

Date Prepared: 12/21/2007

Reviewed On: 12/21/2007

### 1 Identification of substance:

- **Product name:** Salmonella Flagellar a  
(Febrile Antigen Set)
- **Catalog number:** 240786
- **Manufacturer/Supplier:**  
BD Diagnostic Systems  
7 Loveton Circle  
Sparks, MD 21152  
Telephone: (410) 771 - 0100 or (800) 638 - 8663
- **Information department:**  
Technical services  
Technical Services
- **Emergency information:**  
In case of a chemical emergency, spill, fire, exposure, or accident contact BD Diagnostic Systems (410) 771-0100 or (800)-638-8663, or ChemTrec at (800) 424-9300.

### 2 Composition/Data on components:

- **Chemical characterization**
- **Description:** Mixture of the substances listed below with nonhazardous additions.

· **Dangerous components:**

50-00-0	formaldehyde	0.5%
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### 3 Hazards identification

· **Hazard description:**



*Xi Irritant*

- **Information pertaining to particular dangers for man and environment**  
*R 43 May cause sensitization by skin contact.*
- **NFPA ratings (scale 0-4)**



Health = 3  
Fire = 0  
Reactivity = 0

· **HMIS ratings (scale 0-4)**



Health = 3  
Fire = 0  
Reactivity = 0

### 4 First aid measures

- **General information** No special measures required.
- **After inhalation** Supply fresh air; consult doctor in case of complaints.

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(Febrile Antigen Set)**

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- **After skin contact** Immediately wash with water and soap and rinse thoroughly.
- **After eye contact** Rinse opened eye for 15 minutes under running water. Then consult a doctor.
- **After swallowing** Immediately call a doctor.
- **Information for doctor** Show this product label or this MSDS.

### 5 Fire fighting measures

- **Suitable extinguishing agents**  
CO2, ABC multipurpose dry chemical or water spray. Fight larger fires with water spray or alcohol resistant foam.
- **Protective equipment:** No special measures required.

### 6 Accidental release measures

- **Person-related safety precautions:** Not required.
- **Measures for environmental protection:** Wipe up with damp sponge or mop.
- **Measures for cleaning/collecting:**  
Absorb with liquid-binding material (sand, diatomite, acid binders, universal binders).
- **Additional information:**  
See Section 7 for information on safe handling.  
See Section 8 for information on personal protection equipment.  
See Section 13 for disposal information.

### 7 Handling and storage

- **Handling**
- **Information for safe handling:** No special measures required.
- **Information about protection against explosions and fires:** No special measures required.
- **Storage**
- **Requirements to be met by storerooms and receptacles:** 2 - 8 C
- **Information about storage in one common storage facility:** Store away from oxidizing agents.
- **Further information about storage conditions:** None.

### 8 Exposure controls and personal protection

- **Additional information about design of technical systems:** No further data; see item 7.

· **Components with limit values that require monitoring at the workplace:**

**56-81-5 glycerol**

PEL	15*; 5** mg/m <sup>3</sup>
	*Total dust **Respirable fraction
TWA	Short-term value: 10 mg/m <sup>3</sup>

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**Product name: Salmonella Flagellar a**  
**(Febrile Antigen Set)**

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**50-00-0 formaldehyde**

<b>PEL</b>	Short-term value: 2 ppm Long-term value: 0.75 ppm see 29 CFR 1910.1048
<b>REL</b>	Short-term value: C 0.1* ppm Long-term value: 0.016 ppm *15-min
<b>TLV</b>	Short-term value: C 0.37 mg/m <sup>3</sup> , C 0.3 ppm SEN

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

· **Personal Protective Equipment**

· **General protective and hygienic measures**

Immediately remove all soiled and contaminated clothing.  
Wash hands before breaks and at the end of work.

· **Breathing equipment:**

In case of brief exposure, use a chemical fume hood or a NIOSH/MSHA-approved respirator.

· **Protection of hands:**



Chemical resistant gloves (i.e. nitrile, or equivalent).

· **Eye protection:** Safety glasses

· **Body protection:** Protective work clothing (lab coat).

**9 Physical and chemical properties:**

· **General Information**

<b>Form:</b>	Liquid
<b>Color:</b>	Blue Purple
<b>Odor:</b>	Characteristic

· **Change in condition**

**Melting point/Melting range:** Not determined  
**Boiling point/Boiling range:** Not determined

· **Flash point:** Not applicable

· **Auto igniting:** Product is not self igniting.

· **Danger of explosion:** Product does not present an explosion hazard.

· **Density:** Not determined

· **Solubility in / Miscibility with Water:** Soluble

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Date Prepared: 12/21/2007

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**Product name: Salmonella Flagellar a**  
**(Febrile Antigen Set)**

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**· Solvent content:**  
**Organic solvents:** 0.0 %**10 Stability and reactivity**

- **Thermal decomposition / conditions to be avoided:**  
No decomposition if used according to specifications.
- **Materials to be avoided:** Incompatible material: strong oxidizers.
- **Dangerous reactions** No dangerous reactions known
- **Dangerous products of decomposition:** Formaldehyde

**11 Toxicological information****· Acute toxicity:****· LD/LC50 values that are relevant for classification:****548-62-9 C.I. Basic Violet 3**

Oral LD50 96 mg/kg (mou)

- **Primary irritant effect:**
- **on the skin:** Irritant to skin and mucous membranes.
- **on the eye:** Irritating effect.
- **Sensitization:** Sensitization possible through skin contact.
- **Additional toxicological information:**

Irritant

The product shows the following dangers according to internally approved calculation methods for preparations:

California Proposition 65 - Warning: This product contains a chemical known to the State of California to cause cancer.

**12 Ecological information:**

- **Ecotoxicological effects:**
- **Other information:**  
The ecological effects have not been thoroughly investigated, but currently none have been identified.
- **General notes:** Water hazard class 1 (Self-assessment): slightly hazardous for water.

**13 Disposal considerations**

- **Product:**
- **Recommendation**  
Must not be disposed of with solid waste.  
This product is not considered a RCRA hazardous waste.  
Dispose of material in accordance with federal (40 CFR 261.3), state and local requirements.

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USA



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Reviewed On: 12/21/2007

Product name: *Salmonella Flagellar a*  
(*Febrile Antigen Set*)

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- **Uncleaned packagings:**
- **Recommendation:** Disposal must be made according to state and federal regulations.
- **Recommended cleansing agent:** Water, if necessary with cleansing agents.

### 14 Transport information

- **DOT regulations:**
- **Hazard class:** -
- **Land transport ADR/RID (cross-border)**
- **ADR/RID class:** -
- **Maritime transport IMDG:**
- **IMDG Class:** -
- **Marine pollutant:** No
- **Air transport ICAO-TI and IATA-DGR:**
- **ICAO/IATA Class:** -

### 15 Regulations

- **SARA Section 355 (extremely hazardous substances)**

50-00-0 formaldehyde

- **SARA Section 313 (specific toxic chemical listings)**

50-00-0 formaldehyde

- **TSCA (Toxic Substances Control Act)**

56-81-5 glycerol

633-03-4 brilliant green

50-00-0 formaldehyde

548-62-9 C.I. Basic Violet 3

- **California Proposition 65 - Chemicals known to cause cancer**

Formaldehyde is toxic, allergenic, and is known to the state of California to cause cancer. Note: Formaldehyde poses a cancer threat through inhalation of the gas or vapor.

50-00-0 formaldehyde

- **California Proposition 65 - Chemicals known to cause reproductive toxicity for females:**

None of the ingredients is listed.

- **California Proposition 65 - Chemicals known to cause reproductive toxicity for males:**

None of the ingredients is listed.

- **California Proposition 65 - Chemicals known to cause developmental toxicity:**

None of the ingredients is listed.

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**Product name: Salmonella Flagellar a**  
**(Febrile Antigen Set)**

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· **Carcinogenicity categories**

· **IARC (International Agency for Research on Cancer)**

50-00-0 formaldehyde	2A
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· **NTP (National Toxicology Program)**

50-00-0 formaldehyde	R
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· **TLV (Threshold Limit Value established by ACGIH)**

None of the ingredients is listed.

· **Product related hazard information:**

The product has been classified and marked in accordance with regulations on hazardous materials.

· **Hazard symbols:**

Xi Irritant

· **Hazard-determining components of labeling:**

formaldehyde

· **Risk phrases:**

43 May cause sensitization by skin contact.

· **Safety phrases:**

24 Avoid contact with skin.

37 Wear suitable gloves.

60 This material and its container must be disposed of as hazardous waste.

· **National regulations**

· **Technical instructions (air):**

Class	Share in %
I	0.5

**16 Other information:**

To the best of our knowledge, the information contained herein is accurate. However, neither Becton Dickinson and Company or any of its subsidiaries assumes any liabilities whatsoever for the accuracy or completeness of the information contained herein. Final determination of suitability of any material is the sole responsibility of the user. All materials may present unknown hazards and should be used with caution. Although certain hazards are described herein, we can not guarantee that these are the only hazards that exist.

· **Department issuing MSDS:**

Safety and Environment Department

MSDS created by Michael J. Spinazzola

· **Contact:** Technical Service Representative

Date Prepared: 12/21/2007

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### 1 Identification of substance:

- **Product name:** *Salmonella Flagellar b*  
*(Febrile Antigen Set)*
- **Catalog number:** 240786
- **Manufacturer/Supplier:**  
BD Diagnostic Systems  
7 Loveton Circle  
Sparks, MD 21152  
Telephone: (410) 771 - 0100 or (800) 638 - 8663
- **Information department:**  
Technical services  
Technical Services
- **Emergency information:**  
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### 2 Composition/Data on components:

- **Chemical characterization**
- **Description:** Mixture of the substances listed below with nonhazardous additions.

· **Dangerous components:**

50-00-0	formaldehyde	0.5%
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### 3 Hazards identification

· **Hazard description:**



*Xi Irritant*

- **Information pertaining to particular dangers for man and environment**  
*R 43 May cause sensitization by skin contact.*
- **NFPA ratings (scale 0-4)**



*Health = 3*  
*Fire = 0*  
*Reactivity = 0*

· **HMIS ratings (scale 0-4)**



*Health = 3*  
*Fire = 0*  
*Reactivity = 0*

### 4 First aid measures

- **General information** No special measures required.
- **After inhalation** Supply fresh air; consult doctor in case of complaints.

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**Product name: Salmonella Flagellar b  
(Febrile Antigen Set)**

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- **After skin contact** Immediately wash with water and soap and rinse thoroughly.
- **After eye contact** Rinse opened eye for 15 minutes under running water. Then consult a doctor.
- **After swallowing** Immediately call a doctor.
- **Information for doctor** Show this product label or this MSDS.

### 5 Fire fighting measures

- **Suitable extinguishing agents**  
CO2, ABC multipurpose dry chemical or water spray. Fight larger fires with water spray or alcohol resistant foam.
- **Protective equipment:** No special measures required.

### 6 Accidental release measures

- **Person-related safety precautions:** Not required.
- **Measures for environmental protection:** Wipe up with damp sponge or mop.
- **Measures for cleaning/collecting:**  
Absorb with liquid-binding material (sand, diatomite, acid binders, universal binders).
- **Additional information:**  
See Section 7 for information on safe handling.  
See Section 8 for information on personal protection equipment.  
See Section 13 for disposal information.

### 7 Handling and storage

- **Handling**
- **Information for safe handling:** No special measures required.
- **Information about protection against explosions and fires:** No special measures required.
- **Storage**
- **Requirements to be met by storerooms and receptacles:** 2 - 8 C
- **Information about storage in one common storage facility:** Store away from oxidizing agents.
- **Further information about storage conditions:** None.

### 8 Exposure controls and personal protection

- **Additional information about design of technical systems:** No further data; see item 7.

