SAFETY DATA SHEET (SDS)

IDENTIFICATION OF PRODUCT (MIXTURE) AND SUPPLIER (1):

Product Name: **Pathfinder® Mounting Medium**

Product Number: **30693** (2.75 mL)

Intended Use: These are kit replacement, optional or separately purchased components, identical to those found in the kits, which are to be used exclusively with these Bio-Rad Laboratories kits:
Pathfinder® *Chlamydia trachomatis* Direct Specimen Kit (catalog # 30704)
Pathfinder® Herpes Simplex Virus Types 1 and 2 DFA (catalog # 25215)
Pathfinder® Chlamydia Culture Confirmation System (catalog # 30701)
Refer to the *Instructions for Use, Package Insert* for additional product information.

Manufactured by: **Bio-Rad Laboratories, Inc.**

Address: 6565 185th Avenue NE
Redmond, WA 98052-5039, USA

Website: www.bio-rad.com

Phone Number: 1-8001-2-BIORAD (1-800-224-6723); or (425) 881-8300 (daytime PT)

SDS e-mail contact: ro-sds@bio-rad.com

Technical Information Contacts: Bio-Rad provides a toll free line for technical assistance, available 24 hours a day, 7 days a week. In the United States of America and Puerto Rico, call toll free 1-800-2-BIORAD (1-800-224-6723). Outside the U.S.A., please contact your regional Bio-Rad office for assistance. *Refer to section 16 for non-US local Bio-Rad agent contact information.*

Authorized Representative: ***FRANCE:*** *Bio-Rad Laboratories*
3 boulevard Raymond Poincaré
92430 Marnes-la-Coquette
Phone: +33 (0) 1 47 95 60 00 / Fax: +33 (0) 1 47 41 91 33
[fds-msds.fr@bio-rad.com]

Emergency Phone Number: **This MSDS is listed with CHEMTREC 1-800-424-9300 / 1-703-527-3887.** Use only in the event of a CHEMICAL EMERGENCY involving a SPILL, LEAK, FIRE, EXPLOSION or ACCIDENT with this product. ***Refer to section 16 for non-US local Bio-Rad agent contact information.***

HAZARDS IDENTIFICATION -- HAZARDOUS COMPONENTS (2):

This test kit should be handled only by qualified personnel trained in laboratory procedures and familiar with their potential hazards. Specific warnings are given in the instructions for use. The absence of a specific warning should not be interpreted as an indication of safety. Refer to Section 16 for the full text of any *Risk (R)* and *Safety (S)* statement provided below.

Component	Contents
Pathfinder® Mounting Medium, (2.75 mL) **WARNING**	- Tris-buffered **glycerol (≤ 80%)** solution with a photobleaching retardant. - Contains **< 1% sodium metabisulfite** [$Na_2S_2O_5$], EC No 231-673-0, CAS# 7681-57-4 [< 1% dilution is not subject to GHS and EU 2008/1272/EC and 1999/45/EC labeling requirements]. - **≤ 0.2% EDTA, tetrasodium salt, dihydrate** [$C_{10}H_{12}N_2O_8Na_4 \bullet 2H_2O$], CAS# 10378-23-1 [< 20% dilution is not subject to GHS and EU 2008/1272/EC Regulation or 1999/45/EC Directive labeling requirements]. - Preserved with **0.1% sodium azide** [NaN_3], EC No 247-852-1 and CAS# 26628-22-8 **[**GHS / 2008/1272/EC Classification: WARNING; H303, H313; P312.**]** [EU Classification per 1999/45/EC: Harmful: Xn; R 22; S 24-35-37 (dilution < 1%, but ≥ 0.1%)]. - The Pathfinder® Mounting Medium has been specifically formulated to complement Pathfinder® fluorescent antibody products.

Markings according to the *United Nations* (UN) Globally Harmonized System (GHS), *United States* Hazard Communication Standard (HCS) and *European Community* (EC) 2008/1272/EC guidelines:

This product has been conservatively classified and labeled in accordance with applicable *United Nations (UN)* GHS, *United States* Hazard Communication Standard (HCS) and related *European Community (EC)* 2008/1272/EC guidelines. The following regulated hazardous chemical concentrations are found in product component(s):

0.1% sodium azide [NaN_3], CAS# 26628-22-8 and EC No 247-852-1 (dilution < 1%, but ≥ 0.1%).

