

# Surface Washing Agents

## Laboratory Scale Testing of NCP Listed Products in the Gulf Coast



Project Research Conducted by:

National Spill Control School  
Texas A&M University Corpus Christi

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Texas General Land Office  
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## **Laboratory Scale Testing of NCP Listed Products**

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# **1.0 Introduction**

## **1.1 Overall Laboratory Testing Description**

This market study was developed by the National Spill Control School at Texas A&M University Corpus Christi. It is the second phase of a four-phased FY 2018-19 project funded by the Texas General Land Office (TGLO under Contract Number 18-128-000-A668).

This project was developed to assess and compare the Surface Washing Agents (SWAs) listed on the National Oil and Hazardous Substances Pollution Contingency Plan (NCP). This project will provide valuable information about SWA product availability, performance, and safety. It is intended to serve as a resource and guidance tool for those regulatory agencies involved in the conditional approval and monitoring of SWA use in certain areas.

- Phase 1 - SWA Market Study
- Phase 2 - Laboratory Evaluation of SWA Performance
- Phase 3 - Meso-Scale Testing of SWAs
- Phase 4 - SWA Guidance Manual for Field Investigators

## **1.2 Study Objectives**

Laboratory study objectives were determined during initial stages of proposed research development. Identified goals and objectives include:

- To emulate natural environmental conditions
- To utilize manufacturers' explicit recommendations for the dilution and application of SWA.
- To use standard glassware, small representative substrates, and a proper disposal technique.
- To document observations for each SWA performance with written and video logs.
- To determine effectiveness, physical and chemical behavior, and product recoverability.
- To determine dispersion coefficients for each SWA tested.
- To select the best Lift-and-Float agents for further testing.

Additional research goals align with meso-scale and comprehensive guidance document work

## **1.3 Description of Physical, Chemical, and Biological Processes**

Each of the 56 SWAs have various physical, chemical, and biological characteristics. In addition, each SWA has unique performance characteristics that required better understanding for various environmental situations. Some of the listed SWA products are “lift and float”, some lift oil from substrates and disperse it in the water column. Some SWAs perform differently under different temperatures and water conditions. Lift and disperse products are not approved for application in waterways and should not be allowed to enter into any connected drainage system. Descriptions of processes in Section 1.3 derive from the NCSC’s SWA Market Study (2018).

SWA product SDSs are submitted under different cover and should be referenced.

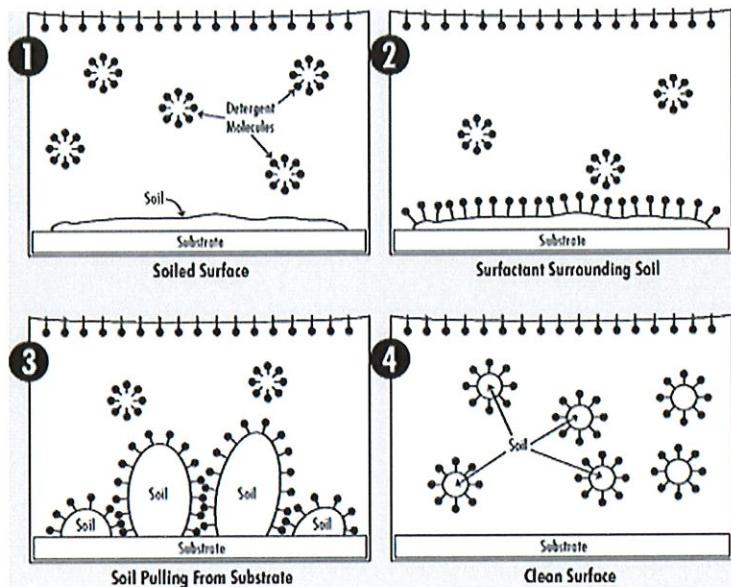
### **1.3.1 Lift and Float**

There are two primary physical-effect categories for surface washing agents. Generally these are described as “lift-and-float” and “lift-and-disperse” agents. The categories describe the post-application process of how the surfactant/petroleum mixture interacts in the water column. These categories also give an indication of recoverability.

The process by which lift-and-float agents can be applied to the petroleum covered substrate, bind to the oily material, and are washed off at various temperatures and pressures, or removed by steam cleaning, are shown in Figure 1-1. If the applied SWA washes off and accumulates on the water’s surface, either immediately or after some delay, the product would be considered “lift and float”. However, describing a SWA behavior as “lift and float” may be situationally inaccurate. Delayed effects, wave action, temperature, etc. could change the observed behavior. The term “lift and float” does not insinuate that the product will remain floating or on top of the water or substrate. The product could still be mobile in the water column or subsurface ground after a period of time. Conversely, some lift-and float agents may initially disperse the oily mixture into the water column and then re-float after some period of time.

In Texas, surface washing agents that are pre-approved by the respective Coastal Zone Area Committees must be “lift and float” agents. The objective is to use products that provide maximum recovery and minimal environmental effects. When using lift-and-float agents the recovery of the agent/petroleum mixture can be accomplished with most types of surface skimming equipment and sorbent materials.

**FIGURE 1-1**  
**Surface Washing Agent Interaction on Impermeable Substrates**



Source: "Chemistry of Cleaning", Essential Industries Inc.

This diagram illustrates how surfactants clean soil from a smooth substrate. SWA use the same process when removing petroleum from impermeable surfaces in the lift- and-float process.

