

MATERIAL SAFETY DATA SHEET



Prepared: 08/22/05
Supersedes: 07/06/05

N.A.: Does Not Apply
N.K.: Not Known

Section I - Product and Company Identification

Manufacturer's Name: **CL Solutions**
Emergency Telephone Number: 1-859-442-8590
Address: 1157 Industrial Rd, Cold Spring, KY 41076

Common Name: Bacterial Inoculant for Petroleum Hydrocarbon remediation

Trade Name: **PETROX EC**
Biological Surface Treatment

Microbial Formulation: The product formulation consists of naturally occurring microorganisms.

Section II - Composition/Information on Hazardous Ingredients

Basic Material Contains no hazardous substances.

Section III - Hazard Identification

Emergency Overview: Clear, blue liquid, earthy scent

Potential health effects:

Acute eye: Considered a slight eye irritant

Acute skin: Not considered to be irritating to the skin

Acute ingestion: Low order of toxicity. LD50 > 5,000 mg/Kg (oral, rat)

Acute inhalation: Not an expected route of exposure

Chronic effects: None known.

Section IV – First Aid Measures

Emergency First Aid Procedures:

Eye Contact Flush eyes with sterile water until irritation subsides or stops.
Contact a physician.

Skin Contact Wash with soap and water.

Inhalation Although not an acute hazard as tested in rats, chronic effects are unknown. Upon prolonged or repeated respiratory exposure, contact a physician.

Ingestion Low order of toxicity. Upon ingestion, induce vomiting and contact a physician.

MATERIAL SAFETY DATA SHEET

Section V - Fire Fighting Measures

Flash Point (Method Used)	N.A.			
Flammable Limits	LEL	N.A.	UEL	N.A.
Extinguishing Media	N.A.			
Special Fire Fighting Procedures	None			
Unusual Fire and Explosion Hazard	N.A. in liquid state			

Section VI – Accidental Release Measures

Steps to be taken in case material is released or spilled No Hazard. Wash away with plenty of water.

Section VII – Handling and Storage

Store at room temperature. Protect from freezing.

Section VIII - Exposure Controls/Personal Protection

General Precautions Treat as you would any chemical or biological material. Wear protective water resistant gloves and safety glasses with side shields.

Special Precautions This product is not intended for human or animal consumption.

Section IX - Physical and Chemical Properties

Boiling Point (°F)	212 (760 mm Hg)(Approx.)
Specific Gravity	1.0 (Approx.)
Vapor Pressure (mm Hg)	24.00 (Approx.)
Percent Volatile by volume (%)	N.A.
Evaporation Rate	N.K.
Solubility in water	Soluble
Appearance and Odor	Blue color/earthy scent

Section X – Stability and Reactivity Data

<u>Stability</u>	Stable
<u>Incompatibility</u> (Material to avoid)	N.K.
<u>Hazardous Decomposition Products</u>	This product does not undergo spontaneous decomposition. Typical combustion products are carbon, carbon dioxide, nitrogen and water.
<u>Hazardous Polymerization</u>	Will not occur.

MATERIAL SAFETY DATA SHEET

Section XI – Toxicological Information

Toxicology

Acute Studies

* Rat oral LD₅₀ is greater than 5 g/Kg of body weight; as evidenced by no observed mortality after rats were dosed with 5 g/Kg at a concentration of 500 mg PETROX EC/ml of water and a dose volume of 10 ml/Kg of body weight.

* Rabbit dermal LD₅₀ is greater than 2 g/Kg of body weight; as evidenced by no observed mortality after rabbits were exposed to test material applied to abraded and non-abraded occluded skin for 24 hours. No severe dermal effects were reported at the dose site.

* Eye irritation in rabbits was reported as slight. Highest observed scores out of a possible score of 110 were:

1 hour: 12; 24 hours: 8; 48 hours: 4; 72 hours: 4; 4 days: 2; 7 days: 2;
10 days: 2; 14 days: 2.

* Rat inhalation of the test material at an average analytical exposure concentration of 1.2 mg/l of PETROX EC (nominal concentration of 37 mg/l) for 6 hours produced no mortality.

Chronic Health Hazards

- Although chronic studies using PETROX EC are not available, inhalation of this product should be prevented due to unknown long-term effects.

Special Notes

Not for human and animal consumption.

Section XII – Ecological Information

Acute aquatic toxicity LC50 Fathead Minnows
Not toxic at 100%

Section XIII – Disposal Considerations

Waste Disposal Method Use normal liquid waste methods in conformance with
pertinent federal, state, and local regulations.

Section XIV – Transportation Information

Proper Shipping Name: Not Regulated

Special Information: None

MATERIAL SAFETY DATA SHEET

Section XV - Regulatory Information

Workplace classification: This product is considered non-hazardous under the OSHA Hazard Communication Standard

SARA Title 3: None

TSCA Status: Listed

RCRA classification: Unknown

CERCLA reportable quantity: None Listed

Section XVI - Other Information

Contact: John Morris
Managing Director
CL Solutions LLC
During business hours, Easter Time Zone 1-859-442-8590

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