GHS - 2008/1272/EC Classification *[* denotes precautionary statements included on the product label]:*

Label(s):	*No Pictogram; none required due to dilution.*
Signal Word:	**WARNING**
Label Hazard Statement:	**H303: May be harmful if swallowed.** **H313: May be harmful in contact with skin.**
Supplemental Hazard Statement:	*None Specified*.
Precautionary Statement – Prevention:	**P264**: Wash thoroughly after handling.
Precautionary Statement – Response:	**P312**: Call a POISON CENTER or doctor/physician if you feel unwell. *
Precautionary Statement – Storage:	*None Specified*
Precautionary Statement – Disposal:	**P501**: Dispose of contents and container in accordance to local, regional, national and international regulations.

COMPOSITION / INFORMATION ON INGREDIENTS -- HAZARDOUS COMPONENTS (3):

The following information is furnished for those product hazardous constituents that require regulatory control or disclosure at the concentration found in the product. Note that the information here is often based on data from the chemical raw material (LD_{50}, exposure limits, etc.) and that the product contains a significantly diluted concentration in an aqueous solution; thus, the assessment below has taken hazard reduction processing into consideration when possible. The GHS and EU classifications were made according to the latest editions of the EU lists and expanded upon from company and literature data. Refer to Section 16 for the Key / legend to abbreviations and acronyms.

Chemical Ingredient	Data / Information
Glycerol [≤ 80% v/v $C_3H_8O_3$]	CAS#: 56-81-5 (100%) + EC No: 200-289-5 (100%) + Chemical Formula: $C_3H_8O_3$ (100%) + LD_{50} (oral-rat): 12,600 mg/kg (100%) + TLV and PEL: 10 mg/m^3 total mist (100%) + HMIS codes: H=1, F=0, R=1 ++ EU Classification: None; S 36 RTECS#: MA8050000 (100%) + Flash Point: 320°F / 160°C (100%) + LC_{50} (inhalation-rat): > 570 mg/m^3/1H (100%) + IATA/DOT ID: NE RCRA Code: NE Keep glycerol solutions away from strong oxidizing agents, including sodium hypochlorite (bleach) and potassium permanganate, as these could potentially form explosive mixtures. Handle appropriately with the requisite Good Laboratory Practices and Universal Precautions. Dispose of this material in accordance with local, regional and national regulations. EU Labeling Classification for 100% chemical concentration per Table 3.2 of 2008/1272/EC - *from Annex I to Directive 67/548/EEC*: Not Listed

