



**Safety Data Sheet (SDS)** According to the OSHA Hazard Communication Standard 29 CFR 1910.1200

Issuing Date: 2018-01-19

Version: 1

## SECTION 1. Identification

### Product identifier

|                      |   |
|----------------------|---|
| <b>Product No</b>    | 12070   |
| <b>Product name</b>  | PathScan® Phospho-c-Abl (Tyr412) Sandwich ELISA Kit   |
| <b>Kit Component</b> | <b>TMB Substrate</b><br><b>STOP Solution</b><br><b>ELISA Wash Buffer (20X)</b><br><b>ELISA Sample Diluent</b><br><b>Cell Lysis Buffer (10X)</b><br><br><b>When supplied with lyophilized antibodies:</b><br><b>Green Detection Antibody (Lyophilized)</b><br><b>Green Detection Antibody Diluent</b><br><b>*Red HRP-Linked Antibody (Lyophilized)</b><br><b>Red HRP Diluent</b><br><br><b>When supplied with liquid antibodies:</b><br><b>Green Detection Antibody (Liquid)</b><br><b>*Red HRP-Linked Antibody (Liquid)</b><br><br><b>*Note: Some PathScan® ELISA Kits may include HRP-Linked Streptavidin in place of HRP-Linked Antibody.</b> |
| <b>UN number</b>     | UN3265 (maleic acid)  |

### Recommended use of the chemical and restrictions on use

|   |  |
|---|--|
| <b>Identified uses</b>                  | This product is intended for research purposes only. |
| <b>Manufacturer, importer, supplier</b> |  |

|                                   |   |
|-----------------------------------|---|
| <b>Manufacturer address</b>       | Cell Signaling Technology, Inc.<br>3 Trask Lane<br>Danvers, MA 01923<br>United States<br>TEL: +1 978 867 2300<br>FAX: +1 978 867 2400 |
| <b>Website</b>                    | www.cellsignal.com  |
| <b>Email address</b>              | support@cellsignal.com  |
| <b>Emergency telephone number</b> | In case of emergency call CHEMTREC 1-800-424-9300   |

## SECTION 2. Hazard(s) identification

### Classification

Classification and label elements described below are inclusive of all hazards of the combined kit. The most severe classifications are listed for each endpoint. Refer to individual kit component SDS for classification and label elements for each component present in the kit.

|                                   |            |
|-----------------------------------|------------|
| Skin corrosion/irritation         | Category 1 |
| Serious eye damage/eye irritation | Category 1 |
| Skin sensitization                | Category 1 |

**GHS Label elements, including precautionary statements****Signal Word**

Danger

**Hazard statement(s)**

Causes severe skin burns and eye damage. May cause an allergic skin reaction.

**Precautionary Statement(s)**

Wash face, hands and any exposed skin thoroughly after handling. Wear protective gloves/protective clothing/eye protection/face protection. Avoid breathing dust/fume/gas/mist/vapors/spray. Contaminated work clothing should not be allowed out of the workplace. Obtain special instructions before use. Avoid contact during pregnancy/while nursing. Do not eat, drink or smoke when using this product.

IF SWALLOWED: Rinse mouth. Do NOT induce vomiting.

IF ON SKIN: Wash with plenty of soap and water. Take off contaminated clothing and wash before reuse. If skin irritation or rash occurs: Get medical advice/attention.

IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. Immediately call a POISON CENTER or doctor/physician.

IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing. Immediately call a POISON CENTER or doctor/physician.

Dispose of contents/container to an approved waste disposal plant.

**Supplementary Hazard Information**

May produce an allergic reaction

**Hazards not otherwise classified (HNOC)**

Not applicable.

