

02/17/2015

### Kit Components

Product code	Description
<b>560758</b>	<b>MouseTh1/Th2/Th17 Phenotyping Kit</b>

Components:

51-2091KE	BD Perm/Wash™ Buffer
51-2092KZ	Protein Transport Inhibitor (Containing Monensin)
51-9006613	Fixation Buffer
51-9006631	Mouse Th1/Th2/Th17 Phenotyping Cocktail

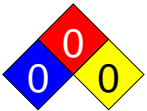
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Reviewed on 02/09/2015

## 1 Identification

- **Product identifier**
  - **Product name:** *BD Perm/Wash™ Buffer*
  - **Catalog number:** *51-2091KE*
- **Relevant identified uses of the substance or mixture and uses advised against**
  - **Sector of Use** *SU24 Scientific research and development*
- **Details of the supplier of the safety data sheet**
  - **Manufacturer/Supplier:**  
*BD Biosciences, Pharmingen*  
*10975 Torreyana Road*  
*San Diego, CA 92121-1106*  
*Tel. (877)232-8995*
  - **Information department:** *Technical Services*
  - **Emergency telephone number:**  
*In case of a chemical emergency, spill, fire, or exposure, call BD Biosciences at (877)232-8995, or ChemTrec at (800)424-9300.*

## 2 Hazard(s) identification

- **Classification of the substance or mixture**  
*The product is not classified according to the Globally Harmonized System (GHS).*
- **Classification according to Directive 67/548/EEC or Directive 1999/45/EC**  
*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 and the European Directive 91/155/EEC, and 93/112/EC.*
- **Classification system:**  
*The classification was made according to the latest editions of international substances lists, and expanded upon from company and literature data.*
- **Label elements**
  - **GHS label elements** *Void*
  - **Hazard pictograms** *Void*
  - **Signal word** *Void*
  - **Hazard statements** *Void*
- **Classification system**
  - **NFPA ratings (scale 0-4)**  
  
Health = 0  
Flammability = 0  
Reactivity = 0
- **Other hazards**
  - **Results of PBT and vPvB assessment**
    - **PBT:** *Not applicable.*
    - **vPvB:** *Not applicable.*

## 3 Composition/information on ingredients

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

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**Product name: BD Perm/Wash™ Buffer**

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**· Dangerous components:**

7647-14-5 sodium chloride

Acute Tox. 5, H303

11.82%

#### 4 First-aid measures

**· Description of 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** Flush immediately with water for 15 minutes, and consult a doctor.
- **After swallowing** If symptoms persist consult doctor.
- **Most important symptoms and effects, both acute and delayed** No further relevant information available.
- **Indication of any immediate medical attention and special treatment needed**  
No further relevant information available.

#### 5 Fire-fighting measures

**· Extinguishing media**
**· Suitable extinguishing agents**

 CO<sub>2</sub>, ABC multipurpose dry chemical or water spray. Fight larger fires with water spray or alcohol resistant foam.

**· Special hazards arising from the substance or mixture** Nitrogen oxides (NO<sub>x</sub>)

**· Advice for firefighters**

- **Protective equipment:** No special measures required.

#### 6 Accidental release measures

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

The usual precautionary measures for handling chemicals should be followed.

See Section 8 for information on personal protection equipment.

**· Environmental precautions:** Wipe up with damp sponge or mop.

**· Methods and material for containment and cleaning up:** No special measures required.

**· Reference to other sections**

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

**· Precautions for safe handling** No special measures required.

**· Information about protection against explosions and fires:** No special measures required.

**· Conditions for safe storage, including any incompatibilities**
**· Storage**
**· Requirements to be met by storerooms and receptacles:** 4 °C

**· Information about storage in one common storage facility:**

Do not store together with oxidizing and acidic materials as well as heavy-metal compounds.

**· Further information about storage conditions:** Store in cool, dry conditions in well sealed containers.

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**Product name: BD Perm/Wash™ Buffer**

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· *Specific end use(s)* No further relevant information available.

## 8 Exposure controls/personal protection

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

· **Control parameters**

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

The product does not contain any relevant quantities of materials with critical values that have to be monitored at the workplace.

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

· **Exposure controls**

· **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

· **Information on basic physical and chemical properties**

· **General Information**

· **Appearance:**

· <b>Form:</b>	Liquid
· <b>Color:</b>	Light brown
· <b>Odor:</b>	Characteristic
· <b>Odour threshold:</b>	Not determined

· **pH-value:** Not determined

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

· **Flash point:** Not applicable

· **Flammability (solid, gaseous)** Not applicable

· **Ignition temperature:**

· **Decomposition temperature:** Not determined

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**Product name: BD Perm/Wash™ Buffer**

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· <b>Auto igniting:</b>	Product is not self igniting.
· <b>Danger of explosion:</b>	Product does not present an explosion hazard.
· <b>Explosion limits:</b>	
· <b>Lower:</b>	Not determined
· <b>Upper:</b>	Not determined
· <b>Vapor pressure at 20 °C (68 °F):</b>	23 hPa (17 mm Hg)
· <b>Density:</b>	Not determined
· <b>Relative density</b>	Not determined
· <b>Vapour density</b>	Not determined
· <b>Evaporation rate</b>	Not determined
· <b>Solubility in / Miscibility with</b>	
· <b>Water:</b>	Soluble
· <b>Partition coefficient (n-octanol/water):</b>	Not determined
· <b>Viscosity:</b>	
· <b>dynamic:</b>	Not determined
· <b>kinematic:</b>	Not determined
· <b>Solvent content:</b>	
· <b>Organic solvents:</b>	0.0 %
· <b>Water:</b>	74.2 %
· <b>Other information</b>	No further relevant information available.

## 10 Stability and reactivity

- **Reactivity** No dangerous reactions known
- **Chemical stability**
  - **Thermal decomposition / conditions to be avoided:** No decomposition if used according to specifications.
- **Possibility of hazardous reactions** No dangerous reactions known
- **Conditions to avoid** No further relevant information available.
- **Incompatible materials:**
  - Incompatible material: strong oxidizers.
  - Incompatible materials: acidic material and metals
- **Hazardous decomposition products:** Nitrogen oxides (NOx)
- **Additional information:**
  - Sodium azide is present in this product. Contact with acidic solutions and metal compounds over time may form potentially explosive metal azides. Should any of this material be introduced into a sanitary sewer system, flush with copious amounts of water.