Chemical Ingredient	Data / Information
Sodium Metabisulfite [≤ 1% w/v $Na_2S_2O_5$]	CAS#: 7681-57-4 (100%) + RTECS#: UX8225000 (100%) + EC No: 231-673-0 (100%) + Chemical Formula: $Na_2S_2O_5$ (100%) + Flash Point: NE LD_{50} (oral-rat): 1131 mg/kg (100%) + TLV and PEL: 5 mg/m^3 (100%) + IATA/DOT ID: UN2693, Class 8 (100% solution) + / IATA/DOT ID: NE (dilution) ++ HMIS Codes: H=1, F=0, R=1 ++ RCRA Code: Non-RCRA (100%) ++ EU Classification per 1999/45/EC: None (due to dilution, ≤ 1%) ++ *GHS / 2008/1272/EC Classification*: None (due to dilution, < 1%) ++ **Sodium metabisulfite** is potentially sensitizing, prolonged or repeated exposure may cause allergic reaction in certain sensitive individuals. Some individuals are said to be dangerously sensitive to minute amounts of sulfites in foods. May be detrimental if swallowed or in contact with skin. Contact with acid may liberate toxic gas. The potential for adverse health effects is unknown for the highly diluted, small volume of **sodium metabisulfite** in this kit, but is unlikely if handled appropriately with the requisite Good Laboratory Practices and Universal Precautions. Dispose of this material in accordance with local, regional, national and international regulation. EU Labeling Classification for 100% chemical concentration per Table 3.2 of 2008/1272/EC - *from Annex I to Directive 67/548/EEC*: Harmful:Xn R 22: Harmful if swallowed. R 31: Contact with acids liberates toxic gas. R 41: Risk of serious damage to eyes. S (2-): Keep out of the reach of children. S 17: Keep away from combustible material. S 26: In case of contact with eyes, rinse immediately with plenty of water and seek medical advice. S 39: Wear suitable eye/face protection. S 46: If swallowed, seek medical advice immediately and show this container or label.
Sodium Azide [0.1% w/v NaN_3] **WARNING**	CAS#: 26628-22-8 (100%) + RTECS#: VY8050000 (100%) + EC No: 247-852-1 (100%) + Chemical Formula: NaN_3 (100%) + Flash Point: NE LD_{50} (oral-rat): 27 mg/kg (100%) + LC_{50} (inhalation-rat): 37 mg/m^3 (100%) + PEL/TLV: 0.3 mg/m^3 (ceiling) (100%) + IATA/DOT ID: UN1687, Class 6.1 (undiluted, 100%) + / IATA/DOT ID: NE (dilution) ++ HMIS Codes: H=2, F=0, R=1 ++ RCRA Code: P105 (undiluted, 100%) + EU Classification per 1999/45/EC: Harmful: Xn; R 22; S 24-35-37 (< 1% and ≥ 0.1%) ++ *GHS / 2008/1272/EC Classification*: WARNING; H303, H313; P312 ++ **Sodium azide**, a biocidal preservative, may be harmful if swallowed [H303]; it has been evident to kill at low concentrations, if enough is ingested (more than supplied in kit). May be harmful in contact with skin. [H313]. May cause eye, skin or tissue irritation. May cause long lasting harmful effects to aquatic life. Avoid contact. Wash thoroughly after handling. Call a POISON CENTER or doctor/physician if you feel unwell [P312]. Avoid release to the environment. Avoid contact with metals; sodium azide may react with lead or copper plumbing to form highly explosive metal azides; build-up in metal plumbing has led to laboratory explosions, so flush with copious water when pouring dilute solutions down the drain to prevent such explosive build-up. The potential for these adverse health effects is unknown for the highly diluted, small volume of **sodium azide** in this kit, but is unlikely if handled appropriately with the requisite Good Laboratory Practices and Universal Precautions. This material and its container must be disposed of in a safe way and in accordance with local, regional, national and international regulations. EU Labeling Classification for 100% chemical concentration per Table 3.2 of 2008/1272/EC - *from Annex I to Directive 67/548/EEC*: Toxic: T, Environmental Danger: N R 28: Very toxic if swallowed. R 32: Contact with acids liberates very toxic gas. R 50/53: Very toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment. S (1/2-): Keep locked up and out of the reach of children. S 28: After contact with skin, wash immediately with plenty of *soap and water*. S 45: In case of accident or if you feel unwell, seek medical advice immediately. S 60: This material and its container must be disposed of as hazardous waste. S 61: Avoid release to the environment. Refer to special instructions/safety data sheet.

+ The Kit Concentration was not tested; the values refer to the solution concentration as tested, designated by percentage within parentheses.
++ The Kit Concentration was tested or the values given were estimated for the general diagnostic laboratory usage of the kit reagent dilution.
NE: Not Established or Unknown (unable to locate data); typically for concentrate form unless otherwise specified.
Abbreviations for component HMIS hazard ratings are as follows: H=Health, F=Flammability, R=Reactivity.

Related product information:

- Refer to section 2 for the full text of any *GHS* /2008/1272/EC statement coded above.
  Refer to section 16 for the full text of any *Risk (R)* and *Safety (S)* statement provided above.
- No significant adverse health effects are expected by any route for the following chemical constituents in the kit volumes and concentrations present [Not subject to GHS or EU hazard labeling]:
  - **< 2% Tris (TRIZMA BASE)** buffer solution; 2-Amino-2-(hydroxymethyl)-3,1-propanediol, [$C_4H_{11}NO_3$], EC No 201-064-4, CAS# 77-86-1, 25149-07-9; 108195-86-4.
  - **≤ 0.2% EDTA, tetrasodium salt, dihydrate** [$C_{10}H_{12}N_2O_8Na_4 \bullet 2H_2O$], CAS# 10378-23-1, EC No 200-573-9.
  - The miscellaneous salts, buffers, water or other non-reactive ingredients
- Do not eat, drink or smoke when using this product.
- Wear protective gloves/protective clothing/eye protection/face protection. Take off contaminated clothing and wash before reuse.