### SECTION 3. Composition/information on ingredients

**Kit Component Name** STOP Solution

| Chemical Name | CAS No   | Weight % |
|---------------|----------|----------|
| maleic acid   | 110-16-7 | 3-7      |

**Kit Component Name** ELISA Wash Buffer (20X)

| Chemical Name  | CAS No     | Weight %    |
|--|------------|-------------|
| reaction mass of:<br>5-chloro-2-methyl-4-isothiazolin-3-one [EC no. 247-500-7] and 2-methyl-2H-isothiazol-3-one [EC no. 220-239-6] (3:1) | 55965-84-9 | 0.005-0.025 |

**Kit Component Name** ELISA Sample Diluent

| Chemical Name | CAS No     | Weight % |
|---------------|------------|----------|
| sodium azide  | 26628-22-8 | <0.1     |

| Kit Component Name  |            | Cell Lysis Buffer (10X) |  |
|---|------------|-------------------------|--|
| Chemical Name   | CAS No     | Weight %                |  |
| polyethylene glycol p-(1,1,3,3-tetramethylbutyl)phenylether | 9002-93-1  | 10                      |  |
| trometamol  | 77-86-1    | 1.79                    |  |
| tetrasodium pyrophosphate, decahydrate                      | 13472-36-1 | 0.1-1                   |  |

| Kit Component Name |            | Green Detection Antibody Diluent |  |
|--------------------|------------|----------------------------------|--|
| Chemical Name      | CAS No     | Weight %                         |  |
| trometamol         | 77-86-1    | 0.5                              |  |
| sodium azide       | 26628-22-8 | <0.1                             |  |

| Kit Component Name  |            | Red HRP Diluent |  |
|---|------------|-----------------|--|
| Chemical Name   | CAS No     | Weight %        |  |
| reaction mass of:<br>5-chloro-2-methyl-4-isothiazolin-3-one [EC no. 247-500-7] and 2-methyl-2H -isothiazol-3-one [EC no. 220-239-6] (3:1) | 55965-84-9 | 0.005-0.025     |  |
| trometamol  | 77-86-1    | 0.5             |  |

| Kit Component Name |            | Green Detection Antibody (Liquid) |  |
|--------------------|------------|-----------------------------------|--|
| Chemical Name      | CAS No     | Weight %                          |  |
| trometamol         | 77-86-1    | 0.5                               |  |
| sodium azide       | 26628-22-8 | <0.1                              |  |

| Kit Component Name  |            | *Red HRP-linked Antibody (Liquid) |  |
|---|------------|-----------------------------------|--|
| Chemical Name   | CAS No     | Weight %                          |  |
| trometamol  | 77-86-1    | 0.5                               |  |
| reaction mass of:<br>5-chloro-2-methyl-4-isothiazolin-3-one [EC no. 247-500-7] and 2-methyl-2H -isothiazol-3-one [EC no. 220-239-6] (3:1) | 55965-84-9 | 0.005-0.025                       |  |

**Kit Component Name** Green Detection Antibody (Lyophilized), \*Red HRP-Linked Antibody (Lyophilized), TMB Substrate

This product does not contain substances at concentrations requiring disclosure under 29 CFR 1910.1200 (OSHA Hazard Communication Standard).

#### SECTION 4. First-aid measures

|                     |  |
|---------------------|--|
| <b>Eye contact</b>  | Immediate medical attention is required. Rinse immediately with plenty of water, also under the eyelids, for at least 15 minutes.  |
| <b>Skin contact</b> | Wash off immediately with soap and plenty of water removing all contaminated clothes and shoes. Immediate medical attention is required.   |
| <b>Inhalation</b>   | IF INHALED: Remove to fresh air and keep at rest in a position comfortable for breathing. Get medical attention immediately if symptoms occur. If breathing is difficult, give oxygen. |
| <b>Ingestion</b>    | Get medical attention. Clean mouth with water and afterwards drink plenty of water. Do NOT induce vomiting. Never give anything by mouth to an unconscious person.                     |

#### **Most important symptoms and effects, both acute and delayed**

Contains kit components which may cause the following effects, refer to individual component SDSs for full information on symptoms:

Corrosive. Significant esophageal or gastrointestinal tract irritation or burns may occur following ingestion. Liquid, aerosols and vapors of this product are irritating and can cause pain, tearing, reddening and swelling accompanied by a stinging sensation and/or a feeling like that of fine dust in the eyes. Respiratory tract irritation, if severe, can progress to pulmonary edema which may be delayed in onset up to 24 to 72 hours after exposure in some cases. Contains an animal derived biological. May produce an allergic reaction in susceptible individuals. Symptoms of allergic reaction may include rash, itching, swelling, trouble breathing, tingling of the hands and feet, dizziness, lightheadedness, chest pain, muscle pain, or flushing.

