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**1. PRODUCT AND COMPANY IDENTIFICATION**

**Catalog number** OKAG01653

**Recommended use** Research use only

**Supplier address** Aviva Systems Biology Corp.  
6370 Nancy Ridge Dr, Ste 104  
San Diego, CA 92121  
USA  
Tel: 858-552-6979  
Fax: 858-552-6975

**E-mail address** info@avivasysbio.com

**Emergency telephone number** 911 (within USA)

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**2. HAZARDS IDENTIFICATION****Potential hazards**

Some kit reagents are not considered to be hazardous according to 29CFR 1910.1200(d). They are mixtures that contain less than 1% hazardous chemicals and less than 0.1% carcinogenic chemicals. All potential hazards are listed below:

**$\alpha$ -target antibody,  $\alpha$ -phospho-target antibody,  $\alpha$ -GAPDH antibody:** < 0.1% Sodium azide

**10X TBS:** 1% Kathon CG/ICP

**15X Wash buffer:** 0.3% Kathon CG/ICP, 1.5% Tween-20

**HRP-conjugated antibodies:** 0.2% Kathon CG/ICP, 0.1% Tween-20

**Dye 1/2 -conjugated antibodies:** 0.2% Kathon CG/ICP, 0.1% Tween-20

**SDS solution:** 1% Sodium Dodecyl Sulfate (SDS)

**Blocking buffer:** 0.5% Triton X-100, 0.1% Tween-20

**Primary antibody diluent:** 1% Kathon CG/ICP, 0.5% Triton X-100, 0.1% Tween-20

**Quenching buffer:** 1% Hydrogen peroxide (H<sub>2</sub>O<sub>2</sub>)

**Crystal violet solution:** 0.05% crystal violet

**Ready-to-use substrate:** < 0.02% hydrogen peroxide and < 0.1% 3,3',5,5'-Tetramethylbenzidine (TMB)

**Stop solution:** 2N Sulfuric acid (H<sub>2</sub>SO<sub>4</sub>)

#### **Classification of the substance or mixture**

Crystal violet: Carcinogen (2); Eye and skin irritant; Flammable liquid; Toxic by inhalation, ingestion, and skin absorption); Organ Damage (Eyes, Heart, Kidney, Liver, Nerves).

Hydrogen peroxide: Carcinogen; Corrosive; Flammable Oxidizer; Organ Damage (Eyes, Respiratory system, Skin); Toxic by ingestion.

Kathon CG: Carcinogen; Corrosive; Flammable Oxidizer; Harmful by ingestion; Harmful if inhaled and extremely destructive of tissues of mucous membranes and upper respiratory tract; Organ Damage (Blood, Central Nervous System, Eye, Gastrointestinal tract, Kidney); Skin and respiratory sensitizer (causes allergies).

SDS: Flammable Solid; Organ Damage (Eyes and Lungs); Skin Irritant; Toxic by ingestion and skin absorption.

Sodium azide: May react with lead and copper plumbing to form highly explosive metal azides; Highly toxic by ingestion and skin absorption; Organ Damage (Brain, Central nervous system, Heart).

Sulfuric acid: Corrosive; Organ Damage (Eyes, Lungs, and Teeth).

Triton X-100: Toxic by ingestion; Organ Damage (Eyes); Skin Irritant.

Tween-20: Toxic by inhalation, ingestion, and skin absorption. May cause eye, skin, or respiratory system irritation.

#### **GHS label elements, including precautionary statements**

Hazard pictograms



Signal word/s

Warning

Danger

Danger

Danger

#### **Hazard statements**

Keep away from clothing and combustible materials. Avoid breathing the fumes and vapors from kit components. Wear protective gloves, clothing, eyewear, and face protection.

**Routes of entry:** Avoid ingestion and inhalation; avoid contact with skin and eyes.

**Threshold limit value and source:** The chemical, physical and toxicological properties of these components have not been thoroughly investigated. Allergy-prone individuals should be particularly cautious with proteins or other materials of biological origin.

**Carcinogenic effects data:** Not available

**Chronic effects of overexposure:** Not available

**Solubility in water:** Liquids except detergents are readily miscible in water.

**Hazards not otherwise classified (HNOC) or not covered by GHS – none**

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### 3. COMPOSITION/INFORMATION ON INGREDIENTS CAS numbers/other identifiers

Chemical Name	CAS-No	Weight %
Sodium azide	26628-22-8	<0.1
Kathon CG/ICP	7664-93-9	2.5
Tween-20	7732-18-5	1.8
Sodium Dodecyl Sulfate (SDS)	151-21-3	1
Triton X-100	9002-93-1	1
Hydrogen peroxide	7722-84-1	1
Crystal violet	548-62-9	0.05
3,3',5,5'-Tetramethylbenzidine (TMB)	54827-17-7	0.1
Sulfuric acid	7664-93	<2

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### 4. FIRST AID MEASURES

#### Eye contact

Immediately flush with plenty of water. After initial flushing, remove any contact lenses and continue flushing for at least 15 minutes.

#### Skin contact

Wash off immediately with soap and plenty of water while removing all contaminated clothes and shoes.

#### Inhalation

Move to fresh air

#### Ingestion

Clean mouth with water. Drink plenty of water.

#### Notes to physician

Treat symptomatically.

## 5. FIREFIGHTING MEASURES

### Flammable properties

Not flammable

### Flash point

No determined

### Suitable extinguishing media

Use extinguishing measures that are appropriate to local circumstances and the surrounding environment.

### Explosion Data

#### Sensitivity to mechanical Impact

None

#### Sensitivity to static discharge

None

### Protective equipment and precautions for firefighters

As in any fire, wear self-contained breathing apparatus pressure-demand, MSHA/NIOSH (approved or equivalent) and full protective gear.