### 1.3.2 Lift and Disperse

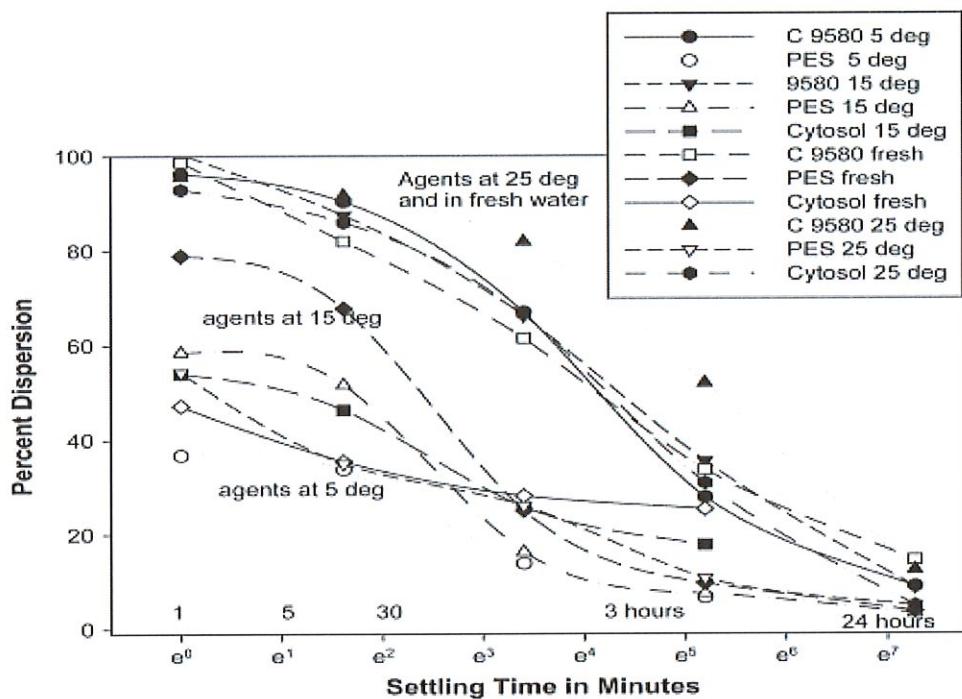
The other category type of surface washing agents are “lift and disperse” agents. These products perform like dispersants. They emulsify the oil product and disperse it in the water column. This method is not preferable due to the lack of ability to recover the petroleum and chemical mixture. The act of dispersion may also lead to environmental concerns about aquatic toxicity. There is also evidence to suggest that the re-mobilization of petroleum and oily products may result in the accumulation of petroleum in the benthic areas of the water column. Dispersion of the oily products also might allow subsurface intrusion and mobility of the hazardous mixture. “Lift and disperse” SWAs should not generally be used in coastal settings. There is an additional monetary cost to use “lift and disperse” agents in containment areas where collection and hazardous waste disposal may be required. Some agents however are considered either “lift and float” or “lift and disperse” depending on the dilution ratio of the SWA that is used during application. This change of category based off dilution ratios could lead to questions about delayed effects. A SWA could float the mixture and then, after a period of time, begin to disperse petroleum into the water column. Additional factors that might affect dispersion of the materials can include, but are not limited to: temperature, covered substrate type, salinity, biological coverage and other factors. These factors represent just a few reasons that SWAs use should be closely monitored by applicators, and in some cases should have regulatory oversight.

In a previous study (Fingas and Fieldhouse, 2011), dispersion trials were conducted for 3 of the surface washing agents: Corexit 9580, PES 51, and Cytosol. Laboratory test- based dispersion percentage on a high application energy rate, on dilution ratios, salinity, and temperature differences. They determined that salinity had minor effects on dispersion. All SWA product dispersions become unstable after a

longer period of time. Figure 1-2 shows the dispersion percentage change to an unstable, lower dispersion percentage after time elapses. This insinuates that higher-pressure washing will lead to greater dispersion of surface washing agents into the water column, and that the pressure washing energy used will determine the amount of time for reformulation of the agent/petroleum mixture to rise to the surface.

Products with “lift and disperse” properties or products that are considered “lift and float” in stable energy conditions may not be useful or appropriate on shorelines with high energy wave action. These environments will cause higher dispersion in tidal zones and may make recoverability impossible.

**FIGURE 1-2**  
**Timescale Dispersion of Major Surface Washing Agents**



Source: “Chapter 21- Surface Washing Agents or Beach Cleaners”, Oil Spill Science and Technology.

#### **1.4 Laboratory Testing Methodology**

Researchers collected 1-gallon samples of NCP listed SWA along with application criteria derived from manufacturer’s explicit instructions.

The supporting laboratory equipment for proper application and dispersion testing needs were determined and acquired. Researcher was conducted in a laboratory equipped with fume hoods, safety/PPE materials, waste collection, and climate control for conducting SWA tests which simulated various field conditions.

### **1.4.1 Equipment Acquisition**

NCP listed SWA were determined to be applied through 3 different methods:

- Pressure washing
- Steam washing
- Direct contact washing

A micro-pressure washing device was found to simulate industrial pressure washers in a laboratory setting. This device can be adjusted for stream direction, size, as well as psi pressure. Figure 1-3 depicts the device. It has an adjustable collar near the nozzle, a psi pressure adjustment control knob at the back, and a container for dilution of the SWA, this device ensures appropriate simulation of SWA application on small represented substrates.

**FIGURE 1-3**  
**Handheld Micro-Pressure Washing Device**



Following discussions with SWA manufacturers, none of the products acquired for laboratory testing required application with steam cleaning.

Direct contact washing is the application of SWA chemicals through the use of brushing, mopping, or sponge application. Researchers acquired brushes with different sizes and textures for proper application as well as to prevent cross contamination of SWA and oily materials. After the instructed residence time post-application, the SWA and oiled material is wiped or washed off according to manufacturer instruction.

SWA testing was conducted on representative oiled samples of concrete, wood, and steel. These samples simulate substrates that could be found and cleaned during an oil spill. The concrete, wood, and  $\frac{1}{4}$ " thick steel plates were cut to approximately 6".

Researchers tested SWAs on substrates applied with 4 different types of oils of varying viscosity: marine diesel, crude, asphaltic, and 6-oil. Each oil was applied to all 3 substrates and at multiple temperatures. To ensure consistency, scientific pipettes were utilized to apply 5mL of oil each test.

Natural environmental conditions were simulated during laboratory testing which involved the use of water at 35ppt salinity, and at temperature ranges of 10°, 20°, and 30° Celsius. These conditions depict the average salinity of the Gulf of Mexico with temperatures formulated around the year-round seasons. Salinity was determined and reached each test using Instant Ocean mixtures and a salinity refractometer. For the 10° Celsius tests, 24”L x 16”W flat-sheet icepacks were acquired. For the 30° Celsius tests, two 150W aquarium heating tubes were acquired.

Testing of floating or dispersing technologies requires a water column that is easily viewed from a cross-section perspective. Four 10-gallon glass aquariums were collected for testing purposes. Dimensions of the aquariums remained constant for comparison between tests at 22”L x 12”W x 13.5”H.

Written and visual observations were conducted for 1-hour post application for each test. Researchers used a Canon Vixia HF camera and a GoPro Hero2 to document visual observations.

Hanby Environmental TPH Water Testing Kits were utilized to evaluate water column dispersion concentrations.