· **Components with limit values that require monitoring at the workplace:**

**56-81-5 glycerol**

PEL	15*; 5** mg/m <sup>3</sup>
	*Total dust **Respirable fraction
TWA	Short-term value: 10 mg/m <sup>3</sup>

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**Product name: Salmonella Flagellar b**  
**(Febrile Antigen Set)**

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**50-00-0 formaldehyde**

<b>PEL</b>	Short-term value: 2 ppm Long-term value: 0.75 ppm see 29 CFR 1910.1048
<b>REL</b>	Short-term value: C 0.1* ppm Long-term value: 0.016 ppm *15-min
<b>TLV</b>	Short-term value: C 0.37 mg/m <sup>3</sup> , C 0.3 ppm SEN

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

· **Personal Protective Equipment**

· **General protective and hygienic measures**

Immediately remove all soiled and contaminated clothing.

Wash hands before breaks and at the end of work.

· **Breathing equipment:**

In case of brief exposure, use a chemical fume hood or a NIOSH/MSHA-approved respirator.

· **Protection of hands:**



Chemical resistant gloves (i.e. nitrile, or equivalent).

· **Eye protection:** Safety glasses

· **Body protection:** Protective work clothing (lab coat).

**9 Physical and chemical properties:**

· **General Information**

<b>Form:</b>	Liquid
<b>Color:</b>	Blue Purple
<b>Odor:</b>	Characteristic

· **Change in condition**

**Melting point/Melting range:** Not determined

**Boiling point/Boiling range:** Not determined

· **Flash point:** Not applicable

· **Auto igniting:** Product is not self igniting.

· **Danger of explosion:** Product does not present an explosion hazard.

· **Density:** Not determined

· **Solubility in / Miscibility with Water:** Soluble

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**Product name: Salmonella Flagellar b**  
**(Febrile Antigen Set)**

(Contd. of page 3)

· **Solvent content:**  
  **Organic solvents:**                   0.0 %

### 10 Stability and reactivity

- **Thermal decomposition / conditions to be avoided:**  
  No decomposition if used according to specifications.
- **Materials to be avoided:** Incompatible material: strong oxidizers.
- **Dangerous reactions** No dangerous reactions known
- **Dangerous products of decomposition:** Formaldehyde

### 11 Toxicological information

- **Acute toxicity:**
- **Primary irritant effect:**
  - **on the skin:** Irritant to skin and mucous membranes.
  - **on the eye:** Irritating effect.
- **Sensitization:** Sensitization possible through skin contact.
- **Additional toxicological information:**  
  Irritant  
  The product shows the following dangers according to internally approved calculation methods for preparations:  
  California Proposition 65 - Warning: This product contains a chemical known to the State of California to cause cancer.

### 12 Ecological information:

- **Ecotoxicological effects:**
- **Other information:**  
  The ecological effects have not been thoroughly investigated, but currently none have been identified.
- **General notes:** Water hazard class 1 (Self-assessment): slightly hazardous for water.

### 13 Disposal considerations

- **Product:**
- **Recommendation**  
  Must not be disposed of with solid waste.  
  This product is not considered a RCRA hazardous waste.  
  Dispose of material in accordance with federal (40 CFR 261.3), state and local requirements.
- **Uncleaned packagings:**
- **Recommendation:** Disposal must be made according to state and federal regulations.

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**Material Safety Data Sheet**  
acc. to ISO/DIS 11014

Date Prepared: 12/21/2007

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**Product name: Salmonella Flagellar b**  
**(Febrile Antigen Set)**

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· **Recommended cleansing agent:** Water, if necessary with cleansing agents.

**14 Transport information**

· **DOT regulations:**

· **Hazard class:** -

· **Land transport ADR/RID (cross-border)**

· **ADR/RID class:** -

· **Maritime transport IMDG:**

· **IMDG Class:** -

· **Marine pollutant:** No

· **Air transport ICAO-TI and IATA-DGR:**

· **ICAO/IATA Class:** -

**15 Regulations**

· **SARA Section 355 (extremely hazardous substances)**

50-00-0 formaldehyde

· **SARA Section 313 (specific toxic chemical listings)**

50-00-0 formaldehyde

· **TSCA (Toxic Substances Control Act)**

56-81-5 glycerol

633-03-4 brilliant green

50-00-0 formaldehyde

548-62-9 C.I. Basic Violet 3

· **California Proposition 65 - Chemicals known to cause cancer**

Formaldehyde is toxic, allergenic, and is known to the state of California to cause cancer. Note: Formaldehyde poses a cancer threat through inhalation of the gas or vapor.

50-00-0 formaldehyde

· **California Proposition 65 - Chemicals known to cause reproductive toxicity for females:**

None of the ingredients is listed.

· **California Proposition 65 - Chemicals known to cause reproductive toxicity for males:**

None of the ingredients is listed.

· **California Proposition 65 - Chemicals known to cause developmental toxicity:**

None of the ingredients is listed.

· **Carcinogenicity categories**

· **IARC (International Agency for Research on Cancer)**

50-00-0 formaldehyde

2A

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**Product name: Salmonella Flagellar b  
(Febrile Antigen Set)**

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· **NTP (National Toxicology Program)**

50-00-0 formaldehyde

R

· **TLV (Threshold Limit Value established by ACGIH)**

None of the ingredients is listed.

· **Product related hazard information:**

The product has been classified and marked in accordance with regulations on hazardous materials.

· **Hazard symbols:**

Xi Irritant

· **Hazard-determining components of labeling:**

formaldehyde

· **Risk phrases:**

43 May cause sensitization by skin contact.

· **Safety phrases:**

24 Avoid contact with skin.

37 Wear suitable gloves.

60 This material and its container must be disposed of as hazardous waste.

· **National regulations**

· **Technical instructions (air):**

Class	Share in %
I	0.5

**16 Other information:**

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- **Description:** Mixture of the substances listed below with nonhazardous additions.

· **Dangerous components:**

50-00-0	formaldehyde	0.5%
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### 3 Hazards identification

· **Hazard description:**



Xi Irritant

· **Information pertaining to particular dangers for man and environment**

R 43 May cause sensitization by skin contact.

· **NFPA ratings (scale 0-4)**



Health = 3  
Fire = 0  
Reactivity = 0

· **HMIS ratings (scale 0-4)**



Health = 3  
Fire = 0  
Reactivity = 0

### 4 First aid measures

- **General information** In case of irregular breathing or respiratory arrest provide artificial respiration.
- **After inhalation** Supply fresh air; consult doctor in case of complaints.

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**Product name: Salmonella Flagellar d**  
**(Febrile Antigen Set)**

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- **After skin contact** Immediately wash with water and soap and rinse thoroughly.
- **After eye contact** Rinse opened eye for 15 minutes under running water. Then consult a doctor.
- **After swallowing** Immediately call a doctor.
- **Information for doctor** Show this product label or this MSDS.

### 5 Fire fighting measures

- **Suitable extinguishing agents**  
CO2, ABC multipurpose dry chemical or water spray. Fight larger fires with water spray or alcohol resistant foam.
- **Protective equipment:** No special measures required.

### 6 Accidental release measures

- **Person-related safety precautions:** Not required.
- **Measures for environmental protection:** Wipe up with damp sponge or mop.
- **Measures for cleaning/collecting:**  
Absorb with liquid-binding material (sand, diatomite, acid binders, universal binders).
- **Additional information:**  
See Section 7 for information on safe handling.  
See Section 8 for information on personal protection equipment.  
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### 7 Handling and storage

- **Handling**
- **Information for safe handling:** No special measures required.
- **Information about protection against explosions and fires:** No special measures required.
- **Storage**
- **Requirements to be met by storerooms and receptacles:** 2 - 8 C
- **Information about storage in one common storage facility:** Store away from oxidizing agents.
- **Further information about storage conditions:** None.

### 8 Exposure controls and personal protection

- **Additional information about design of technical systems:** No further data; see item 7.

· **Components with limit values that require monitoring at the workplace:**

**56-81-5 glycerol**

PEL	15*; 5** mg/m <sup>3</sup>
	*Total dust **Respirable fraction
TWA	Short-term value: 10 mg/m <sup>3</sup>

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**Product name: Salmonella Flagellar d**  
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(Contd. of page 2)

**50-00-0 formaldehyde**

<b>PEL</b>	Short-term value: 2 ppm Long-term value: 0.75 ppm see 29 CFR 1910.1048
<b>REL</b>	Short-term value: C 0.1* ppm Long-term value: 0.016 ppm *15-min
<b>TLV</b>	Short-term value: C 0.37 mg/m <sup>3</sup> , C 0.3 ppm SEN

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

· **Personal Protective Equipment**

· **General protective and hygienic measures**

Immediately remove all soiled and contaminated clothing.  
Wash hands before breaks and at the end of work.

· **Breathing equipment:**

In case of brief exposure, use a chemical fume hood or a NIOSH/MSHA-approved respirator.

· **Protection of hands:**



Chemical resistant gloves (i.e. nitrile, or equivalent).

· **Eye protection:** Safety glasses

· **Body protection:** Protective work clothing (lab coat).

**9 Physical and chemical properties:**

· **General Information**

<b>Form:</b>	Liquid
<b>Color:</b>	Blue Purple
<b>Odor:</b>	Characteristic

· **Change in condition**

**Melting point/Melting range:** Not determined  
**Boiling point/Boiling range:** Not determined

· **Flash point:** Not applicable

· **Auto igniting:** Product is not self igniting.

· **Danger of explosion:** Product does not present an explosion hazard.

· **Density:** Not determined

· **Solubility in / Miscibility with Water:** Soluble

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**(Febrile Antigen Set)**

(Contd. of page 3)

**· Solvent content:**  
**Organic solvents:** 0.0 %**10 Stability and reactivity**

- **Thermal decomposition / conditions to be avoided:**  
No decomposition if used according to specifications.
- **Materials to be avoided:** Incompatible material: strong oxidizers.
- **Dangerous reactions** No dangerous reactions known
- **Dangerous products of decomposition:** Formaldehyde

**11 Toxicological information**

- **Acute toxicity:**
- **Primary irritant effect:**
  - **on the skin:** Irritant to skin and mucous membranes.
  - **on the eye:** Irritating effect.
- **Sensitization:** Sensitization possible through skin contact.
- **Additional toxicological information:**  
Irritant  
The product shows the following dangers according to internally approved calculation methods for preparations:  
California Proposition 65 - Warning: This product contains a chemical known to the State of California to cause cancer.

**12 Ecological information:**

- **Ecotoxicological effects:**
- **Other information:**  
The ecological effects have not been thoroughly investigated, but currently none have been identified.
- **General notes:** Water hazard class 1 (Self-assessment): slightly hazardous for water.

**13 Disposal considerations**

- **Product:**
- **Recommendation**  
Must not be disposed of with solid waste.  
This product is not considered a RCRA hazardous waste.  
Dispose of material in accordance with federal (40 CFR 261.3), state and local requirements.
- **Uncleaned packagings:**
- **Recommendation:** Disposal must be made according to state and federal regulations.

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· **Recommended cleansing agent:** Water, if necessary with cleansing agents.

**14 Transport information**

· **DOT regulations:**

· **Hazard class:** -

· **Land transport ADR/RID (cross-border)**

· **ADR/RID class:** -

· **Maritime transport IMDG:**

· **IMDG Class:** -

· **Marine pollutant:** No

· **Air transport ICAO-TI and IATA-DGR:**

· **ICAO/IATA Class:** -

**15 Regulations**

· **SARA Section 355 (extremely hazardous substances)**

50-00-0 formaldehyde

· **SARA Section 313 (specific toxic chemical listings)**

50-00-0 formaldehyde

· **TSCA (Toxic Substances Control Act)**

56-81-5 glycerol

633-03-4 brilliant green

50-00-0 formaldehyde

548-62-9 C.I. Basic Violet 3

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50-00-0 formaldehyde

· **California Proposition 65 - Chemicals known to cause reproductive toxicity for females:**

None of the ingredients is listed.

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None of the ingredients is listed.