EMERGENCY FIRST AID MEASURES (4):

Health Effects:	Symptoms of overexposure may include headache, dizziness, congestion and breathing difficulty. May be harmful if swallowed. May be harmful in contact with skin. May cause allergic skin reaction upon repeated exposure, generally at concentrations and volumes that greatly exceed that of this kit.
Eye Contact:	Flush eyes with copious water for at least 15 minutes. Ensure adequate flushing by separating the eyelids with fingers while flushing with water. OBTAIN MEDICAL ATTENTION.
Skin Contact:	Remove contaminated clothing. Flush skin with copious water and wash affected area with soap and water. If blood-to-blood contact occurs or if more severe symptoms develop, consult a physician.
Inhalation:	Remove person from exposure area to fresh air. If breathing becomes difficult, immediately call for emergency medical assistance. Treat symptomatically and supportively. Generally, this aqueous product is not a significant inhalation hazard in the kit volumes and concentrations present.
If Swallowed:	If ingested, rinse out mouth thoroughly with water, provided the person is conscious, and OBTAIN MEDICAL ATTENTION. Call a physician or the local poison control center. Treat symptomatically and supportively. If vomiting occurs, keep head lower than hips to prevent aspiration.
Notes to Physician:	According to the OSHA Bloodborne Pathogens Standard (29 CFR 1910.1030), Universal Precautions apply. Persons handling human blood source samples should be offered hepatitis B vaccination prior to working with human source material**.**

FIREFIGHTING MEASURES (5):

Extinguishing Media:	Use extinguishing media appropriate for the surrounding fire.
Hazardous Combustion Products:	May emit toxic oxides of carbon and nitrogen under fire conditions.
Special Firefighting Procedures	Conventional firefighting full protective equipment (with NIOSH-approved self-contained breathing apparatus) and procedures appropriate for the surrounding fire should be sufficient.

ACCIDENTAL RELEASE MEASURES (6):

- Avoid direct contact with skin, eyes, mucous membranes and clothing by wearing appropriate lab personal protective equipment (PPE), including gloves, lab coat and eye/face protection.
- In the event of a hazardous material spill, contain the spill if it is safe to do so and immediately move to a safe area, free from potential aerosols, to decontaminate and/or safely remove any contaminated clothing, as necessary. IF ON SKIN (or hair): Remove/Take off immediately all contaminated clothing. Rinse skin with water/shower. Isolate the hazard area and ventilate if appropriate. Ensure that appropriate spill cleanup materials and PPE are available and used.

- Follow established laboratory policy and applicable CDC/NIH biosafety and/or OSHA/WISHA hazardous material spill and/or NFPA/Fire Code guidelines for appropriate hazardous chemical and/or biological material spill response and cleanup. Avoid release to the environment.
- Wear appropriate PPE. Clean the spill area with water and wipe dry. Spills can also be absorbed with appropriate inert materials (e.g., spill pillows, absorbent pads, etc.), which are secured in an appropriate, labeled, sealed container. Material used to absorb the spill may require hazardous material waste disposal. Infectious, chemical and laboratory wastes must be handled and discarded in accordance with all local, regional, national and international regulations.
- Refer to Sections 8 and 13 for more specifics.

HANDLING AND STORAGE INFORMATION (7):

Handling:	This test kit should be handled only by qualified personnel trained in laboratory procedures and familiar with their potential hazards. Follow proper Good Laboratory Practices and safety guidelines for handling chemical, biological and laboratory hazards. Do not smoke, eat, or drink in areas where patient samples and kit reagents are handled. Wash your hands after use. Wear appropriate personal protective equipment (PPE), including gloves, lab coat or equivalent and eye/face protection. Keep containers tightly closed; avoid splashing, spills and the generation of aerosols. Handle all human source specimens, materials and equipment used to perform the operations as though they were capable of transmitting infectious disease, as per *Standard* and *Universal Precautions*. All personal protective equipment should be removed before leaving the work area. Refer to Section 8 for more specifics. Avoid release to the environment. Do not allow undiluted product hazardous chemical ingredient or large quantities of it to reach ground water or water course.Consult with your Environmental Health and Safety Office for assistance.
Storage:	Store according to product label instructions.
Caution, consult accompanying documents. Read and follow all the Precautions and Warnings in the kit product instructions.	
These are kit separately purchased components, identical to those found in the kits, which are to be used exclusively with the Bio-Rad Laboratories kits listed in Section 1.	