Waste collection and disposal were conducted in accordance with TAMUCC, state, and federal guidelines. Equipment and water waste were neutralized and treated using OMG Solutions ELMN8 and ELMN8+ products. These products were used to decontaminate equipment in-between SWA tests.

#### **1.4.2 Testing Observations**

Researchers determined SWA have floating and/or dispersing characteristics that vary depending on wave energy, chemical differences, or temperatures. To efficiently determine the floating and/or dispersing differences, a 1-hour post application observation was conducted for each SWA at each temperature for all 4 petroleum products. For visual observations, each camera was mounted on a tripod or stand with viewing scope of the entire cross-section of the water column. The GoPro was set to take a picture every minute, and the Canon camera was set to video record for the entire application and 1-hour post application period. In addition to visual observations, researchers filled out written observation's forms for time increments post application at: 1-minute, 5-minute, 15-minute, 30-minute, 45-minute, and 1-hour. These written and visual observations aid researchers in determining at exactly what time post-application that the SWA and petroleum products change their physical characteristics in the water column as a floating and/or dispersing agent. Reference the written observation sheet in Section 5.0 Attachment A.

#### **1.4.3 Application Techniques**

Researchers applied the SWA in accordance with the SWA manufacturer guidance. For each test, the 10-gallon aquariums were set in the fume hood for vapor and chemical containment. Roughly 595-grams of Instant-Ocean mix was added to 20L of deionized water to achieve a salinity of 35-36ppt. Consistency between all tests were achieved using a refractometer to measure salinity, and the 595-grams of IO were measured using a digital portion scientific scale. Substrates there then dipped in the water and had roughly 5mL of petroleum substances applied and allowed 1 minute to sit. Substrates were then hung vertically with 1/3 of the substrate underneath the water line shown in Figure 1-4. For

10° and 30° tests, at this point researchers would add the aquarium heater and allow time for the water to warm up or add the ice sheet to cool down.

**FIGURE 1-4**  
**Laboratory Testing Setup with Substrates**



For application involving a non-diluted SWA, the agent is directly applied through a brush or micro-pressure washer. For application involving a diluted SWA, the agent is measured in a 100mL or 250mL beaker and diluted with deionized water to recommended level, then applied through application instruction means. SWA that require special additional instructions were completed each test, such as: retention time of SWA on petroleum product, post-application rinse, additional application, and change in dilution application. All results were written on visually captured during this time.

#### **1.4.4 Dispersion Calculations**

Researchers worked to find the most efficient and accurate testing method to calculate whether the agents act as “lift and float” or “lift and disperse”. Original ideas involved using spectrophotometry which involves the collection of 1mL of water samples and the dispersion is calculated as a laser measures the exact density of material in the sample other than water. Researchers discovered that the resulting dispersion calculations were higher than anticipated. It is believed that particles of wood, concrete, and rust from the steel plates were entering the water column and resulted in erroneous readings. This method was then no longer used. Researchers found that the use of the Hanby TPH water testing kits were an accurate and consistent form of calculating dispersed oil in the water column. Through background research it was determined that the substrate particles would not interfere with dispersion calculations during this method because the testing would use color changing reagents in chemical reactions.

To calculate the dispersion of oil in the water column, researchers need to gather water in the benthic section of the water column slightly above the bottom surface. It was determined that this area would represent the ideal area you would see settling of oils with dispersants in ocean application settings. This

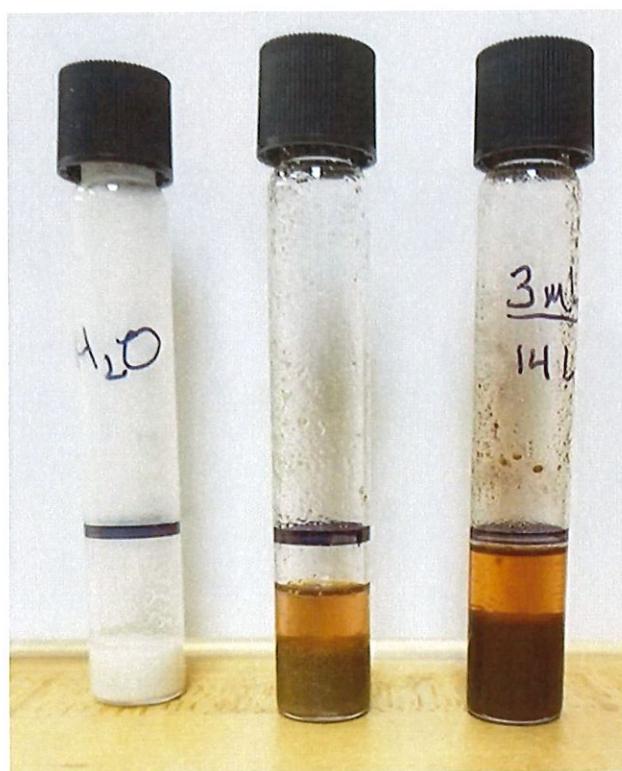
was achieved using a 10mL scientific pipette which was primed with air so as researchers reached the ideal benthic location in the water column a slight amount of air was released to allow any agent or petroleum product build up from going through the surface was released. Then 10-15 seconds later, collection of the water sample commenced. Samples were placed in a 250mL separatory funnel and the ampoules extraction reagent was added. The extraction reagent binds to hydrocarbon molecules present in the water sample and separates them into 2 liquids with different densities. The funnel was gently shaken for at minimum 1 minute to allow the reagent time and access to the entire sample. Using a test tube, the reagent and petroleum mix is separated from the water sample, as shown in Figure 1-5.

**FIGURE 1-5**  
**Hanby Dispersion Test Separatory Funnel**



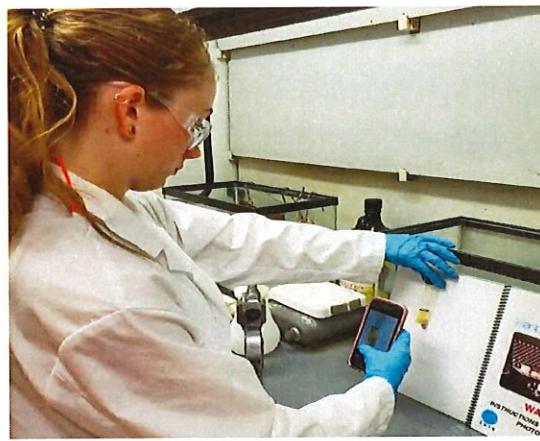
Researchers then add 1 test tube vial of the color development reagent, then mixed for 1 minute. This reaction will react with the hydrocarbon molecules in the test tube and will alter the samples color along a gradient that represent the dispersion amount. As the gradient darkens, the concentration increases. Figure 1-6 depicts the test researchers conducted with different amounts of crude oil applied to the water column then the addition of a diluted dispersant. The left most tube depicts a test with only water, showing a white color. The middle test tube represents approximately 1.25ppm dispersion of crude oil, which shows a light brown and reddish tint. The right most tube represents approximately 2.5ppm dispersion of crude oil, which shows a dark brownish black color. The Hanby kit comes with a color gradient book used to compare and calculate concentration for many petroleum products, including the products involved in this study.