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· **Carcinogenicity categories**

· **IARC (International Agency for Research on Cancer)**

50-00-0 formaldehyde

2A

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(Febrile Antigen Set)**

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**· NTP (National Toxicology Program)**

50-00-0 formaldehyde

R

**· TLV (Threshold Limit Value established by ACGIH)**

None of the ingredients is listed.

**· Product related hazard information:**

The product has been classified and marked in accordance with regulations on hazardous materials.

**· Hazard symbols:**

Xi Irritant

**· Hazard-determining components of labeling:**

formaldehyde

**· Risk phrases:**

43 May cause sensitization by skin contact.

**· Safety phrases:**

24 Avoid contact with skin.

37 Wear suitable gloves.

60 This material and its container must be disposed of as hazardous waste.

**· National regulations**

**· Technical instructions (air):**

Class	Share in %
I	0.5

**16 Other information:**

To the best of our knowledge, the information contained herein is accurate. However, neither Becton Dickinson and Company or any of its subsidiaries assumes any liabilities whatsoever for the accuracy or completeness of the information contained herein. Final determination of suitability of any material is the sole responsibility of the user. All materials may present unknown hazards and should be used with caution. Although certain hazards are described herein, we can not guarantee that these are the only hazards that exist.

**· Department issuing MSDS:**

Safety and Environment Department

MSDS created by Michael J. Spinazzola

**· Contact: Technical Service Representative**

Date Prepared: 12/21/2007

Reviewed On: 12/21/2007

**1 Identification of substance:**

- **Product name:** Salmonella O Group D  
(Febrile Antigen Set)
- **Catalog number:** 240786
- **Manufacturer/Supplier:**  
BD Diagnostic Systems  
7 Loveton Circle  
Sparks, MD 21152  
Telephone: (410) 771 - 0100 or (800) 638 - 8663
- **Information department:**  
Technical services  
Technical Services
- **Emergency information:**  
In case of a chemical emergency, spill, fire, exposure, or accident contact BD Diagnostic Systems (410) 771-0100 or (800)-638-8663, or ChemTrec at (800) 424-9300.

**2 Composition/Data on components:**

- **Chemical characterization**
- **Description:** Mixture of the substances listed below with nonhazardous additions.
- **Dangerous components:** Void

**3 Hazards identification**

- **Hazard description:**  
This product contains no hazardous constituents, or the concentration of all chemical constituents are below the regulatory threshold limits described by Occupational Safety Health Administration Hazard Communication Standard 29 CFR 1910.1200, the Canada's Workplace Hazardous Materials Information System (WHMIS) and the European Directive 91/155/EEC, and 93/112/EC.
- **NFPA ratings (scale 0-4)**



- **HMIS ratings (scale 0-4)**

HEALTH	0	Health = 0
FIRE	0	Fire = 0
REACTIVITY	0	Reactivity = 0

**4 First aid measures**

- **General information** No special measures required.
- **After inhalation** Seek medical treatment in case of complaints.
- **After skin contact** Immediately wash with water and soap and rinse thoroughly.
- **After eye contact**  
Rinse opened eye for several minutes under running water. If symptoms persist, consult a doctor.
- **After swallowing** If symptoms persist consult doctor.

(Contd. on page 2)

USA



Date Prepared: 12/21/2007

Reviewed On: 12/21/2007

**Product name: Salmonella O Group D**  
**(Febrile Antigen Set)**

(Contd. of page 1)

· **Information for doctor** Show this product label or this MSDS.

### 5 Fire fighting measures

- **Suitable extinguishing agents**  
CO<sub>2</sub>, ABC multipurpose dry chemical or water spray. Fight larger fires with water spray or alcohol resistant foam.
- **Protective equipment:** No special measures required.

### 6 Accidental release measures

- **Person-related safety precautions:** Not required.
- **Measures for environmental protection:** Wipe up with damp sponge or mop.
- **Measures for cleaning/collecting:**  
Absorb with liquid-binding material (sand, diatomite, acid binders, universal binders).
- **Additional information:** No dangerous substances are released.

### 7 Handling and storage

- **Handling**
- **Information for safe handling:** No special measures required.
- **Information about protection against explosions and fires:** No special measures required.
- **Storage**
- **Requirements to be met by storerooms and receptacles:** 2 - 8 C
- **Information about storage in one common storage facility:** Store away from oxidizing agents.
- **Further information about storage conditions:** Store in cool, dry conditions in well sealed containers.

### 8 Exposure controls and personal protection

- **Additional information about design of technical systems:** No further data; see item 7.

· **Components with limit values that require monitoring at the workplace:**

**56-81-5 glycerol**

PEL	15*; 5** mg/m <sup>3</sup> *Total dust **Respirable fraction
TWA	Short-term value: 10 mg/m <sup>3</sup>

**108-95-2 phenol**

PEL	19 mg/m <sup>3</sup> , 5 ppm Skin
REL	Short-term value: C 60* mg/m <sup>3</sup> , C 15.6* ppm Long-term value: 19 mg/m <sup>3</sup> , 5 ppm *15-min
TLV	19 mg/m <sup>3</sup> , 5 ppm Skin; BEI

(Contd. on page 3)

Date Prepared: 12/21/2007

Reviewed On: 12/21/2007

**Product name: Salmonella O Group D**  
**(Febrile Antigen Set)**

(Contd. of page 2)

- **Additional information:** The lists that were valid during the creation were used as basis.
- **Personal Protective Equipment**
- **General protective and hygienic measures**  
The usual precautionary measures for handling chemicals should be followed.
- **Breathing equipment:** Not required.
- **Protection of hands:**



Chemical resistant gloves (i.e. nitrile, or equivalent).

- **Eye protection:** Safety glasses
- **Body protection:** Protective work clothing (lab coat).

### 9 Physical and chemical properties:

#### · General Information

<b>Form:</b>	Liquid
<b>Color:</b>	Blue Purple
<b>Odor:</b>	Characteristic

- **Change in condition** Undetermined
- **Melting point/Melting range:** Not determined
- **Boiling point/Boiling range:** Not determined

· **Flash point:** Not applicable

· **Auto igniting:** Product is not self igniting.

· **Danger of explosion:** Product does not present an explosion hazard.

· **Density:** Not determined

· **Solubility in / Miscibility with**  
**Water:** Soluble

### 10 Stability and reactivity

- **Thermal decomposition / conditions to be avoided:**  
No decomposition if used according to specifications.
- **Materials to be avoided:** Incompatible material: strong oxidizers.
- **Dangerous reactions** No dangerous reactions known
- **Dangerous products of decomposition:** No dangerous decomposition products known.

USA

(Contd. on page 4)

Date Prepared: 12/21/2007

Reviewed On: 12/21/2007

**Product name: Salmonella O Group D**  
**(Febrile Antigen Set)**

(Contd. of page 3)

**11 Toxicological information**

- **Acute toxicity:**
- **Primary irritant effect:**
  - **on the skin:** No irritating effect.
  - **on the eye:** No irritating effect.
- **Sensitization:** No sensitizing effects known.
- **Additional toxicological information:**

The product is not subject to OSHA classification according to internally approved calculation methods for preparations.

When used and handled according to specifications, the product does not have any harmful effects according to our experience and the information provided to us.

**12 Ecological information:**

- **Ecotoxicological effects:**
- **Other information:**

The ecological effects have not been thoroughly investigated, but currently none have been identified.
- **General notes:** Water hazard class 1 (Self-assessment): slightly hazardous for water.

**13 Disposal considerations**

- **Product:**
- **Recommendation**

Smaller quantities can be disposed of with solid waste.

Dispose of material in accordance with federal (40 CFR 261.3), state and local requirements.

This product is not considered a RCRA hazardous waste.
- **Uncleaned packagings:**
- **Recommendation:** Disposal must be made according to state and federal regulations.
- **Recommended cleansing agent:** Water, if necessary with cleansing agents.

**14 Transport information**

- **DOT regulations:**
- **Hazard class:** -
- **Land transport ADR/RID (cross-border)**
- **ADR/RID class:** -
- **Maritime transport IMDG:**
- **IMDG Class:** -
- **Marine pollutant:** No
- **Air transport ICAO-TI and IATA-DGR:**
- **ICAO/IATA Class:** -

(Contd. on page 5)

USA



Date Prepared: 12/21/2007

Reviewed On: 12/21/2007

**Product name: Salmonella O Group D**  
**(Febrile Antigen Set)**

(Contd. of page 4)

**· Transport/Additional information:**

If a dashed line appears in the Hazard Class section for the type of transportation, this indicates the product is not regulated for transportation.

**15 Regulations**

**· SARA Section 355 (extremely hazardous substances)**

108-95-2	phenol
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**· SARA Section 313 (specific toxic chemical listings)**

108-95-2	phenol
----------	--------

**· TSCA (Toxic Substances Control Act)**

56-81-5	glycerol
8013-01-2	yeast extract
7558-80-7	sodium phosphate, monobasic
633-03-4	brilliant green
7558-79-4	sodium phosphate, dibasic
108-95-2	phenol
64-17-5	ethanol
548-62-9	C.I. Basic Violet 3

**· California Proposition 65 - Chemicals known to cause cancer**

None of the ingredients is listed.

**· California Proposition 65 - Chemicals known to cause reproductive toxicity for females:**

None of the ingredients is listed.

**· California Proposition 65 - Chemicals known to cause reproductive toxicity for males:**

None of the ingredients is listed.

**· California Proposition 65 - Chemicals known to cause developmental toxicity:**

64-17-5	ethanol
---------	---------

**· Carcinogenicity categories**

**· IARC (International Agency for Research on Cancer)**

108-95-2	phenol	3
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**· NTP (National Toxicology Program)**

None of the ingredients is listed.

**· TLV (Threshold Limit Value established by ACGIH)**

108-95-2	phenol	A4
64-17-5	ethanol	A4

**· Product related hazard information:**

Observe the general safety regulations when handling chemicals

(Contd. on page 6)



**Material Safety Data Sheet**  
*acc. to ISO/DIS 11014*

Date Prepared: 12/21/2007

Reviewed On: 12/21/2007

**Product name: Salmonella O Group D**  
**(Febrile Antigen Set)**

(Contd. of page 5)

*The product is not subject to identification regulations pertaining to regulations on hazardous materials.*

**16 Other information:**

*To the best of our knowledge, the information contained herein is accurate. However, neither Becton Dickinson and Company or any of its subsidiaries assumes any liabilities whatsoever for the accuracy or completeness of the information contained herein. Final determination of suitability of any material is the sole responsibility of the user. All materials may present unknown hazards and should be used with caution. Although certain hazards are described herein, we can not guarantee that these are the only hazards that exist.*

- **Department issuing MSDS:**  
Safety and Environment Department  
MSDS created by Michael J. Spinazzola
- **Contact:** Technical Service Representative

USA



Date Prepared: 12/21/2007

Reviewed On: 12/21/2007

**1 Identification of substance:**

- **Product name:** Brucella abortus  
(Febrile Antigen Set)
- **Catalog number:** 240786
- **Manufacturer/Supplier:**  
BD Diagnostic Systems  
7 Loveton Circle  
Sparks, MD 21152  
Telephone: (410) 771 - 0100 or (800) 638 - 8663
- **Information department:**  
Technical services  
Technical Services
- **Emergency information:**  
In case of a chemical emergency, spill, fire, exposure, or accident contact BD Diagnostic Systems (410) 771-0100 or (800)-638-8663, or ChemTrec at (800) 424-9300.

**2 Composition/Data on components:**

- **Chemical characterization**
- **Description:** Mixture of the substances listed below with nonhazardous additions.
- **Dangerous components:** Void

**3 Hazards identification**

- **Hazard description:**  
This product contains no hazardous constituents, or the concentration of all chemical constituents are below the regulatory threshold limits described by Occupational Safety Health Administration Hazard Communication Standard 29 CFR 1910.1200, the Canada's Workplace Hazardous Materials Information System (WHMIS) and the European Directive 91/155/EEC, and 93/112/EC.
- **NFPA ratings (scale 0-4)**



- **HMIS ratings (scale 0-4)**

HEALTH	0	Health = 0
FIRE	0	Fire = 0
REACTIVITY	0	Reactivity = 0

**4 First aid measures**

- **General information** No special measures required.
- **After inhalation** Seek medical treatment in case of complaints.
- **After skin contact** Immediately wash with water and soap and rinse thoroughly.
- **After eye contact**  
Rinse opened eye for several minutes under running water. If symptoms persist, consult a doctor.
- **After swallowing** If symptoms persist consult doctor.

