Oil Spill Eater II
The most environmentally safe and cost effective bioremediation process

Osei Corp

The Spill in the Gulf of Mexico, one of the largest in U.S. history. The truth is although there will be repercussions for years to come; fortunately, there is a product like Oil Spill Eater II, that even though it could have been used the whole time during the spill, it is sure to be used now on the clean-up.

Since 1989, OSEI Corp has cleaned up of over 14,000 spills as a first and only response tool. Our product, distributed in over thirty-five nations, focuses on speeding up Mother Nature. Oil Spill Eater II (OSE II) is the world's most environmentally safe and cost effective bioremediation process for the mitigation of hazardous waste, spills and contamination virtually anywhere, and of any size. It is an environmentally safe clean-up method because it uses nature's own bioremediation processes to effectively eliminate hazardous materials. OSE II is listed on the US Environmental Protection Agency's National Contingency Plan for Oil Spills (NCP), on the Department of Defense supply chain products, and in the Navy DENIX system.

The process: OSE II is applied to a spill, the biosurfactants attack the molecular structure of the hydrocarbon, by breaking the spill into small particles, then the oil is solubilised which increases the oil-water interface, all in approximately twenty minutes. During this process, the OSE II enzymes will form protein binding sites that will act as catalysts to induce the enhanced bacteria to utilise the broken down hydrocarbon as a food source.

Once these reactions have occurred, several things become apparent; the oil is broken up, adhesion properties are diminished (which causes oil to release from marsh grass, vessels, birds, marine species, beaches and more), the fire hazard is reduced (which protects responders and ports), the oil is caused to float (which prevents secondary contaminated areas), and most importantly, the oil is detoxified, so it can be used as a food source, at which point the oil is digested to an end point of CO_2 and water, and then the enhanced bacteria die off to pre-spill background levels. While these reactions are occurring, OSE II's nutrient system is rapidly colonising indigenous bacteria (OSE II does not introduce non-indigenous bacteria into any eco system).

Once the indigenous bacteria run out of the OSE II nutrients, the bacteria then utilise the only food source left, the detoxified oil. There are also constituents in OSE II once mixed and activated by natural water, which cause OSE II constituents to molecularly adhere to hydrocarbons, so no matter where the current or tidal action pushes the oil, OSE II will stay with it. OSE II can be used on the surface, below the surface, on the ocean floor, in marshes, estuaries, sand or soil beaches, on rocks, in bays, ports and harbours, and we have case studies, videos, test results and pictures at www.osei.us to prove it.

RRT 6 has had a success with OSE II on the Osage Indian Reservation. OSE II has been used in San Diego Bay by the U.S. Navy for over 100 spills, over a three-and-a-half year period, with no adverse effects to the whales, dolphins and other ocean ecology. BP has used OSE II in Trinidad and Tobago, and at a refinery in Greece. Our tech package lists the many OSE II toxicity tests on salt and fresh water species which shows OSE II to be virtually non-toxic. Oil Spill Eater II is trusted and used by all five bodies of the U.S. Military, and is the best product on the market for cleaning up oil spills of any type and size.

The good news for OSEI Corp and the Gulf of Mexico is that BP is finally testing Oil Spill Eater for use on this spill.

Contact Information

Contact information:
Osei Corp
PO BOX 515429
Dallas, Texas 75251
972 669 3390 work
469 241 0896 fax
Steven Pedigo Chairman

The US Congress mandated through the Clean Water Act, that the US EPA would keep a list of products that may be legally used on US Navigable waters Oil Spill Eater II is on this NCP list

Link to the above regulation under the US Clean Water Act Law
http://www.epa.gov/oem/docs/oil/cfr/900_920.pdf

The EPA requires certain disclosures in regards to a product listing, and these requirements have been met with confusion even by other US departments, so the OSEI Corporation wants to have full disclosure of the law/regulations, the OSE II listing letter, the information maintained by the US EPA on their notebook, and the how to get on the list information for all to see.

Subpart J—Use of Dispersants andOther Chemicals

SOURCE: 59 FR 47453, Sept. 15, 1994, unless otherwise noted.

§ 300.900 General.

(a) Section 311(d)(2)(G) of the CWA requires that EPA prepare a schedule of dispersants, other chemicals, and other spill mitigating devices and sub-stances, if any, that may be used in carrying out the NCP. This subpart makes provisions for such a schedule.

(b) This subpart applies to the navigable waters of the United States and adjoining shorelines, the waters of the contiguous zone, and the high seas beyond the contiguous zone in connection with activities under the Outer Continental Shelf Lands Act, activities under the Deepwater Port Act of 1974, or activities that may affect natural resources belonging to, appertaining to, or under the exclusive management authority of the United States, including resources under the Magnuson Fishery Conservation and Management Act of 1976.