EXPOSURE CONTROL / PERSONAL PROTECTION MEASURES (8):

Control Parameters – ***Component chemicals with limit values that require monitoring at the workplace:***

Sodium Azide [CAS# 26628-22-8]:		
REL (United States) *TLV (United States)*	*Short-term value: C 0.3** mg/m³, C 0.1* ppm* *Short-term value: C 0.29** mg/m³, C 0.11* ppm*	**as HN_3 vapor; **as NaN_3; Skin* **as HN_3 vapor **as NaN_3*
EL (Canada)	*Short-term value: C 0,29* mg/m³, C 0,11**ppm*	**sodium azide;**hydrazoic acid vapour*
IOELV (European Union)	*Short-term value: 0,3 mg/m³* *Long-term value: 0,1 mg/m³*	*Skin* *Skin*
WEL (United Kingdom)	*Short-term value: 0,3 mg/m³* *Long-term value: 0,1 mg/m³*	*(as NaN_3) Sk* *(as NaN_3) Sk*
NES (AUS)	*0.3* mg/m³, 0.11 ppm*	**Peak limitation*
VME (France)	*Short-term value: 0,3 mg/m³, 0,1 ppm*	*risque de pénétration percutanée*
VL (Belgium, (France)	*Short-term value: 0,3 mg/m³* *Long-term value: 0,1 mg/m³*	*D, M* *D, M*
AGW (Germany)	0,2 mg/m³	2(I);DFG
MAK (Austria, (Germany))	*Short-term value: 0,3 mg/m³* *Long-term value: 0,1 mg/m³*	
TWA (Italy)	*Short-term value: C 0,29 mg/m³, C 0,11* ppm* *A4; sodio azide; *come azido idrazonico, vapore*	
MAK (Switzerland, (Germany))	*Short-term value: 0,4 e mg/m³* *Long-term value: 0,2 e mg/m³*	
GV (Denmark)	*0,1 mg/m³*	*EH*

Sodium Azide [CAS# 26628-22-8]:	
MAK (Netherland)	*Short-term value: 0,3 mg/m³* *Long-term value: 0,1 mg/m³*
OEL (Sweden)	*Short-term value: 0,3 mg/m³* *H* *Long-term value: 0,1 mg/m³* *H*

Glycerol [CAS# 56-81-5]:		
PEL (United States) *TLV (United States)*	*15* 5** mg/m³* *10* ppm*	**total dust **respirable fraction* **Mist*
EL (Canada)	*10* 3** mg/m³*	**mist; **mist, resirable*
WEL (United Kingdom)	*10 mg/m³*	
NES (AUS)	*10 mg/m³*	
VME (France)	*10 mg/m³*	
VL (Belgium, (France))	*10 mg/m³*	
MAK (Germany)	*50E mg/m³*	
TWA (Italy)	*10 mg/m³*	
MAK (Switzerland, (Germany))	*Short-term value: 100 e mg/m³* *Long-term value: 50 e mg/m³*	

Chemical	CAS-No.	Value	Control parameter	Update	Basis
Sodium Metabisulphite	***7681-57-4***	TWA	5 mg/m^3	1996-05-18	US. American Conference of Governmental and Industrial Hygienists Threshold Limit Values for Chemical Substances in the Work Environment; Annual Reports for the Year 2004: Committees on Threshold Limit Values (TLVs) and Biological Exposure Indices (BEIs)
		TWA	5 mg/m^3	1989-03-01	US. Department of Labor - Occupational Safety and Health Administration (OSHA) 29 CFR 1910.1000 Z-1-A.
	Remarks: Refers to Appendix A – Carcinogens. 1996 Adoption. *Source: Raw Material Vendor Safety Data Sheet*				

Additional information: The lists that were valid during the creation were used as basis.

The following personal protective equipment (PPE) is recommended to prevent blood or other potentially infectious or hazardous materials from reaching the user's work or street clothes, skin, mouth, mucous membranes and eyes, and to prevent hazard inhalation, under normal conditions of use and for the time during which the protective equipment is utilized:

Ventilation: Adequate lab ventilation is required.

Eye / Face Protection: Wear ANSI approved safety glasses, goggles or face shield with safety glasses or goggles. Contact lenses should not be worn when handling lab hazards.