(Contd. on page 2)

USA



Date Prepared: 12/21/2007

Reviewed On: 12/21/2007

**Product name: Brucella abortus**  
**(Febrile Antigen Set)**

(Contd. of page 1)

· **Information for doctor** Show this product label or this MSDS.

### 5 Fire fighting measures

- **Suitable extinguishing agents**  
CO2, ABC multipurpose dry chemical or water spray. Fight larger fires with water spray or alcohol resistant foam.
- **Protective equipment:** No special measures required.

### 6 Accidental release measures

- **Person-related safety precautions:** Not required.
- **Measures for environmental protection:** Wipe up with damp sponge or mop.
- **Measures for cleaning/collecting:**  
Absorb with liquid-binding material (sand, diatomite, acid binders, universal binders).  
Use neutralizing agent.
- **Additional information:**  
See Section 7 for information on safe handling.  
See Section 8 for information on personal protection equipment.  
See Section 13 for disposal information.

### 7 Handling and storage

- **Handling**
- **Information for safe handling:** Ensure good ventilation/exhaustion at the workplace.
- **Information about protection against explosions and fires:** No special measures required.
- **Storage**
- **Requirements to be met by storerooms and receptacles:** 2 - 8 C
- **Information about storage in one common storage facility:** Store away from oxidizing agents.
- **Further information about storage conditions:** Store in cool, dry conditions in well sealed containers.

### 8 Exposure controls and personal protection

- **Additional information about design of technical systems:** No further data; see item 7.

· **Components with limit values that require monitoring at the workplace:**

56-81-5 glycerol

PEL	15*; 5** mg/m <sup>3</sup>
	*Total dust **Respirable fraction
TWA	Short-term value: 10 mg/m <sup>3</sup>

(Contd. on page 3)

Date Prepared: 12/21/2007

Reviewed On: 12/21/2007

**Product name: Brucella abortus**  
**(Febrile Antigen Set)**

(Contd. of page 2)

**108-95-2 phenol**

PEL	19 mg/m <sup>3</sup> , 5 ppm Skin
REL	Short-term value: C 60* mg/m <sup>3</sup> , C 15.6* ppm Long-term value: 19 mg/m <sup>3</sup> , 5 ppm *15-min
TLV	19 mg/m <sup>3</sup> , 5 ppm Skin; BEI

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

· **Personal Protective Equipment**

· **General protective and hygienic measures**

The usual precautionary measures for handling chemicals should be followed.

· **Breathing equipment:**

In case of brief exposure, use a chemical fume hood or a NIOSH/MSHA-approved respirator.

· **Protection of hands:**



Chemical resistant gloves (i.e. nitrile, or equivalent).

· **Eye protection:** Safety glasses

· **Body protection:** Protective work clothing (lab coat).

**9 Physical and chemical properties:**

· **General Information**

<b>Form:</b>	Liquid
<b>Color:</b>	Blue Purple
<b>Odor:</b>	Characteristic

· **Change in condition**

**Melting point/Melting range:** Not determined

**Boiling point/Boiling range:** Not determined

· **Flash point:** Not applicable

· **Auto igniting:** Product is not self igniting.

· **Danger of explosion:** Product does not present an explosion hazard.

· **Density:** Not determined

· **Solubility in / Miscibility with**

**Water:** Soluble

(Contd. on page 4)



Date Prepared: 12/21/2007

Reviewed On: 12/21/2007

**Product name: *Brucella abortus***  
**(Febrile Antigen Set)**

(Contd. of page 3)

· **Solvent content:**  
**Organic solvents:** 0.0 %

### **10 Stability and reactivity**

- **Thermal decomposition / conditions to be avoided:**  
No decomposition if used according to specifications.
- **Materials to be avoided:** Incompatible material: strong oxidizers.
- **Dangerous reactions** No dangerous reactions known
- **Dangerous products of decomposition:** No dangerous decomposition products known.

### **11 Toxicological information**

- **Acute toxicity:**
- **Primary irritant effect:**
  - **on the skin:** No irritating effect.
  - **on the eye:** No irritating effect.
- **Sensitization:** No sensitizing effects known.
- **Additional toxicological information:**  
The product is not subject to OSHA classification according to internally approved calculation methods for preparations.  
When used and handled according to specifications, the product does not have any harmful effects according to our experience and the information provided to us.

### **12 Ecological information:**

- **Ecotoxicological effects:**
- **Other information:**  
The ecological effects have not been thoroughly investigated, but currently none have been identified.
- **General notes:** Water hazard class 1 (Self-assessment): slightly hazardous for water.

### **13 Disposal considerations**

- **Product:**
- **Recommendation**  
Smaller quantities can be disposed of with solid waste.  
Dispose of material in accordance with federal (40 CFR 261.3), state and local requirements.  
This product is not considered a RCRA hazardous waste.
- **Uncleaned packagings:**
- **Recommendation:** Disposal must be made according to state and federal regulations.
- **Recommended cleansing agent:** Water, if necessary with cleansing agents.

USA

(Contd. on page 5)



Date Prepared: 12/21/2007

Reviewed On: 12/21/2007

**Product name: *Brucella abortus***  
**(Febrile Antigen Set)**

(Contd. of page 4)

**14 Transport information**

- **Maritime transport IMDG:**
- **Marine pollutant:** No

- **Transport/Additional information:**

If a dashed line appears in the Hazard Class section for the type of transportation, this indicates the product is not regulated for transportation.

**15 Regulations**

- **SARA Section 355 (extremely hazardous substances)**

108-95-2	phenol
----------	--------

- **SARA Section 313 (specific toxic chemical listings)**

108-95-2	phenol
----------	--------

- **TSCA (Toxic Substances Control Act)**

56-81-5	glycerol
---------	----------

633-03-4	brilliant green
----------	-----------------

108-95-2	phenol
----------	--------

548-62-9	C.I. Basic Violet 3
----------	---------------------

- **California Proposition 65 - Chemicals known to cause cancer**

None of the ingredients is listed.

- **California Proposition 65 - Chemicals known to cause reproductive toxicity for females:**

None of the ingredients is listed.

- **California Proposition 65 - Chemicals known to cause reproductive toxicity for males:**

None of the ingredients is listed.

- **California Proposition 65 - Chemicals known to cause developmental toxicity:**

None of the ingredients is listed.

- **Carcinogenicity categories**

- **IARC (International Agency for Research on Cancer)**

108-95-2	phenol	3
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- **NTP (National Toxicology Program)**

None of the ingredients is listed.

- **TLV (Threshold Limit Value established by ACGIH)**

108-95-2	phenol	A4
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- **Product related hazard information:**

Observe the general safety regulations when handling chemicals

The product is not subject to identification regulations pertaining to regulations on hazardous materials.

USA

(Contd. on page 6)



**Material Safety Data Sheet**  
*acc. to ISO/DIS 11014*

Date Prepared: 12/21/2007

Reviewed On: 12/21/2007

**Product name: *Brucella abortus***  
**(Febrile Antigen Set)**

(Contd. of page 5)

**16 Other information:**

*To the best of our knowledge, the information contained herein is accurate. However, neither Becton Dickinson and Company or any of its subsidiaries assumes any liabilities whatsoever for the accuracy or completeness of the information contained herein. Final determination of suitability of any material is the sole responsibility of the user. All materials may present unknown hazards and should be used with caution. Although certain hazards are described herein, we can not guarantee that these are the only hazards that exist.*

- **Department issuing MSDS:**  
Safety and Environment Department  
MSDS created by Michael J. Spinazzola
- **Contact:** Technical Service Representative

USA

Date Prepared: 12/21/2007

Reviewed On: 12/21/2007

**1 Identification of substance:**

- **Product name:** Proteus OX 19  
(Febrile Antigen Set)
- **Catalog number:** 240786
- **Manufacturer/Supplier:**  
BD Diagnostic Systems  
7 Loveton Circle  
Sparks, MD 21152  
Telephone: (410) 771 - 0100 or (800) 638 - 8663
- **Information department:**  
Technical services  
Technical Services
- **Emergency information:**  
In case of a chemical emergency, spill, fire, exposure, or accident contact BD Diagnostic Systems (410) 771-0100 or (800)-638-8663, or ChemTrec at (800) 424-9300.

**2 Composition/Data on components:**

- **Chemical characterization**
- **Description:** Mixture consisting of the following components.
- **Dangerous components:** Void

**3 Hazards identification**

- **Hazard description:**  
This product contains no hazardous constituents, or the concentration of all chemical constituents are below the regulatory threshold limits described by Occupational Safety Health Administration Hazard Communication Standard 29 CFR 1910.1200, the Canada's Workplace Hazardous Materials Information System (WHMIS) and the European Directive 91/155/EEC, and 93/112/EC.
- **NFPA ratings (scale 0-4)**



- **HMIS ratings (scale 0-4)**

HEALTH	0	Health = 0
FIRE	0	Fire = 0
REACTIVITY	0	Reactivity = 0

**4 First aid measures**

- **General information** No special measures required.
- **After inhalation** Seek medical treatment in case of complaints.
- **After skin contact** Immediately wash with water and soap and rinse thoroughly.
- **After eye contact**  
Rinse opened eye for several minutes under running water. If symptoms persist, consult a doctor.
- **After swallowing** If symptoms persist consult doctor.

(Contd. on page 2)

USA



Date Prepared: 12/21/2007

Reviewed On: 12/21/2007

Product name: **Proteus OX 19**  
(Febrile Antigen Set)

(Contd. of page 1)

· **Information for doctor** Show this product label or this MSDS.

### 5 Fire fighting measures

- **Suitable extinguishing agents**  
CO<sub>2</sub>, ABC multipurpose dry chemical or water spray. Fight larger fires with water spray or alcohol resistant foam.
- **Protective equipment:** No special measures required.

### 6 Accidental release measures

- **Person-related safety precautions:** Not required.
- **Measures for environmental protection:** Wipe up with damp sponge or mop.
- **Measures for cleaning/collecting:** No special measures required.
- **Additional information:** No dangerous substances are released.

### 7 Handling and storage

- **Handling**
- **Information for safe handling:** No special measures required.
- **Information about protection against explosions and fires:** No special measures required.
- **Storage**
- **Requirements to be met by storerooms and receptacles:** 2 - 8 C
- **Information about storage in one common storage facility:** Store away from oxidizing agents.
- **Further information about storage conditions:** Store in cool, dry conditions in well sealed containers.

### 8 Exposure controls and personal protection

- **Additional information about design of technical systems:** No further data; see item 7.

· **Components with limit values that require monitoring at the workplace:**

#### 56-81-5 glycerol

PEL	15*; 5** mg/m <sup>3</sup> *Total dust **Respirable fraction
TWA	Short-term value: 10 mg/m <sup>3</sup>

#### 108-95-2 phenol

PEL	19 mg/m <sup>3</sup> , 5 ppm Skin
REL	Short-term value: C 60* mg/m <sup>3</sup> , C 15.6* ppm Long-term value: 19 mg/m <sup>3</sup> , 5 ppm *15-min
TLV	19 mg/m <sup>3</sup> , 5 ppm Skin; BEI

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

(Contd. on page 3)



Date Prepared: 12/21/2007

Reviewed On: 12/21/2007

**Product name: Proteus OX 19**  
**(Febrile Antigen Set)**

(Contd. of page 2)

- **Personal Protective Equipment**
- **General protective and hygienic measures**  
The usual precautionary measures for handling chemicals should be followed.
- **Breathing equipment:** Not required.
- **Protection of hands:**



Chemical resistant gloves (i.e. nitrile, or equivalent).

