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	<b>VACUETTE® FX Sodium Fluoride / Potassium Oxalate</b>	

## SECTION 1: PRODUCT AND COMPANY IDENTIFICATION

- **Product Name:** VACUETTE® FX Sodium Fluoride / Potassium Oxalate
- **Manufacturer/Supplier:**

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### BRASIL

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## SECTION 2: HAZARDS IDENTIFICATION

- **Hazard description:** Extremely irritating and corrosive to the skin. Severely irritating to the eyes. Contact may cause burn to eyes and skin. Inhalation of dusts is harmful and may be fatal. May cause severe irritation of the respiratory tract. Symptoms of inhalation overexposure include nausea, vomiting, and severe irritation to mucous membranes and respiratory system. Toxic if swallowed. May be fatal. Symptoms include headache, nausea, vomiting, gastrointestinal irritation and convulsions. May have caustic effect on mouth, esophagus, and stomach. Soluble oxalates can cause kidney damage. Repeated exposure can lead to increased bone density, calcium deposits in ligaments, mottles tooth enamel, circulatory failure and nervous system irregularities. Avoid contact with skin and eyes. Do not inhale or swallow.  
Primary route of entry: Dermal, eyes, inhalation, and ingestion.  
Contact with acids liberates very toxic gas.
- **Health effects:**
  - Acute exposure effect:**
    - Skin:** Extremely irritating and corrosive to the skin. May cause burns.
    - Eyes:** Severely irritating to the eyes. May cause burns.
    - Inhalation:** Harmful if inhaled and may be fatal. Symptoms of inhalation overexposure include nausea, vomiting, gastrointestinal irritation and convulsions. May have caustic effect on mouth, esophagus, and stomach.
  - Repeated Exposure Effects:**  
Chronic inhalation and ingestion can lead to increased bone density, calcium deposits in ligaments, mottled tooth enamel, circulatory failure and nervous system irregularities. Soluble oxalates can cause kidney damage. Chronic exposure to Sodium fluoride may cause developmental and fetal effects, which may be delayed. Animal studies have reported development of tumors.
  - Medical conditions which might be aggravated:**  
Pre-existing skin disorders or eye problems, impaired liver, kidney or respiratory function, diabetes insipidus or renal impairment.

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### SECTION 3: COMPOSITION/INFORMATION ON INGREDIENTS

- **Description:** VACUETTE PET Tube (Polyethyleneterephthalate) with
- **Chemical name:** Sodium Fluoride  
Potassium oxalate
- **CAS No.** Sodium Fluoride 7681-49-4  
Potassium oxalate 6487-48-5
- **Quantity of substances:** Sodium Fluoride < 3 % (mass %) } Preparation  
Potassium oxalate < 3 % (mass %) }
- **Exposure limits:** N/A

### SECTION 4: FIRST AID MEASURES



- **After skin contact:**  
Immediately flush skin with plenty of soap and water for at least 15 minutes while removing contaminated clothing. Wash clothing and thoroughly clean shoes before reuse. Get immediate medical attention.
- **After eye contact:**  
Immediately flush eyes with plenty of water for at least 15 minutes while holding eyelids apart. Get immediate medical attention.
- **After inhalation:**  
Immediately move the exposed person to fresh air. If breathing is difficult, give oxygen. If breathing has stopped, give artificial respiration. Get immediate medical attention.
- **After swallowing:**  
Do NOT induce vomiting. Give victim large quantities of water to dilute. Never give anything by mouth to an unconscious person. Get immediate medical attention.
- **Information for doctor:** Show this label

### SECTION 5: FIRE-FIGHTING MEASURES

- **Suitable extinguishing media:** Use extinguishing media appropriate for surrounding fire.
- **Protective equipment:** Firefighters should wear proper protective equipment and self-contained breathing apparatus with full-face piece operated in positive pressure mode. In case of fire toxic fumes are emitted.