## 11 Toxicological information

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

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**Product name: BD Perm/Wash™ Buffer**

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 · **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.

 · **Carcinogenic categories**

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

None of the ingredients is listed.

 · **NTP (National Toxicology Program)**

None of the ingredients is listed.

 · **OSHA-Ca (Occupational Safety & Health Administration)**

None of the ingredients is listed.

## 12 Ecological information

 · **Toxicity**

 · **Aquatic toxicity:** No further relevant information available.

 · **Persistence and degradability** No further relevant information available.

 · **Bioaccumulative potential** No further relevant information available.

 · **Mobility in soil** No further relevant information available.

 · **Ecotoxicological effects:**

 · **Other information:**

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

 · **Additional ecological information:**

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

 · **Results of PBT and vPvB assessment**

 · **PBT:** Not applicable.

 · **vPvB:** Not applicable.

 · **Other adverse effects** No further relevant information available.

## 13 Disposal considerations

 · **Waste treatment methods**

 · **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), 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

 · **UN-Number**

 · **DOT, ADR, ADN, IMDG, IATA**                      Void

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**Product name: BD Perm/Wash™ Buffer**

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- |  |                 |
|--|-----------------|
| · <b>UN proper shipping name</b><br>· DOT, ADR, ADN, IMDG, IATA                  | Void            |
| · <b>Transport hazard class(es)</b><br>· DOT, ADR, ADN, IMDG, IATA<br>· Class    | Void            |
| · <b>Packing group</b><br>· DOT, ADR, IMDG, IATA                                 | Void            |
| · <b>Environmental hazards:</b><br>· Marine pollutant:                           | No              |
| · <b>Special precautions for user</b>  | Not applicable. |
| · <b>Transport in bulk according to Annex II of MARPOL73/78 and the IBC Code</b> | Not applicable. |
| · <b>UN "Model Regulation":</b>  | -               |

### 15 Regulatory information

· **Safety, health and environmental regulations/legislation specific for the substance or mixture**

· **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)**

7647-14-5	sodium chloride
7558-79-4	disodium hydrogenorthophosphate
7447-40-7	potassium chloride
7778-77-0	potassium phosphate, monobasic
26628-22-8	Sodium azide
7732-18-5	water

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

None of the ingredients is listed.

· **Chemicals known to cause reproductive toxicity for females:**

None of the ingredients is listed.

· **Chemicals known to cause reproductive toxicity for males:**

None of the ingredients is listed.

· **Chemicals known to cause developmental toxicity:**

None of the ingredients is listed.

· **Carcinogenic categories**

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

26628-22-8	Sodium azide	A4
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- **GHS label elements** Void  
 · **Hazard pictograms** Void

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- **Signal word** Void
- **Hazard statements** Void
- **National regulations**
- **Water hazard class:** Water hazard class 1 (Self-assessment): slightly hazardous for water.
- **Chemical safety assessment:** A Chemical Safety Assessment has not been carried out.

## 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 cannot guarantee that these are the only hazards that exist.

- **Contact:** Technical Service Representative
- **Abbreviations and acronyms:**
  - ADR: Accord européen sur le transport des marchandises dangereuses par Route (European Agreement concerning the International Carriage of Dangerous Goods by Road)
  - IMDG: International Maritime Code for Dangerous Goods
  - DOT: US Department of Transportation
  - IATA: International Air Transport Association
  - ACGIH: American Conference of Governmental Industrial Hygienists
  - EINECS: European Inventory of Existing Commercial Chemical Substances
  - ELINCS: European List of Notified Chemical Substances
  - CAS: Chemical Abstracts Service (division of the American Chemical Society)
  - NFPA: National Fire Protection Association (USA)
  - Acute Tox. 5: Acute toxicity, Hazard Category 5



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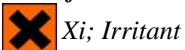
**1 Identification**· **Product identifier**· **Product name:** *Protein Transport Inhibitor (Containing Monensin)*· **Catalog number:** 51-2092KZ· **Relevant identified uses of the substance or mixture and uses advised against**· **Sector of Use** SU24 Scientific research and development· **Details of the supplier of the safety data sheet**· **Manufacturer/Supplier:**

BD Biosciences, Pharmingen

10975 Torreyana Road

San Diego, CA 92121-1106

Tel. (877)232-8995

· **Information department:** Technical Services· **Emergency telephone number:***In case of a chemical emergency, spill, fire, or exposure, call BD Biosciences at (877)232-8995, or ChemTrec at (800)424-9300.***2 Hazard(s) identification**· **Classification of the substance or mixture***Flam. Liq. 2 H225 Highly flammable liquid and vapor.**Eye Irrit. 2A H319 Causes serious eye irritation.*· **Classification according to Directive 67/548/EEC or Directive 1999/45/EC***R36: Irritating to eyes.**F; Highly flammable**R11: Highly flammable.*· **Classification system:***The classification was made according to the latest editions of international substances lists, and expanded upon from company and literature data.*· **Label elements**· **GHS label elements** The product is classified and labeled according to the Globally Harmonized System (GHS).· **Hazard pictograms** GHS02, GHS07· **Signal word** Danger· **Hazard statements***Highly flammable liquid and vapor.**Causes serious eye irritation.*· **Precautionary statements***Keep away from heat/sparks/open flames/hot surfaces. - No smoking.**Wear protective gloves / eye protection.**Wear protective clothing.**IF ON SKIN (or hair): Remove/Take off immediately all contaminated clothing. Rinse skin with water/shower.*

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**Product name: Protein Transport Inhibitor (Containing Monensin)**

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*IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.*  
*Dispose of contents/container in accordance with local/regional/national/international regulations.*

- **Classification system**
- **NFPA ratings (scale 0-4)**



Health = 1  
 Flammability = 3  
 Reactivity = 0

- **Other hazards**
- **Results of PBT and vPvB assessment**
- **PBT: Not applicable.**
- **vPvB: Not applicable.**

**3 Composition/information on ingredients**

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

**Dangerous components:**

64-17-5	ethanol Xi R36;  F R11 Flam. Liq. 2, H225;  Eye Irrit. 2A, H319	99.61%
22373-78-0	Monensin, Mononatriumsalz T R23/24/25 Acute Tox. 2, H300; Acute Tox. 2, H310; Acute Tox. 2, H330	0.26%