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**Indication of any immediate medical attention and special treatment needed**

Probable mucosal damage may contraindicate the use of gastric lavage.

**Advice for emergency responders**

|                                   |  |
|-----------------------------------|--|
| <b>General advice</b>             | For further assistance, contact your local Poison Control Center.  |
| <b>Protection of first-aiders</b> | Ensure that medical personnel are aware of the material(s) involved, and take precautions to protect themselves. |

**SECTION 5. Fire-fighting measures**

**Extinguishing media**

**Suitable Extinguishing Media** Use extinguishing measures that are appropriate to local circumstances and the surrounding environment.

**Unsuitable Extinguishing Media** CAUTION: Use of water spray when fighting fire may be inefficient.

**Specific hazards arising from the chemical**

The product causes burns of eyes, skin and mucous membranes. Thermal decomposition can lead to release of irritating gases and vapors. In the event of fire and/or explosion do not breathe fumes.

**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.

**SECTION 6. Accidental release measures**

**Personal precautions, protective equipment and emergency procedures**

**For non-emergency personnel** Avoid contact with skin, eyes and clothing. Use personal protective equipment. Evacuate personnel to safe areas. Keep people away from and upwind of spill/leak.

**Other information** Refer to protective measures listed in Sections 7 and 8.

**Environmental precautions**

Do not allow material to contaminate ground water system. Should not be released into the environment. Do not flush into surface water or sanitary sewer system. Prevent further leakage or spillage if safe to do so. Prevent product from entering drains.

**Methods and material for containment and cleaning up**

**Methods for containment** Prevent further leakage or spillage if safe to do so.

**Methods for cleaning up** Take up mechanically, placing in appropriate containers for disposal. Dike far ahead of liquid spill for later disposal. Soak up with inert absorbent material. Clean contaminated surface thoroughly. Prevent product from entering drains. Dam up. After cleaning, flush away traces with water.

**SECTION 7. Handling and storage**

**Precautions for safe handling**

Avoid contact with skin, eyes and clothing. Wear personal protective equipment. Ensure adequate ventilation. In case of insufficient ventilation, wear suitable respiratory equipment. Handle product only in closed system or provide appropriate exhaust ventilation at machinery.

**Conditions for safe storage, including any incompatibilities**

|  |  |
|--|--|
| <b>Technical measures/Storage conditions</b> | Keep away from direct sunlight. Keep containers tightly closed in a dry, cool and well-ventilated place. |
| <b>Packaging material</b>                    | No information available.  |
| <b>Incompatible products</b>                 | Incompatible with strong acids and bases. Incompatible with oxidizing agents.                            |

**SECTION 8. Exposure controls/personal protection****Control parameters**

| Chemical Name                          | ACGIH TLV  | OSHA PEL | NIOSH REL  |
|--|--|----------|--|
| tetrasodium pyrophosphate, decahydrate | -  | -        | TWA : 5 mg/m <sup>3</sup>                          |
| sodium azide                           | Ceiling: 0.29 mg/m <sup>3</sup><br>Ceiling: 0.11 ppm | -        | Ceiling: 0.1 ppm<br>Ceiling: 0.3 mg/m <sup>3</sup> |

**Appropriate engineering controls**

Showers, eyewash stations, and ventilation systems.

