SECTION 1 – Product / Preparation and Company Identification

1.1 **QuickVue Strep A Liquid Controls** For In Vitro Diagnostic Use Only

1.2 The QuickVue Strep A Liquid Controls are intended to be used as quality control samples representative of positive and negative test results and to verify proper performance of the procedure and reagents of the QuickVue Strep A test systems. For use by healthcare professionals only.

1.3 **Manufacturer:** Quidel Corporation – 10165 McKellar Court – San Diego, CA 92121
   **Telephone No.:** 1-858-552-1100  **Toll Free No.:** 1-800-874-1517  **Fax No.:** 1-858-453-4338

1.4 **Emergency No.:** Poison Control @ 1-800-876-4766 (USA only)

SECTION 2 – Composition / Ingredients Information

2.1 **Description of Components:** Positive Control and Negative Control

2.2 **Hazardous Ingredients:** Dangerous solid or liquid substances present in >1% (or as required by applicable U.S., Canadian and E.U. regulations):

<table>
<thead>
<tr>
<th>Component</th>
<th>% Weight</th>
<th>Classification:</th>
</tr>
</thead>
<tbody>
<tr>
<td>Kit</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Component</td>
<td></td>
<td>US OSHA</td>
</tr>
<tr>
<td>Kit</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Component</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

No hazardous substances greater than 1% are contained within this kit.

** See Section 15 and Section 16 – Regulatory Information for additional information on hazard classifications.

SECTION 3 – Hazard Identification

**Emergency Overview:** As part of good industrial and personal hygiene and safety procedure, avoid all unnecessary exposure to the chemical components of this kit and ensure prompt removal from skin, eyes, and clothing.

3.1 **No significant health effects are anticipated from routine use of this kit when following the precautions listed below and within the kit Package Insert.**

3.2 Controls contain heat-inactivated Group A *Streptococcus* (Positive Control) and heat-inactivated Group C *Streptococcus* (Negative Control) and should be considered as if capable of transmitting infectious diseases.

3.3 All patient samples, contaminated components and liquid controls should be handled as potentially infectious. Follow **Universal Precautions** as necessary.

3.4 **Warning Properties:** None

SECTION 4 – First Aid Measures

**Special Instructions:**

4.1 **Eye Contact** If any component of this kit enters the eyes, wash eyes gently under potable running water for 15 minutes or longer, making sure that the eyelids are held open. If pain or irritation occurs, obtain medical attention.
4.2 Skin Contact If any component of this kit contacts the skin and causes discomfort, remove any contaminated clothing. Wash affected area with plenty of soap and water. If pain or irritation occurs, obtain medical attention.

4.3 Ingestion If any component of this kit is ingested, wash mouth out with water. If irritation or discomfort occurs, obtain medical attention.

SECTION 5 – Fire Fighting Measures

5.1 Extinguishing Media: For small fires, use dry chemical, carbon dioxide, or alcohol-resistant foam.

5.2 Special Fire Fighting Procedures: This material will not significantly contribute to the intensity of a fire. Use extinguishing material suitable to the surrounding fire. Utilize proper personal protective equipment when responding to any fire. Incipient fire responders should wear eye protection. Structural firefighters must wear Self-Contained Breathing Apparatus and full protective equipment. Move containers from fire area if it can be done without risk to personnel. If possible, prevent runoff water from entering storm drains, bodies of water, or other environmentally sensitive areas.

5.3 Unusual Fire and Explosion Hazards: When involved in a fire, this material can decompose and produce irritating fumes and toxic gases (e.g., Carbon monoxide, Carbon dioxide).

   Explosion Sensitivity to Mechanical Impact: Not sensitive under normal conditions.

   Explosion Sensitivity to Static Discharge: Not sensitive under normal conditions.

5.4 Additional Considerations (Positive and Negative Controls):

   5.4.1 Flash Point Non Combustible
   5.4.2 Auto-ignition Temperature Not Applicable
   5.4.3 Upper / Lower Explosion Limit Not Applicable

5.5 NFPA Ratings (see ‘Definition of Terms’ for explanation of numerical ratings):

   Positive and Negative Controls

   ** Only trained and competent personnel shall attempt to extinguish a fire. Contact emergency response personnel as required. Be cautious of surrounding materials that may react with the extinguishing media.

