I- 313185 C- 367964

I- 191595 C- 367962 I-321843 C-367961 I-297298 C-367960 I-335731 C-367963 I-335732 C-367965 DAF

BDV A-

MATERIAL SAFETY DATA SHEET Preduct Group: Lithium Heparin/Co)

I- 167452 C- 366795

7. - 415658 C-365987

T- 9405 of C-365975 MSDS Number: VS60308-05 Isaue Date: August 23, 2001

T-195265 C- 36979 Supersedes: March 27, 2000

I- 184615 C-366672 I- 410101 C- 365958

I- 17/879 C- 366698

I- 200725 C-36 9793

ECO No.: 104769

CHEMICAL PRODUCT AND COMPANY IDENTIFICATION - SECTION 1

Company Identification:

Becton Dickinson VACUTAINER® Systems

A Division of Becton Dickinson and Company

1 Becton Drive

Franklin Lakes, NJ 07417-1885

FOR CHEMICAL EMERGENCY, SPILL LEAK, FIRE, EXPOSURE, OR ACCIDENT:

In the continental U.S., call Chemtrec: 1-800-424-9300

For additional non-emergency information, call: 1-800-631-0174

Product Name: VACUTAINER® and MICROTAINER® Brand Plasma Separator Tube with Lithium Heparin

Reorder Numbers:

365953, 365958, 365985, 365986, 365987, 365988, 366595, 368672, 366698,

367373, 367374, 367375, 367376, 367377, 367378, 367960, 367961, 367962,

367963, 367964, 367965, 368035, 368036, 369793, 369794

Synonym(s): N/A

Chemical Formula: N/A

Chemical Family: N/A

COMPOSITION/INFORMATION ON INGREDIENTS - SECTION 2

MICROTAINER® Brand

Chemical Name		Exposure Limits	Weights
Lithium heparin Proprietary mixture (Gel Barrier)	9045-22-1 NA	NA NA	0.1 – 0.4 mg 0.1 – 0.3 g

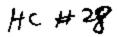
VACUTAINER® Brand

Chemical Name	CAS Number	Exposure Limits	Weights
Lithium heparin Proprietary mixture (Gel Barrier)	9045-22-1 NA	NA NA	0.2 - 1.0 mg 0.8 - 1.9 g

HEALTH EFFECTS SUMMARY - SECTION 3

Lithium Heparin

The following information summarizes human experience and results of scientific investigations reviewed



MATERIAL SAFETY DATA SHEET Preduct Group: Lithium Separin/Col Page 2 of 7

by health professionals for hazard evaluation of and development of Precautionary Measures and Occupational Control Procedures recommended in this document.

Primary Route of Entry: Dermal contact, eye contact, inhalation or ingestion.

Medical Conditions Which Might be Aggravated: None identified.

Acute Exposure Effects:

1. Skin:

May cause irritation.

2. Eyes:

May cause irritation. Inhalation: May cause nosebleeds and irritation of the upper respiratory tract.

4. Ingestion: None identified.

Repeated Exposure Effects:

1. Skin:

None identified.

Inhalation: May cause lung damage, pneumoconiosis, cyanosis, and silicosis.

3. Ingestion:

None identified.

Proprietary mixture (Gel Barrier)

The following information summarizes human experience and results of scientific investigations reviewed by health professionals for hazard evaluation of and development of Precautionary Measures and Occupational Control Procedures recommended in this document.

Primary Route of Entry: Dermal contact, eye contact, inhalation or ingestion.

Medical Conditions Which Might be Aggravated: None identified.

Acute Exposure Effects:

1. Skin:

May cause irritation.

2. Eves:

May cause Irritation.

3. Inhalation: N/A

4. Ingestion: None identified.

Repeated Exposure Effects:

1. Skin:

None identified.

2. Inhalation: N/A

3. Ingestion: None identified.

EMERGENCY AND FIRST AID PROCEDURES - SECTION 4

Lithium Heparin

Skin:

Wash thoroughly with water.