**FIGURE 1-6**  
**Colorimetric Comparison for Dispersion**



Upon initiation of laboratory scale work, researchers aimed to reduce calculation errors and control consistency between all researchers running tests. Hanby Environmental has a mobile application with a database of all color gradients for petroleum products. This removes the potential for error of visual dispersion calculations between all researchers. Each test tube has been photographed with a white background and analyzed for an exact concentration measurement with an error of +/- 0.02ppm. This process is depicted in Figure 1-7. Hanby Environmental's mobile application allows researchers to export all data into tables for further analysis.

**FIGURE 1-7**  
**Dispersion Calculation**



#### **1.4.5 Waste Disposal**

During the Hanby testing process, the test tube solution containing hydrocarbon compounds, color reagents, and separatory reagents, release solvent fumes in contact with H<sub>2</sub>O so containment was ensured in 5-gallon glass bottles underneath the fume hood. Under TAMUCC waste disposal requirements, each bottle of waste was properly labeled and dated, and disposed of properly under supervision of the hazardous waste supervisor.

For validation of each test, all testing equipment must be fully cleaned of all chemicals, petroleum products, and wastewater before the next test can take place. OMG Solutions have created a remediation product, ELMN8, for equipment and soil remediation, and ELMN8+, for liquid remediation.

Application of this product will break down the hydrocarbon bonds in the petroleum products and bind oxygen to produce H<sub>2</sub>O and CO<sub>2</sub>. Equipment was properly soaked and rinsed clean for each test, and water waste was broken down to proper disposal levels. Figure 1-8 depicts the water column post laboratory test when the ELMN8+ solution was added and mixed to break down the waste. After each application of ELMN8+, a Hanby TPH Water test was conducted to ensure full breakdown of hydrocarbon compounds.

**FIGURE 1-8**  
**ELMN8+ Application Breakdown**



#### **1.4.6 Assumptions Made for This Report**

Researchers were able to accurately and consistently calculated dispersion capabilities of all SWA products collected. Dispersion in this laboratory setting was not influenced by wave or wind action. In the laboratory setting, time restraints would not allow researchers to apply petroleum products and place in the sun for an extended period of time to receive weathering and coagulation effects. All testing procedures for each agent were carefully assessed and discussed with manufacturers to ensure representation of full-scale response activities.

## 2.0 Laboratory Findings

### 2.1 National Contingency Plan Product Schedule

The United States Congress amended the Federal Water Pollution Control Act of 1948 to the Clean Water Act in 1972. This established the Environmental Protection Agency (EPA) authority in pollution control programs as well as lawfully enforcing the regulated standards from the CWA. In addition, the U.S. Congress required the EPA to keep an updated running list of all products that could legally be applied in U.S. navigable waterways. The EPA states that one of their top priorities are to prepare for, prevent, and respond to oil spills. With the focus in oil spills and hazardous substance releases, the EPA created the National Oil and Hazardous Substances Pollution Contingency Plan, or National Contingency Plan (NCP). The plan established the National Response Team and Regional Response Teams to aid in decision making. The NCP has been updated periodically since 1972 following Superfund legislation and the Oil Pollution Act of 1990 to the most current version.

The NCP Product Schedule is derived from the U.S. Environmental Protection Agency's (EPA) Office of Emergency Management (OEM) Regulations Implementation Division (RID). EPA lists and categorizes oil spill control agents by type:

- Bioremediation agents
- Dispersants
- Miscellaneous Oil Spill Control Agents
- Surface Collecting Agents
- Surface Washing Agents

There are 56 surface washing agents approved and listed in Subpart J, Section 300.915, of the NCP Product Schedule. (Source:40 CFR §300.920 (e)). It is specifically stated that “the listing of a product on the Product Schedule does not mean that EPA approves, recommends, licenses, certifies, or authorized the use of the product on an oil discharge.”

The Texas General Land Office (TGLO) incorporated in the South Texas Coastal Zone Area Contingency Plan Section 3280.4 states that “surface washing agents may be considered when conventional flushing techniques are inadequate in removing oil residues to the required cleanup standard.”

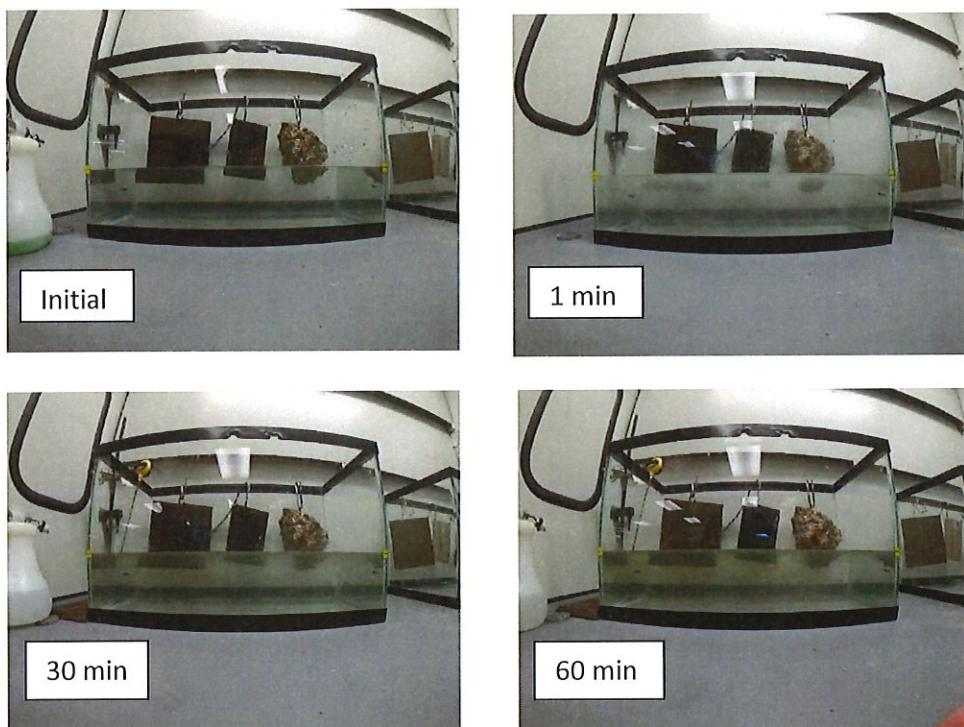
All current SWA products listed below and their contacts were initially derived from September 2017 NCP Product Schedule. The NSCS reviewed and edited this list to show current contacts, provided it to the EPA, and the current contact information is now shown in the March 2018 Update to the NCP Product Schedule. Please note that the list is sequential but not all numbers are shown. Numbers not showing have been dropped from the NCP list or were unable to be collected. It is likely that additional products will be dropped in the future.