SECTION 6 – Accidental Release Measures

6.1 Personal Precautions: This kit contains materials of biological origin. Avoid personal contact. Use Universal Precautions during clean-up procedures.

6.2 Environmental Precautions: Not applicable

6.3 Spill and Leak Procedures: Not Applicable
SECTION 7 – Handling and Storage

7.1 Handling: Wash exposed areas thoroughly after using this kit. Do not eat or drink while using this kit. This kit should be handled only by qualified clinical or laboratory employees trained on the use of this kit and who are familiar with the potential hazards. This kit should be handled as though capable of transmitting infectious diseases. Universal Precautions should be followed when using this kit.

7.2 Storage: To maintain efficacy, store according to the package insert instructions.

7.3 Specific Use: For in vitro diagnostic use – Not for use by general public!

SECTION 8 – Exposure Controls and Personal Protection

8.1 Exposure Limits: There are no ACGIH, NIOSH, OSHA or country specific occupational exposure limits currently established for components present in this preparation at concentrations equal to or greater than 1% (0.1% if carcinogen).

8.2 Occupational Exposure Controls:

8.2.1 Engineering Controls:
No special engineering controls are required when working with this kit.

8.2.2 Personal Protective Equipment (PPE):
Eye Contact: Safety glasses are strongly recommended to prevent eye contact.
Hand Contact: Impervious gloves (nitrile or equivalent) should be worn to prevent hand contact.
Skin Contact: Lab Coat or similar garment should be worn.

8.2.3 Environmental Controls: No special environmental controls are required.

SECTION 9 – Physical and Chemical Properties

<table>
<thead>
<tr>
<th>Characteristic</th>
<th>Positive and Negative Controls</th>
</tr>
</thead>
<tbody>
<tr>
<td>Boiling Point (°C)</td>
<td>Not available</td>
</tr>
<tr>
<td>Melting Point (°C)</td>
<td>Not available</td>
</tr>
<tr>
<td>Specific Gravity</td>
<td>Not available</td>
</tr>
<tr>
<td>Vapor Pressure (mm Hg)</td>
<td>Not available</td>
</tr>
<tr>
<td>Vapor Density (AIR = 1)</td>
<td>Not available</td>
</tr>
<tr>
<td>Evaporation Rate (Ether = 1)</td>
<td>Not available</td>
</tr>
<tr>
<td>pH:</td>
<td>Neutral</td>
</tr>
<tr>
<td>Solubility in Water:</td>
<td>Soluble</td>
</tr>
<tr>
<td>Appearance and Odor:</td>
<td>Clear Liquid; Odorless</td>
</tr>
</tbody>
</table>
SECTION 10 – Stability and Reactivity

<table>
<thead>
<tr>
<th>Characteristic</th>
<th>Positive and Negative Controls</th>
</tr>
</thead>
<tbody>
<tr>
<td>Stability</td>
<td>Stable</td>
</tr>
<tr>
<td>Conditions to Avoid</td>
<td>Incompatible materials</td>
</tr>
<tr>
<td>Materials to avoid (Incompatibilities)</td>
<td>None Known</td>
</tr>
<tr>
<td>Hazardous Decomposition or Byproducts</td>
<td>Thermal decomposition may release irritating fumes or toxic gases (e.g., Carbon monoxide, Carbon dioxide).</td>
</tr>
<tr>
<td>Hazardous Polymerization</td>
<td>Will not occur</td>
</tr>
</tbody>
</table>

SECTION 11 – Toxicological Information

11.1 Toxicity Data for Hazardous Ingredients: There are currently no toxicity data available for the components of this kit; the following toxicology information is available for raw materials present in greater than 1% concentration.

**Positive and Negative Controls:**
When used and handled according to specifications, this product does not have any harmful effects according to our experience. The substance is not subject to classification.

11.2 Primary Routes of Exposure:
*Overexposures to components within this kit are not expected.* Common routes of exposure may include ingestion and eye/skin contact. Specific paths of concern for potentially infectious materials are skin puncture, contact with broken skin, contact with eyes, contact with mucous membranes and inhalation of aerosolized material.

11.3 Potential Effects of Acute Overexposure, By Route Of Exposure:
This kit contains material of animal origin and should be considered as potentially capable of transmitting infectious diseases.