Eves:

Wash thoroughly with water for at least 15 minutes.

Inhalation:

Remove to fresh air. Consult a physician.

Ingestion:

Consult a physician. Immediately induce vomiting.

Page 3 of 7

MATERIAL SAFETY DATA SHEET Product Group: Lithium Reparis/Gol

Proprietary mixture (Gel Barrier)

<u>Skin:</u>

Wash thoroughly with water. Wash thoroughly with water.

Inhalation:

EVES:

N/A

Ingestion:

Consult a physician. Give 1 or 2 glasses of water and induce vomiting.

FIRE PROTECTION INFORMATION - SECTION 5

Lithium Heparin

Flash Point:

N/A

Method: N/A

Autoignition Temperature:

N/A N/A Method: N/A Method: N/A

<u>Combustibility:</u> Extinguishing Media:

Water spray.

Special Fire Flohting Procedures:

Firefighters should wear a self-contained breathing apparatus

with full facepiece operated in positive pressure.

Fire & Explosion Hazards: N/A

Proprietary mixture (Gel Barrier)

Flash Point:

N/A

Method: N/A

Autolonition Temperature:

N/A

Method: N/A

Combustibility:

N/A

Method: N/A

Extinguishing Media:

Foam, CO2, Dry Chemical.

Special Fire Flohting Procedures:

Firefighters should wear a self-contained breathing apparatus

with full facepiece operated in positive pressure.

Fire & Explosion Hazards: N/A

ACCIDENTAL RELEASE MEASURES - SECTION 8

Avoid overexposure. If amount is small, rinse with water. If amount is large, contain spill and place into a clean, dry container and cover. Wash area with water.

HANDLING AND STORAGE PROCEDURES - SECTION 7

Lithium Heparln

Product is extremely hygroscopic. Store in a tightly-closed dark glass or metal container. Store in a cool, dry place. Avoid inhalation.

Proprietary mixture (Gel Barrier)Store in cool, dry and well ventilated area. Keep containers tightly closed.

OCCUPATIONAL CONTROL PROCEDURES - SECTION 8

MATERIAL SAFETY DATA SHEET Product Group: Lithium Reparts/Col

Eve Protection: Use safety glasses.

Skin Protection: Use sterile gloves.

Respiratory Protection: Use an OSHA approved particle/dust mask.

Ventilation: Use general or local exhaust ventilation to keep dust levels as low as possible.

Airborne Exposure Limita: None.

Other Protective Equipment: Eye bath, safety shower, aprons.

PHYSICAL PROPERTIES - SECTION 9

Lithium Heparin

Appearance: White crystals.

Odor: Odorless.

<u>Vapor Pressure (@20°C mm Hg):</u>

N/A.

Viscosity @ 40°C (centistokes):

N/A.

Specific Gravity @ 25/25°C:

N/A.

Solubility in Water (wt. %):

N/A

Solubility in Other Solvents: N/A

Proprietary mixture (Gel Barrier)

Appearance: Tan or Transparent Gel

Odor: Odorless.

Vapor Pressure (@20°C mm Ho):

N/A.

Viscosity @ 40°C (centistokes):

N/A.

Specific Gravity @ 25/25°C:

N/A.

Solubility in Water (wt. %):

N/A

Solubility In Other Solvents: N/A

Note: These physical data are typical values based on material tested but may vary from sample to sample. Typical values should not be construed as a guaranteed analysis of any specific lot or as specifications for the product.

REACTIVITY DATA - SECTION 10

Lithlum Heparin

Reactivity: Stable.

Incompatibility: Hydrogen fluoride, strong acids, strong bases.

Hazardous Decomposition Products: Oxides of silicon.

Hazardous Polymerization: Will not occur.

Proprietary mixture (Gel Barrier)

Incompatibility: Strong alkalies, strong mineral acids, strong oxidizing agents. Reactivity: Stable.