**Individual protection measures, such as personal protective equipment**

Personal protective equipment (PPE) needs to be selected depending on the implemented engineering controls, frequency/duration of work activities and the concentrations of the hazardous substance.

|                                 |  |
|---------------------------------|--|
| <b>Eye/face protection</b>      | Tightly fitting safety goggles. Face-shield.   |
| <b>Skin and body protection</b> | Wear protective gloves/clothing.   |
| <b>Respiratory protection</b>   | 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.                    |
| <b>Hygiene measures</b>         | Remove and wash contaminated clothing before re-use. Contaminated work clothing should not be allowed out of the workplace. Provide regular cleaning of equipment, work area and clothing. Keep away from food, drink and animal feeding stuffs. Avoid contact with skin, eyes and clothing. Wear suitable gloves and eye/face protection. |

**SECTION 9. Physical and chemical properties**

Information on the known physical chemical properties of each component within Kit are given below. If not included, information is either not available or not applicable. Refer to individual kit component SDS for further information.

**Information on basic physical and chemical properties**

|                |                                |
|----------------|--------------------------------|
| Kit Component  | <b>TMB Substrate</b>           |
| Physical state | Liquid                         |
| Appearance     | Clear                          |
| Color          | Light yellow                   |
| pH VALUE       | 3.3-3.8                        |
| Remarks        | @ 20 °C                        |
| Kit Component  | <b>STOP Solution</b>           |
| Physical state | Liquid                         |
| Appearance     | Clear                          |
| Color          | Colorless                      |
| pH VALUE       | 1.2                            |
| Remarks        | @ 20 °C                        |
| Kit Component  | <b>ELISA Wash Buffer (20X)</b> |

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|                      |   |
|----------------------|---|
| Physical state       | Liquid  |
| Appearance           | Clear   |
| Color                | Colorless                                     |
| pH VALUE             | 6.4   |
| Remarks              | @ 20 °C                                       |
| <b>Kit Component</b> | <b>ELISA Sample Diluent</b>                   |
| Physical state       | Liquid  |
| Appearance           | Clear   |
| Color                | Blue  |
| pH VALUE             | 7.1   |
| Remarks              | @ 20 °C                                       |
| <b>Kit Component</b> | <b>Cell Lysis Buffer (10X)</b>                |
| Physical state       | Liquid  |
| Appearance           | Clear   |
| Color                | Colorless                                     |
| pH VALUE             | 7.5   |
| Remarks              | @ 20 °C                                       |
| <b>Kit Component</b> | <b>Green Detection Antibody (Lyophilized)</b> |
| Physical state       | Solid   |
| Appearance           | Lyophilized Powder                            |
| Color                | Green   |
| <b>Kit Component</b> | <b>Green Detection Antibody Diluent</b>       |
| Physical state       | Liquid  |
| Appearance           | Clear   |
| Color                | Green   |
| pH VALUE             | 7.4   |
| Remarks              | @ 20 °C                                       |
| <b>Kit Component</b> | <b>*Red HRP-Linked Antibody (Lyophilized)</b> |
| Physical state       | Solid   |
| Appearance           | Lyophilized Powder                            |
| Color                | Red   |
| <b>Kit Component</b> | <b>Red HRP Diluent</b>                        |
| Physical state       | Liquid  |
| Appearance           | Clear   |
| Color                | Red   |
| pH VALUE             | 7.4   |
| Remarks              | @ 20 °C                                       |
| <b>Kit Component</b> | <b>Green Detection Antibody (Liquid)</b>      |
| Physical state       | Liquid  |
| Appearance           | Clear   |
| Color                | Green   |
| pH VALUE             | 7.4   |
| Remarks              | @ 20 °C                                       |
| <b>Kit Component</b> | <b>*Red HRP-Linked Antibody (Liquid)</b>      |
| Physical state       | Liquid  |
| Appearance           | Clear   |
| Color                | Red   |
| pH VALUE             | 7.4   |
| Remarks              | @ 20 °C                                       |

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**SECTION 10. Stability and reactivity****Reactivity**

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No information available.

### **Chemical stability**

Stable under recommended storage conditions.