(c) This subpart applies to the use of any chemical agents or other additives as defined in subpart A of this part that may be used to remove or control oil discharges.

§ 300.905 NCP Product Schedule.

(a) *Oil Discharges.* (1) EPA shall maintain a schedule of dispersants and other chemical or bioremediation products that may be authorized for use on oil discharges in accordance with the procedures set forth in § 300.910. This schedule, called the NCP Product Schedule, may be obtained from the Emergency Response Division (5202–G), U.S. Environmental Protection Agency, 1200 Pennsylvania Ave., NW., Washington, DC 20460. The telephone number is 703–603–8760.

(2) Products may be added to the NCP Product Schedule by the process specified in § 300.920.

(b) *Hazardous Substance Releases.* [Re-served]

[59 FR 47453, Sept. 15, 1994, as amended at 65 FR 47325, Aug. 2, 2000] **§ 300.91**

OIL SPILL EATER LISTING OF OSE II ON THE US EPA NCP LIST LETTER

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
WASHINGTON, D.C. 20460

SEP 1 8 2009

OFFICE OF
SOLID WASTE AND
EMERGENCY RESPONSE

Mr. Steven Pedigo
Chairman/CEO
Oil Spill Eater International, Corp.
P.O. Box 515429
Dallas, TX 75251-5429

Dear Mr. Pedigo:

Thank you for providing the technical product data required by the National Oil and Hazardous Substances Pollution Contingency Plan (NCP), 40 CFR Part 300, for your product "Oil Spill Eater II (OSE II)." Our review shows that your submission has satisfied the requirements contained in Title 40 of the CFR section 300.915 of the NCP. Therefore, "Oil Spill Eater II (OSE II)" will be listed on the NCP Product Schedule under the Bioremediation Agent category and may be authorized for use by Federal On-Scene Coordinators in accordance with 40 CFR section 300.910. The technical data for this product will be kept on file by the EPA Office of Emergency Management, Regulation and Policy Development Division pursuant to 40 CFR section 300.920.

Enclosed are some of the relevant provisions in the NCP on restrictions regarding the listing of your product. Please note that you are required to notify the Environmental Protection Agency (EPA) of any changes in composition, formulation, handling procedures, or application of your product. Based on this notice, EPA may require retesting of the product.

Also note that the listing of "Oil Spill Eater II (OSE II)" on the NCP Product Schedule does not constitute approval, certification, authorization, licensing or promotion of the product; nor does it imply compliance with any criteria or minimum standards for such agents. Failure to comply with these restrictions or the making of any improper reference to EPA in an attempt to demonstrate approval or acceptance of the product will constitute grounds for removal of the product from the schedule.

Please review the enclosed information and contact Ms. Leigh DeHaven in the Office of Emergency Management at (202) 564-1974 if you have any questions.

Sincerely,

R. Craig Matthiessen, Director
Regulation and Policy Development Division
Office of Emergency Management

Enclosure

OIL SPILL EATER II TECHNICAL INFORMATION IN THE US EPA NOTEBOOK

LINK http://www2.epa.gov/emergency-response/oil-spill-eater-ii

OIL SPILL EATER II

TECHNICAL PRODUCT BULLETIN #B-53
USEPA, OFFICE OF EMERGENCY MANAGEMENT
REGULATION AND POLICY DEVELOPMENT DIVISION
ORIGINAL LISTING DATE: AUGUST 26, 1996
REMOVAL DATE: AUGUST 16, 2005
RELISTING DATE: SEPTEMBER 18, 2009
"OIL SPILL EATER II (OSE II)"

I. NAME, BRAND, OR TRADEMARK
OIL SPILL EATER II (OSE II) Type of Product: Bioremediation Agent (Biological Enzyme Additive [previously listed as a Nutrient Additive])

II. NAME, ADDRESS, AND TELEPHONE NUMBER OF MANUFACTURER/CONTACT
OSEI Corporation (Formerly Sky Blue Chems) P.O. Box 515429 Dallas, TX 75251-5429

Phone: (972) 669-3390
E-mail: oseicorp@msn.com
Web Site: www.osei.us
(Mr. Steven Pedigo, Chairman, CEO, Inventor)

III. NAME, ADDRESS, AND TELEPHONE NUMBER OF PRIMARY DISTRIBUTORS

OSEI Corporation (Formerly Sky Blue Chems)
P.O. Box 515429
Dallas, TX 75251-5429
Phone: (972) 669-3390
E-mail: oseicorp@msn.com
Web Site: www.osei.us
(Mr. Steven Pedigo, Chairman, CEO, Inventor)