**4 First-aid measures**

- **Description of first aid measures**
- **General information**  
*Symptoms of poisoning may even occur after several hours; therefore provide medical observation for at least 48 hours after the accident.*
- **After inhalation** Supply fresh air.
- **After skin contact**  
*Immediately wash with water and soap and rinse thoroughly.*  
*If skin irritation continues, consult a doctor.*
- **After eye contact** Flush immediately with water for 15 minutes, and consult a doctor.
- **After swallowing** Seek immediate medical advice.
- **Most important symptoms and effects, both acute and delayed** No further relevant information available.
- **Indication of any immediate medical attention and special treatment needed**  
*No further relevant information available.*

**5 Fire-fighting measures**

- **Extinguishing media**
- **Suitable extinguishing agents** CO<sub>2</sub>, sand, extinguishing powder. Do not use water.
- **For safety reasons unsuitable extinguishing agents** Water with full jet.
- **Special hazards arising from the substance or mixture** No further relevant information available.

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- **Advice for firefighters**
- **Protective equipment:** No special measures required.

## 6 Accidental release measures

- **Personal precautions, protective equipment and emergency procedures**  
The usual precautionary measures for handling chemicals should be followed.  
See Section 8 for information on personal protection equipment.
- **Environmental precautions:** No special measures required.
- **Methods and material for containment and cleaning up:**  
Wipe up with damp sponge or mop.  
Absorb with liquid-binding material (sand, diatomite, acid binders, universal binders).  
Dispose contaminated material as waste according to item 13.  
Ensure adequate ventilation.  
Do not flush with water or aqueous cleansing agents
- **Reference to other sections**  
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

- **Precautions for safe handling**  
Ensure good ventilation/exhaustion at the workplace.  
Prevent formation of aerosols.
- **Information about protection against explosions and fires:**  
Keep ignition sources away - Do not smoke.  
Protect against electrostatic charges.
- **Conditions for safe storage, including any incompatibilities**
  - **Storage**
    - **Requirements to be met by storerooms and receptacles:** 4 °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.
- **Specific end use(s)** No further relevant information available.

## 8 Exposure controls/personal protection

- **Additional information about design of technical systems:** No further data; see item 7.
- **Control parameters**
  - **Components with limit values that require monitoring at the workplace:**  
The product does not contain any relevant quantities of materials with critical values that have to be monitored at the workplace.
  - **Additional information:** The lists that were valid during the creation were used as basis.
- **Exposure controls**
  - **Personal Protective Equipment**
    - **General protective and hygienic measures**  
Keep away from foodstuffs, beverages and feed.  
Wash hands before breaks and at the end of work.
    - **Breathing equipment:** Not necessary if room is well-ventilated.

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**Product name: Protein Transport Inhibitor (Containing Monensin)**

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 · **Protection of hands:**


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

 · **Eye protection:**


Safety glasses

Tightly sealed goggles.

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

## 9 Physical and chemical properties

 · **Information on basic physical and chemical properties**

 · **General Information**

 · **Appearance:**

- |                           |                |
|---------------------------|----------------|
| · <b>Form:</b>            | Liquid         |
| · <b>Color:</b>           | Colorless      |
| · <b>Odor:</b>            | Characteristic |
| · <b>Odour threshold:</b> | Not determined |

· <b>pH-value:</b>	Not determined
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 · **Change in condition**

- |                                       |                     |
|---------------------------------------|---------------------|
| · <b>Melting point/Melting range:</b> | -114.5 °C (-174 °F) |
| · <b>Boiling point/Boiling range:</b> | 78 °C (172 °F)      |

· <b>Flash point:</b>	13 °C (55 °F)
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· <b>Flammability (solid, gaseous)</b>	Not applicable
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· <b>Ignition temperature:</b>	425 °C (797 °F)
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· <b>Decomposition temperature:</b>	Not determined
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· <b>Auto igniting:</b>	Product is not self igniting.
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· <b>Danger of explosion:</b>	Product is not explosive. However, formation of explosive air/vapor mixtures are possible.
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 · **Explosion limits:**

- |                 |           |
|-----------------|-----------|
| · <b>Lower:</b> | 3.5 Vol % |
| · <b>Upper:</b> | 15 Vol %  |

· <b>Vapor pressure at 20 °C (68 °F):</b>	59 hPa (44 mm Hg)
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· <b>Density at 20 °C (68 °F):</b>	0.79 g/cm <sup>3</sup> (6.593 lbs/gal)
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- |                           |                |
|---------------------------|----------------|
| · <b>Relative density</b> | Not determined |
| · <b>Vapour density</b>   | Not determined |
| · <b>Evaporation rate</b> | Not determined |

 · **Solubility in / Miscibility with**

· <b>Water at 20 °C (68 °F):</b>	1 g/l
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- **Partition coefficient (n-octanol/water):** Not determined
- **Viscosity:**
  - **dynamic:** Not determined
  - **kinematic:** Not determined
- **Solvent content:**
  - **Organic solvents:** 99.6 %
  - **Water:** 0.1 %
- **Other information** No further relevant information available.

## 10 Stability and reactivity

- **Reactivity**
- **Chemical stability**
  - **Thermal decomposition / conditions to be avoided:** No decomposition if used according to specifications.
- **Possibility of hazardous reactions** No dangerous reactions known
- **Conditions to avoid** No further relevant information available.
- **Incompatible materials:** Incompatible material: strong oxidizers.
- **Hazardous decomposition products:** No dangerous decomposition products known.

## 11 Toxicological information

- **Information on toxicological effects**
- **Acute toxicity:**
  - **Primary irritant effect:**
    - **on the skin:** No irritating effect.
    - **on the eye:** Irritating effect.
  - **Sensitization:** No sensitizing effects known.
- **Subacute to chronic toxicity:** Target organs: thyroid, kidney, ureter or bladder tumors.
- **Additional toxicological information:**

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

- **Carcinogenic categories**

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

None of the ingredients is listed.

- **NTP (National Toxicology Program)**

None of the ingredients is listed.

- **OSHA-Ca (Occupational Safety & Health Administration)**

None of the ingredients is listed.