**CONTACT WITH SKIN or EYES:** Contact can cause eye or skin irritation

**INGESTION:** If the product is swallowed, irritation of the mouth, throat, and other tissues of the gastro-intestinal system can occur

11.4 Potential Effects of Chronic Exposure:
Long-term skin or eye contact can result in dermatitis or eye irritation.

11.5 Symptoms of Overexposure:
Symptoms of overexposure may include: eye, skin, nose, and throat irritation. Symptoms may be delayed for several hours after exposure.

11.6 Medical Exposure Aggravated by Exposure:
Persons with pre-existing skin disorders; eye problems or impaired respiratory system function can be more susceptible to health effects associated with overexposures to this product.

11.7 Carcinogenicity:
The ingredients in this kit are not listed as carcinogens by any of the following: ACGIH, IARC, NTP, or OSHA.
SECTION 12 – Ecological Information

12.1 Ecotoxicity – Not Available
No adverse effects on the environment are expected from the components of this kit.

12.2 Mobility, Persistence and Degradability
Mobility, persistence and degradation data are not available for the components of this kit.

12.3 Bioaccumulative Potential
There is limited potential for the components within this kit to accumulate in plant or animal systems. The ecological effects have not been thoroughly investigated, but currently none have been identified.

SECTION 13 – Disposal Considerations

Dispose of waste materials, unused components and contaminated packaging in compliance with country (i.e., Canada, EU, etc.) federal, state and local regulations. If unsure of the applicable requirements, contact the authorities for information.

SECTION 14 – Transport Information

14.1 U.S., Canadian and International Air Transportation
Proper Shipping Name: None
Non-Hazardous for Transport: This substance is considered to be non-hazardous for transport.

SECTION 15 – Regulatory Information

15.1 U.S. Federal and State Regulations

<table>
<thead>
<tr>
<th>Regulatory Reference</th>
<th>Positive and Negative Controls</th>
</tr>
</thead>
<tbody>
<tr>
<td>40 CFR 355.30/355.40 - SECTION 302</td>
<td>Not Listed</td>
</tr>
<tr>
<td>40 CFR 302.4 - SECTION 304</td>
<td>Not Listed</td>
</tr>
<tr>
<td>40 CFR 372.65 - SECTION 313</td>
<td>Not Listed</td>
</tr>
</tbody>
</table>

U.S. SARA SECTION 311/312 FOR PRODUCT: Acute health effects; chronic health effects
U.S. TSCA INVENTORY STATUS: The components of this kit are listed on the TSCA Inventory
OTHER U.S. FEDERAL REGULATIONS: Not applicable.
CALIFORNIA SAFE DRINKING WATER AND TOXIC ENFORCEMENT ACT (PROPOSITION 65):
This material is not found on either the Proposition 65 Carcinogen List or the Adverse Reproductive Effects List.

15.2 Label Information

ANSI 129.1: CAUTION: Eye and skin irritant. Do not swallow or take internally. Do not get into eyes or on skin.
ENVIRONMENTAL HAZARDS:
Do not discharge effluent containing this product into streams, ponds, estuaries, oceans or other waters unless in accordance with the requirements of a National Pollutant Discharge Elimination System (NPDES) permit and the permitting authority has been notified in writing prior to discharge. Do not discharge effluent containing this product to sewer systems without previously notifying the local sewage treatment plant authority. For guidance, contact your State Water Board or Regional Office of the EPA.
15.3 Canadian Regulations:

CANADIAN DSL/NDSL INVENTORY STATUS: Not applicable

CANADIAN WHMIS SYMBOLS: None Required

15.4 HMIS Ratings (see ‘Definition of Terms’ for explanation of numerical ratings):

<table>
<thead>
<tr>
<th>Positive and Negative Controls</th>
</tr>
</thead>
<tbody>
<tr>
<td>Health</td>
</tr>
<tr>
<td>Flammability</td>
</tr>
<tr>
<td>Physical Hazard</td>
</tr>
<tr>
<td>Protective Equipment</td>
</tr>
</tbody>
</table>

B: Safety glasses and protective gloves

15.5 EU Labeling Classification: None Required

SECTION 16 – Other Information

This MSDS has been prepared in accordance with ANSI Z400.1 format. Every effort has been made to adhere to the hazard criteria and content requirements of the US OSHA Hazard Communication Standard, European Communities Safety Data Sheets Directive, Canadian Controlled Products Regulations, UK Chemical Hazard information and Packaging Regulations, and UN Globally Harmonized System of Classification and Labeling of Chemicals.

