SECTION 1: PRODUCT AND COMPANY IDENTIFICATION

- **Product Name:** VACUETTE® Lithium Heparin Iodacetate
- **Manufacturer/Supplier:**
  
  **AUSTRIA**
  Greiner Bio-One GmbH
  Bad Haller Strasse 32
  4550 Kremsmünster
  Austria
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  **USA**
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  USA
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  **BRASIL**
  Greiner Bio-One Brasil
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  13473-620 Vila Bertini
  Americana, São Paulo - Brasil
  Tel: +55 (19) 3468-9600
  Fax: +55 (19) 3468-9601
  Email: info@br.gbo.com

SECTION 2: COMPOSITION/INFORMATION ON INGREDIENTS

- **Description:** VACUETTE PET Tube (Polyethylene terephthalate) with
- **Chemical name:** Lithium Heparin
  Iodacetic Acid Lithium Salt
- **CAS No.**
  Lithium Heparin: 9045-22-1
  Iodacetic Acid Lithium Salt: 65749-30-6
- **Quantity of substances:** < 1%
- **Exposure limits:** N/A

SECTION 3: HAZARDS IDENTIFICATION

- **Hazard description:** Inhalation, swallowing and contact with skin is harmful to health
- **Health effects:**
  **Acute exposure effect:**
  Causes irritation of the respiratory tract, eyes and skin.
  **Repeated Exposure Effects:**
  Inhalation: May cause nosebleeds
  **Primary route of entry:** Inhalation
  **Medical conditions which might be aggravated:** None identified
- **Physical Hazards:** Avoid generation and accumulation of dusts.

SECTION 4: FIRST AID MEASURES

- **Skin:** Wash with soap and copious amounts of water. Remove contaminated clothing. Wash clothing and thoroughly clean shoes before reuse. Get medical attention.
- **Eyes:** Flush eyes with copious amounts of water for at least 15 minutes.
- **Inhalation:** Remove to fresh air. If breathing has stopped, give artificial respiration. Get immediate medical attention.
- **After swallowing:** Dilute with large amounts of water. Consult a physician.
- **Information for doctor:** Show this label
SECTION 5: FIRE-FIGHTING MEASURES

- Suitable extinguishing media: Water spray; dry chemical; carbon dioxide
- Protective equipment: Wear self-contained breathing apparatus and suitable protective clothing.

SECTION 6: ACCIDENTAL RELEASE MEASURES

- Personal precautions: Avoid overexposure. Wear suitable protective clothing.
- Environmental precautions: N/A
- Methods for cleaning up: If amount is small, wash area with water. If amount is large, material should be contained in a clean, dry container and covered. Avoid inhalation during cleanup.

SECTION 7: HANDLING AND STORAGE

- Handling:
  - Advice for safe handling: Avoid inhalation of dusts.
  - Information about protection against explosions and fires: This material may cause a dust explosion. Avoid dust generation.
- Storage:
  - Requirements to be met by storerooms and receptacles: Product is moisture-sensitive. Store in dark-colored glass or metal containers in a cool, dry place.
  - Information about storage in one common storage facility: N/A

SECTION 8: EXPOSURE CONTROLS / PERSONAL PROTECTION

- Additional information about design of technical systems: Use local or general ventilation to keep dust levels as low as possible.
- Control parameters: N/A
- Personal protective equipment:
  - General protective and hygienic measures: Wash thoroughly after handling. Remove contaminated and wash before reuse. Avoid contact with eyes, skin and clothing. Avoid ingestion and inhalation. Use with adequate ventilation. Provide eye bath and safety shower.
  - Breathing equipment: Use OSHA-approved particle/dust mask
  - Hand protection: Use sterile gloves.
  - Eye protection: Use safety goggles
  - Body protection: Wear appropriate protective clothing to prevent skin exposure.
  - Hygiene measures: N/A

SECTION 9: PHYSICAL AND CHEMICAL PROPERTIES

- General information
  - Form: Lithium Heparin: Crystalline powder
    Iodacetic Acid Lithium Salt: powder
  - Color: Lithium Heparin: White
    Iodacetic Acid Lithium Salt: white to yellowish
  - Odor: Lithium Heparin: Odorless
    Iodacetic Acid Lithium Salt: typical
  - PH-value: Lithium Heparin: 5.5 – 8.0 (0.1%)
    Iodacetic Acid Lithium Salt: N/A
- Change in condition
  - Melting point/Melting range: Not determined
  - Boiling point/Boiling range: Not determined
  - Flash point: N/A
- Flammability (solid, gaseous): N/A
- Danger of explosion: Generation and accumulation of dusts may cause an explosion.
- Vapor pressure: N/A
SAFETY DATA SHEET
acc. to ISO 11014, 29 CFR 1910.1200

VACUETTE® Lithium Heparin / Iodacetate

- **Density:** Lithium Heparin: approx. 1.5 gcm$^3$
  Iodacetic Acid Lithium Salt: N/A
- **Solubility in/Miscibility w/H$_2$O:** Soluble
- **Organic solvents:** N/A
- **Specific gravity:** N/A

**SECTION 10: STABILITY AND REACTIVITY**

- **Thermal decomposition / conditions to avoid:** Avoid generation and accumulation of dusts, avoid moisture
- **Materials to avoid:** Strong oxidizing agents
- **Dangerous reactions:** Stable
- **Hazardous decomposition products:** Carbon monoxide, carbon dioxide, hydrogen iodide

**SECTION 11: TOXICOLOGICAL INFORMATION**

- **Acute toxicity (LD 50 oral rat > 200 mg/kg)**
  Eye: May cause irritation
  Skin: May cause irritation
  Inhalation: Irritating mucous membranes and respiratory tract
  Ingestion: May be harmful after swallowing
- **Primary irritant effect:**
  On the skin: Not established
  On the eye: Not established
- **Sensitization:** Not established
- **Additional toxicological information:** None identified

**SECTION 12: ECOLOGICAL INFORMATION**

- **Ecotoxicological effects:** No data is available on the adverse effects of this material on the environment.
- **Other information:** N/A
- **General notes:** N/A

**SECTION 13: DISPOSAL CONSIDERATION**

- **Product:**
  Recommendation
  Disposal should be done in accordance with all federal, state and local environmental regulations. Disposal must be made according to the regulations found in 40 CFR 261. This product is not a hazardous waste according to local regulations.

- **Packaging:**
  Recommendation
  Disposal should be done in accordance with all federal, state and local environmental regulations. Disposal must be made according to the regulations found in 40 CFR 261. This product is not a hazardous waste according to local regulations.
  **Recommend cleansing agent**
  Water, if necessary with cleansing agents

**SECTION 14: TRANSPORT INFORMATION**

- **DOT regulations:** Not regulated
- **Land transport ADR/RID:** Not regulated
- **Maritime transport IMDG:** Not regulated
- **Air transport ICAO-TI and IATA-DGR:** Not regulated
SECTION 15: REGULATORY INFORMATION

- National regulations: Chemical (Hazard Information and Packaging) Regulations: ChemG (Austria)
- Water hazard class: N/A
- Note: Please note that there may be additional legal provisions to be observed. We recommend that you keep yourself informed about all applicable international, national and local regulations.

SECTION 16: OTHER INFORMATION

To the best of our knowledge, the information contained herein is accurate. However, neither Greiner Bio-One nor any of its subcontractors or suppliers 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.