- **Eye protection:** Safety glasses
- **Body protection:** Protective work clothing (lab coat).

### 9 Physical and chemical properties:

#### · General Information

<b>Form:</b>	Liquid
<b>Color:</b>	Blue Purple
<b>Odor:</b>	Characteristic

- **Change in condition** Undetermined
- **Melting point/Melting range:** Not determined
- **Boiling point/Boiling range:** Not determined

· **Flash point:** Not applicable

· **Auto igniting:** Product is not self igniting.

· **Danger of explosion:** Product does not present an explosion hazard.

· **Density:** Not determined

· **Solubility in / Miscibility with**  
**Water:** Easily soluble

### 10 Stability and reactivity

- **Thermal decomposition / conditions to be avoided:**  
No decomposition if used according to specifications.
- **Materials to be avoided:** Incompatible material: strong oxidizers.
- **Dangerous reactions** No dangerous reactions known
- **Dangerous products of decomposition:** No dangerous decomposition products known.

USA

(Contd. on page 4)

**Material Safety Data Sheet**  
acc. to ISO/DIS 11014

Date Prepared: 12/21/2007

Reviewed On: 12/21/2007

**Product name: Proteus OX 19**  
(Febrile Antigen Set)

(Contd. of page 3)

**11 Toxicological information**

- **Acute toxicity:**
- **Primary irritant effect:**
  - **on the skin:** No irritating effect.
  - **on the eye:** No irritating effect.
- **Sensitization:** No sensitizing effects known.
- **Subacute to chronic toxicity:** Target organ: kidneys
- **Additional toxicological information:**

The product is not subject to OSHA classification according to internally approved calculation methods for preparations.

When used and handled according to specifications, the product does not have any harmful effects according to our experience and the information provided to us.

**12 Ecological information:**

- **Ecotoxicological effects:**
- **Other information:**

The ecological effects have not been thoroughly investigated, but currently none have been identified.
- **General notes:** Water hazard class 1 (Self-assessment): slightly hazardous for water.

**13 Disposal considerations**

- **Product:**
- **Recommendation**

Smaller quantities can be disposed of with solid waste.  
This product is not considered a RCRA hazardous waste.  
Dispose of material in accordance with federal (40 CFR 261.3), state and local requirements.
- **Uncleaned packagings:**
- **Recommendation:** Disposal must be made according to state and federal regulations.
- **Recommended cleansing agent:** Water, if necessary with cleansing agents.

**14 Transport information**

- **DOT regulations:**
- **Hazard class:** -
- **Land transport ADR/RID (cross-border)**
- **ADR/RID class:** -
- **Maritime transport IMDG:**
- **IMDG Class:** -
- **Marine pollutant:** No

(Contd. on page 5)

USA



Date Prepared: 12/21/2007

Reviewed On: 12/21/2007

**Product name: Proteus OX 19**  
(Febrile Antigen Set)

(Contd. of page 4)

- **Air transport ICAO-TI and IATA-DGR:**
- **ICAO/IATA Class:** -

· **Transport/Additional information:**  
If a dashed line appears in the Hazard Class section for the type of transportation, this indicates the product is not regulated for transportation.

**15 Regulations**

- **SARA Section 355 (extremely hazardous substances)**

108-95-2	phenol
----------	--------

- **SARA Section 313 (specific toxic chemical listings)**

108-95-2	phenol
----------	--------

- **TSCA (Toxic Substances Control Act)**

56-81-5	glycerol
---------	----------

8013-01-2	yeast extract
-----------	---------------

7558-80-7	sodium phosphate, monobasic
-----------	-----------------------------

7558-79-4	sodium phosphate, dibasic
-----------	---------------------------

633-03-4	brilliant green
----------	-----------------

108-95-2	phenol
----------	--------

548-62-9	C.I. Basic Violet 3
----------	---------------------

- **California Proposition 65 - Chemicals known to cause cancer**

None of the ingredients is listed.

- **California Proposition 65 - Chemicals known to cause reproductive toxicity for females:**

None of the ingredients is listed.

- **California Proposition 65 - Chemicals known to cause reproductive toxicity for males:**

None of the ingredients is listed.

- **California Proposition 65 - Chemicals known to cause developmental toxicity:**

None of the ingredients is listed.

- **Carcinogenicity categories**

- **IARC (International Agency for Research on Cancer)**

108-95-2	phenol	3
----------	--------	---

- **NTP (National Toxicology Program)**

None of the ingredients is listed.

- **TLV (Threshold Limit Value established by ACGIH)**

108-95-2	phenol	A4
----------	--------	----

· **Product related hazard information:**  
Observe the general safety regulations when handling chemicals

(Contd. on page 6)



**Material Safety Data Sheet**  
*acc. to ISO/DIS 11014*

Date Prepared: 12/21/2007

Reviewed On: 12/21/2007

**Product name: Proteus OX 19**  
**(Febrile Antigen Set)**

(Contd. of page 5)

*The product is not subject to identification regulations pertaining to regulations on hazardous materials.*

**16 Other information:**

*To the best of our knowledge, the information contained herein is accurate. However, neither Becton Dickinson and Company or any of its subsidiaries assumes any liabilities whatsoever for the accuracy or completeness of the information contained herein. Final determination of suitability of any material is the sole responsibility of the user. All materials may present unknown hazards and should be used with caution. Although certain hazards are described herein, we can not guarantee that these are the only hazards that exist.*

- **Department issuing MSDS:**  
Safety and Environment Department  
MSDS created by Michael J. Spinazzola
- **Contact:** Technical Service Representative

USA

Date Prepared: 12/21/2007

Reviewed On: 12/21/2007

**1 Identification of substance:**

- **Product name:** *Salmonella Flagellar Polyvalent (Febrile Antigen Set)*
- **Catalog number:** 240786
- **Manufacturer/Supplier:**  
BD Diagnostic Systems  
7 Loveton Circle  
Sparks, MD 21152  
Telephone: (410) 771 - 0100 or (800) 638 - 8663
- **Information department:**  
Technical services  
Technical Services
- **Emergency information:**  
In case of a chemical emergency, spill, fire, exposure, or accident contact BD Diagnostic Systems (410) 771-0100 or (800)-638-8663, or ChemTrec at (800) 424-9300.

**2 Composition/Data on components:**

- **Chemical characterization**
- **Description:** Mixture of the substances listed below with nonhazardous additions.
- **Dangerous components:** Void

**3 Hazards identification**

- **Hazard description:**  
This product contains no hazardous constituents, or the concentration of all chemical constituents are below the regulatory threshold limits described by Occupational Safety Health Administration Hazard Communication Standard 29 CFR 1910.1200, the Canada's Workplace Hazardous Materials Information System (WHMIS) and the European Directive 91/155/EEC, and 93/112/EC.
- **NFPA ratings (scale 0-4)**



- **HMIS ratings (scale 0-4)**

HEALTH	0	Health = 0
FIRE	0	Fire = 0
REACTIVITY	0	Reactivity = 0

**4 First aid measures**

- **General information** No special measures required.
- **After inhalation** Seek medical treatment in case of complaints.
- **After skin contact** Immediately wash with water and soap and rinse thoroughly.
- **After eye contact**  
Rinse opened eye for several minutes under running water. If symptoms persist, consult a doctor.
- **After swallowing** If symptoms persist consult doctor.

(Contd. on page 2)

USA

Date Prepared: 12/21/2007

Reviewed On: 12/21/2007

**Product name: Salmonella Flagellar Polyvalent  
(Febrile Antigen Set)**

(Contd. of page 1)

· **Information for doctor** Show this product label or this MSDS.

### 5 Fire fighting measures

- **Suitable extinguishing agents**  
CO2, ABC multipurpose dry chemical or water spray. Fight larger fires with water spray or alcohol resistant foam.
- **Protective equipment:** No special measures required.

### 6 Accidental release measures

- **Person-related safety precautions:** Not required.
- **Measures for environmental protection:** Wipe up with damp sponge or mop.
- **Measures for cleaning/collecting:**  
Absorb with liquid-binding material (sand, diatomite, acid binders, universal binders).
- **Additional information:** No dangerous substances are released.

### 7 Handling and storage

- **Handling**
- **Information for safe handling:** No special measures required.
- **Information about protection against explosions and fires:** No special measures required.
- **Storage**
- **Requirements to be met by storerooms and receptacles:** 2 - 8 C
- **Information about storage in one common storage facility:** Store away from oxidizing agents.
- **Further information about storage conditions:** Store in cool, dry conditions in well sealed containers.

### 8 Exposure controls and personal protection

· **Additional information about design of technical systems:** No further data; see item 7.

· **Components with limit values that require monitoring at the workplace:**

**56-81-5 glycerol**

PEL	15*; 5** mg/m <sup>3</sup>
	*Total dust **Respirable fraction
TWA	Short-term value: 10 mg/m <sup>3</sup>

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

- **Personal Protective Equipment**
- **General protective and hygienic measures**  
The usual precautionary measures for handling chemicals should be followed.
- **Breathing equipment:** Not required.

(Contd. on page 3)

Date Prepared: 12/21/2007

Reviewed On: 12/21/2007

**Product name: Salmonella Flagellar Polyvalent  
(Febrile Antigen Set)**

(Contd. of page 2)

**· Protection of hands:**



Chemical resistant gloves (i.e. nitrile, or equivalent).

**· Eye protection:** Safety glasses

**· Body protection:** Protective work clothing (lab coat).

**9 Physical and chemical properties:**

**· General Information**

**Form:** Liquid  
**Color:** Light yellow  
Amber  
**Odor:** Characteristic

**· Change in condition** Undetermined  
**· Melting point/Melting range:** Not determined  
**· Boiling point/Boiling range:** Not determined

**· Flash point:** Not applicable

**· Auto igniting:** Product is not self igniting.

**· Danger of explosion:** Product does not present an explosion hazard.

**· Density:** Not determined

**· Solubility in / Miscibility with  
Water:** Not miscible or difficult to mix

**· Solvent content:  
Organic solvents:** 0.0 %

**10 Stability and reactivity**

- Thermal decomposition / conditions to be avoided:**  
No decomposition if used according to specifications.
- Materials to be avoided:** Incompatible material: strong oxidizers.
- Dangerous reactions** No dangerous reactions known
- Dangerous products of decomposition:** No dangerous decomposition products known.

**11 Toxicological information**

- Acute toxicity:**
- Primary irritant effect:**
- on the skin:** No irritating effect.
- on the eye:** No irritating effect.

(Contd. on page 4)

Date Prepared: 12/21/2007

Reviewed On: 12/21/2007

**Product name: Salmonella Flagellar Polyvalent**  
**(Febrile Antigen Set)**

(Contd. of page 3)

- **Sensitization:** No sensitizing effects known.
- **Additional toxicological information:**  
The product is not subject to OSHA classification according to internally approved calculation methods for preparations.  
When used and handled according to specifications, the product does not have any harmful effects according to our experience and the information provided to us.

**12 Ecological information:**

- **Ecotoxicological effects:**
- **Other information:**  
The ecological effects have not been thoroughly investigated, but currently none have been identified.
- **General notes:** Water hazard class 1 (Self-assessment): slightly hazardous for water.

**13 Disposal considerations**

- **Product:**
- **Recommendation**  
Smaller quantities can be disposed of with solid waste.  
Dispose of material in accordance with federal (40 CFR 261.3), state and local requirements.  
This product is not considered a RCRA hazardous waste.
- **Uncleaned packagings:**
- **Recommendation:** Disposal must be made according to state and federal regulations.
- **Recommended cleansing agent:** Water, if necessary with cleansing agents.

