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OSEI Corporation Summary for Test Results on Malathion, Glyphosate, Picloram, Spectracide 2,4-D, Iamda-Cyhalotrin, and Diesel

A very toxic and persistent problem in the US, and globally, are Pesticides, (Herbicides, Insecticides, Fungicides and others) and Fuel spills that remain in soil. These toxins can enter the plants by uptake and ultimately are ingested by humans, and animals. These pesticides and diesel can be transported by rain to ground water, and can flow into tributaries, creeks, rivers, ponds, lakes and oceans, destroying the eco system in the body of water where they ultimately exist.

A third-party compost company (TBK) decided to test OSE II on toxic soils and compost, to determine the viability of Oil Spill Eater II, (OSE II) as a re-mediating agent for toxic compounds such as pesticides and fuel spills. The test was performed over 21 days in order to determine the extent of remediation in a short time. The test time is arbitrary and could have been extended to 30 days, 45 days or even longer, however this is the time frame TBK chose to be most applicable to their operation. Ana Labs in Kilgore TX performed the analysis and is LELAP-accredited.

OSE II was applied to soil, after being mixed 25 parts fresh water from a fresh water source. The fresh water source contains indigenous bacteria that will be enhanced to digest the toxic chemicals to CO₂ and water. Separate containers were utilized for each toxic chemical test. Diesel and Warrior (Iamda-Cyhalotrin) were tested in compost while the remaining pesticides were tested in soil.

When OSE II is applied to the toxic chemicals in the soil or compost, the bio surfactants (not synthetic surfactants) break down the molecular structure of the toxic chemical detoxifying the chemical so it can be utilized as a food source by the indigenous bacteria in the fresh water. The

Enzymes in OSE II act as catalysts to speed up chemical reactions while forming protein binding sites which induce the indigenous bacteria to digest the toxic chemicals.

The nutrients in OSE II then rapidly colonize (grow) the indigenous bacteria in the fresh water, until they deplete the OSE II nutrients. When the nutrients are depleted by the bacteria, they then convert over to the only food source left, the detoxified chemicals in the soil. The bacteria finally digest and convert all the chemicals in soil to CO₂ and water, permanently removing the toxic chemicals from the environment and allowing living organisms to flourish.

The test reports show that Diesel, re-mediated 99.99 percent in 21 days, the lamda-Cyhalotrin (Warrior, product) re-mediate 89.9 percent in 21 days, the Spectracide 2,4-D re-mediated 99.9 percent in 21 days, the Glyphosate (Roundup) re-mediated 83.7 percent in 21 days, and the Picloram (Tordon product) re-mediated 63.6 percent in 21 days.

The Glyphosate was re-mediating from the application of OSE II at a rate of 3.98 percent per day, there for it can be extrapolated that in 4.095 more days the Glyphosate would have re-mediated 100%. Therefore, the Glyphosate would have re-mediated 100 percent in 25 days, which is still remarkably fast.

The Picloram (Tordon) was re-mediating from the application of OSE II at a rate of 3.02 percent per day, there for it can be extrapolated that in 12.05 more days the Picloram (Tordon) would have re-mediated 100%. Therefore, the Picloram (Tordon) would have re-mediated 100 percent in 33 days, which is remarkably fast as well.

These tests prove the extreme effectiveness of OSE II at permanently removing these toxic chemicals from the environment while protecting plants and animal life. OSE II's effectiveness is substantiated by the EPA's listing of OSE II on the National Contingency Plan (NCP list), which contains the efficacy test performed for the EPA at LSU University. You can see this information at www.osei.us. There is a link to the EPA's site with the OSE II listing and information.

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Malathion, Glyphosate, Picloram, Spectracide 2,4-D,
lamda-Cyhalotrin, and Diesel**

1/30/2018

OSE II Remediation of Toxins in Soil

| Toxin | Initial PPM | Final PPM | % Remediation | EPA Test Performed |
|----------------------------|--------------------|------------------|----------------------|---------------------------|
| Diesel | 25800 | 302 | 99.99 | EPA 8015B *MOD |
| lamda-Cyhalotrin (Warrior) | 391 | 46 | 89.9 | EPA 8270C |
| Malathion | 278 | 0.18 | 99.9 | EPA 8141A |
| Spectracide 2,4-D | 26.4 | <0.283 | 99.9 | EPA 8151A |
| Glyphosate (Roundup) | 28.1 | 4.59 | 83.7 | EPA 547 |
| Picloram (Tordon) | 12.6 | 3.03 | 63.6 | EPA 8151A |

Lab Analysis performed 6/6/2017 to 6/20/2017 at Ana Lab Corp., Kilgore TX. LELAP-accredited #02008

The test reports show that Diesel, lamda-Cyhalotrin (Warrior), Spectracide 2,4-D and Malathion re-mediated 99.99 percent in 21 days. The Glyphosate (Roundup) re-mediated 83.7 percent in 21 days, and the Picloram (Tordon product) re-mediated 63.6 percent in 21 days.

The Glyphosate was re-mediating from the application of OSE II at a rate of 3.98 percent per day. Therefore, the Glyphosate would have re-mediated 100 percent in 25 days, which is remarkably fast. The Picloram (Tordon) was re-mediating from the application of OSE II at a rate of 3.02 percent per day. Therefore, the Picloram (Tordon) would have re-mediated 100 percent in 33 days, which is still remarkably fast as well. These tests prove the extreme effectiveness of OSE II at permanently removing these toxic chemicals from the environment while protecting plants and animal life.

Qualifications:

- OSE II has been tested and approved by Four US EPA NCP Efficacy Tests.
- OSE II is non-toxic as confirmed by the U.S. Occupational Safety and Health Administration (OSHA).
- OSE II is classified as an Enzyme Additive Category Bioremediation Agent on the US NCP Product Schedule (meaning it contains no microbes).

Application:

- OSE II is mixed with untreated water at a ratio of 50 parts water to 1-part OSE II concentrate.
- OSE II cost is approximately \$2.00 per gallon of pesticide or hydrocarbon spill.

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