# Material Safety Data Sheet

## SECTION 1 - IDENTITY

<table>
<thead>
<tr>
<th>NAME</th>
<th>Becton Dickinson VACUTAINER Systems</th>
</tr>
</thead>
<tbody>
<tr>
<td>ADDRESS</td>
<td>Stanley Street, E. Rutherford, NJ 07073</td>
</tr>
<tr>
<td>TELEPHONE NUMBER</td>
<td>(201) 460-2618</td>
</tr>
<tr>
<td>FOR ADDITIONAL INFORMATION CONTACT</td>
<td>Fu-chung Lin Ph. D.</td>
</tr>
<tr>
<td>DATE PREPARED</td>
<td>November 15, 1988</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>COMMON NAME (USED ON LABEL)</th>
<th>VACUTAINER Brand Tubes 6586, 6587, 6480, 6481, 6483</th>
</tr>
</thead>
<tbody>
<tr>
<td>CHEMICAL NAME</td>
<td>Does not apply</td>
</tr>
<tr>
<td>TRADE NAME &amp; SYNONYMS</td>
<td>VACUTAINER Brand Plasma Tubes with Heparin. VACUTAINER, trademark of the Becton Dickinson and Company</td>
</tr>
<tr>
<td>CHEMICAL FAMILY</td>
<td>Does not apply</td>
</tr>
<tr>
<td>FORMULA</td>
<td></td>
</tr>
</tbody>
</table>

## SECTION 2 - HAZARDOUS INGREDIENTS

<table>
<thead>
<tr>
<th>HAZARDOUS COMPONENT</th>
<th>CAS #</th>
<th>% (wt)</th>
<th>TLV</th>
<th>PEL</th>
</tr>
</thead>
<tbody>
<tr>
<td>Sodium Heparin</td>
<td>9041-08-1</td>
<td>100</td>
<td>No TLV</td>
<td>No PEL</td>
</tr>
</tbody>
</table>

PEL: Permissible Exposure Limit established by the Occupational Safety and Health Administration (OSHA).
TLV: Threshold Limit Value established by the American Conference of Governmental Industrial Hygienists (ACGIH).

## SECTION 3 - PHYSICAL DATA

<table>
<thead>
<tr>
<th>BOILING POINT</th>
<th>SPECIFIC GRAVITY (H₂O = 1)</th>
<th>VAPOR PRESSURE (mm Hg)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Not determined</td>
<td>Not determined</td>
<td>Not determined</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>PERCENT VOLATILE BY VOLUME (%)</th>
<th>VAPOR DENSITY (AIR = 1)</th>
<th>EVAPORATION RATE (g/L/70°F)</th>
<th>SOLUBILITY IN WATER</th>
<th>REACTIVITY IN WATER</th>
</tr>
</thead>
<tbody>
<tr>
<td>Not determined</td>
<td>Not determined</td>
<td>Not determined</td>
<td>Soluble</td>
<td>Not determined</td>
</tr>
</tbody>
</table>

**APPEARANCE AND ODOR**

White powder; No characteristic odor, if any.

## SECTION 4 - FIRE AND EXPLOSION DATA

<table>
<thead>
<tr>
<th>FLASH POINT</th>
<th>FLAMMABLE LIMITS IN AIR (% by VOLUME)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Not determined</td>
<td>LOWER: Not determined, UPPER: Not determined</td>
</tr>
</tbody>
</table>

**EXTINGUISHING MEDIA**

Use extinguishing media appropriate for surrounding fire.

**UNUSUAL FIRE AND EXPLOSION HAZARDS**

Not determined

**SPECIAL FIRE FIGHTING PROCEDURES**

None
SECTION 5 - HEALTH INFORMATION

PRIMARY ROUTES OF EXPOSURE
Eye, skin, subcutaneous injection, inhalation, ingestion.

SIGNS AND SYMPTOMS OF EXPOSURE Local irritation, erythema, mild pain, hematomas, ulceration may follow deep subcutaneous injection. Ingestion can cause gastrointestinal irritation; nausea, vomiting, diarrhea.

(1) ACUTE OVEREXPOSURE - Nosebleeds, blood in urine, or tarry stools may be noted as the first sign of bleeding.

(2) CHRONIC OVEREXPOSURE -

MEDICAL CONDITIONS GENERALLY AGGRAVATED BY EXPOSURE
Hypertension, conditions associated with increased bleeding tendencies, menstruation, liver disease with impaired hemostasis

CHEMICAL/COMPONENT LISTED AS CARCINOGEN OR POTENTIAL CARCINOGEN

NTP
□ Yes □ No

IARC
□ Yes □ No

OSHA
□ Yes □ No

OTHER EXPOSURE LIMITS

EMERGENCY & FIRST AID PROCEDURES
EYE and SKIN contact—wash with large amounts of water; get medical attention. SUBCUTANEOUS INJECTION—contact a physician immediately; neutralize heparin effect. INHALED—move to fresh air. INGESTED—give two glasses of water, induce vomiting, call a physician.

SECTION 6 - REACTIVITY DATA

STABILITY
Unstable □ Stable □

CONDITIONS TO AVOID
Not determined

INCOMPATIBILITY (MATERIALS TO AVOID)
Not determined

HAZARDOUS DECOMPOSITION PRODUCTS
Not determined

HAZARDOUS POLYMERIZATION
May Occur □ Will Not Occur □

CONDITIONS TO AVOID
Not determined

SECTION 7 - SPILL OR LEAK PROCEDURES

STEPS TO BE TAKEN IN CASE MATERIAL IS LEAKED OR SPILLED
Flush with water

WASTE DISPOSAL METHOD
Dispose of waste in accordance with Federal, State and local codes, normally small volumes can be disposed into a sewer system.

SECTION 8 - PERSONAL PROTECTION INFORMATION

RESPIRATORY PROTECTION
Not required under normal and intended uses.

VENTILATION
General room ventilation

PROTECTIVE GLOVES
Not required, may be used if contact becomes probable.

EYE PROTECTION
Not required, should be used when the potential of eye contact is present.

OTHER PROTECTIVE CLOTHING OR EQUIPMENT
Emergency eye bath is recommended where there is a possibility of eye contact.

SECTION 9 - SPECIAL PRECAUTIONS

PRECAUTIONS TO BE TAKEN IN HANDLING & STORING
Store and handle according to packaged instructions.

OTHER PRECAUTIONS
Because heparin is a mixture of active principles having the property of prolonging clotting time of blood, it is necessary to prevent inhalation.

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