**14 Transport information**

- **DOT regulations:**
- **Hazard class:** -
- **Land transport ADR/RID (cross-border)**
- **ADR/RID class:** -
- **Maritime transport IMDG:**
- **IMDG Class:** -
- **Marine pollutant:** No
- **Air transport ICAO-TI and IATA-DGR:**
- **ICAO/IATA Class:** -

- **Transport/Additional information:**  
If a dashed line appears in the Hazard Class section for the type of transportation, this indicates the product is not regulated for transportation.

USA

(Contd. on page 5)





Date Prepared: 12/21/2007

Reviewed On: 12/21/2007

**Product name: Salmonella Flagellar Polyvalent  
(Febrile Antigen Set)**

(Contd. of page 4)

**15 Regulations**

· **SARA Section 355 (extremely hazardous substances)**

None of the ingredients is listed.

· **SARA Section 313 (specific toxic chemical listings)**

None of the ingredients is listed.

· **TSCA (Toxic Substances Control Act)**

56-81-5 | glycerol

· **California Proposition 65 - Chemicals known to cause cancer**

None of the ingredients is listed.

· **California Proposition 65 - Chemicals known to cause reproductive toxicity for females:**

None of the ingredients is listed.

· **California Proposition 65 - Chemicals known to cause reproductive toxicity for males:**

None of the ingredients is listed.

· **California Proposition 65 - Chemicals known to cause developmental toxicity:**

None of the ingredients is listed.

· **Carcinogenicity categories**

· **IARC (International Agency for Research on Cancer)**

None of the ingredients is listed.

· **NTP (National Toxicology Program)**

None of the ingredients is listed.

· **TLV (Threshold Limit Value established by ACGIH)**

None of the ingredients is listed.

· **Product related hazard information:**

Observe the general safety regulations when handling chemicals

The product is not subject to identification regulations pertaining to regulations on hazardous materials.

**16 Other information:**

To the best of our knowledge, the information contained herein is accurate. However, neither Becton Dickinson and Company or any of its subsidiaries assumes any liabilities whatsoever for the accuracy or completeness of the information contained herein. Final determination of suitability of any material is the sole responsibility of the user. All materials may present unknown hazards and should be used with caution. Although certain hazards are described herein, we can not guarantee that these are the only hazards that exist.

· **Department issuing MSDS:**

Safety and Environment Department

MSDS created by Michael J. Spinazzola

· **Contact:** Technical Service Representative

Date Prepared: 12/21/2007

Reviewed On: 12/21/2007

**1 Identification of substance:**

- **Product name:** Febrile Antigen Negative Control  
(Febrile Antigen Set)
- **Catalog number:** 240786
- **Manufacturer/Supplier:**  
BD Diagnostic Systems  
7 Loveton Circle  
Sparks, MD 21152  
Telephone: (410) 771 - 0100 or (800) 638 - 8663
- **Information department:**  
Technical services  
Technical Services
- **Emergency information:**  
In case of a chemical emergency, spill, fire, exposure, or accident contact BD Diagnostic Systems (410) 771-0100 or (800)-638-8663, or ChemTrec at (800) 424-9300.

**2 Composition/Data on components:**

- **Chemical characterization**
- **Description:** Mixture of the substances listed below with nonhazardous additions.
- **Dangerous components:** Void

**3 Hazards identification**

- **Hazard description:**  
This product contains no hazardous constituents, or the concentration of all chemical constituents are below the regulatory threshold limits described by Occupational Safety Health Administration Hazard Communication Standard 29 CFR 1910.1200, the Canada's Workplace Hazardous Materials Information System (WHMIS) and the European Directive 91/155/EEC, and 93/112/EC.
- **NFPA ratings (scale 0-4)**



- **HMIS ratings (scale 0-4)**

HEALTH	0	Health = 0
FIRE	0	Fire = 0
REACTIVITY	0	Reactivity = 0

**4 First aid measures**

- **General information** No special measures required.
- **After inhalation** Seek medical treatment in case of complaints.
- **After skin contact** Immediately wash with water and soap and rinse thoroughly.
- **After eye contact**  
Rinse opened eye for several minutes under running water. If symptoms persist, consult a doctor.
- **After swallowing** If symptoms persist consult doctor.

(Contd. on page 2)

USA



Date Prepared: 12/21/2007

Reviewed On: 12/21/2007

**Product name: Febrile Antigen Negative Control  
(Febrile Antigen Set)**

(Contd. of page 1)

· **Information for doctor** Show this product label or this MSDS.

### 5 Fire fighting measures

- **Suitable extinguishing agents**  
CO<sub>2</sub>, ABC multipurpose dry chemical or water spray. Fight larger fires with water spray or alcohol resistant foam.
- **Protective equipment:** No special measures required.

### 6 Accidental release measures

- **Person-related safety precautions:** Not required.
- **Measures for environmental protection:** Wipe up with damp sponge or mop.
- **Measures for cleaning/collecting:** No special measures required.
- **Additional information:** No dangerous substances are released.

### 7 Handling and storage

- **Handling**
- **Information for safe handling:** No special measures required.
- **Information about protection against explosions and fires:** No special measures required.
- **Storage**
- **Requirements to be met by storerooms and receptacles:** 2 - 8 C
- **Information about storage in one common storage facility:** Store away from oxidizing agents.
- **Further information about storage conditions:** None.

### 8 Exposure controls and personal protection

· **Additional information about design of technical systems:** No further data; see item 7.

· **Components with limit values that require monitoring at the workplace:**

**56-81-5 glycerol**

PEL	15*; 5** mg/m <sup>3</sup>
	*Total dust **Respirable fraction
TWA	Short-term value: 10 mg/m <sup>3</sup>

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

- **Personal Protective Equipment**
- **General protective and hygienic measures**  
The usual precautionary measures for handling chemicals should be followed.
- **Breathing equipment:**  
In case of brief exposure, use a chemical fume hood or a NIOSH/MSHA-approved respirator.

(Contd. on page 3)

Date Prepared: 12/21/2007

Reviewed On: 12/21/2007

**Product name: Febrile Antigen Negative Control**  
**(Febrile Antigen Set)**

(Contd. of page 2)

· **Protection of hands:**



Chemical resistant gloves (i.e. nitrile, or equivalent).

· **Eye protection:** Safety glasses

· **Body protection:** Protective work clothing (lab coat).

**9 Physical and chemical properties:**

· **General Information**

<b>Form:</b>	Liquid
<b>Color:</b>	Light yellow Amber
<b>Odor:</b>	Characteristic

· <b>Change in condition</b>	Undetermined
· <b>Melting point/Melting range:</b>	Not determined
· <b>Boiling point/Boiling range:</b>	Not determined

· <b>Flash point:</b>	Not applicable
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· <b>Auto igniting:</b>	Product is not self igniting.
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· <b>Danger of explosion:</b>	Product does not present an explosion hazard.
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· <b>Density:</b>	Not determined
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· <b>Solubility in / Miscibility with</b>	
<b>Water:</b>	Soluble

· <b>Solvent content:</b>	
<b>Organic solvents:</b>	0.0 %

**10 Stability and reactivity**

- **Thermal decomposition / conditions to be avoided:**  
No decomposition if used according to specifications.
- **Materials to be avoided:** Incompatible material: strong oxidizers.
- **Dangerous reactions** No dangerous reactions known
- **Dangerous products of decomposition:** No dangerous decomposition products known.

**11 Toxicological information**

- **Acute toxicity:**
- **Primary irritant effect:**
- **on the skin:** No irritating effect.
- **on the eye:** No irritating effect.

(Contd. on page 4)

Date Prepared: 12/21/2007

Reviewed On: 12/21/2007

**Product name: Febrile Antigen Negative Control**  
**(Febrile Antigen Set)**

(Contd. of page 3)

- **Sensitization:** No sensitizing effects known.
- **Additional toxicological information:**  
The product is not subject to OSHA classification according to internally approved calculation methods for preparations.  
When used and handled according to specifications, the product does not have any harmful effects according to our experience and the information provided to us.

**12 Ecological information:**

- **Ecotoxicological effects:**
- **Other information:**  
The ecological effects have not been thoroughly investigated, but currently none have been identified.
- **General notes:** Water hazard class 1 (Self-assessment): slightly hazardous for water.

**13 Disposal considerations**

- **Product:**
- **Recommendation**  
Smaller quantities can be disposed of with solid waste.  
Dispose of material in accordance with federal (40 CFR 261.3), state and local requirements.  
This product is not considered a RCRA hazardous waste.
- **Uncleaned packagings:**
- **Recommendation:** Disposal must be made according to state and federal regulations.
- **Recommended cleansing agent:** Water, if necessary with cleansing agents.

**14 Transport information**

- **DOT regulations:**
- **Hazard class:** -
- **Land transport ADR/RID (cross-border)**
- **ADR/RID class:** -
- **Maritime transport IMDG:**
- **IMDG Class:** -
- **Marine pollutant:** No
- **Air transport ICAO-TI and IATA-DGR:**
- **ICAO/IATA Class:** -

- **Transport/Additional information:**  
If a dashed line appears in the Hazard Class section for the type of transportation, this indicates the product is not regulated for transportation.

USA

(Contd. on page 5)



Date Prepared: 12/21/2007

Reviewed On: 12/21/2007

**Product name: Febrile Antigen Negative Control**  
**(Febrile Antigen Set)**

(Contd. of page 4)

**15 Regulations**

· **SARA Section 355 (extremely hazardous substances)**

None of the ingredients is listed.

· **SARA Section 313 (specific toxic chemical listings)**

None of the ingredients is listed.

· **TSCA (Toxic Substances Control Act)**

56-81-5	glycerol
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9048-46-8	BSA
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· **California Proposition 65 - Chemicals known to cause cancer**

None of the ingredients is listed.

· **California Proposition 65 - Chemicals known to cause reproductive toxicity for females:**

None of the ingredients is listed.

· **California Proposition 65 - Chemicals known to cause reproductive toxicity for males:**

None of the ingredients is listed.

· **California Proposition 65 - Chemicals known to cause developmental toxicity:**

None of the ingredients is listed.

· **Carcinogenicity categories**

· **IARC (International Agency for Research on Cancer)**

None of the ingredients is listed.

· **NTP (National Toxicology Program)**

None of the ingredients is listed.

· **TLV (Threshold Limit Value established by ACGIH)**

None of the ingredients is listed.

· **Product related hazard information:**

Observe the general safety regulations when handling chemicals

The product is not subject to identification regulations pertaining to regulations on hazardous materials.

**16 Other information:**

*To the best of our knowledge, the information contained herein is accurate. However, neither Becton Dickinson and Company or any of its subsidiaries assumes any liabilities whatsoever for the accuracy or completeness of the information contained herein. Final determination of suitability of any material is the sole responsibility of the user. All materials may present unknown hazards and should be used with caution. Although certain hazards are described herein, we can not guarantee that these are the only hazards that exist.*

· **Department issuing MSDS:**

Safety and Environment Department

MSDS created by Michael J. Spinazzola

· **Contact:** Technical Service Representative

Date Prepared: 12/21/2007

Reviewed On: 12/21/2007

**1 Identification of substance:**

- **Product name:** Salmonella Somatic Polyvalent (Febrile Antigen Set)
- **Catalog number:** 240786
- **Manufacturer/Supplier:**  
BD Diagnostic Systems  
7 Loveton Circle  
Sparks, MD 21152  
Telephone: (410) 771 - 0100 or (800) 638 - 8663
- **Information department:**  
Technical services  
Technical Services
- **Emergency information:**  
In case of a chemical emergency, spill, fire, exposure, or accident contact BD Diagnostic Systems (410) 771-0100 or (800)-638-8663, or ChemTrec at (800) 424-9300.