## 12 Ecological information

- **Toxicity**
  - **Aquatic toxicity:** No further relevant information available.
- **Persistence and degradability** No further relevant information available.
- **Bioaccumulative potential** No further relevant information available.
- **Mobility in soil** No further relevant information available.

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**Product name: Protein Transport Inhibitor (Containing Monensin)**



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- **Ecotoxicological effects:**
- **Other information:**  
*The ecological effects have not been thoroughly investigated, but currently none have been identified.*
- **Additional ecological information:**
  - **General notes:** *Water hazard class 1 (Self-assessment): slightly hazardous for water.*
- **Results of PBT and vPvB assessment**
  - **PBT:** *Not applicable.*
  - **vPvB:** *Not applicable.*
- **Other adverse effects** *No further relevant information available.*

### 13 Disposal considerations

- **Waste treatment methods**
- **Recommendation**  
*Must not be disposed of with solid waste.  
 Dispose of material in accordance with federal (40 CFR 261), state and local requirements.  
 RCRA hazardous waste - RCRA # D001 (ignitable).*
- **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

- |                                     |   |
|-------------------------------------|---|
| · <b>UN-Number</b>                  |   |
| · <b>DOT, ADR, IMDG, IATA</b>       | UN1170  |
| · <b>UN proper shipping name</b>    |   |
| · <b>DOT</b>                        | Ethanol   |
| · <b>ADR</b>                        | 1170 Ethanol (Ethyl alcohol)  |
| · <b>IMDG</b>                       | ETHANOL (ETHYL ALCOHOL)   |
| · <b>IATA</b>                       | ETHANOL   |
| · <b>Transport hazard class(es)</b> |   |
| · <b>DOT</b>                        |   |
|                                     |  |
| · <b>Class</b>                      | 3 Flammable liquids   |
| · <b>Label</b>                      | 3   |
| · <b>ADR</b>                        |   |
|                                     |  |
| · <b>Class</b>                      | 3 (F1) Flammable liquids  |


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· <b>Label</b>	3
· <b>IMDG, IATA</b>	
	
· <b>Class</b>	3 Flammable liquids
· <b>Label</b>	3
· <b>Packing group</b>	
· <b>DOT, ADR, IMDG, IATA</b>	II
· <b>Environmental hazards:</b>	
· <b>Marine pollutant:</b>	No
· <b>Special precautions for user</b>	
· <b>Danger code (Kemler):</b>	Warning: Flammable liquids 33
· <b>EMS Number:</b>	F-E, <u>S-E</u>
· <b>Transport in bulk according to Annex II of MARPOL73/78 and the IBC Code</b>	
Not applicable.	
· <b>Transport/Additional information:</b>	
· <b>DOT</b>	
· <b>Quantity limitations</b>	On passenger aircraft/rail: 5 L On cargo aircraft only: 60 L
· <b>Remarks:</b>	EQ
· <b>ADR</b>	
· <b>Excepted quantities (EQ)</b>	Code: E2 Maximum net quantity per inner packaging: 30 ml Maximum net quantity per outer packaging: 500 ml
· <b>Remarks:</b>	EQ
· <b>IMDG</b>	
· <b>Limited quantities (LQ)</b>	1L
· <b>Excepted quantities (EQ)</b>	Code: E2 Maximum net quantity per inner packaging: 30 ml Maximum net quantity per outer packaging: 500 ml
· <b>Remarks:</b>	EQ
· <b>IATA</b>	
· <b>Remarks:</b>	EQ
· <b>UN "Model Regulation":</b>	UN1170, Ethanol (Ethyl alcohol), 3, II

### 15 Regulatory information

· Safety, health and environmental regulations/legislation specific for the substance or mixture

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

None of the ingredients is listed.

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

64-17-5 | ethanol

(Contd. on page 8)

**Product name: Protein Transport Inhibitor (Containing Monensin)**

(Contd. of page 7)

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

64-17-5	ethanol
1310-73-2	sodium hydroxide
7732-18-5	water

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

None of the ingredients is listed.

**· Chemicals known to cause reproductive toxicity for females:**

None of the ingredients is listed.

**· Chemicals known to cause reproductive toxicity for males:**

None of the ingredients is listed.

**· Chemicals known to cause developmental toxicity:**

64-17-5	ethanol
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**· Carcinogenic categories**
**· TLV (Threshold Limit Value established by ACGIH)**

64-17-5	ethanol	A3
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**· GHS label elements** The product is classified and labeled according to the Globally Harmonized System (GHS).

**· Hazard pictograms** GHS02, GHS07

**· Signal word** Danger

**· Hazard statements**

Highly flammable liquid and vapor.

Causes serious eye irritation.

**· Precautionary statements**

Keep away from heat/sparks/open flames/hot surfaces. - No smoking.

Wear protective gloves / eye protection.

Wear protective clothing.

IF ON SKIN (or hair): Remove/Take off immediately all contaminated clothing. Rinse skin with water/shower.

IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do.

Continue rinsing.

Dispose of contents/container in accordance with local/regional/national/international regulations.

**· National regulations**
**· Technical instructions (air):**

Class	Share in %
Wasser	0.1
I	0.3
NK	99.6

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

**· Chemical safety assessment:** A Chemical Safety Assessment has not been carried out.

**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 cannot guarantee that these are the only hazards that exist.

**· Contact:** Technical Service Representative

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Printing date 02/17/2015

Reviewed on 02/16/2015

**Product name: Protein Transport Inhibitor (Containing Monensin)**

(Contd. of page 8)

**Abbreviations and acronyms:**

*ADR: Accord européen sur le transport des marchandises dangereuses par Route (European Agreement concerning the International Carriage of Dangerous Goods by Road)*

*IMDG: International Maritime Code for Dangerous Goods*

*DOT: US Department of Transportation*

*IATA: International Air Transport Association*

*ACGIH: American Conference of Governmental Industrial Hygienists*

*EINECS: European Inventory of Existing Commercial Chemical Substances*

*ELINCS: European List of Notified Chemical Substances*

*CAS: Chemical Abstracts Service (division of the American Chemical Society)*

*NFPA: National Fire Protection Association (USA)*

*Flam. Liq. 2: Flammable liquids, Hazard Category 2*

*Acute Tox. 2: Acute toxicity, Hazard Category 2*

*Eye Irrit. 2A: Serious eye damage/eye irritation, Hazard Category 2A*

USA

Printing date 02/17/2015

Reviewed on 02/17/2015

**1 Identification**· **Product identifier**· **Product name:** Fixation Buffer· **Catalog number:** 51-9006613· **Relevant identified uses of the substance or mixture and uses advised against**· **Sector of Use** SU24 Scientific research and development· **Details of the supplier of the safety data sheet**· **Manufacturer/Supplier:**

BD Biosciences, Pharmingen

10975 Torreyana Road

San Diego, CA 92121-1106

Tel. (877)232-8995

· **Information department:** Technical Services· **Emergency telephone number:**

In case of a chemical emergency, spill, fire, or exposure, call BD Biosciences at (877)232-8995, or ChemTrec at (800)424-9300.