Protective Gloves: Suitable gloves must be worn at all times when handling kit reagents or patient samples to provide skin protection from splash and intermittent contact. Synthetic gloves such as nitrile, neoprene and vinyl are recommended because they are sturdy, effective and contain no natural latex ingredients associated with latex glove allergic reactions. Disposable (single use) gloves should be changed often and never reused. Wash hands thoroughly after removing gloves.

Protective Clothing: Wear a lab coat, clinic jacket, gown, apron and/or smock. Disposable clothing is strongly recommended when handling biohazardous material.

Respiratory Protection: Do not breathe mist / vapours / spray.

Other: All personal protective equipment should be removed before leaving the work area and placed in an appropriately designated area or container for storage, processing, decontamination or disposal.

Note: Occupational exposure limit values and health hazard data were given in Section 3. Environmental controls are included in the following sections.

PHYSICAL AND CHEMICAL PROPERTIES (9):

Appearance:	Clear aqueous liquid.		
Odour:	Data is not available.	**Odour threshold:**	Not Established.
pH:	Neutral, pH between 6 and 9.		
Boiling point:	Not Established.	**Melting point**	Not Established.
Flash point:	Not established. Flammable limits: LEL/LFL is Not applicable; UEL/UFL is Not applicable.		
Evaporation rate:	No applicable information was found.		
Fire hazard:	Although the components have not been tested for fire hazard and explosion data, being water-based, they are not expected to be fire hazards, but some of the kit packaging materials may burn under fire conditions.		
Vapor pressure:	No applicable information was found.		
Vapor density:	No applicable information was found.		
Relative density:	Approximately 1.		
Solubility:	Miscible in water.		
Partition coefficient (n-octanol/water):	No applicable information was found.		
Auto igniting:	Product is not known to be self-igniting.		
Decomposition temperature:	No applicable information was found.		
Viscosity:	No applicable information was found.		
Danger of explosion:	**Sodium azide** may react with lead or copper plumbing to form highly explosive metal azides; buildup in metal plumbing has led to laboratory explosions, so flush with copious water when pouring dilute solutions down the drain to prevent such explosive buildup. Keep **glycerol** solutions away from strong oxidizing agents, including sodium hypochlorite (bleach) and potassium permanganate, as these could potentially form explosive mixtures.		
No other standard characteristics are known to be applicable to the identification or hazards of the product are known.			

STABILITY AND REACTIVITY INFORMATION (10):

NOTE: Chemical reactions that could result in a hazardous situation (e.g. generation of flammable or toxic chemicals, fire or detonation) are listed here. Although not intended to be complete, an overview of important reactions involving common chemicals is provided to assist in the development of safe work practices.

Chemical Stability / Reactivity:	Stable under ordinary conditions of use and storage.
Conditions and/or Materials to Avoid:	**Sodium azide** may react with lead or copper plumbing to form highly explosive metal azides; buildup in metal plumbing has led to laboratory explosions, so flush with copious water when pouring dilute solutions down the drain to prevent such explosive buildup.
Materials to Avoid:	Keep **glycerol** solutions away from strong oxidizing agents, including sodium hypochlorite (bleach) and potassium permanganate, as these could potentially form explosive mixtures.
Hazardous Decomposition Products:	May emit toxic oxides of carbon, nitrogen and sulfur under fire conditions.
Hazardous Polymerization:	Has not been reported to occur.

TOXICOLOGICAL INFORMATION -- GENERAL COMPOSITE (11):

Refer to Sections 2 and 3 for the kit component concentrations. The composite toxicological information for this product is:

Acute Health Effects

Toxicity:	May be harmful if swallowed. May be harmful in contact with skin.
Primary Irritant Effect:	May slightly irritate eyes or skin, depending on amount and contact time.
Serious Eye Damage / Irritation:	May slightly irritate eyes, depending on amount and contact time.
STOT-Single Exposure:	No applicable information was found.
STOT-Repeated Exposure:	No applicable information was found.
Aspiration Hazard:	No applicable information was found.
Other Acute Health Effects:	Possible risk of irreversible effects.

Chronic Toxicity

Sensitization:	Contains a small volume of a very dilute, sensitizing chemical (**sodium metabisulfite**). Though the potential for an allergic response is greatly reduced by the dilution, sensitization threshold is unknown; thus, handle accordingly.
Carcinogenicity:	No carcinogenic effect known. No component, mixture or constituent has been classified as a carcinogen by NTP, IARC or OSHA.
Germ Cell Mutagenicity:	No applicable information was found.
Reproductive hazard:	No reproductive toxic effect known.