The hazard ratings on this MSDS are for appropriately trained workers using the Hazardous Materials Identification System (HMIS®) or a National Fire Protection Association (NFPA) 704 Program. The ratings are estimates and should be treated as such. The hazard rating scales range from (0) minimal hazards to (4) significant hazards or risks (Refer to Definitions of Terms at the end of this MSDS). Chronic (long-term) health effects are indicated in the HMIS by an asterisk (*). HMIS is a registered trade and service mark of the NPCA. For details on HMIS ratings visit www.paint.org/hmis. For details on NFPA 704 visit www.nfpa.org.

PREPARED BY: Quidel Corporation
10165 McKellar Court
San Diego, CA 92121
(858)-552-1100

DATE OF PRINTING July 19, 2007

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QuickVue® Strep A Liquid Controls

DEFINITIONS OF TERMS

A large number of abbreviations and acronyms appear on a MSDS. Some of these, which are commonly used, include the following:

CAS #: This is the Chemical Abstract Service Number that uniquely identifies each compound.

ACGIH – American Conference of Governmental Industrial Hygienists, a professional association that establishes exposure limits.

TLV - Threshold Limit Value - an airborne concentration of a substance that represents conditions under which it is generally believed that nearly all workers can be repeatedly exposed without adverse effect. The duration must be considered, including the 8-hour Time Weighted Average (TWA), the 15-minute Short Term Exposure Limit, and the instantaneous Ceiling Level (C). Skin absorption effects must also be considered.

OSHA – U.S. Occupational Safety and Health Administration

PEL - Permissible Exposure Limit - This exposure value means exactly the same as a TLV, except that it is enforceable by OSHA. The OSHA Permissible Exposure Limits are based in the 1989 PELs and the June, 1993 Air Contaminants Rule (Federal Register: 58: 35338-35351 and 58: 40191). Both the current PELs and the vacated PELs are indicated. The phrase, “Vacated 1989 PEL,” is placed next to the PEL that was vacated by Court Order.

IDLH - Immediately Dangerous to Life and Health - This level represents a concentration from which one can escape within 30-minutes without suffering escape-preventing or permanent injury. The DFG - MAK is the Republic of Germany’s Maximum Exposure Level, similar to the U.S. PEL. NIOSH is the National Institute of Occupational Safety and Health, which is the research arm of the U.S. Occupational Safety and Health Administration (OSHA). NIOSH issues exposure guidelines called Recommended Exposure Levels (RELs). When no exposure guidelines are established, an entry of NE is made for reference. Protective Equipment – A: Safety Glasses. B: Safety glasses and gloves. C: Safety glasses, gloves and body protection. D: Splash goggles with face shield, gloves and body protection. E: Eye protection, gloves and dust mask respiratory protection. F: Eye protection, gloves, body protection and dust mask respiratory protection. G: Eye protection, gloves and air purifying respiratory protection.

HAZARD RATINGS:

HAZARDOUS MATERIALS IDENTIFICATION SYSTEM:

Health Hazard: (minimal acute or chronic exposure hazard); 1 (slight acute or chronic exposure hazard); 2 (moderate acute or significant chronic exposure hazard); 3 (severe acute exposure hazard; onetime overexposure can cause permanent injury and can be fatal); 4 (extreme acute exposure hazard; single overexposure can be fatal). * Indicates chronic hazard. Flammability Hazard: 0 (minimal hazard); 1 (materials that require substantial pre-heating before burning); 2 (combustible liquid or solids; liquids with a flash point of 38-93°C [100-200°F]; 3 (Class IB and IC flammable liquids with flash points below 38°C [100°F]); 4 (Class IA flammable liquids with flash points below 23°C [73°F] and boiling points below 38°C [100°F]). Reactivity Hazard: 0 (normally stable); 1 (material that can become unstable at elevated temperatures or which can react slightly with water); 2 (materials that are unstable but do not detonate or which can react violently with water); 3 (materials that can detonate when initiated or which can react explosively with water); 4 (materials that can detonate at normal temperatures or pressures).