**2 Hazard(s) identification**· **Classification of the substance or mixture**

Health hazard

Muta. 2 H341 Suspected of causing genetic defects.

Carc. 1A H350 May cause cancer. Route of exposure: Inhalative.



Corrosion

Eye Dam. 1 H318 Causes serious eye damage.



Acute Tox. 4 H332 Harmful if inhaled.

Skin Irrit. 2 H315 Causes skin irritation.

Skin Sens. 1 H317 May cause an allergic skin reaction.

STOT SE 3 H335 May cause respiratory irritation.

· **Classification according to Directive 67/548/EEC or Directive 1999/45/EC**

Xn; Harmful

R40: Limited evidence of a carcinogenic effect.



Xi; Irritant

R43: May cause sensitization by skin contact.

· **Classification system:**

The classification was made according to the latest editions of international substances lists, and expanded upon from company and literature data.

· **Label elements**· **GHS label elements** The product is classified and labeled according to the Globally Harmonized System (GHS).

(Contd. on page 2)

**Product name: Fixation Buffer**

(Contd. of page 1)

- **Hazard pictograms** GHS05, GHS07, GHS08
- **Signal word** *Danger*

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

- **Hazard statements**

- Harmful if inhaled.
- Causes skin irritation.
- Causes serious eye damage.
- May cause an allergic skin reaction.
- Suspected of causing genetic defects.
- May cause cancer. Route of exposure: Inhalative.
- May cause respiratory irritation.

- **Precautionary statements**

- Wear protective clothing / eye protection.
- Wear protective gloves.
- Do not breathe mist/vapours/spray.
- IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
- If skin irritation or rash occurs: Get medical advice/attention.

- **Classification system**

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



Health = 3  
 Flammability = 0  
 Reactivity = 0

- **Other hazards**

- **Results of PBT and vPvB assessment**
- **PBT:** Not applicable.
- **vPvB:** Not applicable.

### 3 Composition/information on ingredients

- **Chemical characterization: Mixtures**

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

- **Dangerous components:**

50-00-0	formaldehyde T R23/24/25; C R34; Xn R40; Xi R43 Carc. Cat. 3 <hr style="border-top: 1px dashed black;"/> Acute Tox. 3, H301; Acute Tox. 3, H311; Acute Tox. 2, H330; Muta. 2, H341; Carc. 1A, H350; Skin Corr. 1B, H314; Eye Dam. 1, H318; Skin Sens. 1, H317; STOT SE 3, H335; H401	4.2%
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### 4 First-aid measures

- **Description of first aid measures**

- **General information**

Symptoms of poisoning may even occur after several hours; therefore provide medical observation for at least 48 hours after the accident.

- **After inhalation**

Supply fresh air and seek medical advice.

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**Product name: Fixation Buffer**

(Contd. of page 2)

- In case of unconsciousness place patient on side position for transportation.*
- **After skin contact** Immediately wash with water and soap and rinse thoroughly.
- **After eye contact** Flush immediately with water for 15 minutes, and consult a doctor.
- **After swallowing** Seek immediate medical advice.
- **Most important symptoms and effects, both acute and delayed** No further relevant information available.
- **Indication of any immediate medical attention and special treatment needed**  
No further relevant information available.

### 5 Fire-fighting measures

- **Extinguishing media**
- **Suitable extinguishing agents**  
CO<sub>2</sub>, ABC multipurpose dry chemical or water spray. Fight larger fires with water spray or alcohol resistant foam.
- **Special hazards arising from the substance or mixture** No further relevant information available.
- **Advice for firefighters**
- **Protective equipment:** No special measures required.

### 6 Accidental release measures

- **Personal precautions, protective equipment and emergency procedures**  
The usual precautionary measures for handling chemicals should be followed.  
See Section 8 for information on personal protection equipment.
- **Environmental precautions:** No special measures required.
- **Methods and material for containment and cleaning up:**  
Absorb with liquid-binding material (sand, diatomite, acid binders, universal binders).  
Dispose contaminated material as waste according to item 13.  
Ensure adequate ventilation.  
Wipe up with damp sponge or mop.
- **Reference to other sections**  
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

- **Precautions for safe handling**  
Ensure good ventilation/exhaustion at the workplace.  
Prevent formation of aerosols.
- **Information about protection against explosions and fires:** No special measures required.
- **Conditions for safe storage, including any incompatibilities**
- **Storage**
  - **Requirements to be met by storerooms and receptacles:** 4 °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.
- **Specific end use(s)** No further relevant information available.

USA

(Contd. on page 4)

**Product name: Fixation Buffer**

(Contd. of page 3)

### 8 Exposure controls/personal protection

- **Additional information about design of technical systems:** No further data; see item 7.
- **Control parameters**
  - **Components with limit values that require monitoring at the workplace:**  
 The product does not contain any relevant quantities of materials with critical values that have to be monitored at the workplace.
  - **Additional information:** The lists that were valid during the creation were used as basis.
- **Exposure controls**
  - **Personal Protective Equipment**
    - **General protective and hygienic measures**  
 Keep away from foodstuffs, beverages and feed.  
 Immediately remove all soiled and contaminated clothing.  
 Wash hands before breaks and at the end of work.
    - **Breathing equipment:** Use suitable respiratory protective device in case of insufficient ventilation.
    - **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

- **Information on basic physical and chemical properties**
  - **General Information**
    - **Appearance:**
      - **Form:** Liquid
      - **Color:** Colorless
      - **Odor:** Odorless
      - **Odour threshold:** Not determined
  - **pH-value:** Not determined
  - **Change in condition**
    - **Melting point/Melting range:** Not determined
    - **Boiling point/Boiling range:** Not determined
  - **Flash point:** Not applicable
  - **Flammability (solid, gaseous)** Not applicable
  - **Ignition temperature:**
  - **Decomposition temperature:** Not determined
  - **Auto igniting:** Product is not self igniting.

