

 greiner bio-one Page 1 / 4	<div style="text-align: center;"> SAFETY DATA SHEET acc. to ISO 11014, 29 CFR 1910.1200 </div> <div style="text-align: center;"> VACUETTE® 4NC BSG / ESR Sodium Citrate Blood Collection Tube </div>	 greiner bio-one A AN SOP 04.03.02-050 Rev.01 Valid from: Sept 12, 2016
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SECTION 1: PRODUCT AND COMPANY IDENTIFICATION

- **Product Name:** VACUETTE® 4NC BSG / ESR Sodium Citrate Blood Collection Tube
- **Manufacturer/Supplier:**

AUSTRIA

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BRASIL

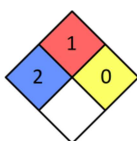
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 Tel: (+55) 19 3468-9600
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- **Recommended use / restrictions of use :**
 To collect, transport and process blood for testing serum, plasma or whole blood in the clinical laboratory. To be used only by trained healthcare professionals according to instructions of use.

SECTION 2: HAZARDS IDENTIFICATION

- **Classification according to NFPA 704 (Possible Rating 0-4):**

Citric Acid Monohydrate:
Health Rating: 2
Flammability Rating: 1
Reactivity Rating: 0




- **Classification according to Regulation (EC) No. 1272/2008 [EU-GHS/CLP]:**
Citric Acid Monohydrate:
Eye irritation: Category 2

- **Classification according to EU Directives 67/548/EEC or 1999/45/EC:**
Citric Acid Monohydrate:
 Irritating to eyes, respiratory system and skin

- **Signal Word:**
Citric Acid Monohydrate: Warning



- **Hazard Statements:**
Citric Acid Monohydrate:
H319: Causes serious eye irritation

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- **Precautionary Statements:**
Citric Acid Monohydrate:
P305 + P351 + P338 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.

SECTION 3: COMPOSITION/INFORMATION ON INGREDIENTS

- **Chemical name:** Citric Acid Monohydrate
Citric Acid Trisodium Dihydrate
- **CAS No.** Citric Acid Monohydrate 5949-29-1
Citric Acid Trisodium Dihydrate 6132-04-03
- **Quantity of substances:** Citric Acid Monohydrate < 0,5 %
Citric Acid Trisodium Dihydrate < 3 % } Preparation < 20 % (mass %)
Because of trade secrets, not all components and their percentages are listed

SECTION 4: FIRST AID MEASURES

- **Acute exposure effect:**
May cause eye irritation. May cause mucosal irritation.
- **Skin:** Wash with soap and copious amounts of water.
- **Eyes:** Flush eyes with copious amounts of water for at least 5 minutes.
- **Inhalation:** N/A
- **Ingestion:** Dilute with large amounts of water. Consult a physician.

SECTION 5: FIRE-FIGHTING MEASURES


- **Suitable extinguishing media:** Water spray; dry chemical; carbon dioxide.
- **Unusual fire and explosion hazards:** N/A
- **Protective equipment:** Firefighters should wear proper protective equipment and self-contained breathing apparatus with full-face piece operated in positive pressure mode.
- **Special hazards arising from the substance or mixture:** Oxides of nitrogen, carbon monoxide, carbon dioxide.

SECTION 6: ACCIDENTAL RELEASE MEASURES

- **Personal precautions:** Avoid overexposure. Wear suitable protective clothing.
- **Methods for cleaning up:** Flush area with water.
- **Methods of containment:** Dispose as of hazardous waste. Keep in suitable, closed containers for disposal
- **Emergency procedures:** Wear respiratory protection. Avoid breathing vapors, mist or gas. Ensure adequate ventilation. Evacuate personnel to safe areas.

SECTION 7: HANDLING AND STORAGE

- **Handling:**
Advice for safe handling: Suitable for any general chemical storage area.
Information about protection against explosions and fires: N/A
- **Storage:**
 Suitable for any general chemical storage area.

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SECTION 8: EXPOSURE CONTROLS / PERSONAL PROTECTION


- **Control parameters:** N/A
Exposure limits:
 OSHA PEL: N/A
 ACGIH TLV : N/A
 Other recommended limits: N/A
- **Personal protective equipment:**
General protective and hygienic measures: Avoid contact with eyes, skin and clothing.
Breathing equipment: N/A
Hand protection: Wear proper gloves.
Eye protection: Use safety goggles.
Body protection: Wear appropriate protective clothing to prevent skin exposure.
- **Hygiene measures:** Wash hands thoroughly after handling.
- **Appropriate engineering controls:** Ensure adequate ventilation. Avoid contact with skin, eyes and clothing.

SECTION 9: PHYSICAL AND CHEMICAL PROPERTIES

- **General information**
Form: Liquid (20°C)
Color: Colorless
Odor: Odorless
- **Odor Threshold:** N/A
- **PH-value:** 5 – 6 (20°C)
- **Change in condition**
 Melting point/Melting range: Not determined
 Boiling point/Boiling range: approx. 100°C
- **Flash point:** N/A
- **Flammability (solid, gaseous):** N/A
- **Danger of explosion:** Product does not present an explosion hazard
- **Vapor pressure:** Not determined
- **Density:** 1,01 g/cm³
- **Solubility in/Miscibility w/H₂O:** Miscible
- **Organic solvents:** N/A
- **Solids content:** N/A
- **Partition coefficient: n-octanol/water:** N/A
- **Auto-ignition temperature:** N/A
- **Decomposition temperature:** N/A
- **Viscosity:** N/A
- **Oxidizing properties:** N/A

SECTION 10: STABILITY AND REACTIVITY

- **Reactivity:** No data available
- **Chemical Stability:** No data available
- **Possibility of hazardous reactions:** No data available
- **Conditions to avoid:** Avoid generation and accumulation of dusts.
- **Incompatible materials:** No data available
- **Hazardous decomposition products:** Oxides of nitrogen, carbon monoxide, carbon dioxide.

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SECTION 11: TOXICOLOGICAL INFORMATION

- **Acute toxicity:** Not established
- **Eye:** May cause irritation
- **Skin:** May cause irritation
- **Inhalation:** Not determined
- **Ingestion:** None identified
- **Primary irritant effect:**
 - **On the skin:** May cause irritation
 - **On the eye:** May cause irritation
- **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. This product is not a hazardous waste according to local regulations.
Recommended 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

- **OSHA, 29 CFR 1910.1200(g) and Appendix D. United Nations Globally Harmonized System of Classification and Labelling of Chemicals (GHS), third revised edition, United Nations, 2009**
- **EC directives: 91/155/EEC, 93/112/EC, 88/379/EEC**
- **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.