
<th>Property</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Physical State</strong></td>
<td>Liquid</td>
</tr>
<tr>
<td><strong>Odor</strong></td>
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<tr>
<td><strong>Solubility in Water</strong></td>
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<tr>
<td><strong>Specific Gravity</strong></td>
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<td><strong>pH</strong></td>
<td>Component C – 8.0</td>
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<td></td>
<td>Component D – 7.4</td>
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<td><strong>Boiling Point</strong></td>
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<td><strong>Melting Point</strong></td>
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<td><strong>Flash Point</strong></td>
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<tr>
<td><strong>Vapor Pressure:</strong></td>
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<tr>
<td><strong>Vapor Density:</strong></td>
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</tr>
</tbody>
</table>

## 10. Stability and Reactivity

**Thermal Decomposition**

Not applicable

**Dangerous Products of Decomposition**

Not applicable

**Dangerous Reactions**

Not applicable
11. Toxicological Information

| RTECS Number | Component A: PV6210000  
|              | Component B: PV6210000  
|              | Component C: N/A        
|              | Component D: N/A        
|              | Component E: PV6210000  |

**Toxicity**

Component A, B and E contain DMSO.

*For DMSO:*

- 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

*Component C and D:*

Not available

**Health Hazards**

No data available

**Potential Hazards**

**Potential Health Effects**

*Inhalation:* May be harmful if inhaled. Causes respiratory tract irritation.

*Ingestion:* Harmful if swallowed.

*Skin:* May be harmful if absorbed through skin. May cause skin irritation.

*Eyes:* 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 body.

**Carcinogenicity:**

No data available

**OSHA Permissible Exposure Limit (PEL) Data**

No data available

**ACGIH Threshold Limit Values (TLV)**

No data available

12. Ecological Information

*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

Components A, B, C, D, E

**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

13. Disposal Considerations
For Components A, B, C, D, E
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.

### 14. Transport Information: IATA Exempted quantities labeling

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## 15. Regulatory information

<table>
<thead>
<tr>
<th>California Proposition 65</th>
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</table>
| **US TSCA (Toxic Substance Control Act)** | Component A: Listed  
Component B: Listed  
Component C: N/A  
Component D: N/A  
Component E: Listed |
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 |
| **US Clean Air Act** | Component A, B, C, D, E  
Listed under Hazardous Air Pollutants: N/A  
Listed under Class 1 Ozone Depletors: N/A  
Listed under Class 2 Ozone Depletors: N/A |
| **US Clean Water Act** | Components A, B, C, D, E  
Listed under “Hazardous Substances”: N/A  
Listed under “Priority Pollutants”: N/A  
Listed under “Toxic Pollutants”: N/A |
**US States: Right-to-Know: Listed in the following States:**

<table>
<thead>
<tr>
<th>Component A:</th>
<th>Component B:</th>
<th>Component C:</th>
<th>Component D:</th>
<th>Component E:</th>
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<tbody>
<tr>
<td>Pennsylvania Revision Date 2007-03-01 CAS 67-68-5</td>
<td>Pennsylvania Revision Date 2007-03-01 CAS 67-68-5</td>
<td>Pennsylvania Revision Date N/A CAS 7365-45-9 CAS 7647-14-5 CAS 56-81-5 CAS 51805-45-9</td>
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**European/International Regulations:**

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<thead>
<tr>
<th>Component A:</th>
<th>Component B:</th>
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<td>EC EINECS 200-664-3</td>
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</table>

**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.