(Contd. on page 5)

Printing date 02/17/2015

Reviewed on 02/17/2015

**Product name: Fixation Buffer**

(Contd. of page 4)

· <b>Danger of explosion:</b>	<i>Product does not present an explosion hazard.</i>
· <b>Explosion limits:</b>	
· <b>Lower:</b>	<i>Not determined</i>
· <b>Upper:</b>	<i>Not determined</i>
· <b>Vapor pressure at 20 °C (68 °F):</b>	<i>23 hPa (17 mm Hg)</i>
· <b>Density at 20 °C (68 °F):</b>	<i>1.0024 g/cm<sup>3</sup> (8.365 lbs/gal)</i>
· <b>Relative density</b>	<i>Not determined</i>
· <b>Vapour density</b>	<i>Not determined</i>
· <b>Evaporation rate</b>	<i>Not determined</i>
· <b>Solubility in / Miscibility with</b>	
· <b>Water:</b>	<i>Soluble</i>
· <b>Partition coefficient (n-octanol/water):</b>	<i>Not determined</i>
· <b>Viscosity:</b>	
· <b>dynamic:</b>	<i>Not determined</i>
· <b>kinematic:</b>	<i>Not determined</i>
· <b>Solvent content:</b>	
· <b>Organic solvents:</b>	<i>4.2 %</i>
· <b>Water:</b>	<i>94.5 %</i>
· <b>Other information</b>	<i>No further relevant information available.</i>

### 10 Stability and reactivity

- **Reactivity** *No dangerous reactions known*
- **Chemical stability**
  - **Thermal decomposition / conditions to be avoided:** *No decomposition if used according to specifications.*
- **Possibility of hazardous reactions** *No dangerous reactions known*
- **Conditions to avoid** *No further relevant information available.*
- **Incompatible materials:** *Incompatible material: strong oxidizers.*
- **Hazardous decomposition products:** *No dangerous decomposition products known.*

### 11 Toxicological information

- **Information on toxicological effects**
- **Acute toxicity:**

· <b>LD/LC50 values that are relevant for classification:</b>		
<b>50-00-0 formaldehyde</b>		
Oral	LD50	460 mg/kg (rat)
Dermal	LD50	270 mg/kg (Rabbit)

- **Primary irritant effect:**
  - **on the skin:** *May cause skin irritation.*
  - **on the eye:** *Strong irritant with the danger of severe eye injury.*
- **Sensitization:** *Sensitization possible through skin contact.*
- **Additional toxicological information:** *Irritant*

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**Product name: Fixation Buffer**

(Contd. of page 5)

 · **Carcinogenic categories**

· <b>IARC (International Agency for Research on Cancer)</b>	
50-00-0 formaldehyde	I
· <b>NTP (National Toxicology Program)</b>	
50-00-0 formaldehyde	R
· <b>OSHA-Ca (Occupational Safety &amp; Health Administration)</b>	
50-00-0 formaldehyde	

### 12 Ecological information

- **Toxicity**
  - **Aquatic toxicity:** No further relevant information available.
  - **Persistence and degradability:** No further relevant information available.
  - **Bioaccumulative potential:** No further relevant information available.
  - **Mobility in soil:** No further relevant information available.
- **Ecotoxicological effects:**
  - **Other information:**  
The ecological effects have not been thoroughly investigated, but currently none have been identified.
  - **Additional ecological information:**
    - **General notes:** Water hazard class 1 (Self-assessment): slightly hazardous for water.
- **Results of PBT and vPvB assessment**
  - **PBT:** Not applicable.
  - **vPvB:** Not applicable.
- **Other adverse effects:** No further relevant information available.

### 13 Disposal considerations

- **Waste treatment methods**
  - **Recommendation**  
Must not be disposed of with solid waste.  
Dispose of material in accordance with federal (40 CFR 261), 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

· <b>UN-Number</b>	
· DOT, ADR, ADN, IMDG, IATA	Void
· <b>UN proper shipping name</b>	
· DOT, ADR, ADN, IMDG, IATA	Void
· <b>Transport hazard class(es)</b>	
· DOT, ADR, ADN, IMDG, IATA	
· Class	Void

(Contd. on page 7)

Printing date 02/17/2015

Reviewed on 02/17/2015

**Product name: Fixation Buffer**

(Contd. of page 6)

- **Packing group**  
· DOT, ADR, IMDG, IATA                      Void
- **Environmental hazards:**  
· Marine pollutant:                                  No
- **Special precautions for user**                      Not applicable.
- **Transport in bulk according to Annex II of MARPOL73/78 and the IBC Code**                      Not applicable.
- **UN "Model Regulation":**                                  -

### 15 Regulatory information

· **Safety, health and environmental regulations/legislation specific for the substance or mixture**

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

50-00-0	formaldehyde
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· **SARA Section 313 (specific toxic chemical listings)**

50-00-0	formaldehyde
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· **TSCA (Toxic Substances Control Act)**

50-00-0	formaldehyde
7647-14-5	sodium chloride
7558-79-4	disodium hydrogenorthophosphate
7447-40-7	potassium chloride
7778-77-0	potassium phosphate, monobasic
7732-18-5	water

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

50-00-0	formaldehyde
---------	--------------

· **Chemicals known to cause reproductive toxicity for females:**

None of the ingredients is listed.

· **Chemicals known to cause reproductive toxicity for males:**

None of the ingredients is listed.

· **Chemicals known to cause developmental toxicity:**

None of the ingredients is listed.

· **Carcinogenic categories**

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

50-00-0	formaldehyde	A2
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· **GHS label elements** The product is classified and labeled according to the Globally Harmonized System (GHS).

· **Hazard pictograms** GHS05, GHS07, GHS08

· **Signal word** Danger

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

formaldehyde

· **Hazard statements**

Harmful if inhaled.

Causes skin irritation.