Additional Toxicological Information: The chemical, physical and toxicological properties have not been thoroughly investigated.

ECOLOGICAL INFORMATION (12):

This product was not tested. The following assessment is based on information for the ingredients.	
Toxicity:	**100% Sodium Azide [CAS# 26628-22-8] *:** Fish LC_{50} - Lepomis macrochirus - 0.68 mg/l - 96 h Daphnia EC_{50} - Daphnia pulex (Water flea) - 4.2 mg/l - 48 h **Concentrated *Sodium Metabisulphite* [CAS# 7681-57-4] *:** Fish LC_{50} - Oncorhynchus mykiss (rainbow trout) – 150-200 mg/l – 96 h Daphnia EC_{50} - Daphnia magna (Water flea) – 89 mg/l – 24 h Algae LC_{50} - Scenedesmus subspicatus – 48 mg/l – 72 h Bacteria - Pseudomonas putida – 56 mg/l – 17 h ** Source: Raw Material Vendor Safety Data Sheet*
Persistence and degradability:	No information found.
Bioaccumulation potential:	No information found.
Mobility in soil:	No information found.
PBT and vPvB assessment:	No information found.
Other adverse affects:	An environmental hazard cannot be excluded in the event of unprofessional handling or disposal.

Avoid release to the environment.

General notes: Water hazard class 1 (Self-assessment): slightly hazardous for water.

DISPOSAL CONSIDERATIONS (13):

Disposal of hazardous and/or laboratory wastes, product or packaging must be conducted in accordance with all applicable local, regional, national and international regulations. This section specifies the general and United States RCRA requirements. Processing, use or contamination of the kit components may change waste management requirements and options. Contact your Environmental Health and Safety Office for your specific disposal procedures.

Recommended Product Disposal: Sodium azide may react with lead or copper plumbing to form highly explosive metal azides; buildup in metal plumbing has led to laboratory explosions, so flush with copious water when pouring dilute solutions down the drain to prevent such explosive buildup; check your international, national, regional and local ordinances accordingly.

Do not allow undiluted product or large quantities of it to reach ground water or water course.

Recommended Unclean Packaging Disposal: Dispose of in accordance with all applicable local, regional, national and international regulations.

TRANSPORT INFORMATION (14):

Shipping of product, packaging and waste must be conducted in accordance with all applicable local, regional, national and international regulations. Processing, use or contamination of the kit components may change shipping requirements and options. Contact your Environmental Health & Safety Office for your specific shipping procedures.

Recommended Unused Product Multi-Modal Transportation: According to US DOT, IATA and UN "Model Regulations", the product must be transported as follows: No known transport restrictions.

Transport in bulk according to Annex II of MARPOL73/78 and the IBC Code: Not applicable.

REGULATORY INFORMATION (15):

Composite HMIS Rating: Health: 2 Flammability: 0 Reactivity: 1

California Proposition 65: The product does not contain listed substances.

Carcinogenicity Categories: No component, mixture or constituent has been classified as a carcinogen by NTP (National Toxicity Program), IARC (International Agency for Research on Cancer), TLV-CAR (Threshold Limit Value established by ACGIH) or OSHA.

National Regulations:

***WHMIS Classification*:** This MSDS contains the required information in accordance with the **Workplace Hazardous Materials Information System (WHMIS) Canadian Standard** for the hazard classification criteria for this product.

Mexican Standard: This SDS contains the required information for preparation in accordance with the **Mexican Standard (NMX-R-019-SCFI-2011)** *SISTEMA ARMONIZADO DE CLASIFICACIÓN Y COMUNICACIÓN DE PELIGROS DE LOS PRODUCTOS QUÍMICOS GLOBALLY HARMONIZED SYSTEM (GHS)*.

Australian Code: This SDS contains the required information for preparation according to the *Australian Code of Practice on Preparation of Safety Data Sheets for Hazardous Chemicals* under Section 274 of the ***Work Health and Safety Act.*** *Australian Inventory of Chemical Substances*: All pertinent ingredients are listed.

Water hazard class: Water hazard class 1 (German Regulation) (Self-assessment): slightly hazardous for water.