Descriptions of NCP Product schedule in Section 2.1 derive from NSCS SWA Market Study (H.A. “Tony” Wood and Andrew Dittmar, 2018).

## **2.2 SWA Testing Profiles**

Researchers compiled all testing visual observations on an external database. This 1.6TB database is on file at the NSCS and can be provided to TGLO upon request. Visual observations were conducted either through stop motion photography or videography. Figure 2-1 shows the comparative timeline of a SWA from initial application to the 60-minute post application time. This visual database will allow viewers to determine how the SWA acts comparative at different temperatures and if at what point it begins to disperse or not.

**FIGURE 2-1**  
**SWA Application and Dispersion**



Testing profiles are submitted in the attachment section. Profiles are current at the time of this publication but may be subject to change. Refer to NCP Product Schedule for updated contact or status information if the following is outdated.

## **2.3 Lift and Float Identification**

Researchers completed all testing of NCP listed SWA that were acquired and listed all calculated dispersion concentrations in Table 2.1. Determination of “lift and float” agents was discussed with TGLO personnel and leading scientific figures.

Researchers, in accordance with TGLO, decided to determine “lift and float” capabilities by comparing results of SWA concentrations to that of control testing. In cases with a majority or all tests with concentrations beneath the control, the SWA will be considered “lift and float”. Table 2-2 depicts the agent’s researchers determined to be considered “lift and float” which will be continually tested in the meso-scale scope of research. The laboratory scale allows the researchers a baseline of dispersion characteristics, and the future meso-scale testing will allow researchers to assess the cleaning capabilities against weathered oils.

**Figure 2-2**  
**SWA Application and “Lift and Float” Characteristics**



Figure 2-2 depicts researchers applying a SWA during a 10°C test. Post application dispersion characteristics show a cloudy water column but a resulting oil dispersion visually floating.

Table 2-1

## NCP SWA Calculated Dispersion

	10 <sup>g</sup> Crude	20 <sup>g</sup> Crude	30 <sup>g</sup> Crude	10 <sup>g</sup> Diesel	20 <sup>g</sup> Diesel	30 <sup>g</sup> Diesel	10 <sup>g</sup> 6-oil	20 <sup>g</sup> 6-oil	30 <sup>g</sup> 6-oil	10 <sup>g</sup> Asphalt	20 <sup>g</sup> Asphalt	30 <sup>g</sup> Asphalt
Control	1.07	1.5	0.95	1.57	0.5	1.75	1.25	1.15	1.23	1.98	1.98	1.88
Petro-Clean	1.95	1.13	1.45	1.61	0.6	2.09	1.23	1.13	1.8	1.77	1.73	0.72
Simple Green	1.07	1.3	0.7	2.17	0.57	1.61	1.5	2.32	1.18	1.75	2.81	0.6
Gold Crew SW	0.88	2	1.8	1.83	2.09	0.42	1	1.1	2.32	0.78	1.75	2.81
F-500	1.8	0.93	0.93	0.28	0.44	1.7	1.23	1.23	0.78	1.73	1.88	2.32
GTS-OR	1.07	1.13	1.1	1.73	0.75	0.44	1.73	1.75	1.27	0.8	1.7	1.45
PES-51	2.08	0.95	2.16	0.48	1.74	0.2	1.35	1.3	1.18	1.75	1.07	1.5
Dynamic Green	1.93	1.05	1.93	0.53	0.22	0.34	1.05	1.32	0.72	1.3	1.82	1.23
De-Solv-it Super Concentrate	1.65	1.23	1.9	0.42	1.22	1.61	1.18	1.18	1.07	1.45	1.4	1.38
De-Solv-it Industrial Formula	1.02	1.05	2.73	1.3	0.8	0.87	2.16	0.85	1.75	0.75	1.25	1.02
Water Works HD Degreaser Conc.	1.5	1.18	1.1	2.09	2.52	0.43	1.68	0.55	1.2	1.07	1.4	0.8
BioSolve Pink Water	1.65	1.52	1.4	0.2	0.67	1.7	1.8	1.57	0.88	1.6	0.65	2.97
BG Clean 401	1.88	1.06	1.68	0.24	1.48	2.09	1.4	1.88	0.78	1.1	1.57	1.4
Nokomis 5-W	0.57	1.18	0.57	2.04	2.87	0.28	1.43	0.93	0.6	1.73	1.7	0.97
Naturama G3-A5	1.98	1	2	2.39	1.96	0.2	1.85	1.38	1.98	1.23	1.72	1.82
Petromax PSC3	0.85	1.2	1.15	1.61	2.13	1.51	1.25	1.65	1.93	0.78	0.8	1.35
SC-1000	1.1	0.9	1.23	1.04	0.8	0.3	1.98	1.02	1.75	1.7	1.23	3.29
Biowash 206-1X	1.5	0.93	1.15	2.39	3.3	2.61	1.55	1.13	1.48	1.77	0.6	0.53
Corexit EC 9580A	1.8	1.68	0.97	0.46	1.17	1.39	1.05	1.2	0.57	1.02	0.82	0.95
Cytosol	1.02	1.98	1.57	0.28	0.3	0.73	0.65	1.95	1.07	1.88	0.85	1.35

**Table 2-2**  
**Lift and Float SWA**

Surface Washing Agent	Occurrences of Dispersion Below Control
F-500	8
GTS-OR	8
PES-51	6
Dynamic Green	8
De-Solv-it Super Concentrate	8
De-Solv-it Industrial Formula	8
Water Works HD Degreaser Conc.	7
BG Clean 401	8
Nokomis 5-W	9
Corexit EC 9580A	8
Cytosol	7

Determination of “lift and float” SWA was conducted accurately and fairly across all listed SWA on the NCP Product Schedule. Each SWA was applied exactly to manufacturer’s recommendations with constants to allow comparison such as petroleum oil application amount, temperature, salinity, and such.