### **Possibility of hazardous reactions**

|                                 |                               |
|---------------------------------|-------------------------------|
| <b>Hazardous reactions</b>      | None under normal processing. |
| <b>Hazardous polymerization</b> | None under normal processing. |

### **Conditions to Avoid**

Extremes of temperature and direct sunlight. Over a period of time, sodium azide may react with copper, lead, brass, or solder in plumbing systems to form an accumulation of the HIGHLY EXPLOSIVE compounds of lead azide & copper azide.

### **Incompatible Materials**

Incompatible with strong acids and bases. Incompatible with oxidizing agents.

### **Hazardous Decomposition Products**

Thermal decomposition can lead to release of toxic/corrosive gases and vapors.

## **SECTION 11. Toxicological information**

### **Information on likely routes of exposure**

#### **Product Information**

Refer to kit component SDS for full toxicological information. This material should only be handled by, or under the close supervision of, those properly qualified in the handling and use of potentially hazardous chemicals. It should be borne in mind that the toxicological and physiological properties of this compound is not well defined.

#### **Inhalation**

|                             |  |
|-----------------------------|--|
| Kit Component<br>Inhalation | STOP Solution<br>Aerosol expected to be irritating based on components                               |
| Kit Component<br>Inhalation | ELISA Wash Buffer (20X)<br>Avoid breathing vapors or mists May cause irritation of respiratory tract |
| Kit Component<br>Inhalation | Green Detection Antibody (Lyophilized)<br>May cause allergic respiratory reaction                    |
| Kit Component<br>Inhalation | *Red HRP-Linked Antibody (Lyophilized)<br>May cause allergic respiratory reaction                    |
| Kit Component<br>Inhalation | Red HRP Diluent<br>Avoid breathing vapors or mists May cause irritation of respiratory tract         |

#### **Eye contact**

|                              |   |
|------------------------------|---|
| Kit Component<br>Eye contact | STOP Solution<br>May cause irreversible damage to eyes                    |
| Kit Component<br>Eye contact | ELISA Wash Buffer (20X)<br>Expected to be an irritant based on components |
| Kit Component<br>Eye contact | Cell Lysis Buffer (10X)<br>Expected to be an irritant based on components |

Kit Component Red HRP Diluent  
Eye contact Contact with eyes may cause irritation

**Skin contact**

Kit Component STOP Solution  
Skin contact Corrosive to skin. Prolonged contact with skin is harmful

Kit Component ELISA Wash Buffer (20X)  
Skin contact Repeated or prolonged skin contact may cause allergic reactions with susceptible persons. Expected to be an irritant based on components

Kit Component Green Detection Antibody (Lyophilized)  
Skin contact Repeated or prolonged skin contact may cause allergic reactions with susceptible persons

Kit Component \*Red HRP-Linked Antibody (Lyophilized)  
Skin contact Repeated or prolonged skin contact may cause allergic reactions with susceptible persons

Kit Component Red HRP Diluent  
Skin contact Repeated or prolonged skin contact may cause allergic reactions with susceptible persons

**Ingestion**

Kit Component STOP Solution  
Ingestion Ingestion causes burns of the upper digestive and respiratory tract. Harmful if swallowed

Kit Component ELISA Wash Buffer (20X)  
Ingestion Ingestion may cause gastrointestinal irritation, nausea, vomiting and diarrhea

**Information on toxicological effects****Component Information**

| Chemical Name   | LD50 Oral                          | LD50 Dermal                          | LC50 Inhalation       |
|---|------------------------------------|--------------------------------------|-----------------------|
| polyethylene glycol p-(1,1,3,3-tetramethylbutyl)phenylether   | = 1800 mg/kg (Rat)                 | -                                    | -                     |
| maleic acid   | 708 mg/kg (Rat)                    | 1,560 mg/kg (Rabbit)                 | > 0.72 mg/L (Rat) 1h  |
| trometamol  | 5900 mg/kg (Rat)                   | -                                    | -                     |
| sodium azide  | = 27 mg/kg (Rat)                   | = 20 mg/kg (Rabbit) = 50 mg/kg (Rat) | -                     |
| reaction mass of:<br>5-chloro-2-methyl-4-isothiazolin-3-one [EC no. 247-500-7] and<br>2-methyl-2H-isothiazol-3-one [EC no. 220-239-6] (3:1) | = 53 mg/kg (Rat) = 481 mg/kg (Rat) | -                                    | = 1.23 mg/L (Rat) 4 h |