(Contd. on page 8)



**Product name: Fixation Buffer**

(Contd. of page 7)

*Causes serious eye damage.*  
*May cause an allergic skin reaction.*  
*Suspected of causing genetic defects.*  
*May cause cancer. Route of exposure: Inhalative.*  
*May cause respiratory irritation.*

**· Precautionary statements**

*Wear protective clothing / eye protection.*  
*Wear protective gloves.*  
*Do not breathe mist/vapours/spray.*  
*IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do.*  
*Continue rinsing.*  
*If skin irritation or rash occurs: Get medical advice/attention.*

**· National regulations****· Technical instructions (air):**

Class	Share in %
Wasser	94,5
I	4,2

- Water hazard class:** Water hazard class 1 (Self-assessment): slightly hazardous for water.
- Chemical safety assessment:** A Chemical Safety Assessment has not been carried out.

**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 cannot guarantee that these are the only hazards that exist.*

**· Contact: Technical Service Representative****· Abbreviations and acronyms:**

*ADR: Accord européen sur le transport des marchandises dangereuses par Route (European Agreement concerning the International Carriage of Dangerous Goods by Road)*  
*IMDG: International Maritime Code for Dangerous Goods*  
*DOT: US Department of Transportation*  
*IATA: International Air Transport Association*  
*ACGIH: American Conference of Governmental Industrial Hygienists*  
*EINECS: European Inventory of Existing Commercial Chemical Substances*  
*ELINCS: European List of Notified Chemical Substances*  
*CAS: Chemical Abstracts Service (division of the American Chemical Society)*  
*NFPA: National Fire Protection Association (USA)*  
*LC50: Lethal concentration, 50 percent*  
*LD50: Lethal dose, 50 percent*  
*Acute Tox. 3: Acute toxicity, Hazard Category 3*  
*Acute Tox. 2: Acute toxicity, Hazard Category 2*  
*Acute Tox. 4: Acute toxicity, Hazard Category 4*  
*Skin Corr. 1B: Skin corrosion/irritation, Hazard Category 1B*  
*Skin Irrit. 2: Skin corrosion/irritation, Hazard Category 2*  
*Eye Dam. 1: Serious eye damage/eye irritation, Hazard Category 1*  
*Skin Sens. 1: Sensitisation - Skin, Hazard Category 1*  
*Muta. 2: Germ cell mutagenicity, Hazard Category 2*  
*Carc. 1A: Carcinogenicity, Hazard Category 1A*  
*STOT SE 3: Specific target organ toxicity - Single exposure, Hazard Category 3*  
*: Hazardous to the aquatic environment - AcuteHazard, Category 2*

## 1 Identification

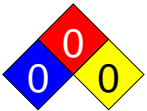
- **Product identifier**
  - **Product name:** Mouse Th1/Th2/Th17 Phenotyping Cocktail
  - **Catalog number:** 51-9006631
- **Relevant identified uses of the substance or mixture and uses advised against**
  - **Sector of Use** SU24 Scientific research and development
- **Details of the supplier of the safety data sheet**
  - **Manufacturer/Supplier:**  
BD Biosciences, Pharmingen  
10975 Torreyana Road  
San Diego, CA 92121-1106  
Tel. (877)232-8995
  - **Information department:** Technical Services
  - **Emergency telephone number:**  
In case of a chemical emergency, spill, fire, or exposure, call BD Biosciences at (877)232-8995, or ChemTrec at (800)424-9300.

## 2 Hazard(s) identification

- **Classification of the substance or mixture**

The product is not classified according to the Globally Harmonized System (GHS).
- **Classification according to Directive 67/548/EEC or Directive 1999/45/EC**

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 and the European Directive 91/155/EEC, and 93/112/EC.
- **Classification system:**

The classification was made according to the latest editions of international substances lists, and expanded upon from company and literature data.
- **Label elements**
  - **GHS label elements** Void
  - **Hazard pictograms** Void
  - **Signal word** Void
  - **Hazard statements** Void
- **Classification system**
  - **NFPA ratings (scale 0-4)**  
  
Health = 0  
Flammability = 0  
Reactivity = 0
- **Other hazards**
  - **Results of PBT and vPvB assessment**
    - **PBT:** Not applicable.
    - **vPvB:** Not applicable.

## 3 Composition/information on ingredients

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

**Product name: Mouse Th1/Th2/Th17 Phenotyping Cocktail**

(Contd. of page 1)

#### 4 First-aid measures

- **Description of 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** Flush immediately with water for 15 minutes, and consult a doctor.
- **After swallowing** If symptoms persist consult doctor.
- **Most important symptoms and effects, both acute and delayed** No further relevant information available.
- **Indication of any immediate medical attention and special treatment needed**  
No further relevant information available.

#### 5 Fire-fighting measures

- **Extinguishing media**
- **Suitable extinguishing agents**  
CO<sub>2</sub>, ABC multipurpose dry chemical or water spray. Fight larger fires with water spray or alcohol resistant foam.
- **Special hazards arising from the substance or mixture** Nitrogen oxides (NO<sub>x</sub>)
- **Advice for firefighters**
  - **Protective equipment:** No special measures required.

#### 6 Accidental release measures

- **Personal precautions, protective equipment and emergency procedures**  
The usual precautionary measures for handling chemicals should be followed.  
See Section 8 for information on personal protection equipment.
- **Environmental precautions:** No special measures required.
- **Methods and material for containment and cleaning up:** Wipe up with damp sponge or mop.
- **Reference to other sections**  
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

- **Precautions for safe handling** No special measures required.
- **Information about protection against explosions and fires:** No special measures required.
- **Conditions for safe storage, including any incompatibilities**
  - **Storage**
    - **Requirements to be met by storerooms and receptacles:** 4 °C
    - **Information about storage in one common storage facility:**  
Do not store together with oxidizing and acidic materials as well as heavy-metal compounds.
    - **Further information about storage conditions:** Store in cool, dry conditions in well sealed containers.
  - **Specific end use(s)** No further relevant information available.

**Product name: Mouse Th1/Th2/Th17 Phenotyping Cocktail**

(Contd. of page 2)

### 8 Exposure controls/personal protection

- **Additional information about design of technical systems:** No further data; see item 7.
- **Control parameters**
  - **Components with limit values that require monitoring at the workplace:**  
 The product does not contain any relevant quantities of materials with critical values that have to be monitored at the workplace.
  - **Additional information:** The lists that were valid during the creation were used as basis.