IV. SPECIAL HANDLING AND WORKER PRECAUTIONS FOR STORAGE AND FIELD APPLICATIONº

1. Flammability: Water-based, non-flammable
2. Ventilation: Needs no ventilation; aqueous-based product; does not emit hazardous vapors
3. Skin and eye contact; protective clothing; treatment in case of contact: OSE II is not a primary dermal irritant. Avoid eye contact, and wear goggles if possible for the spray to come in direct contact with eyes. Facilities for quick and copious eye flushing should be provided and prompt medical attention should be sought if exposure and irritation persists. Protective rubber gloves are suggested during handling. Before mixing the product has a smell of fermentation. The product does not give off any harmful vapors.
4.a. Maximum storage temperature: 120ºF
4.b. Minimum storage temperature: None; OSE II can freeze and thaw without adverse effects
4.c. Optimum storage temperature range: 72ºF
4.d. Temperatures of phase separations and chemical changes: 120ºF

V. SHELF LIFE

OSE II has a recommended shelf life of 5 years. After 5 years at optimum storage temperature, there is an approximate 10% decrease per year in product capability.

VI. RECOMMENDED APPLICATION PROCEDURE

1. Application Method:
A. Use surface spray apparatus, such as small hand held tanks, back pack, large mixing tanks with mechanical pumping devices, vessels with booms for spraying wide paths, or spray devices on airplanes or helicopters.
B. OSE II can be applied by eductor systems from vessels, fire trucks, etc. Set the eductor system to 2% and apply 1 gallon of mixed OSE II to each spilled gallon of hydrocarbon.

2. Concentration/Application Rate:
General - OSE II generally takes 3 to 30 minutes to penetrate the molecular walls of hydrocarbons. However, once you spray OSE II on the hydrocarbons, OSE II attaches itself and will eventually engulf the hydrocarbons regardless of where the hydrocarbons may spread on the surface of salt or fresh water. Additionally, once you spray OSE II, the hydrocarbons cannot attach itself to the shoreline, rocks, or any equipment in its path. OSE II breaks down the adhesion properties of hydrocarbons and causes hydrocarbons to float, thereby, eliminating secondary contamination of the water column or any other areas, and holding the contaminated area to the waters surface, the original contaminated area.

- If OSE II is to be used on ocean spills or on intertidal zones OSE II should be mixed with ocean water.
- If OSE II is to be used on lakes, rivers, streams, ponds, or on land mix the product with water from a lake, stream, or pond.
- If you are performing a clean up, make sure the water used to mix with OSE II, and the water used to keep the area saturated, is the type of water normally associated with that area.
- If you use fresh water in an area normally contacted with salt water or vice versa, the different types of bacteria and competition could occur, not to mention the problems with salinity for fresh water organisms.

[Note: Do not mix tap water with OSE II if possible: Chlorine in tap water slows bacterial enhancement]

Spills on Water:
Dilute each gallon of OSE II with 50 gallons of fresh, brackish, or salt water - depending on the water associated with the area that has been impacted by the spill. Apply OSE II at a ratio of 1 gallon mixed OSE II to each gallon of hydrocarbon spilled. Apply using hand held sprayers, tank sprayers, booms from vessels, helicopters, or airplanes; by spraying the perimeter first then working toward the middle of the spilled area. Next spray the entire surface of the spill. If the spill is very heavy (more than 2 inches thick) it is recommended that OSE II be applied every day until you have met a 1:1 ratio of OSE II and water mixture to spilled oil/hydrocarbons.

- Use 1 gallon OSE II for every 50 gallons of hydrocarbons.
- Use 1 drum of OSE II for every 2,750 gallons of hydrocarbons.
- If you know gallons of hydrocarbons spilled, multiply gallons of hydrocarbons by 0.02 to get amount of OSE II needed [gallons of hydrocarbons x 0.02 = gallons of OSE II].
- If you know barrels of crude oil spilled, multiply barrels of crude oil by 0.015 to get drums of OSE II needed [barrels of crude oil x 0.015 = drums of OSE II].
- If you do not know gallons of hydrocarbons or barrels of crude oil, multiply size of spill by 0.0023 to get drums of OSE II needed or by 0.12 to get gallons of OSE II needed [(yards long x yards wide x inches thick) x 0.0.0023 = drums of OSE II or (yards long x yards wide x inches thick) x 0.015 = gallons of OSE II].