# **3.0 Summary**

## **3.1 Conclusions**

After laboratory analysis, the NSCS researchers met with TGLO and discussed which NCP listed SWA would be considered “lift and float” for the purposes of the meso-scale studies.

NSCS researchers compared the number of occurrences a SWA had a dispersion concentration below the control concentration. Researchers determined 11 out of the total SWA products tested showed occurrences below the control a majority of time. Discussion with TGLO validated assessment of these agents being considered “lift-and-float”.

Researchers were able to determine the most consistent and accurate method of calculating dispersion concentrations while reducing human error using digital comparison to color gradients.

It was determined through OSRO investigation that of the entire NCP Product Schedule, there seemed to be only 3 SWA primarily used in today’s response. Through the work of NSCS researchers, there are now 11 SWA that have potential for application and use in the Texas coastal environment.

## **3.2 Applications of Laboratory Research**

NSCS SWA reports will aid in response growth in Texas and other Gulf State spill response, as well as provide access to valuable information regarding general background of the NCP listed SWA’s and MOSCA’s. Information regarding SWA dispersion in different substrate, temperature, and spill product conditions will allow companies the opportunity to assess which product would efficiently clean their intended oiled substrate.

Information gathered from this report will allow researchers to effectively test surface washing and cleaning agents in a full-scale setting. Effectiveness results will be written into a final guidance document that will be used by Texas and Gulf state responders for efficient SWA application and use.

## 4.0 References

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## **5.0 Attachments**

## LABORATORY OBSERVATION SHEET

Protocols Reviewed: \_\_\_\_\_

SDS Reviewed: \_\_\_\_\_

Date	Time	Temp	Salinity	Visual Test ID	Petroleum	Visual Observation					
						1 min	5 min	15 min	30 min	45 min	1 hr
					Oil on Steel:						
					Oil on Concrete:						
					Oil on Wood:						
					Oil on water surface:						
					Dispersed oil in water:						

SWA: \_\_\_\_\_

Conc: \_\_\_\_\_

Date	Time	Temp	Salinity	Visual Test ID	Petroleum	Visual Observation					
						1 min	5 min	15 min	30 min	45 min	1 hr
					Oil on Steel:						
					Oil on Concrete:						
					Oil on Wood:						
					Oil on water surface:						
					Dispersed oil in water:						

SWA: \_\_\_\_\_

Conc: \_\_\_\_\_

SW-10 Corexit EC9580A

Nalco Environmental Solutions LLC

卷之三

Mrs. Debby Theriot  
7705 Highway 90-A

Address: 130 TX 77778

SUGAR LAYER, IA / 4/18

Office Phone: 281-263-7709

Mobile Phone: 832-851-5164

MUSICAL MENSURA

Website: [nälcoenvironmentalsolutionsllc.com](http://nälcoenvironmentalsolutionsllc.com)

Application Criteria:		Straight		Salinity		Observation						Conc.
Date	Time	Temp	Visual Test ID	Petroleum		1 min	5 min	15 min	30 min	45 min	1 hr	
5/30/2019	12:47 - 2:17	23.0 -23.0	38	CAM 1	Diesel	Oil on Steel:	N	N	N	N	N	N
						Oil on Oil on Concrete:	N	N	N	N	N	N
						Oil on Wood:	N	N	N	N	N	1.17
						Oil on water surface:	Y	Y	Y	Y	Y	
6/5/2019	3:11 - 4:41	30.9 - 29.8	36	353	Diesel	Dispersed oil in water:	Y	Y	Y	Y	Y	
						Oil on Steel:	N	N	N	N	N	N
						Oil on Oil on Concrete:	N	N	N	N	N	N
						Oil on Wood:	N	N	N	N	N	1.39
6/6/2019	11:05 - 12:35	10.0 - 11.3	33	446	Diesel	Oil on water surface:	Y	Y	Y	Y	Y	
						Dispersed oil in water:	Y	Y	Y	Y	Y	
						Oil on Steel:	N	N	N	N	N	N
						Oil on Oil on Concrete:	N	N	N	N	N	N

Application Criteria:		Straight		Apply directly to oiled surfaces and allow a max of 30 minutes to soak, rinse clean.							
Date	Time	Temp	Salinity	Visual Test ID	Petroleum	Observation				Conc.	
						1 min	5 min	15 min	30 min	45 min	1 hr
6/27/2019	12:40-2:20	10.5-13.8	32	1755	6-oil	Oil on Steel:	Y	N	N	N	N
						Oil on Concrete:	N	N	N	N	N
						Oil on Wood:	N	N	N	N	N
						Oil on water surface:	Y	Y	Y	Y	Y
						Dispersed oil in water:	Y	Y	Y	Y	Y
						Observation					
7/2/19	2:14- 3:43	22.5 - 22.2	39	vid 5 & vid 1	6-oil	Oil on Steel:	Y	Y	Y	Y	Y
						Oil on Concrete:	N	N	N	N	N
						Oil on Wood:	Y	Y	Y	Y	Y
						Oil on water surface:	Y	Y	Y	Y	Y
						Dispersed oil in water:	N	N	N	N	N
						Observation					
7/15/19	3:58 - 5:38	31.0 - 29.2	38	1214	6-oil	Oil on Steel:	N	N	N	N	N
						Oil on Concrete:	N	N	N	N	N
						Oil on Wood:	N	N	N	N	N
						Oil on water surface:	Y	Y	Y	Y	Y
						Dispersed oil in water:	Y	Y	Y	Y	Y
						Observation					

