

Safety Data Sheet (SDS)

<i>Revision Number: 1.0</i>	<i>Last updated: January 2017</i>
<u>1. Product and Company Identification</u>	
<i>Product Name:</i>	AnaTag™ Protein Labeling Kit for TR-FRET
<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-72247
<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 E:	Flammable liquid (Category 4)
Other Components:	None
<i>GHS Health and Environmental Hazards</i>	
Component A and B:	Not Applicable
Component C and F:	Irritant to eyes
Component D , E and G:	Irritant to eyes and skin
Component H and I:	Not Applicable
<i>GHS Signal Words:</i>	
Component E:	Warning
Other Components:	None
<i>GHS Hazard Statements:</i>	
Component D and G:	H303 May be harmful if swallowed.
Component E:	H227 Combustible liquid
Other Components:	None
<i>GHS Precautionary Statements:</i>	
None	
<i>HMIS Classification:</i>	
Component E:	Health hazard: 0 Flammability: 2 Physical hazards: 0

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<i>NFPA Rating</i>	Other Components:	None
	Component E:	Health hazard: 0 Fire: 2 Reactivity Hazard: 0
	Other Components:	None

3. Composition / Information on Ingredients

Ingredients/Components:

<i>Chemical Name:</i>	<i>Description</i>	<i>CAS Number:</i>
Component A	Amino-reactive dye	N/A
Component B	Amino-reactive dye	N/A
Component C	Reaction buffer	N/A
Component D	Solvent buffer	N/A
Component E	DMSO	67-68-5
Component F	Polyacrylamide-co-methylene-bis-acrylamide	25034-58-6
Component G	Elution buffer	NA
Component H and I	Wash tube and Collection tube	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,B,H and I: Not Applicable

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.

Skin: Wash off with soap and plenty of water.

Eyes: Flush eyes with water as a precaution.

Component D and G

Inhalation: Move to fresh air. If symptoms persist, call a physician. If not breathing, give artificial respiration.

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

Skin: Rinse with plenty of water. If symptoms arise, call a physician.

Eyes: Rinse immediately with plenty of water, also under the eyelids, for at least 15 minutes. If symptoms persist, call a physician.

Component E and F

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

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<i>Extinguishing media:</i>	<p>Component A, B, H and I: Not Applicable</p> <p>Component C: Use water spray, alcohol-resistant foam, dry chemical or carbon dioxide.</p> <p>Component D and G: Water spray. Carbon dioxide (CO₂). Foam. Dry chemical.</p> <p>Component 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 F: CO₂, extinguishing powder or water spray. Fight larger fires with water spray or alcohol resistant foam</p>
<i>Special firefighting procedures:</i>	<p>Component A,B,H and I : Not Applicable</p> <p>Component C: Wear self-contained breathing apparatus for firefighting if necessary.</p> <p>Component D and G: Wear self-contained breathing apparatus and protective suit.</p> <p>Component E: Fire fighters should wear positive pressure self-contained breathing apparatus (SCBA) and full turnout gear.</p> <p>Component F: No special measures required.</p>
<i>Unusual fire and explosions hazards:</i>	<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 formed under fire conditions.</p> <p>Other Components: None</p>
<u>6. Accidental Release Measures</u>	
<i>Containment and spill response</i>	<p>Component A ,B, H and I: Not Applicable</p> <p>Other Components: Soak up with inert absorbent material</p>
<i>PPE</i>	Use personal protective equipment
<u>7 . Handling and Storage</u>	
<p>Component A and B: Keep in dry place.</p> <p>Component 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. Wear personal protective equipment. <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>Other Components: <i>Handling:</i> Avoid contact with skin, eyes and clothing. Wear personal protective equipment. <i>Storage:</i> Keep in a dry, cool and well-ventilated place.</p>	
<u>8. Exposure Controls / Personal Protection</u>	
<i>Engineering controls</i>	Facilities storing and using this material should be equipped with a safety shower and eyewash station.

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<i>PPE</i>	The usual precautionary measures of handling chemicals should be followed <i>Hands:</i> Protective gloves <i>Eyes:</i> Safety glasses.
<u>9. Physical and Chemical Properties</u>	
<i>Physical State</i>	Component A and B:Solid Component C, D, E, F and G-Liquid
<i>Odo</i>	Not determined
<i>Solubility in Water</i>	Soluble
<i>Specific Gravity</i>	Not determined
<i>pH</i>	Component C -9 Component G -7.3
<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 E: PV6210000 Other Components: Not Available
<i>Toxicity</i>	Component E contains DMSO. For DMSO Oral LD50 Oral - rat - 14,500 mg/kg Inhalation LC50 Inhalation - rat - 4 h - 40250 ppm Dermal LD50 Dermal - rabbit - > 5,000 mg/kg Other Components: Not available
<i>Health Hazards</i>	No data available
<i>Potential Hazards</i>	None
<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>	

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Component D, F and G: Water hazard class 1 (German Regulation): slightly hazardous for water. Do not allow undiluted product or large quantities of it to reach ground water, water course or sewage system.

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

13. Disposal Considerations

Component E: For Dimethyl sulfoxide (DMSO) CAS-No. 67-68-5 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 F: Hand over to hazardous waste disposers.

14. Transport Information: IATA Exempted quantities labeling

<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

15. Regulatory information

<i>California Proposition 65:</i>	None
<i>US TSCA (Toxic Substance Control Act):</i>	Component E: Listed Other Components: Not listed
<i>US CERCLA (Comprehensive Environmental Response, Compensation, and Liability Act):</i>	Component E: 261.33 8(d). Other Components: N/A

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<i>US SARA Title III:</i>	Component E SARA 302 components: N/A SARA 313 components: N/A SARA 311/312 Hazards: Fire Hazard, Chronic Health Hazard Other Components: N/A
<i>US Clean Air Act:</i>	All Components Listed under Hazardous Air Pollutants: Not listed Listed under Class 1 Ozone Depletors: Not listed Listed under Class 2 Ozone Depletors: Not listed
<i>US Clean Water Act:</i>	All Components Listed under “Hazardous Substances”: Not listed Listed under “Priority Pollutants”: Not listed Listed under “Toxic Pollutants”: Not listed

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

Component A and B	Component C	Component D and G	Component E	Component F
N/A	N/A	N/A	Pennsylvania Revision Date 2007-03-01	N/A
N/A	N/A	N/A	New Jersey Revision Date 2007-03-01	N/A
N/A	N/A	N/A	N/A	N/A

European/International Regulations:

	Component A and B	Component C	Component D and G	Component E	Component F
<i>EC EINICS</i>	N/A	N/A	N/A	200-664-3	N/A
<i>EC Risk statements</i>	N/A	N/A	N/A	36/37/38	N/A
<i>WGK</i>	N/A	N/A	N/A	1	N/A
<i>CanadaDSL/NDSL</i>	N/A	N/A	N/A	Listed	N/A
<i>CanadaWHMIS classification</i>	N/A	D2B	N/A	D2B	D2B
<i>Canadian Ingredient Disclosure List</i>	N/A	N/A	N/A	Listed	N/A

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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