



# ELECTRO-CHEMICAL DEVICES

Liquid Analytical Instrumentation for Process Control

Bringing Simplicity  
to a Solution

## SAFETY DATA SHEET

---

### SECTION 1 – PRODUCT IDENTIFICATION

**Trade Name:** Nitrate Standard Calibration Solution

**Product Number:** #2010451, #2010465

**Manufactured By:** Electrochemical Devices, Inc.  
1681 Kettering  
Irvine, CA 92614

**Phone #:** 1-800-692-1333

---

### SECTION 2 – HAZARDS IDENTIFICATION

**Potential Health Effects:** ***Eyes:*** Contact with the eyes can cause moderate irritation. Symptoms may include discomfort or pain and redness. Severe overexposure can result in swelling of the conjunctiva along with tissue damage

***Skin:*** Causes skin irritation and redness. Severe overexposure can result in swelling of the conjunctiva along with tissue damage.

***Ingestion:*** May cause irritation of the digestive tract.

***Inhalation:*** Inhalation of vapors, mists, or sprays of this product may irritate the nose, throat, and lungs. Symptoms may include: sneezing, coughing and difficulty breathing. Most symptoms are alleviated, when the overexposure ends

***Chronic:*** May cause liver and kidney damage. Exposure to high concentrations of nitric acid vapor may cause pneumonitis and pulmonary edema which may be fatal. Symptoms may or may not be delayed. Continued exposure to the vapor & mist of nitric acid may result in a chronic bronchitis, & more severe exposure results in a chemical pneumonitis.

**Hazard Pictograms:** Not applicable



# ELECTRO-CHEMICAL DEVICES

Liquid Analytical Instrumentation for Process Control

Bringing Simplicity  
to a Solution

<b>Signal Word:</b>	Not applicable
<b>Hazard statement(s):</b>	Not expected to present a significant hazard under anticipated conditions of normal use.
<b>Ox. Sol. 3:</b>	<b>Eye Irrit. 2A:</b> Serious eye damage/eye irritation, Category 2A Oxidizing Solids, Category 3 <b>Skin Irrit. 2:</b> Skin corrosion/irritation, Category 2 <b>STOT SE 3:</b> Specific target organ toxicity — Single exposure, Category 3, Respiratory tract irritation <b>H272:</b> May intensify fire; oxidizer <b>H315:</b> Causes skin irritation <b>H319:</b> Causes serious eye irritation <b>H335:</b> May cause respiratory irritation
<b>Precautionary Statement(s):</b>	Wash thoroughly after handling. Remove contaminated clothing and wash before reuse.



HMIS rating (Scale 0-4):

---

## SECTION 3 – COMPOSITION AND INFORMATION ON INGREDIENTS

<b>Chemical Ingredients:</b>	<b>Active ingredients:</b>	Less than 1% Potassium Nitrate	CAS No. 7631-99-4
		Balance Deionized Water	CAS No. 7732-18-8

---

## SECTION 4 – FIRST-AID MEASURES

<b>First Aid Procedure:</b>	<b>Eye contact:</b> Rinse immediately with plenty of water. Obtain medical attention if pain, blinking or redness persist.
	<b>Skin contact:</b> Wash with plenty of soap and water. Wash contaminated clothing before reuse. If skin irritation occurs: Wash immediately with lots of water. Get medical advice/attention. Remove



# ELECTRO-CHEMICAL DEVICES

Liquid Analytical Instrumentation for Process Control

Bringing Simplicity  
to a Solution

affected clothing and wash all exposed skin area with mild soap and water, followed by warm water rinse

**Ingestion:** Do not induce vomiting. Never give anything by mouth to an unconscious person. Get medical aid immediately.

**Inhalation:** Assure fresh air breathing. Allow the victim to rest.

---

## SECTION 5 – FIRE-FIGHTING MEASURES

**Fire-Fighting Procedures:** *Flammability of the Product:* Non-flammable.

*Auto-Ignition Temperature:* Not applicable.

*Flash Points:* Not applicable.

*Flammable Limits:* Not applicable.

*Products of Combustion:* Not available.

*Fire Hazards in Presence of Various Substances:* Not applicable.

*Explosion Hazards in Presence of Various Substances:* Non-explosive in presence of open flames and sparks, of shocks.

*Fire Fighting Media and Instructions:* Foam. Dry powder. Carbon dioxide. Water spray. Sand.

*Special Remarks on Fire Hazards:* Not available.

---

## SECTION 6 – ACCIDENTAL RELEASE MEASURES

**Spill-control Procedures:** *Small Spill:* Dilute with water and mop up, or absorb with an inert dry material and place in an appropriate waste disposal container. Finish cleaning by spreading water on the contaminated surface and dispose of according to local and regional authority requirements.

*Large Spill:* Absorb with an inert material and put the spilled material in an appropriate waste disposal. Finish cleaning by spreading water on the contaminated surface and allow to evacuate through the sanitary system.