Markings according to *European Community* 1999/45/EC, 2001/59/EC, 2001/60/EC, 2006/102/EC guidelines: This product has been classified and labeled in accordance with applicable European Community (EC) Directives (refer to 1999/45/EC, 2001/59/EC, 2001/60/EC and 2006/102/EC).

Hazard Designation of Composite Product: HARMFUL: Xn, 

Hazard Determining Substance(s) of Labeling (rated under 1999/45/EC unless otherwise specified):

0.1% Sodium azide, EC No 247-852-1 and CAS# 26628-22-8 [Harmful: Xn; R 22; S 24-35-37 (< 1% and ≥ 0.1%)].

OTHER INFORMATION (16):

Risk Phrases:

R 22 Harmful if swallowed.

Safety Phrases:

S 24 Avoid contact with skin.
S 35 This material and its container must be disposed of in a safe way.
S 37 Wear suitable gloves.

This test kit should be handled only by qualified personnel trained in laboratory procedures and familiar with their potential hazards.

Specific warnings are given in the instructions for use. The absence of a specific warning should not be interpreted as an indication of safety.

These are kit replacement, optional or separately purchased components, identical to those found in the kits, which are to be used exclusively with the Bio-Rad Laboratories kits listed in Section 1.

Sources of key data used to compile the Safety Data Sheet:
Raw Material Vendor Safety Data Sheets
United Nations (UN) Globally Harmonized System (GHS)
United States OSHA Hazard Communication Standard (HCS) 1910.1200
Canadian Workplace Hazardous Materials Information System (WHMIS)
European Community (EC) Regulations 2008/1272/EC, 2010/453/EC, 2006/1907/EC
Mexican Standard NMX-R-019-SCFI-2011
Australian Code of Practice on Preparation of Safety Data Sheets for Hazardous Chemicals (Section 274 of the *Work Health and Safety Act*)
EU Directives 1999/45/EC, 2001/59/EC, 2001/60/EC, 2006/102/EC
Registry of Toxic Effects of Chemical Substances (RTECS)
International Agency for Research on Cancer (IARC)
American Conference of Governmental Industrial Hygienists (ACGIH)
Occupational Safety and Health Administration, U.S. Department of Labor (OSHA)
National Toxicity Program (NTP)
National Institute for Occupational Safety and Health (NIOSH)
World Health Organization. *Laboratory Biosafety Manual*
CDC/NIH *Biosafety in Microbiological and Biomedical Laboratories*
Australian Inventory of Chemical Substances (ACIS) [7-27-2012]
California Proposition 65

Chemical safety assessment: Mixtures covered in this SDS were classified using the EU Regulation 1272/2008/EC and/or UN Globally Harmonized System of Classification and Labelling of Chemicals (GHS) Fourth edition unless otherwise specified.

Key / legend to abbreviations and acronyms used in the safety data sheet:
ACGIH – American Conference of Governmental Industrial Hygienists
ACIS – Australian Inventory of Chemical Substances
ANSI – American National Standards Institute
CAS – Chemical Abstracts Service
CDC – Centers for Disease Control, USA
CNS – Central Nervous System
DOT – Department of Transportation, USA
EC_{50} – half maximal effective concentration
EU – European Union
GHS – Globally Harmonized System
HCS – Hazard Communication Standard, USA
IARC – International Agency for Research on Cancer
IATA – International Air Transport Association
ICAO - International Civil Aviation Organization
IDLH – Immediately Dangerous to Life or Health
IMDG – International Maritime Dangerous Goods
IPCS – International Programme on Chemical Safety
LC_{50} – median lethal concentration, 50%
LD_{50} – median lethal dose, 50%

NIOSH – National Institute for Occupational Safety and Health
NTP – National Toxicity Program
OEL – Occupational Exposure Limit
PEL – Permissible Exposure Limit
ppm – parts per million
RTECS – Registry of Toxic Effects of Chemical Substances
SDS – Safety Data Sheet
STEL – Short Term Exposure Limit
TLV/TWA – Threshold Limit Value / Time-Weighted Average
UN – United Nations
US EPA – United States Environmental Protection Agency
US OSHA – Occupational Safety and Health Administration, U.S. Department of Labor
WHMIS –Workplace Hazardous Materials Information System, Canada
WHO – World Health Organization (United Nations)

Additional information: The lists that were valid during the creation were used as basis.

This revision: Updated, reformatted and added new GHS information.

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