Intertidal Zone:
Mix each 55 gallon drum of OSE II with 2,750 gallons of fresh, brackish, or salt water. The water used is determined by the type of water associated with the site. OSE II should be applied as the tide recedes (if there is a tide) and once the tide comes in the application should cease until the tide recedes again. Additional applications should only be warranted if spill has been allowed time to percolate into the depths of the soil.

If there is no tide, but waves have pushed the spill into the intertidal zone, then there will be direct access to the spill at all times. If possible use string or stakes to grid off the beach or intertidal zone area, and then you can calculate how much premixed OSE II to apply to a given area. If unable to grid off an area then calculate how much OSE II to apply and then determine how much premixed OSE II will flow through a nozzle (gallons per minute) then let application technician know how many gallons to apply in a given area and this can be determined by applying product for a certain time period to get the correct amount of OSE II applied to gain the 1:1 ratio.

Note: If the intertidal zone is associated with the sea then mix OSE II with salt water. If the spill area is in an area of brackish water then mix OSE II with brackish water. If the intertidal zone is associated with fresh water such as lakes, rivers, streams, ponds, creeks, aquifers, or drinking water wells then use fresh water to mix OSE II.

3. Conditions for Use:

- OSE II can remediate hydrocarbon-based material including chlorinated hydrocarbons, PCB's, dioxins, and some pesticides.
- As the age of spilled hydrocarbons increases, the time necessary for bioremediation increases. In general, fresh crude, gasoline of BTEX takes from 72 hours to 30 days to completely bioremediate.
- Variations of sea water salinity should have no effect, but as long as microbial life can exist, then OSE II will be effective.
- OSE II bioremediation slows somewhat at temperatures below 40ºF. OSE II however, will continue to work at any liquid water temperature that will sustain microbial life.

VII. TOXICITY AND EFFECTIVENESS

a. Effectiveness:
Summary Data Table:

DAYS	PRODUCT 3 REPS/PROD	TOTAL MEAN ALKANES (ppm)	RED% 28 DAYS	TOTAL MEAN AROMATICS (ppm)	RED% 28 DAYS
0	CONTROL NUTRIENT OSE II	43,170 40,569 41,730	- - -	11,435 11,785 12,155	- - -

7	CONTROL NUTRIENT OSE II	39,250 34,815 26,316	9.1 14.2 36.9	10,355 9,898 8,072	9.4 16.0 33.6
28	CONTROL NUTRIENT OSE II	35,797 26,507 4,273	17.1 34.7 89.8	9,534 8,938 1,268	16.6 24.2 89.6

Results of Gravimetric Analysis:
Percentage (%) Decrease in Weight of Oil on Day 28
Control: 16.5%
Nutrient: 52.0%
Product: 85.4%

VIII. MICROBIOLOGICAL ANALYSIS

1. Listing of each component of the total formulation, other than enzymes, by chemical name and percentage by weight: CONFIDENTIAL
2. Enzyme Names: CONFIDENTIAL
3. I.U.B.: CONFIDENTIAL
4. Source of Enzymes: Fermentation process
5. Units: No less than 1% and no more than 50% by weight
6. Specific Gravity: 1.05
7. Optimum Conditions:
    a. pH: 7.0
    b. Temperature: 72ºF
    c. Salinity Ranges: Fresh water to salt water
    d. Maximum and Minimum pH: 3.5 - 8.0
    e. Maximum and Minimum Temperature: 28ºF - 128ºF
    f. Maximum and Minimum Salinity Levels - Salinity level above that will support microbial activity will adversely effect OSE II's performance
    g. Enzyme Shelf Life: Up to 5 years when properly stored
    h. Enzyme Optimal Storage Conditions: 72ºF is optimal, enzyme range is freezing to 120ºF, never leave OSE II in direct sunlight for more than a couple of hours

IX. PHYSICAL PROPERTIES

NA

X. ANALYSIS OF HEAVY METALS, CYANIDE, AND CHLORINATED HYDROCARBONS

NA

How to get a product on the US EPA NCP list

http://www2.epa.gov/emergency-response/national-contingency-plan-subpart-j#howto
Emergency Response **National Contingency Plan Subpart J**

One of EPA's top priorities is to prevent, prepare for, and respond to oil spills that occur in and around inland waters of the United States. EPA is the lead federal response agency for oil spills occurring in inland waters. The U.S. Coast Guard is the lead response agency for spills in coastal waters and deepwater ports. Subpart J of the National Oil and Hazardous Substances Pollution Contingency Plan (NCP) directs EPA to prepare a schedule of dispersants, other chemicals, and oil spill mitigating devices and substances that may be used to remove or control oil discharges.