---

## SECTION 7 – HANDLING AND STORAGE



# ELECTRO-CHEMICAL DEVICES

*Liquid Analytical Instrumentation for Process Control*

*Bringing Simplicity  
to a Solution*

<b>Precautions:</b>	Wash thoroughly after handling. Remove contaminated clothing and wash before reuse. Use only in a well-ventilated area. Do not breathe dust, vapor, mist, or gas. Do not get in eyes, on skin, or on clothing. Keep container tightly closed. Do not ingest or inhale.
<b>Storage:</b>	Keep container closed when not in use. Store in a cool, dry, well-ventilated area away from incompatible substances.

---

## SECTION 8 – EXPOSURE CONTROLS/PERSONAL PROTECTION

<b>Engineering Controls:</b>	Provide exhaust ventilation or other engineering controls to keep the airborne concentrations of vapors below their respective threshold limit value.
<b>Personal Protection:</b>	Splash goggles. Lab coat. Gloves.

---

## SECTION 9 – PHYSICAL AND CHEMICAL PROPERTIES

<b>Physical state and appearance:</b>	Liquid.
<b>Odor:</b>	Oderless.
<b>Taste:</b>	Not Available.
<b>Molecular Weight:</b>	Not Applicable.
<b>Color:</b>	Colorless.
<b>pH solution:</b>	6 – 8
<b>Boiling Point:</b>	Not Available.
<b>Melting Point:</b>	Not available.
<b>Critical Temperature:</b>	Not available.
<b>Specific Gravity:</b>	Not available
<b>Vapor Pressure:</b>	Not available
<b>Vapor Density:</b>	Not available.
<b>Volatility:</b>	Not available



# ELECTRO-CHEMICAL DEVICES

*Liquid Analytical Instrumentation for Process Control*

*Bringing Simplicity  
to a Solution*

<b>Odor Threshold:</b>	Not available
<b>Water/Oil Dist. Coeff:</b>	The product is completely soluble in water.
<b>Ionicity (in Water):</b>	Not available
<b>Dispersion Properties:</b>	Not available
<b>Solubility:</b>	Easily Soluble in water.

---

## SECTION 10 – STABILITY AND REACTIVITY DATA

<b>Stability:</b>	Stable.
<b>Conditions of Instability:</b>	Stable under normal conditions.
<b>Incompatibility:</b>	Strong oxidizing agents, strong acids, and strong bases.
<b>Hazardous Decomposition Products:</b>	Oxides of nitrogen.
<b>Polymerization:</b>	Has not been reported

---

## SECTION 11 – TOXICOLOGICAL INFORMATION

<b>Routes of Entry:</b>	Oral
<b>Toxicity to Animals:</b>	Potassium Nitrate: Oral LD50: 1267 mg/kg (rat)
<b>Chronic Effects on Humans:</b>	Not available.
<b>Other Toxic Effects on Humans:</b>	Not Available

---

## SECTION 12 – ECOLOGICAL INFORMATION

<b>Potassium Nitrate (7757-79-1):</b>	LC50 fishes 1 162 mg/l (96 h; Pisces; Lethal)
	LC50 other aquatic organisms 1 39 mg/l (96 h; Daphnia magna)



# ELECTRO-CHEMICAL DEVICES

*Liquid Analytical Instrumentation for Process Control*

*Bringing Simplicity  
to a Solution*

EC50 other aquatic organisms 1 200 - 1000 mg/l (Plankton; Nocivity test)

LC50 fish 2 1378 mg/l (Poecilia reticulata)

LC50 other aquatic organisms 2 490 mg/l (48 h; Daphnia magna)

TLM fish 1 3000 mg/l (96 h; Lepomis macrochirus)

TLM fish 2 162 mg/l (96 h; Gambusia affinis)

Threshold limit other aquatic organisms 1 39 mg/l (96 h; Daphnia magna)

Threshold limit other aquatic organisms 2 490 mg/l (48 h; Daphnia magna)

**BOD5 and COD:** Not available.

**Products of Biodegradation:** Not available.

**Toxicity of the Products of Biodegradation:** Not available.

**Remarks on the Products of Biodegradation:** Not available.

---

## SECTION 13 – DISPOSAL CONSIDERATIONS

**Waste Treatment Methods:** Waste must be disposed of in accordance with federal, state and local environmental regulations.  
Avoid release to the environment.

---

## SECTION 14 – TRANSPORT INFORMATION

**DOT Classification:** In accordance with DOT, No dangerous good in sense of transport regulations.

**Identifications:** No additional information available

**Special Provisions for Transport:** No additional information available

---

## SECTION 15 – OTHER REGULATORY INFORMATION

**Federal and State Regulations:** SARA Section 313 - Emission Reporting 1 % Nitrate compounds (water dissociable)



# ELECTRO-CHEMICAL DEVICES

*Liquid Analytical Instrumentation for Process Control*

*Bringing Simplicity  
to a Solution*

**Other Regulations:** None of the chemicals are on the Health & Safety Reporting List.

**WHMIS (Canada):** Uncontrolled product according to WHMIS classification criteria

**SARA Codes:** SARA Section 313 - Emission Reporting 1 % Nitrate compounds (water dissociable)

---

## SECTION 16 – OTHER INFORMATION

**References:** None Available.

**Other Special Considerations:** None Available.

**Created:** 05/21/2014

**Last Updated:** 07/02/2014