Application Criteria:		Straight		Visual Test ID		Petroleum	Observation				Conc.	
Date	Time	Temp	Salinity				1 min	5 min	15 min	30 min	45 min	1 hr
8/7/19	5:01 - 6:40	9.5 - 12.5	37	1987	Asphalt	Oil on Steel:	Y	Y	Y	Y	Y	Y
						Oil on Concrete:	Y	Y	Y	Y	Y	Y
						Oil on Wood:	Y	Y	Y	Y	Y	Y
						Oil on water surface:	Y	Y	Y	Y	Y	Y
7/30/19	1:57-3:27	25.2-24.3	35	1145	Asphalt	Dispersed oil in water:	N	N	N	N	N	N
						Oil on Steel:	Y	Y	Y	Y	Y	Y
						Oil on Concrete:	Y	Y	Y	Y	Y	Y
						Oil on Wood:	Y	Y	Y	Y	Y	Y
7/30/19	1:57 - 3:27	30.9 - 28.1	35	VID 1	Asphalt	Oil on water surface:	Y	Y	Y	Y	Y	Y
						Dispersed oil in water:	N	N	N	N	N	N
Application Criteria:		Visual Test ID		Visual Test ID		Petroleum	Observation				Conc.	
Date	Time	Temp	Salinity				1 min	5 min	15 min	30 min	45 min	1 hr

SW-11 De-Solv-It Industrial Formula  
 Orange-Sol Blending and Packaging  
 Mr. Tim Farnsworth  
 1400 N Fiesta Boulevard  
 Gilbert, AZ 85233  
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 Fax: 480-497-0444  
 Website: orange-sol.com

Application Criteria:										Straight or up to 1:9						Apply straight or diluted mixture to contaminated surface, use pressure or steam cleaning equipment at high heat.					
Date	Time	Temp (°C)	Salinity (ppt)	Visual Test ID	Petroleum	Observation						Conc. (ppm)									
						Oil on Steel:	1 min	5 min	15 min	30 min	45 min	1 hr									
11/1/2018	1:20 - 2:20	22.3 - 22.3	38	541	Crude	Oil on Steel:	Y	Y	N	Y	Y	Y									
						Oil on	Y	Y	N	N	N	N									
						Oil on Wood:	Y	Y	Y	Y	Y	Y									
						Oil on water	Y	Y	Y	Y	Y	Y									
						Dispersed oil in water:	N	N	N	Y	Y	Y									
Date	Time	Temp	Salinity	Visual Test ID	Petroleum	Observation						Conc.									
						Oil on Steel:	1 min	5 min	15 min	30 min	45 min	1 hr									
3/10/2019	2:50 - 3:53	31.1 - 29.2	34	1830	Crude	Oil on	Y	Y	N	N	N	N									
						Oil on Wood:	Y	Y	N	N	N	N									
						Oil on water	Y	Y	Y	Y	Y	Y									
						Dispersed oil in water:	Y	Y	Y	Y	Y	Y									
Date	Time	Temp	Salinity	Visual Test ID	Petroleum	Observation						Conc.									
						Oil on Steel:	1 min	5 min	15 min	30 min	45 min	1 hr									
5/30/2019	10:50 - 11:50	9.8 - 13.3	33	3800	Crude	Oil on	Y	Y	N	N	N	N									
						Oil on Wood:	Y	Y	Y	Y	N	N									
						Oil on water	Y	Y	Y	Y	Y	Y									
						Dispersed oil in water:	Y	Y	Y	Y	Y	Y									

Application Criteria:		Straight or up to 1:9		Apply straight or diluted mixture to contaminated surface, use pressure or steam cleaning equipment at high heat.									
Date	Time	Temp	Salinity	Visual Test ID	Petroleum	Observation					Conc.		
						Oil on Steel:	1 min	5 min	15 min	30 min	45 min	1 hr	
11/15/2018	1:50 - 2:50	21.0 - 20.7	37	494	Diesel	Oil on Oil on Oil on Wood: Oil on water Dispersed oil in water:	N	N	N	N	N	N	
						Y	Y	Y	Y	Y	Y	0.8	
Date	Time	Temp	Salinity	Visual Test ID	Petroleum	Observation					Conc.		
						Oil on Steel:	1 min	5 min	15 min	30 min	45 min	1 hr	
7/18/2019	10:23 - 11:25	31.7 - 31.0	35	VID 11	Diesel	Oil on Oil on Oil on Water Dispersed oil in water:	N	N	N	N	N	N	
						Y	Y	Y	Y	Y	Y	0.87	
Date	Time	Temp	Salinity	Visual Test ID	Petroleum	Observation					Conc.		
						Oil on Steel:	1 min	5 min	15 min	30 min	45 min	1 hr	
5/30/2019	10:50 - 11:50	8.7 - 12.5	33	CAM 10	Diesel	Oil on Oil on Oil on water Dispersed oil in water:	Y	Y	Y	Y	Y	Y	
						Y	Y	Y	Y	Y	Y	1.3	

Application Criteria:		Straight or up to 1:9		Apply straight or diluted mixture to contaminated surface, use pressure or steam cleaning equipment at high heat.									
Date	Time	Temp	Salinity	Visual Test ID	Petroleum	Observation					Conc.		
						Oil on Steel:	1 min	5 min	15 min	30 min	45 min	1 hr	
						Oil on	Y	Y	Y	N	N	N	
4/17/2019	12:16 - 1:17	30.5 - 31.2	40	2858	6-oil	Oil on Wood:	Y	Y	Y	Y	Y	Y	
						Oil on water	Y	Y	Y	Y	Y	Y	
						Dispersed oil in water:	Y	Y	Y	Y	Y	Y	
Date	Time	Temp	Salinity	Visual Test ID	Petroleum	Observation					Conc.		
						Oil on Steel:	1 min	5 min	15 min	30 min	45 min	1 hr	
						Oil on	Y	Y	Y	N	N	N	
4/18/2019	3:32 - 4:33	24.1 - 24.0	37	2920	6-oil	Oil on Wood:	Y	Y	Y	Y	Y	Y	
						Oil on water	Y	Y	Y	Y	Y	Y	
						Dispersed oil in water:	Y	Y	Y	Y	Y	Y	
Date	Time	Temp	Salinity	Visual Test ID	Petroleum	Observation					Conc.		
						Oil on Steel:	1 min	5 min	15 min	30 min	45 min	1 hr	
						Oil on	Y	Y	Y	N	N	N	
4/26/2019	12:19 - 1:23	10.7 - 12.2	28	CAM 3	6-oil	Oil on Wood:	Y	Y	Y	Y	Y	Y	
						Oil on water	Y	Y	Y	Y	Y	Y	
						Dispersed oil in water:	Y	Y	Y	Y	Y	Y	

