

Safety Data Sheet

1. Material and Supply Company Identification

Product Name: PeCOD® Electrolyte

Chemical Name: Lithium Nitrate Solution

Synonyms:

Advanced Blue Range Electrolyte

Green Range Electrolyte

Yellow Range Electrolyte

Red Range Electrolyte

Product Use: For the dilution of water samples prior to analysis on the MANTECH PeCOD® Analyzer.

Manufacturer Information:

579453 Ontario Inc.

o/a MANTECH

5473 Highway 6 North

Guelph, ON, N1H 6J2

Phone: 519-763-4245

Emergency Phone Number: **519-763-4245** or **519-835-5252**

2. Hazards Identification

Classification of the Product: Clear colourless liquid. Odourless.

Potential Health Effects:

Eyes: This product may be irritating to the eyes. Symptoms may include redness and tearing.

Skin: Prolonged or repeated exposure may cause irritation.

Ingestion: May cause stomach distress, nausea or vomiting.

Inhalation: This product may cause respiratory irritation. Inhalation of mists or vapors can cause sneezing, coughing and difficulty breathing

HMIS Ratings:

Health: 1

Fire: 0

Physical Hazard: 0

Hazard Scale:

0 = Minimal

1 = Slight

2 = Moderate

3 = Serious

4 = Severe

* = Chronic

3. Composition Information

Component	CAS #	Percent
Lithium Nitrate	7790-69-4	<20%
Water and Natural Sugars	-	Balance

4. First Aid Measures

Eye: Immediately flush eyes with water for at least 15 minutes while holding eyes open. If irritation persists seek medical attention.

Skin: Wash with water for 15 minutes. If irritation persists seek medical attention

Ingestion: Rinse mouth with water. If swallowed, DO NOT induce vomiting unless directed to do so by a medical physician. Give a glass of water or milk. Never give anything by mouth to a patient who is unconscious or having convulsions.

Inhalation: Remove the patient from exposure.

5. Fire-Fighting Measures

General Fire Hazards:

This product is an aqueous solution which will not burn. However, if evaporated to dryness this product is an oxidizer and can sustain combustion.

Hazardous Combustion Properties:

Thermal decomposition products may include irritating vapors and toxic gases including oxides of lithium and nitrogen. If heated to evaporation, this product may evolve oxygen and increase fire hazard.

Extinguishing Media:

Dry chemical, foam, carbon dioxide, water fog.

Fire Fighting Equipment/Instructions:

Firefighters should wear self-contained breathing apparatus and suitable protective clothing if risk of exposure to products of decomposition.

NFPA Ratings:

Health: 1

Fire: 0

Physical Hazard: 0

Hazard Scale:

0 = Minimal

1 = Slight

2 = Moderate

3 = Serious

4 = Severe

6. Accidental Release Measures

Containment Procedures:

Stop the flow of material if this is without risk. Wear appropriate personal protective equipment during clean-up. Contain the discharged material and dike the spilled material where possible. Prevent entry into sewers, drains, underground or contained spaces, water intakes and waterways. Avoid contact with combustible material.

Clean-Up Procedures:

Absorb spill with inert material such as lime, polypads, or other suitable absorbent material. Shovel the absorbed material into appropriate container for disposal.

Evacuation Procedures:

Isolate area. Keep unnecessary people away.

Special Procedures:

Follow all local, State, Federal, and Provincial regulations for disposal. Wash area down with excess water.

7. Handling and Storage

Handling Procedures:

Avoid eye contact and repeated or prolonged skin contact. Use with adequate ventilation. Wear suitable protective equipment during handling. Wear protective gloves and eye/face protection. Avoid breathing fumes, mists or vapors. Avoid contact with skin, eyes and clothing. Keep container tightly closed when not in use. Wash thoroughly after handling.

Storage Procedures:

Store in cool, dry, well ventilated place and out of direct sunlight. Store away from incompatible materials described in Section 10. Keep containers closed when not in use – check regularly for leaks.

8. Exposure Controls / Personal Protection

Exposure Guidelines

A: General Product Information:

Keep formation of airborne mists to a minimum

B: Component Exposure Limits:

ACGIH, OSHA, NIOSH or the provinces of Canada have not developed exposure limits for this product

Engineering Controls:

Natural ventilation should be adequate under normal conditions. Keep containers closed when not in use.