**2 Composition/Data on components:**

- **Chemical characterization**
- **Description:** Mixture of the substances listed below with nonhazardous additions.
- **Dangerous components:** Void

**3 Hazards identification**

- **Hazard description:**  
This product contains no hazardous constituents, or the concentration of all chemical constituents are below the regulatory threshold limits described by Occupational Safety Health Administration Hazard Communication Standard 29 CFR 1910.1200, the Canada's Workplace Hazardous Materials Information System (WHMIS) and the European Directive 91/155/EEC, and 93/112/EC.
- **NFPA ratings (scale 0-4)**



- **HMIS ratings (scale 0-4)**

HEALTH	0	Health = 0
FIRE	0	Fire = 0
REACTIVITY	0	Reactivity = 0

**4 First aid measures**

- **General information** No special measures required.
- **After inhalation** Seek medical treatment in case of complaints.
- **After skin contact** Immediately wash with water and soap and rinse thoroughly.
- **After eye contact**  
Rinse opened eye for several minutes under running water. If symptoms persist, consult a doctor.
- **After swallowing** If symptoms persist consult doctor.

(Contd. on page 2)

USA

Date Prepared: 12/21/2007

Reviewed On: 12/21/2007

**Product name: Salmonella Somatic Polyvalent  
(Febrile Antigen Set)**

(Contd. of page 1)

· **Information for doctor** Show this product label or this MSDS.

### 5 Fire fighting measures

- **Suitable extinguishing agents**  
CO<sub>2</sub>, ABC multipurpose dry chemical or water spray. Fight larger fires with water spray or alcohol resistant foam.
- **Protective equipment:** No special measures required.

### 6 Accidental release measures

- **Person-related safety precautions:** Not required.
- **Measures for environmental protection:** Wipe up with damp sponge or mop.
- **Measures for cleaning/collecting:** No special measures required.
- **Additional information:** No dangerous substances are released.

### 7 Handling and storage

- **Handling**
- **Information for safe handling:** No special measures required.
- **Information about protection against explosions and fires:** No special measures required.
- **Storage**
- **Requirements to be met by storerooms and receptacles:** 2 - 8 C
- **Information about storage in one common storage facility:** Store away from oxidizing agents.
- **Further information about storage conditions:** None.

### 8 Exposure controls and personal protection

- **Additional information about design of technical systems:** No further data; see item 7.

· **Components with limit values that require monitoring at the workplace:**

**56-81-5 glycerol**

PEL	15*; 5** mg/m <sup>3</sup>
	*Total dust **Respirable fraction
TWA	Short-term value: 10 mg/m <sup>3</sup>

- **Additional information:** The lists that were valid during the creation were used as basis.
- **Personal Protective Equipment**
- **General protective and hygienic measures**  
The usual precautionary measures for handling chemicals should be followed.
- **Breathing equipment:**  
In case of brief exposure, use a chemical fume hood or a NIOSH/MSHA-approved respirator.

(Contd. on page 3)



Date Prepared: 12/21/2007

Reviewed On: 12/21/2007

**Product name: Salmonella Somatic Polyvalent  
(Febrile Antigen Set)**

(Contd. of page 2)

**· Protection of hands:**



Chemical resistant gloves (i.e. nitrile, or equivalent).

**· Eye protection:** Safety glasses

**· Body protection:** Protective work clothing (lab coat).

**9 Physical and chemical properties:**

**· General Information**

**Form:** Liquid  
**Color:** Light yellow  
Amber  
**Odor:** Characteristic

**· Change in condition** Undetermined  
**· Melting point/Melting range:** Not determined  
**· Boiling point/Boiling range:** Not determined

**· Flash point:** Not applicable

**· Auto igniting:** Product is not self igniting.

**· Danger of explosion:** Product does not present an explosion hazard.

**· Density:** Not determined

**· Solubility in / Miscibility with  
Water:** Soluble

**· Solvent content:  
Organic solvents:** 0.0 %

**10 Stability and reactivity**

- Thermal decomposition / conditions to be avoided:**  
No decomposition if used according to specifications.
- Materials to be avoided:** Incompatible material: strong oxidizers.
- Dangerous reactions** No dangerous reactions known
- Dangerous products of decomposition:** No dangerous decomposition products known.

**11 Toxicological information**

- Acute toxicity:**
- Primary irritant effect:**
- on the skin:** No irritating effect.
- on the eye:** No irritating effect.

(Contd. on page 4)



Date Prepared: 12/21/2007

Reviewed On: 12/21/2007

**Product name: Salmonella Somatic Polyvalent  
(Febrile Antigen Set)**

(Contd. of page 3)

- **Sensitization:** No sensitizing effects known.
- **Additional toxicological information:**  
The product is not subject to OSHA classification according to internally approved calculation methods for preparations.  
When used and handled according to specifications, the product does not have any harmful effects according to our experience and the information provided to us.

**12 Ecological information:**

- **Ecotoxicological effects:**
- **Other information:**  
The ecological effects have not been thoroughly investigated, but currently none have been identified.
- **General notes:** Water hazard class 1 (Self-assessment): slightly hazardous for water.

**13 Disposal considerations**

- **Product:**
- **Recommendation**  
Smaller quantities can be disposed of with solid waste.  
Dispose of material in accordance with federal (40 CFR 261.3), state and local requirements.  
This product is not considered a RCRA hazardous waste.
- **Uncleaned packagings:**
- **Recommendation:** Disposal must be made according to state and federal regulations.
- **Recommended cleansing agent:** Water, if necessary with cleansing agents.

**14 Transport information**

- **DOT regulations:**
- **Hazard class:** -
- **Land transport ADR/RID (cross-border)**
- **ADR/RID class:** -
- **Maritime transport IMDG:**
- **IMDG Class:** -
- **Marine pollutant:** No
- **Air transport ICAO-TI and IATA-DGR:**
- **ICAO/IATA Class:** -

- **Transport/Additional information:**  
If a dashed line appears in the Hazard Class section for the type of transportation, this indicates the product is not regulated for transportation.

USA

(Contd. on page 5)



**Material Safety Data Sheet**  
acc. to ISO/DIS 11014

Date Prepared: 12/21/2007

Reviewed On: 12/21/2007

**Product name: Salmonella Somatic Polyvalent  
(Febrile Antigen Set)**

(Contd. of page 4)

**15 Regulations**

· **SARA Section 355 (extremely hazardous substances)**

None of the ingredients is listed.

· **SARA Section 313 (specific toxic chemical listings)**

None of the ingredients is listed.

· **TSCA (Toxic Substances Control Act)**

56-81-5 | glycerol

· **California Proposition 65 - Chemicals known to cause cancer**

None of the ingredients is listed.

· **California Proposition 65 - Chemicals known to cause reproductive toxicity for females:**

None of the ingredients is listed.

· **California Proposition 65 - Chemicals known to cause reproductive toxicity for males:**

None of the ingredients is listed.

· **California Proposition 65 - Chemicals known to cause developmental toxicity:**

None of the ingredients is listed.

· **Carcinogenicity categories**

· **IARC (International Agency for Research on Cancer)**

None of the ingredients is listed.

· **NTP (National Toxicology Program)**

None of the ingredients is listed.

· **TLV (Threshold Limit Value established by ACGIH)**

None of the ingredients is listed.

· **Product related hazard information:**

Observe the general safety regulations when handling chemicals

The product is not subject to identification regulations pertaining to regulations on hazardous materials.

**16 Other information:**

To the best of our knowledge, the information contained herein is accurate. However, neither Becton Dickinson and Company or any of its subsidiaries assumes any liabilities whatsoever for the accuracy or completeness of the information contained herein. Final determination of suitability of any material is the sole responsibility of the user. All materials may present unknown hazards and should be used with caution. Although certain hazards are described herein, we can not guarantee that these are the only hazards that exist.

· **Department issuing MSDS:**

Safety and Environment Department

MSDS created by Michael J. Spinazzola

· **Contact:** Technical Service Representative

Date Prepared: 12/21/2007

Reviewed On: 12/21/2007

**1 Identification of substance:**

- **Product name:** Brucella Positive Control AMS  
(Febrile Antigen Set)
- **Catalog number:** 240786
- **Manufacturer/Supplier:**  
BD Diagnostic Systems  
7 Loveton Circle  
Sparks, MD 21152  
Telephone: (410) 771 - 0100 or (800) 638 - 8663
- **Information department:**  
Technical services  
Technical Services
- **Emergency information:**  
In case of a chemical emergency, spill, fire, exposure, or accident contact BD Diagnostic Systems (410) 771-0100 or (800)-638-8663, or ChemTrec at (800) 424-9300.

**2 Composition/Data on components:**

- **Chemical characterization:**
- **CAS No. Description:**  
Not applicable
- **Chemical characterization**
- **Description:** Mixture consisting of the following components.
- **Dangerous components:** Void

**3 Hazards identification**

- **Hazard description:**  
This product contains no hazardous constituents, or the concentration of all chemical constituents are below the regulatory threshold limits described by Occupational Safety Health Administration Hazard Communication Standard 29 CFR 1910.1200, the Canada's Workplace Hazardous Materials Information System (WHMIS) and the European Directive 91/155/EEC, and 93/112/EC.
- **NFPA ratings (scale 0-4)**



- **HMIS ratings (scale 0-4)**

HEALTH	0	Health = 0
FIRE	0	Fire = 0
REACTIVITY	0	Reactivity = 0

**4 First aid measures**

- **General information** No special measures required.
- **After inhalation** Seek medical treatment in case of complaints.

(Contd. on page 2)

USA



Date Prepared: 12/21/2007

Reviewed On: 12/21/2007

**Product name: Brucella Positive Control AMS  
(Febrile Antigen Set)**

(Contd. of page 1)

- **After skin contact** Immediately wash with water and soap and rinse thoroughly.
- **After eye contact**  
Rinse opened eye for several minutes under running water. If symptoms persist, consult a doctor.
- **After swallowing** If symptoms persist consult doctor.
- **Information for doctor** Show this product label or this MSDS.

### 5 Fire fighting measures

- **Suitable extinguishing agents**  
CO2, ABC multipurpose dry chemical or water spray. Fight larger fires with water spray or alcohol resistant foam.
- **Protective equipment:** No special measures required.

### 6 Accidental release measures

- **Person-related safety precautions:** Not required.
- **Measures for environmental protection:** Wipe up with damp sponge or mop.
- **Measures for cleaning/collecting:**  
Absorb with liquid-binding material (sand, diatomite, acid binders, universal binders).
- **Additional information:** No dangerous substances are released.

### 7 Handling and storage

- **Handling**
- **Information for safe handling:** No special measures required.
- **Information about protection against explosions and fires:** No special measures required.
- **Storage**
- **Requirements to be met by storerooms and receptacles:** 2 - 8 C
- **Information about storage in one common storage facility:** Store away from oxidizing agents.
- **Further information about storage conditions:** Store in cool, dry conditions in well sealed containers.

### 8 Exposure controls and personal protection

- **Additional information about design of technical systems:** No further data; see item 7.

· **Components with limit values that require monitoring at the workplace:**

56-81-5 glycerol

PEL	15*; 5** mg/m <sup>3</sup>
	*Total dust **Respirable fraction
TWA	Short-term value: 10 mg/m <sup>3</sup>

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

- **Personal Protective Equipment**
- **General protective and hygienic measures**  
The usual precautionary measures for handling chemicals should be followed.

(Contd. on page 3)

Date Prepared: 12/21/2007

Reviewed On: 12/21/2007

**Product name: Brucella Positive Control AMS**  
(Febrile Antigen Set)

(Contd. of page 2)

- **Breathing equipment:**  
In case of brief exposure, use a chemical fume hood or a NIOSH/MSHA-approved respirator.
- **Protection of hands:**



Chemical resistant gloves (i.e. nitrile, or equivalent).

- **Eye protection:** Safety glasses
- **Body protection:** Protective work clothing (lab coat).

### 9 Physical and chemical properties:

· **General Information**

<b>Form:</b>	Liquid
<b>Color:</b>	Light yellow Amber
<b>Odor:</b>	Characteristic

- **Change in condition** Undetermined
- **Melting point/Melting range:** Not determined
- **Boiling point/Boiling range:** Not determined

· **Flash point:** Not applicable

· **Danger of explosion:** Product does not present an explosion hazard.