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## 6. ACCIDENTAL RELEASE MEASURES

**Personal precautions, protective equipment and emergency procedures** Ensure adequate ventilation.

### Environmental precautions

Try to prevent the material from entering drains or water courses.

### Methods and materials for containment and cleaning up

Prevent further leakage or spillage if safe to do so. Pick up and transfer to properly labeled containers.

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## 7. HANDLING AND STORAGE

### Handling

Handle in accordance with good industrial hygiene and safety practice.

### Storage

Store the entire kit at 4°C upon arrival.

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## 8. EXPOSURE CONTROLS/PERSONAL PROTECTION

### Exposure guidelines

This product does not contain any hazardous materials with occupational exposure limits established by the region specific regulatory bodies.

### Engineering measures

Showers  
Eyewash stations  
Ventilation systems

## **Personal protective equipment**

### **Eye/face protection**

No special protective equipment required.

### **Skin protection**

No special protective equipment required.

### **Body protection**

No special protective equipment required.

### **Respiratory protection**

If exposure limits are exceeded or irritation is experienced, NIOSH/MSHA approved respiratory protection should be worn. Positive-pressure supplied air respirators may be required for high airborne contaminant concentrations. Respiratory protection must be provided in accordance with current local regulations.

## **Hygiene measures**

Handle in accordance with good industrial hygiene and safety practice.

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## **9. PHYSICAL AND CHEMICAL PROPERTIES**

<b>Appearance</b>	Form: liquid
<b>Odour</b>	No data available
<b>Odour threshold</b>	No data available
<b>pH</b>	No data available
<b>Melting point/freezing point</b>	No data available
<b>Initial boiling point and boiling range</b>	No data available
<b>Flash point</b>	No data available
<b>Evaporation rate</b>	No data available
<b>Flammability (solid, gas)</b>	No data available
<b>Upper/lower flammability or explosive limits</b>	No data available
<b>Vapour pressure</b>	No data available
<b>Vapour density</b>	No data available
<b>Relative density</b>	No data available
<b>Water solubility</b>	No data available
<b>Partition coefficient: n-octanol/water</b>	No data available
<b>Auto-ignition temperature</b>	No data available
<b>Decomposition temperature</b>	No data available
<b>Viscosity</b>	No data available
<b>Explosive properties</b>	No data available
<b>Oxidizing properties</b>	No data available

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## **10. STABILITY AND REACTIVITY**

### **Stability**

Stable under recommended storage conditions.

**Incompatible products**

None known based on information supplied.

**Conditions to avoid**

None known based on information supplied.

**Hazardous decomposition products**

None known based on information supplied.

**Hazardous polymerization**

Hazardous polymerization does not occur.

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**11. TOXICOLOGICAL INFORMATION**

**Acute toxicity**

Inhalation: No data available

Dermal: No data available

Skin corrosion/irritation

No data available

**Serious eye damage/eye irritation**

No data available

**Respiratory or skin sensitization**

No data available

**Germ cell mutagenicity**

No data available

**Carcinogenicity**

No data available

**Reproductive toxicity**

No data available

**Aspiration hazard**

No data available

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**12. ECOLOGICAL INFORMATION**

**Ecotoxicity**

The environmental impact of this product has not been fully investigated.

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**13. DISPOSAL CONSIDERATIONS**

**Product**

Offer surplus and non-recyclable solutions to a licensed disposal company.

**Contaminated packaging**  
Dispose of as unused product.

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## 14. TRANSPORT INFORMATION

### **DOT (US)**

Not dangerous goods

### **IMDG**

Not dangerous goods

### **IATA**

Not dangerous goods

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## 15. REGULATORY INFORMATION

### **U.S. federal regulations**

### **SARA 302/313 components**

The following components are subject to reporting levels established by SARA Title III, Section 302/313:

<b>Chemical Name</b>	<b>CAS-No</b>	<b>Weight %</b>
Sodium azide	26628-22-8	<0.1
Kathon CG/ICP	7664-93-9	2.5
Tween-20	7732-18-5	1.8
Sodium Dodecyl Sulfate (SDS)	151-21-3	1
Triton X-100	9002-93-1	1
Hydrogen peroxide	7722-84-1	1
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3,3',5,5'-Tetramethylbenzidine (TMB)	54827-17-7	0.1
Sulfuric acid	7664-93	<2

### **SARA 311/312 hazard categories**

<b>Acute health hazard</b>	no
<b>Chronic health hazard</b>	no
<b>Fire hazard</b>	no
<b>Sudden release of pressure hazard</b>	no
<b>Reactive hazard</b>	no

### **Clean water act**

This product does not contain any substances regulated as pollutants pursuant to the Clean Water Act (40 CFR 122.21 and 40 CFR 122.42).

### **CERCLA**

This material, as supplied, does not contain any substances regulated as hazardous substances under the Comprehensive Environmental Response Compensation and Liability Act (CERCLA) (40 CFR 302) or the Superfund Amendments and

Reauthorization Act (SARA) (40 CFR 355). There may be specific reporting requirements at the local, regional, or state level pertaining to releases of this material.

**California proposition 65**

This product does not contain any Proposition 65 chemicals.

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**16. OTHER INFORMATION**

**Disclaimer**

The information provided in this Safety Data Sheet is correct to the best of our knowledge, information, and belief at the date of its publication. The information given is designed only as a guidance for safe handling, use processing, storage, transportation, disposal and release and is not to be considered a warranty or quality specification. The information relates only to the specific material designated and may not be valid for such material used in combination with any other materials or in any process, unless specified in the text.