Personal Protective Equipment (PPE)

Eyes/Face: Wear safety glasses

Skin: Wear impervious (neoprene) gloves and cotton/polyester lab coat or overalls

Respiratory: Use in a ventilated area.

General: Wash hands after handling material and before eating or drinking. Eyewash station required.

Other Protective Equipment: An eyewash station and safety shower should be made available in the immediate working area. Other equipment may be required depending on workplace standards.

9. Physical and Chemical Properties

Appearance	Clear, colourless	Evaporation Rate	Similar to Water
Physical State	Liquid	Lower Flammable Limit (LFL)	Not Applicable
Odour	Odorless	Upper Flammable Limit (UFL)	Not Applicable
Odour Threshold	Not Applicable	Vapour Pressure	Not Available
pH	3-6	Vapour Density	Not Available
Melting Point	Not Available	Solubility (H₂O)	Miscible with Water
Boiling Point	>100°C (220°F)	Specific Gravity	1.19 - 1.21 @ 15°C (59°F)
Flash Point	Not Applicable	Auto Ignition Temperature	Not Applicable

10. Stability and Reactivity

Chemical Stability:

This is a stable material.

Conditions of Avoid:

Avoid contact with extreme heat and incompatible materials.

Incompatibility:

Strong acids; Fuel; Combustible materials.

Hazardous Decomposition Products:

Lithium oxide; Nitrogen oxides (NOx); Oxygen.

11. Toxicological Information

ACUTE DOSE EFFECTS

A: General Product Information:

This product may be moderately irritating to contaminated tissues.

B: Component Analysis – LD50 / LC50:

No LD50 or LC50 available for this product.

Epidemiology:

No Epidemiology data is available for this product

Carcinogenicity:

A: General Product Information:

No carcinogenicity data available for this product

B: Component Carcinogenicity:

None of the products components are listed by ACGIH, IARC, OSHA, NIOSH or NTP.

Mutagenicity:

No data available to indicate product or any components present at greater than 0.1% are mutagenic or genotoxic.

Teratogenicity:

No Teratogenicity data available for this product. This product is not expected to cause reproductive or developmental effects.

Neurological Effects:

No Neurological data available for this product

Other Toxicological Information:

No additional information available

12. Ecological Information

Ecotoxicity:

No Ecotoxicity data available for this product

Environmental Fate:

No information available for this product

13. Disposal Considerations

Disposal Instructions:

Dispose of waste according to Local, State, Federal and Provincial Environmental Regulations.

14. Transport Information

UN Number: None allocated

UN Proper Shipping Name: None allocated

DG Class & Subsidiary Risk: None allocated

Packing Group: None allocated

DOT:

This product is not regulated as a hazardous material for transportation

IATA:

This product is not regulated as a hazardous material for transportation

IMDG:

This product is not regulated as a hazardous material for transportation

15. Regulatory Information

US Federal Regulations

This material contains one or more of the following chemicals required to be identified under SARA Section 302 (40 CFR 355 Appendix A), SARA Section 313 (40 CFR 372.65) and/or CERCLA (40 CFR 302.4).

Lithium nitrate (7790-69-4) SARA 313: 1.0 % de minimis concentration (reportable only when in aqueous solution, Chemical Category N511) (related to Nitrate Compounds, water dissociable)

Canadian Regulations

Not listed on the Canadian DSL (Domestic Substances List) inventory

WHMIS Classification: Class D2B: Material Causing Other Toxic Effects

EU Regulations

No additional information available

Additional Regulatory Information

<u>Component</u>	<u>CAS #</u>	<u>TSCA</u>	<u>DSL</u>	<u>NDSL</u>	<u>EINECS</u>	<u>AUST</u>	<u>MITI</u>	<u>PHIL</u>	<u>KOREA</u>	<u>ELINCS</u>	<u>CHINA</u>
Water	7732-18-5	Yes	Yes	No	Yes	Yes	Yes	No	Yes	No	Yes
Lithium Nitrate	7790-69-4	Yes	Yes	No	Yes	Yes	Yes	Yes	Yes	No	Yes

16. Other Information

Workers should be trained to handle hazardous chemicals. It is recommended that they are familiar with the contents of this safety data sheet (SDS). This SDS is not a risk assessment; recipients are advised to make their own risk assessment as required by other Health and Safety legislations.

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Reference: Not Available

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