· **Density:** Not determined

· **Solubility in / Miscibility with Water:** Soluble

### 10 Stability and reactivity

- **Thermal decomposition / conditions to be avoided:**  
No decomposition if used according to specifications.
- **Dangerous reactions** No dangerous reactions known
- **Dangerous products of decomposition:** No dangerous decomposition products known.

### 11 Toxicological information

- **Acute toxicity:**
- **Primary irritant effect:**
- **on the skin:** No irritating effect.
- **on the eye:** No irritating effect.
- **Sensitization:** Sensitization possible through skin contact.

(Contd. on page 4)



Date Prepared: 12/21/2007

Reviewed On: 12/21/2007

**Product name: Brucella Positive Control AMS  
(Febrile Antigen Set)**

(Contd. of page 3)

**· Additional toxicological information:**

*When used and handled according to specifications, the product does not have any harmful effects according to our experience and the information provided to us.  
The substance is not subject to classification.*

**12 Ecological information:**

**· Ecotoxicological effects:**

**· Other information:**

*The ecological effects have not been thoroughly investigated, but currently none have been identified.  
· General notes: Water hazard class 1 (Self-assessment): slightly hazardous for water.*

**13 Disposal considerations**

**· Product:**

**· Recommendation**

*Smaller quantities can be disposed of with solid waste.  
Dispose of material in accordance with federal (40 CFR 261.3), state and local requirements.  
This product is not considered a RCRA hazardous waste.*

**· Uncleaned packagings:**

**· Recommendation:** *Disposal must be made according to state and federal regulations.*

**· Recommended cleansing agent:** *Water, if necessary with cleansing agents.*

**14 Transport information**

**· DOT regulations:**

**· Hazard class:** -

**· Land transport ADR/RID (cross-border)**

**· ADR/RID class:** -

**· Maritime transport IMDG:**

**· IMDG Class:** -

**· Marine pollutant:** No

**· Air transport ICAO-TI and IATA-DGR:**

**· ICAO/IATA Class:** -

**· Transport/Additional information:**

*If a dashed line appears in the Hazard Class section for the type of transportation, this indicates the product is not regulated for transportation.*

USA

(Contd. on page 5)



Date Prepared: 12/21/2007

Reviewed On: 12/21/2007

Product name: **Brucella Positive Control AMS**  
(Febrile Antigen Set)

(Contd. of page 4)

**15 Regulations**

· **SARA Section 355 (extremely hazardous substances)**

None of the ingredients is listed.

· **SARA Section 313 (specific toxic chemical listings)**

None of the ingredients is listed.

· **TSCA (Toxic Substances Control Act)**

56-81-5 | glycerol

· **California Proposition 65 - Chemicals known to cause cancer**

None of the ingredients is listed.

· **California Proposition 65 - Chemicals known to cause reproductive toxicity for females:**

None of the ingredients is listed.

· **California Proposition 65 - Chemicals known to cause reproductive toxicity for males:**

None of the ingredients is listed.

· **California Proposition 65 - Chemicals known to cause developmental toxicity:**

None of the ingredients is listed.

· **Carcinogenicity categories**

· **IARC (International Agency for Research on Cancer)**

None of the ingredients is listed.

· **NTP (National Toxicology Program)**

None of the ingredients is listed.

· **TLV (Threshold Limit Value established by ACGIH)**

None of the ingredients is listed.

· **Product related hazard information:**

Observe the general safety regulations when handling chemicals

The product is not subject to identification regulations pertaining to regulations on hazardous materials.

**16 Other information:**

To the best of our knowledge, the information contained herein is accurate. However, neither Becton Dickinson and Company or any of its subsidiaries assumes any liabilities whatsoever for the accuracy or completeness of the information contained herein. Final determination of suitability of any material is the sole responsibility of the user. All materials may present unknown hazards and should be used with caution. Although certain hazards are described herein, we can not guarantee that these are the only hazards that exist.

· **Department issuing MSDS:**

Safety and Environment Department

MSDS created by Michael J. Spinazzola

· **Contact:** Technical Service Representative



Date Prepared: 12/21/2007

Reviewed On: 12/21/2007

**1 Identification of substance:**

- **Product name:** Proteus Polyvalent
- **Catalog number:** 240786
- **Manufacturer/Supplier:**  
BD Diagnostic Systems  
7 Loveton Circle  
Sparks, MD 21152  
Telephone: (410) 771 - 0100 or (800) 638 - 8663
- **Information department:**  
Technical services  
Technical Services
- **Emergency information:**  
In case of a chemical emergency, spill, fire, exposure, or accident contact BD Diagnostic Systems (410) 771-0100 or (800)-638-8663, or ChemTrec at (800) 424-9300.

**2 Composition/Data on components:**

- **Chemical characterization**
- **Description:** Mixture of the substances listed below with nonhazardous additions.
- **Dangerous components:** Void

**3 Hazards identification**

- **Hazard description:**  
This product contains no hazardous constituents, or the concentration of all chemical constituents are below the regulatory threshold limits described by Occupational Safety Health Administration Hazard Communication Standard 29 CFR 1910.1200, the Canada's Workplace Hazardous Materials Information System (WHMIS) and the European Directive 91/155/EEC, and 93/112/EC.
- **NFPA ratings (scale 0-4)**



- **HMIS ratings (scale 0-4)**

HEALTH	0	Health = 0
FIRE	0	Fire = 0
REACTIVITY	0	Reactivity = 0

**4 First aid measures**

- **General information** No special measures required.
- **After inhalation** Seek medical treatment in case of complaints.
- **After skin contact** Immediately wash with water and soap and rinse thoroughly.
- **After eye contact**  
Rinse opened eye for several minutes under running water. If symptoms persist, consult a doctor.
- **After swallowing** If symptoms persist consult doctor.

(Contd. on page 2)

USA



Date Prepared: 12/21/2007

Reviewed On: 12/21/2007

Product name: Proteus Polyvalent

(Contd. of page 1)

· **Information for doctor** Show this product label or this MSDS.

### 5 Fire fighting measures

- **Suitable extinguishing agents**  
CO2, ABC multipurpose dry chemical or water spray. Fight larger fires with water spray or alcohol resistant foam.
- **Protective equipment:** No special measures required.

### 6 Accidental release measures

- **Person-related safety precautions:** Not required.
- **Measures for environmental protection:** Wipe up with damp sponge or mop.
- **Measures for cleaning/collecting:** No special measures required.
- **Additional information:** No dangerous substances are released.

### 7 Handling and storage

- **Handling**
- **Information for safe handling:** No special measures required.
- **Information about protection against explosions and fires:** No special measures required.
- **Storage**
- **Requirements to be met by storerooms and receptacles:** 2 - 8 C
- **Information about storage in one common storage facility:** Store away from oxidizing agents.
- **Further information about storage conditions:** None.

### 8 Exposure controls and personal protection

· **Additional information about design of technical systems:** No further data; see item 7.

· **Components with limit values that require monitoring at the workplace:**

56-81-5 glycerol

PEL	15*; 5** mg/m <sup>3</sup>
	*Total dust **Respirable fraction
TWA	Short-term value: 10 mg/m <sup>3</sup>

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

- **Personal Protective Equipment**
- **General protective and hygienic measures**  
The usual precautionary measures for handling chemicals should be followed.
- **Breathing equipment:**  
In case of brief exposure, use a chemical fume hood or a NIOSH/MSHA-approved respirator.

(Contd. on page 3)

**Product name: Proteus Polyvalent**

(Contd. of page 2)

**· Protection of hands:**



Chemical resistant gloves (i.e. nitrile, or equivalent).

**· Eye protection:** Safety glasses

**· Body protection:** Protective work clothing (lab coat).

**9 Physical and chemical properties:**

**· General Information**

**Form:** Liquid  
**Color:** Light yellow  
Amber  
**Odor:** Characteristic

**· Change in condition** Undetermined  
**· Melting point/Melting range:** Not determined  
**· Boiling point/Boiling range:** Not determined

**· Flash point:** Not applicable

**· Auto igniting:** Product is not self igniting.

**· Danger of explosion:** Product does not present an explosion hazard.

**· Density:** Not determined

**· Solubility in / Miscibility with**  
**Water:** Soluble

**· Solvent content:**  
**Organic solvents:** 0.0 %

**10 Stability and reactivity**

- Thermal decomposition / conditions to be avoided:**  
No decomposition if used according to specifications.
- Materials to be avoided:** Incompatible material: strong oxidizers.
- Dangerous reactions** No dangerous reactions known
- Dangerous products of decomposition:** No dangerous decomposition products known.

**11 Toxicological information**

- Acute toxicity:**
- Primary irritant effect:**
- on the skin:** No irritating effect.
- on the eye:** No irritating effect.
- Sensitization:** No sensitizing effects known.

(Contd. on page 4)



**Material Safety Data Sheet**  
acc. to ISO/DIS 11014

Date Prepared: 12/21/2007

Reviewed On: 12/21/2007

**Product name: Proteus Polyvalent**

(Contd. of page 3)

**· Additional toxicological information:**

The product is not subject to OSHA classification according to internally approved calculation methods for preparations.

When used and handled according to specifications, the product does not have any harmful effects according to our experience and the information provided to us.

**12 Ecological information:**

**· Ecotoxicological effects:**

**· Other information:**

The ecological effects have not been thoroughly investigated, but currently none have been identified.

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

**13 Disposal considerations**

**· Product:**

**· Recommendation**

Smaller quantities can be disposed of with solid waste.

Dispose of material in accordance with federal (40 CFR 261.3), state and local requirements.

This product is not considered a RCRA hazardous waste.

**· Uncleaned packagings:**

**· Recommendation:** Disposal must be made according to state and federal regulations.

**· Recommended cleansing agent:** Water, if necessary with cleansing agents.

**14 Transport information**

**· DOT regulations:**

**· Hazard class:** -

**· Land transport ADR/RID (cross-border)**

**· ADR/RID class:** -

**· Maritime transport IMDG:**

**· IMDG Class:** -

**· Marine pollutant:** No

**· Air transport ICAO-TI and IATA-DGR:**

**· ICAO/IATA Class:** -

**· Transport/Additional information:**

If a dashed line appears in the Hazard Class section for the type of transportation, this indicates the product is not regulated for transportation.

USA

(Contd. on page 5)



Date Prepared: 12/21/2007

Reviewed On: 12/21/2007

Product name: Proteus Polyvalent

(Contd. of page 4)

**15 Regulations**

· **SARA Section 355 (extremely hazardous substances)**

None of the ingredients is listed.

· **SARA Section 313 (specific toxic chemical listings)**

None of the ingredients is listed.

· **TSCA (Toxic Substances Control Act)**

56-81-5 glycerol

· **California Proposition 65 - Chemicals known to cause cancer**

None of the ingredients is listed.

· **California Proposition 65 - Chemicals known to cause reproductive toxicity for females:**

None of the ingredients is listed.

· **California Proposition 65 - Chemicals known to cause reproductive toxicity for males:**

None of the ingredients is listed.

· **California Proposition 65 - Chemicals known to cause developmental toxicity:**

None of the ingredients is listed.

· **Carcinogenicity categories**

· **IARC (International Agency for Research on Cancer)**

None of the ingredients is listed.

· **NTP (National Toxicology Program)**

None of the ingredients is listed.

· **TLV (Threshold Limit Value established by ACGIH)**

None of the ingredients is listed.

· **Product related hazard information:**

Observe the general safety regulations when handling chemicals

The product is not subject to identification regulations pertaining to regulations on hazardous materials.

**16 Other information:**

To the best of our knowledge, the information contained herein is accurate. However, neither Becton Dickinson and Company or any of its subsidiaries assumes any liabilities whatsoever for the accuracy or completeness of the information contained herein. Final determination of suitability of any material is the sole responsibility of the user. All materials may present unknown hazards and should be used with caution. Although certain hazards are described herein, we can not guarantee that these are the only hazards that exist.

· **Department issuing MSDS:**

Safety and Environment Department

MSDS created by Michael J. Spinazzola

· **Contact:** Technical Service Representative