NCP Product Schedule

Environmental Monitoring for Atypical Dispersant Operations: Including Guidance for Subsea Application and Prolonged Surface Application Revisions to Subpart J of the NCP under Consideration

NCP Product Schedule Technical Notebook How to List a New Product on the NCP Product Schedule

NCP Subpart J Regulations Effectiveness and Toxicity Testing Disclaimer Information For More Information

The NCP Product Schedule (April 2014) (PDF) is also available for download in its entirety.

EPA maintains the NCP Product Schedule, which lists the following types of products that are authorized for use on oil discharges:

Bioremediation agents Dispersants Surface washing agents Surface collecting agents Miscellaneous oil spill control age

See Definitions of Product Categories See Alphabetical List of NCP Product Schedule Products with Links to Technical Product Summaries

Design for the Environment

Note: Products may be eligible for recognition by EPA's Design for the Environment (DfE) Program as a safer oil spill treatment. The DfE Program labels products that have met its stringent criteria for human health and environmental safety.

NCP Product Schedule Technical Notebook

The NCP Product Schedule Technical Notebook (April 2014) (PDF) presents **manufacturer's** summary information on the conditions under which each of the products is recommended to be used. **Manufacturer** information may provide handling and worker precautions, storage information, recommended application procedures, physical properties, and toxicity, effectiveness, or other analyses.

Disclaimer: The listing of a product on the Product Schedule does NOT mean that EPA approves, recommends, licenses, certifies, or authorizes the use of the product on an oil discharge. The listing means only that data have been submitted to EPA as required by Subpart J of the National Contingency Plan, Section 300.915. (Source: 40 CFR § 300.920 (e))

There is an established process that manufacturers must follow to have a product listed on the NCP Product Schedule.

Begin by reviewing data requirements in section 300.915 of Subpart J of the NCP Product Schedule.

Determine product category (e.g., dispersant, surface washing agent, etc.)

Fulfill each of the data requirements for selected product category, including effectiveness and toxicity testing (if applicable). If you need assistance locating a laboratory to help fulfill these requirements, please call the NCP Product Schedule Information Line.

Send a hard copy of **all** data requirements for review to: NCP Product Schedule Manager U.S. Environmental Protection Agency Ariel Rios North Building - Mail Code 5104-A Room 6450T Washington, D.C. 20460

If you have further questions or require more information, please call the NCP Product Schedule Information Line.

Subpart J Regulations

EPA is currently making revisions to the Subpart J regulation to clarify and update the Product Schedule listing procedures. These updates may include effectiveness and toxicity testing. Once the proposed rule is posted to the docket, there will be a public comment period for providing questions and concerns. The compiled comments will be addressed in the final rule. Office of Management and Budget Agenda: Revisions to the National Oil and Hazardous Substances Pollution Contingency Plan; Subpart J Product Schedule Listing Requirements.

NCP Subpart J: Use of Dispersants and Other Chemicals - 40 CFR 300.900 - 300.920 (PDF)

NCP: Definitions - 40 CFR 300.5 (PDF)

Relevant Federal Register Notices

Effectiveness and Toxicity Testing

For the products on the schedule, EPA provides NCP Product Schedule Toxicity and Effectiveness Summaries for each product category. Appendix C to 40 CFR part 300 describes methods for required effectiveness and toxicity tests for specific product categories. See: 40 CFR part 300 Appendix C | PDF (22 pp, 284 K, About PDF)

The listing of a product on the NCP Product Schedule does not constitute approval of the product. To avoid possible misinterpretation or misrepresentation, any label, advertisement, or technical literature that refers to the placement of the product on the NCP Product Schedule must either reproduce in its entirety EPA's written statement that it will add the product to the NCP Product Schedule under Sec. 300.920(a)(2) or (b)(2), or include the disclaimer shown below. If the disclaimer is used, it must be conspicuous and must be fully reproduced. Failure to comply with these restrictions or any other improper attempt to demonstrate the approval of the product by any National Response Team (NRT) or other U.S. Government agency shall constitute grounds for removing the product from the NCP Product Schedule. [40 CFR 300.920(e)]

[PRODUCT NAME] is on the U.S. Environmental Protection Agency's NCP Product Schedule. This listing does NOT mean that EPA approves, recommends, licenses, certifies, or authorizes the use of [PRODUCT NAME] on an oil discharge. This listing means only that data have been submitted to EPA as required by subpart J of the National Contingency Plan, Sec. 300.915.

The US Congress required the US EPA to keep a list of products that can be legally used on US Navigable waters, which is why there is a an NCP list.