

**3-D Microemulsion[®] Factory Emulsified
MATERIALS SAFETY DATA SHEET**

Last Revised: November 15, 2011

Section 1 – Material Identification

Supplier:



REGENESIS

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Chemical Name(s): Glycerides, tall-oil di-, mono [2-[2-[2-(2-hydroxy-1-oxopropoxy)-1-oxopropoxy]-1-oxopropoxy]propanoates]

Chemical Family: Organic Chemical

Trade Name: 3-D Microemulsion[®] Factory Emulsified

Synonyms: HRC Advanced[®], HRC-PED (Hydrogen Release Compound – Partitioning Electron Donor)

Product Use: Used to remediate contaminated groundwater (environmental applications)

Section 2 – Chemical Identification

<u>CAS#</u>	<u>Chemical</u>
823190-10-9	HRC-PED
72-17-3	Sodium Lactate
7789-20-0	Water

Section 3 – Physical Data

Melting Point:	Not Available (NA)
Boiling Point:	100 °C
Flash Point:	> 93.3 °C using the Closed Cup method
Density:	1.0 -1.2 g/cc
Solubility:	Soluble in water.
Appearance:	White emulsion.
Odor:	Not detectable
Vapor Pressure:	None

Section 4 – Fire and Explosion Hazard Data

Extinguishing Media: Use water spray, carbon dioxide, dry chemical powder or appropriate foam to extinguish fires.

Water May be used to keep exposed containers cool.

For large quantities involved in a fire, one should wear full protective clothing and a NIOSH approved self contained breathing apparatus with full face piece operated in the pressure demand or positive pressure mode as for a situation where lack of oxygen and excess heat are present.

Section 5 – Toxicological Information

Acute Effects:	May be harmful by inhalation, ingestion, or skin absorption. May cause irritation.
Sodium Lactate:	Toxicity to Animals: LD50: Not available. LC50: Not available. Chronic Effects on Humans: Not Available. Other Toxic Effects on Humans: Very hazardous in case of skin contact (irritant), ingestion and inhalation.
Soybean Oil:	Health Hazards (Acute and Chronic): Acute: none observed by inhalation. Chronic: none reported.
Inhalation Risks and Symptoms of Exposure:	Excessive inhalation of oil mist may affect the respiratory system. Oil mist is classified as a nuisance particulate by ACGIH.

Skin Absorption Health Risks and Symptoms of Exposure:

Sensitive individuals may experience dermatitis after long exposure of oil on skin.

Section 6 – Health Hazard Data

Handling: Avoid continued contact with skin. Avoid contact with eyes.

In any case of any human exposure which elicits a reaction, a physician should be consulted immediately.

First Aid Procedures:

Inhalation: Remove to fresh air. If not breathing give artificial respiration. In case of labored breathing give oxygen. Call a physician.

Ingestion: No effects expected. Do not give anything to an unconscious person. Call a physician immediately. DO NOT induce vomiting.

Eye Contact: Wash eyes with plenty of water for at least 15 minutes lifting both upper and lower lids. Call a physician.

Section 7 – Reactivity Data

Conditions to Avoid: Strong oxidizing agents, bases and acids

Hazardous Polymerization: Will not occur.

Stability: Spontaneous combustion can occur.

Further Information: Hydrolyses in water to form lactic acid and soybean oil.

Hazardous Decomposition Products: None known.

Section 8 – Spill, Leak or Accident Procedures

- After Spillage or Leakage:** Neutralization is not required. The material is very slippery. Spills should be covered with an inert absorbent and then be placed in a container. Wash area thoroughly with water. Repeat these steps if slip hazard remains.
- Disposal:** Laws and regulations for disposal vary widely by locality. Observe all applicable regulations and laws. This material may be disposed of in solid waste. Material is readily degradable and hydrolyses in several hours.
- No requirement for a reportable quantity (CERCLA) of a spill is known.**
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Section 9 – Special Protection or Handling

Should be stored in plastic lined steel, plastic, glass, aluminum, stainless steel, or reinforced fiberglass containers.

- Protective Gloves:** Vinyl or Rubber
- Eyes:** Splash Goggles or Full Face Shield. Area should have approved means of washing eyes.
- Ventilation:** General exhaust.
- Storage:** Store in cool, dry, ventilated area. Protect from incompatible materials.
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Section 10 – Other Information

This material will degrade in the environment by hydrolysis to lactic acid and soybean oil. Materials containing reactive chemicals should be used only by personnel with appropriate chemical training.

This material is a non hazardous material in regards to USDOT shipping criteria.

The information contained in this document is the best available to the supplier as of the time of writing. Some possible hazards have been determined by analogy to similar classes of material. No separate tests have been performed on the toxicity of this material. The items in this document are subject to change and clarification as more information becomes available.