- **Exposure controls**

- **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

- **Information on basic physical and chemical properties**

- **General Information**

- **Appearance:**

- **Form:** Liquid
- **Color:** Clear
- **Odor:** Odorless
- **Odour threshold:** Not determined

· **pH-value:** Not determined

· **Change in condition:** Undetermined

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

· **Flash point:** Not applicable

· **Flammability (solid, gaseous)** Not applicable

- **Ignition temperature:**

· **Decomposition temperature:** Not determined

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

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

(Contd. on page 4)

**Product name: Mouse Th1/Th2/Th17 Phenotyping Cocktail**

(Contd. of page 3)

· <b>Explosion limits:</b> · <b>Lower:</b> <i>Not determined</i> · <b>Upper:</b> <i>Not determined</i>	
· <b>Vapor pressure at 20 °C (68 °F):</b>	23 hPa (17 mm Hg)
· <b>Density:</b> <i>Not determined</i> · <b>Relative density:</b> <i>Not determined</i> · <b>Vapour density:</b> <i>Not determined</i> · <b>Evaporation rate:</b> <i>Not determined</i>	
· <b>Solubility in / Miscibility with</b> · <b>Water:</b> <i>Soluble</i>	
· <b>Partition coefficient (n-octanol/water):</b> <i>Not determined</i>	
· <b>Viscosity:</b> · <b>dynamic:</b> <i>Not determined</i> · <b>kinematic:</b> <i>Not determined</i>	
· <b>Solvent content:</b> · <b>Organic solvents:</b> 0.0 % · <b>Water:</b> 98.5 %	
· <b>Other information</b> <i>No further relevant information available.</i>	

## 10 Stability and reactivity

- **Reactivity** *No dangerous reactions known*
- **Chemical stability**
  - **Thermal decomposition / conditions to be avoided:** *No decomposition if used according to specifications.*
- **Possibility of hazardous reactions** *No dangerous reactions known*
- **Conditions to avoid** *No further relevant information available.*
- **Incompatible materials:**  
*Incompatible material: strong oxidizers.*  
*Incompatible materials: acidic material and metals*
- **Hazardous decomposition products:** *Nitrogen oxides (NO<sub>x</sub>)*
- **Additional information:**  
*Sodium azide is present in this product. Contact with acidic solutions and metal compounds over time may form potentially explosive metal azides. Should any of this material be introduced into a sanitary sewer system, flush with copious amounts of water.*

## 11 Toxicological information

- **Information on toxicological effects**
- **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.*

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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.

 · **Carcinogenic categories**

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

None of the ingredients is listed.

 · **NTP (National Toxicology Program)**

None of the ingredients is listed.

 · **OSHA-Ca (Occupational Safety & Health Administration)**

None of the ingredients is listed.

**12 Ecological information**

 · **Toxicity**

- **Aquatic toxicity:** No further relevant information available.
- **Persistence and degradability:** No further relevant information available.
- **Bioaccumulative potential:** No further relevant information available.
- **Mobility in soil:** No further relevant information available.
- **Ecotoxicological effects:**
  - **Other information:**  
The ecological effects have not been thoroughly investigated, but currently none have been identified.
- **Additional ecological information:**
  - **General notes:** Generally not hazardous for water.
- **Results of PBT and vPvB assessment**
  - **PBT:** Not applicable.
  - **vPvB:** Not applicable.
- **Other adverse effects:** No further relevant information available.

**13 Disposal considerations**

- **Waste treatment methods**
- **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), 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**

- **UN-Number**
- **DOT, ADR, ADN, IMDG, IATA**                      Void
- **UN proper shipping name**
- **DOT, ADR, ADN, IMDG, IATA**                      Void

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- |  |                 |
|--|-----------------|
| · <b>Transport hazard class(es)</b>  |                 |
| · <b>DOT, ADR, ADN, IMDG, IATA</b>   |                 |
| · <b>Class</b>   | Void            |
| · <b>Packing group</b>   |                 |
| · <b>DOT, ADR, IMDG, IATA</b>  | Void            |
| · <b>Environmental hazards:</b>  |                 |
| · <b>Marine pollutant:</b>   | No              |
| · <b>Special precautions for user</b>  | Not applicable. |
| · <b>Transport in bulk according to Annex II of MARPOL73/78 and the IBC Code</b> | Not applicable. |
| · <b>UN "Model Regulation":</b>  | -               |

### 15 Regulatory information

- **Safety, health and environmental regulations/legislation specific for the substance or mixture**

- **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)**

7647-14-5	sodium chloride
9048-46-8	BSA
128446-35-5	(2-Hydroxypropyl)-beta-cyclodextrin
26628-22-8	Sodium azide
7732-18-5	water

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

None of the ingredients is listed.

- **Chemicals known to cause reproductive toxicity for females:**

None of the ingredients is listed.

- **Chemicals known to cause reproductive toxicity for males:**

None of the ingredients is listed.

- **Chemicals known to cause developmental toxicity:**

None of the ingredients is listed.

- **Carcinogenic categories**

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

26628-22-8	Sodium azide	A4
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- **GHS label elements** Void
- **Hazard pictograms** Void
- **Signal word** Void
- **Hazard statements** Void

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- **National regulations**
- **Water hazard class:** Generally not hazardous for water.
- **Chemical safety assessment:** A Chemical Safety Assessment has not been carried out.

**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 cannot guarantee that these are the only hazards that exist.

- **Contact:** Technical Service Representative
- **Abbreviations and acronyms:**
  - ADR: Accord européen sur le transport des marchandises dangereuses par Route (European Agreement concerning the International Carriage of Dangerous Goods by Road)
  - IMDG: International Maritime Code for Dangerous Goods
  - DOT: US Department of Transportation
  - IATA: International Air Transport Association
  - ACGIH: American Conference of Governmental Industrial Hygienists
  - EINECS: European Inventory of Existing Commercial Chemical Substances
  - ELINCS: European List of Notified Chemical Substances
  - CAS: Chemical Abstracts Service (division of the American Chemical Society)
  - NFPA: National Fire Protection Association (USA)

USA