NATIONAL FIRE PROTECTION ASSOCIATION: Health Hazard: 0 (material that on exposure under fire conditions would offer no hazard beyond that of ordinary combustible materials); 1 (materials that on exposure under fire conditions could cause irritation or minor residual injury); 2 (materials that on intense or continued exposure under fire conditions could cause temporary incapacitation or possible residual injury); 3 (materials that can on short exposure could cause serious temporary or residual injury); 4 (materials that under very short exposure could cause death or major residual injury). Flammability Hazard and Reactivity Hazard: Refer to definitions for “Hazardous Materials Identification System”.

FLAMMABILITY LIMITS IN AIR: Much of the information related to fire and explosion is derived from the National Fire Protection Association (NFPA). Flash Point - Minimum temperature at which a liquid gives off sufficient vapors to form an ignitable mixture with air. Autoignition Temperature: The minimum temperature required to initiate combustion in air with no other source of ignition. LEL - the lowest percent of vapor in air, by volume, that will explode or ignite in the presence of an ignition source. UEL - the highest percent of vapor in air, by volume, that will explode or ignite in the presence of an ignition source.

ECOLOGICAL INFORMATION:

Possible health hazards as derived from human data, animal studies, or from the results of studies with similar compounds are presented. Definitions of some terms used in this section are: LD50 - Lethal Dose (solids & liquids) which kills 50% of the exposed animals; LC50 - Lethal Concentration (gases) which kills 50% of the exposed animals; ppm concentration expressed in parts of material per million parts of air or water; mg/m^3 concentration expressed in weight of substance per volume of air; mg/kg quantity of material, by weight, administered to a test subject, based on their body weight in kg. Other measures of toxicity include TDLo, the lowest dose to cause a symptom and TCLo, the lowest concentration to cause a symptom; TDo, LDLo, LDo, TC, TC0, LC0, and LC0, the lowest dose (or concentration) to cause lethal or toxic effects. BEI - Biological Exposure Indices, represent the levels of contaminants that are most likely to be observed in specimens collected from a healthy worker who has been exposed to chemicals to the same extent as a worker with inhalation exposure to the TLV. Ecological Information: EC is the effect concentration in water.

Data from several sources are used to evaluate the cancer-causing potential of the material. The sources and ratings are: IARC – the International Agency for Research on Cancer; 1 = Carcinogenic to humans, 2A, 2B = Probably carcinogenic to humans, 3 = Unclassifiable as to carcinogenicity in humans, and 4 = Probably not carcinogenic to humans. NTP - the National Toxicology Program; K = Known to be a human carcinogen, and R = Reasonably anticipated to be a human carcinogen. RTECS - the Registry of Toxic Effects of Chemical Substances. OSHA - Occupational Safety and Health Administration and CAL/OSHA - California’s subunit of the Occupational Safety and Health Administration; Ca = Carcinogen defined with no further categorization. ACGIH – American Conference of Governmental Industrial Hygienists; A1 = Confirmed human carcinogen, A2 = Suspected human carcinogen, A3 = Confirmed animal carcinogen with unknown relevance to humans, A4 = Not classifiable as a human carcinogen, and A5 = Not suspected as a human carcinogen. NIOSH – U.S. National Institute for Occupational Safety and Health; Ca = Potential occupational carcinogen, with no further categorization. EPA – U.S. Environmental Protection Agency; A = Human carcinogen, B = Probable human carcinogen, C = Possible human carcinogen, D = Not classifiable as to human carcinogenicity, E = Evidence of Non-carcinogenicity for humans, K = Known human carcinogen, L = Likely to produce cancer in humans, CBD = Cannot be determined, NL = Not likely to be carcinogenic in humans, and I = Data are inadequate for an assessment of human carcinogenic potential.

REGULATORY INFORMATION:

This section explains the impact of various laws and regulations on the material. EPA is the U.S. Environmental Protection Agency. WHMIS levels of determinants that are most likely to be observed in specimens collected from a healthy worker who has been exposed to chemicals to the same extent as a worker with inhalation exposure to the TLV. Ecological Information: EC is the effect concentration in water.

Supercast Amendments and Reauthorization Act (SARA); the Canadian Domestic/Non-Domestic Substances List (DSL/NDDSL); the U.S. Toxic Substance Control Act (TSCA); Marine Pollutant status according to the DOT; the Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA or Superfund); and various state regulations. This section also includes information on the precautionary warnings that appear on a material’s industrial package label.