**Delayed and immediate effects as well as chronic effects from short and long-term exposure****Symptoms**

Contains kit components which may cause the following effects, refer to individual component SDSs for full information on symptoms:  
Corrosive. Significant esophageal or gastrointestinal tract irritation or burns may occur following ingestion. Liquid, aerosols and vapors of this product are irritating and can cause pain, tearing, reddening and swelling accompanied by a stinging sensation and/or a feeling like that of fine dust in the eyes. Respiratory tract irritation, if severe, can progress to pulmonary edema which may be delayed in onset up to 24 to 72 hours after exposure in some cases. Contains an animal derived biological. May produce an allergic reaction in



susceptible individuals Symptoms of allergic reaction may include rash, itching, swelling, trouble breathing, tingling of the hands and feet, dizziness, lightheadedness, chest pain, muscle pain, or flushing

**Skin and Eye Corrosion/Irritation**

|                                   |                                |
|-----------------------------------|--------------------------------|
| Kit Component                     | STOP Solution                  |
| Skin corrosion/irritation         | Causes burns                   |
| Serious eye damage/eye irritation | Risk of serious damage to eyes |
| Kit Component                     | ELISA Wash Buffer (20X)        |
| Skin corrosion/irritation         | Causes skin irritation         |
| Serious eye damage/eye irritation | Causes serious eye irritation  |
| Kit Component                     | Cell Lysis Buffer (10X)        |
| Serious eye damage/eye irritation | Irritating to eyes             |

**Sensitization**

|                           |   |
|---------------------------|---|
| Kit Component             | STOP Solution   |
| Skin Sensitization        | May cause skin sensitization  |
| Kit Component             | ELISA Wash Buffer (20X)   |
| Skin Sensitization        | Product is or contains a sensitizer. May cause an allergic skin reaction. |
| Kit Component             | Green Detection Antibody (Lyophilized)                                    |
| Respiratory Sensitization | May cause allergy or asthma symptoms or breathing difficulties if inhaled |
| Skin Sensitization        | May cause skin sensitization  |
| Kit Component             | *Red HRP-Linked Antibody (Lyophilized)                                    |
| Respiratory Sensitization | May cause allergy or asthma symptoms or breathing difficulties if inhaled |
| Skin Sensitization        | May cause skin sensitization.   |
| Kit Component             | Red HRP Diluent   |
| Skin Sensitization        | Product is or contains a sensitizer. May cause an allergic skin reaction. |
| Kit Component             | *Red HRP-Linked Antibody (Liquid)   |
| Skin Sensitization        | Product is or contains a sensitizer. May cause an allergic skin reaction. |

**Mutagenic effects**

|                   |                            |
|-------------------|----------------------------|
| Kit Component     | STOP Solution              |
| Mutagenic effects | Not mutagenic in AMES Test |

**Carcinogenicity**

No component of this product present at levels greater than or equal to 0.1% is identifiable as probable, possible or confirmed carcinogen by IARC, ACGIH, NTP, or OSHA.

**Reproductive toxicity**

No information available.

**Systemic Target Organ Toxicity (STOT)**

|                        |                    |
|------------------------|--------------------|
| Kit Component          | STOP Solution      |
| STOT - single exposure | Respiratory system |

**Aspiration Hazard**

No information available.