### SECTION 6: ACCIDENTAL RELEASE MEASURES

- **Personal precautions:** Avoid overexposure. Wear suitable protective clothing.
- **Environmental precautions:** Spill should be contained with sand or other inert material and gathered into a suitable retaining area. Use water spray to reduce dust.
- **Methods for cleaning/collection:** Vacuum or sweep up material and place into suitable disposal container, provide adequate ventilation. Avoid generating dust. Wash site thoroughly with water. Do not allow to enter sewer.
- **Additional information:**  
see Section 7 for information of safe handling  
see Section 8 for information on personal protection equipment  
see Section 13 for information on disposal

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## SECTION 7: HANDLING AND STORAGE



- Handling:**  
**Advice for safe handling:** Follow routine safe handling procedures.  
**Information about protection against explosions and fires:** Avoid contact with incompatible material, minimize dust generation and accumulation. Material must be handled with adequate ventilation.
- Storage:**  
**Requirements to be met by storerooms and receptacles:** Keep container closed when not in use. Store in a cool, dry, well-ventilated area. Store away from incompatible substances.  
**Information about storage in one common storage facility:** Keep container closed when not in use. Do not store in glass. Store in a cool, dry, well-ventilated area out of direct sunlight. Store away from incompatible substances, such as strong acids, alkalies, and oxidizing agents.

## SECTION 8: EXPOSURE CONTROLS / PERSONAL PROTECTION

- Additional information about design of technical systems:** Use general or local exhaust ventilation to reduce exposure.
- Components with limit values that require monitoring at the workplace:** This product does not contain any relevant quantities of material with critical values that require monitoring in the workplace.
- 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:** None, where adequate ventilation conditions exist. For conditions where dust is apparent and engineering controls are not feasible, a NIOSH/MSHA approved respirator is recommended. If concentration exceeds capacity of respirator, a self-contained breathing apparatus is recommended.  
**Hand protection:** Wear proper 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:** Crystalline powder  
**Color:** White  
**Odor:** Odorless
- PH-value:** N/A
- Change in condition**  
**Melting point/Melting range:** N/A  
**Boiling point/Boiling range:** N/A
- Flash point:** N/A
- Flammability (solid, gaseous):** N/A
- Danger of explosion:** N/A
- Vapor pressure:** N/A
- Density:** N/A
- Solubility in/Miscibility w/H<sub>2</sub>O:** Soluble
- Organic solvents:** N/A
- Solids content:** N/A

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## SECTION 10: STABILITY AND REACTIVITY

- **Thermal decomposition / conditions to avoid:** No decomposition if used according to specifications.
- **Materials to avoid:** Strong acids, strong oxidizing agents.
- **Dangerous reactions:** N/A
- **Hazardous decomposition products:** Hydrogen fluoride, carbon monoxide, carbon dioxide

## SECTION 11: TOXICOLOGICAL INFORMATION

- **Acute toxicity**  
**Eye:** Severely irritating to the eyes.  
**Skin:** Extremely irritating and corrosive to the skin  
**Inhalation:** Harmful if inhaled and may be fatal.  
**Ingestion:** Toxic if swallowed and may be fatal.
- **Primary irritant effect:**  
**On the skin:** Extremely irritating and corrosive to the skin.  
**On the eye:** Severely irritating to the eyes.
- **Sensitization:** Not established
- **Additional toxicological information:**  
**Chronic:** Chronic inhalation and ingestion can lead to increased bone density, calcium deposits in ligaments, mottled tooth enamel, circulatory failure and nervous system irregularities. Soluble oxalates can cause kidney damage. Chronic exposure to Sodium fluoride may cause developmental and fetal effects, which may be delayed. Animal studies have reported development of tumors.

## 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.  
**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

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#### SECTION 15: REGULATORY INFORMATION

- **Hazard Communication Standard (HCS) 29 CFR 1910.1200(g), revised in 2012**
- **EC directives: 91/155/EEC, 93/112/EC, 88/379/EEC**
- **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.