Hazardous Decomposition Products: May produce carbon monoxide & low molecular weight organic monomers when exposed to extreme heat.

Hazardous Polymerization: Will not occur.

TOXICOLOGY INFORMATION - SECTION 11

Lithium Heparln

May cause irritation. Acute Skin Effects: May cause irritation. Acute Eve Effects:

May cause nosebleeds, irritation of upper respiratory tract, lung damage, Inhalation Toxicity:

pneumoconiosis, silicosis, and cyanosis.

Exposure Limits: Not established. None identified. Ingestion Toxicity:

Not Reproductive_ Toxicity: Teratogenicity: Not established.

established.

Synergistic Products: Not established. Mutagenicity: Not established.

Sensitization to Product: Not established.

Carcinogenicity: Contains more than 0.1% by weight of a material listed as a potential carcinogen by:

OSHA No NTP N٥ IARC No

Other Chronic Effects: None identified.

None identified. Signs and Symptoms of Overexposure:

Medical Conditions Generally Aggravated by Overexposure: None identified.

Proprietary mixture (Gel Barrier)

May cause imitation. May cause irritation. Acute Skin Effects: Acute Eve Effects:

N/A Inhalation Toxicity:

Exposure Limits: Not established. None identified. Ingestion Toxicity:

Reproductive Toxicity: Not Teratogenicity: Not established.

established.

Synergistic Products: Not established. Mutagenicity: Not established.

Sensitization to Product: Not established.

Carcinogenicity: Contains more than 0.1% by weight of a material listed as a potential carcinogen by:

OSHA No NTP No LARC No.

MATERIAL SAFETY DATA SMEET Product Group: Lithium Hoperiu/Gol Page 6 of 7

Other Chronic Effects: None identified.

Signs and Symptoms of Overexposure:

None identified.

Medical Conditions Generally Appravated by Overexposure: None identified.

ECOLOGICAL INFORMATION - SECTION 12

No data is available on the adverse effects of this material on the environment. Neither COD nor BOD data are available.

DISPOSAL CONSIDERATIONS - SECTION 13

Disposal should be done in accordance with local, state and federal regulations.

TRANSPORTATION INFORMATION - SECTION 14

<u>D.O.T</u>

Proper Shipping Name: Non-regulated Material

Hazard Class/I.D. No /Packing Group: N/A.

Label: N/A.

i.M.O.

Proper Shipping Name: Non-regulated Material

Hazard Class/I.D. No./Packing Group: N/A.

Label: N/A.

I.C.A.O./I.A.T.A.

Proper Shipping Name: Non-regulated Material

Hazard Class/I.D. No./Packing Group: N/A.

Label: N/A.

REGULATORY INFORMATION - SECTION 15

TSCA Inventory: Yes.

MATERIAL SAFETY DATA SHEET Product Group: Lithium Hoparin/Gol Page 7 of 7

Reportable Quantity (RQ) Under US EPA CERCLA Regulations; None.

SARA Hazard Notification Hazard Categories Under Criteria of SARA Title III Rules

(40 CFR Part 370): None

Section 313 Toxic Chemical(s): None

Hazardous Chemical(s) Under OSHA Hazard Communication Standard: None

OTHER INFORMATION - SECTION 16

Label Information:

CAUTION

Low hazard for usual industrial or commercial handling. Harmful if inhaled. May cause imitation. Use only with adequate ventilation and avoid breathing the dust. Keep in tightly closed container. Wash thoroughly after handling.

Hazard Ratings:

NFPA HMIS

Fire -0 Health -1 Health -1 Flammability -0 Reactivity -0

Information Contact:

Becton Dickinson VACUTAINER® Systems
A Division of Becton Dickinson and Company

1 Becton Drive

Specific Hazard - 0

Franklin Lakes, NJ 07417-1885

To the best of our knowledge, the information contained herein is accurate. However, neither Becton Dickinson and Company nor any of its subsidiaries assumes any liability 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.