**SECTION 12. Ecological information**

**Ecotoxicity****Product Information**

|                              |  |
|------------------------------|--|
| Kit Component<br>Ecotoxicity | STOP Solution<br>Toxic to aquatic life                                       |
| Kit Component<br>Ecotoxicity | ELISA Wash Buffer (20X)<br>Harmful to aquatic life with long lasting effects |

**Component Information**

| Chemical Name  | Toxicity to algae  | Toxicity to fish  | Toxicity to daphnia and other aquatic invertebrates  |
|--|--|---|--|
| polyethylene glycol p-(1,1,3,3-tetramethylbutyl)phenylether  | -  | LC50 8.9 mg/l (Pimephales promelas) 96 h  | EC50 26 mg/l (Daphnia) 48 h  |
| maleic acid  | -  | LC50 5 mg/L (Pimephales promelas) 96 h  | EC50 250 - 400 mg/L (Daphnia magna) 48 h   |
| trometamol   | -  | -   | NOEC >100 mg/L (Selenastrum capricornutum) 96 h  |
| sodium azide   | EC50 0.35 mg/L (Pseudokirchneriella subcapitata) 96 h  | LC50 0.8 mg/L (Oncorhynchus mykiss) 96 h LC50 5.46 mg/L (Pimephales promelas) 96 h LC50 0.7 mg/L (Lepomis macrochirus) 96 h | LC100 1 mg/L (Orconectes rusticus) 96 h  |
| reaction mass of: 5-chloro-2-methyl-4-isothiazolin-3-one [EC no. 247-500-7] and 2-methyl-2H -isothiazol-3-one [EC no. 220-239-6] (3:1) | EC50 0.11 - 0.16 mg/L (Pseudokirchneriella subcapitata) 72 h EC50 0.31 mg/L (Anabaena flos-aquae) 120 h EC50 0.03 - 0.13 mg/L (Pseudokirchneriella subcapitata) 96 h | LC50 1.6 mg/L (Oncorhynchus mykiss) 96 h  | EC50 4.71 mg/L (Daphnia magna) 48 h EC50 0.71 - 0.99 mg/L (Daphnia magna) 48 h EC50 0.12 - 0.3 mg/L (Daphnia magna) 48 h |

**Persistence and degradability**

|  |  |
|--|--|
| Kit Component<br>Persistence and degradability | STOP Solution<br>Product is biodegradable            |
| Kit Component<br>Persistence and degradability | ELISA Wash Buffer (20X)<br>Not readily biodegradable |

**Bioaccumulation**

|                                  |  |
|----------------------------------|--|
| Kit Component<br>Bioaccumulation | STOP Solution<br>Not likely to bioaccumulate           |
| Kit Component<br>Bioaccumulation | ELISA Wash Buffer (20X)<br>Not likely to bioaccumulate |

| Chemical Name | Octanol-Water Partition Coefficient |
|---------------|-------------------------------------|
| maleic acid   | 0.32                                |

**Mobility**

|                           |   |
|---------------------------|---|
| Kit Component<br>Mobility | STOP Solution<br>Will likely be mobile in the environment due to its water solubility           |
| Kit Component<br>Mobility | ELISA Wash Buffer (20X)<br>Will likely be mobile in the environment due to its water solubility |

**Other adverse effects**

No information available.

**SECTION 13. Disposal considerations****Waste Disposal Methods**

Dispose of in accordance with all applicable national environmental laws and regulations.

**Disposal considerations**

Do not empty into drains; dispose of this material and its container in a safe way.

**SECTION 14. Transport information**

This material is subject to regulation as a hazardous material for shipping:

**DOT**

|  |                      |
|--|----------------------|
| <b>UN number</b>                       | UN3265 (maleic acid) |
| <b>Transport hazard class(es)</b>      | 8                    |
| <b>Packing group</b>                   | III                  |
| <b>Special provisions</b>              | IB3, T7, TP1, TP28   |
| <b>Emergency response guide number</b> | 153                  |

|                                   |   |
|-----------------------------------|---|
| <b>UN number</b>                  | UN3265  |
| <b>UN proper shipping name</b>    | Corrosive liquid, acidic, organic, n.o.s. (maleic acid) |
| <b>Transport hazard class(es)</b> | 8   |
| <b>Packing group</b>              | III   |
| <b>ERG code</b>                   | 8L  |
| <b>Special provisions</b>         | A3, A803  |

**SECTION 15. Regulatory information****North American Inventory Listing**

| Chemical Name  | TSCA 8(b)  | TSCA 12(b)     | DSL    | NDSL       |
|--|------------|----------------|--------|------------|
| polyethylene glycol p-(1,1,3,3-tetramethylbutyl)phenylether  | Listed     | Not Listed     | Listed | Not Listed |
| maleic acid  | Listed     | Not Listed     | Listed | Not Listed |
| trometamol   | Listed     | Not Listed     | Listed | Not Listed |
| sodium azide   | Listed     | Not Listed     | Listed | Not Listed |
| reaction mass of:<br>5-chloro-2-methyl-4-isothiazolin-3-one [EC no. 247-500-7] and<br>2-methyl-2H -isothiazol-3-one [EC no. 220-239-6] (3:1) | Not Listed | Section 5: 1 % | Listed | Not Listed |

**SARA 313**

Refer to kit component SDS for full SARA Section 313 reporting requirements.

| Chemical Name              | CAS No     | SARA 313 - Threshold Values % |
|----------------------------|------------|-------------------------------|
| trisodium tetraoxovanadate | 13721-39-6 | 1.0                           |
| sodium azide               | 26628-22-8 | 1.0                           |
| magnesium nitrate          | 10377-60-3 | 1.0                           |

|                  |           |     |
|------------------|-----------|-----|
| copper dinitrate | 3251-23-8 | 1.0 |
|------------------|-----------|-----|

**SARA 311/312 Hazard Categories**

|                                   |     |
|-----------------------------------|-----|
| Acute Health Hazard               | Yes |
| Chronic Health Hazard             | No  |
| Fire Hazard                       | No  |
| Sudden Release of Pressure Hazard | No  |
| Reactive Hazard                   | No  |

**Clean Water Act**

Refer to kit component SDS for full Clean Water Act (CWA) reporting requirements.

| Chemical Name | CWA - Reportable Quantities | CWA - Toxic Pollutants | CWA - Priority Pollutants | CWA - Hazardous Substances | CWA - Bioaccumulative Chemicals of Concern (BCCs) |
|---------------|-----------------------------|------------------------|---------------------------|----------------------------|---|
| maleic acid   | 5000 lb                     | Not Listed             | Not Listed                | Listed                     | Not Listed  |

**CERCLA**

Refer to kit component SDS for full Comprehensive Environmental Response Compensation and Liability Act (CERCLA) reporting requirements.

| Chemical Name | Hazardous Substances RQs | Extremely Hazardous Substances RQs |
|---------------|--------------------------|------------------------------------|
| maleic acid   | 5000 lb                  | Not Listed                         |
| sodium azide  | 1000 lb                  | 1000 lb                            |

**California Proposition 65**

This product does not contain any Proposition 65 chemicals.

**U.S. State Right-to-Know Regulations**

Refer to kit component SDS for applicable State Right-To-Know (RTK) information.

| Chemical Name                          | New Jersey | Massachusetts | Pennsylvania |
|--|------------|---------------|--------------|
| maleic acid                            | Listed     | Listed        | Listed       |
| disodium hydrogenorthophosphate        | Listed     | Listed        | Listed       |
| tetrasodium pyrophosphate, decahydrate | Listed     | Listed        | Listed       |
| trisodium tetraoxovanadate             | Listed     | Not Listed    | Not Listed   |
| sodium azide                           | Listed     | Listed        | Listed       |
| magnesium nitrate                      | Listed     | Listed        | Listed       |
| copper dinitrate                       | Listed     | Listed        | Listed       |

**SECTION 16. Other information**

Issuing Date: 2018-01-19

**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.

End of Safety Data Sheet