Application Criteria:		Straight or up to 1:9		Apply straight or diluted mixture to contaminated surface, use pressure or steam cleaning equipment at high heat.									
Date	Time	Temp	Salinity	Visual Test ID	Petroleum	Observation					Conc.		
7/22/19	3:56 - 4:56	31.2 - 30.3	34	66	Asphalt	Oil on Steel:	Y	Y	Y	Y	Y	Y	Y
						Oil on	Y	Y	Y	Y	Y	Y	Y
						Oil on Wood:	Y	Y	Y	Y	Y	Y	Y
						Oil on water	Y	Y	Y	Y	Y	Y	Y
						Dispersed oil in water:	Y	Y	Y	Y	Y	Y	Y
						Observation					Conc.		
7/31/19	4:49-5:49	23.7-23.1	35	vid 5	Asphalt	Oil on Steel:	Y	Y	Y	Y	Y	Y	Y
						Oil on	Y	Y	Y	Y	Y	Y	Y
						Oil on Wood:	Y	Y	Y	Y	Y	Y	Y
						Oil on water	Y	Y	Y	Y	Y	Y	Y
						Dispersed oil in water:	Y	Y	Y	Y	Y	Y	Y
						Observation					Conc.		
8/7/19	3:15 - 4:15	10.8 - 12.3	35	VID 1	Asphalt	Oil on Steel:	Y	Y	Y	Y	Y	Y	Y
						Oil on	Y	Y	Y	Y	Y	Y	Y
						Oil on Wood:	Y	Y	Y	Y	Y	Y	Y
						Oil on water	Y	Y	Y	Y	Y	Y	Y
						Dispersed oil in water:	N	N	N	N	N	N	0.75
						Observation					Conc.		

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Mahila Bhawan: 503 705 6000

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<b>Application Criteria:</b> Application Criteria: 1:10	<b>Minutes of Sitzing Time:</b> Minutes of sitting time. Scrub surface if heavily oiled or greased surface. Rinse off surface and blot dry, apply again if necessary.
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Application Criteria:		1:10		Salinity (ppt)		Visual Test ID		Petroleum		Observation					Conc. (ppm)
Date	Time	Temp (°C)								1 min	5 min	15 min	30 min	45 min	1 hr
10/10/2018	3:24 / 4:24	23.4 - 23.0	38	751	Crude					Oil on Steel:	N	N	N	N	N
										Oil on	N	N	N	N	N
										Oil on Wood:	N	N	N	N	N
										Oil on water	Y	Y	Y	Y	Y
										Dispersed oil in water:	Y	Y	Y	Y	Y
6/13/2019	12:05 - 1:13	9.1 - 11.8	33	CAM 5	Crude					Oil on Steel:	Y	Y	Y	N	N
										Oil on	N	N	N	N	N
										Oil on Wood:	N	N	N	N	N
										Oil on water	Y	Y	Y	Y	Y
										Dispersed oil in water:	Y	Y	Y	Y	Y
7/12/19	10:52 - 11:56	30.2 - 30.2	36	vid 6	Crude					Oil on Steel:	N	N	N	N	N
										Oil on	N	N	N	N	N
										Oil on Wood:	N	N	N	N	N
										Oil on water	Y	Y	Y	Y	Y
										Dispersed oil in water:	Y	Y	Y	Y	Y

Application Criteria:		1:10		Observation								Conc.
Date	Time	Temp	Salinity	Visual Test ID	Petroleum	1 min	5 min	15 min	30 min	45 min	1 hr	
11/15/2018	3:45 / 4:45	22.1 - 21.0	37	556	Diesel	Oil on Steel: Oil on Concrete: Oil on Wood: Oil on water surface: Dispersed oil in water:	Y Y Y Y N	Y Y Y Y N	Y Y Y Y N	Y Y Y Y N	Y Y Y Y N	0.57ppm
7/18/2019	10:19 - 11:25	32.9 - 31.6	36	1921	Diesel	Oil on Steel: Oil on Concrete: Oil on Wood: Oil on water surface: Dispersed oil in water:	Y Y N Y Y	N Y N Y Y	N Y N Y Y	N Y N Y Y	N N N Y Y	1.61
6/13/2019	12:05 - 1:13	8.8 - 11.7	37	1000	Diesel	Oil on Steel: Oil on Concrete: Oil on Wood: Oil on water surface: Dispersed oil in water:	Y N N Y Y	Y N N Y Y	Y N N Y Y	Y N N Y Y	Y N N Y Y	2.17

Application Criteria:		1:10		Observation								Conc.
Date	Time	Temp	Salinity	Visual Test ID	Petroleum	1 min	5 min	15 min	30 min	45 min	1 hr	
4/26/2019	2:45 - 3:50	23.2 - 23.7	37	3196	6-oil	Oil on Steel:	Y	Y	Y	Y	Y	Y
						Oil on Concrete:	N	N	N	N	N	N
						Oil on Wood:	Y	Y	Y	Y	Y	Y
						Oil on water surface:	Y	Y	Y	Y	Y	Y
						Dispersed oil in water:	N	N	N	N	N	N
Date	Time	Temp	Salinity	Visual Test ID	Petroleum	1 min	5 min	15 min	30 min	45 min	1 hr	Conc.
7/9/19	1:41 - 2:49	9.7 - 14.7	36	302	6-oil	Oil on Steel:	N	N	N	N	N	N
						Oil on Concrete:	N	N	N	N	N	N
						Oil on Wood:	N	N	N	N	N	N
						Oil on water surface:	Y	Y	Y	Y	Y	Y
						Dispersed oil in water:	N	N	N	N	N	N
Date	Time	Temp	Salinity	Visual Test ID	Petroleum	1 min	5 min	15 min	30 min	45 min	1 hr	Conc.
7/16/19	4:14 - 5:22	31.0 - 29.1	37	VID 4	6-oil	Oil on Steel:	N	N	N	N	N	N
						Oil on Concrete:	N	N	N	N	N	N
						Oil on Wood:	N	N	N	N	N	N
						Oil on water surface:	Y	Y	Y	Y	Y	Y
						Dispersed oil in water:	Y	Y	Y	Y	Y	Y

Application Criteria:		1:10		Salinity		Visual Test ID		Petroleum		Observation						Conc.	
Date	Time	Temp								1 min	5 min	15 min	30 min	45 min	1 hr		
7/22/19 5:23 - 6:24	23.4 - 23.5	36	127	Asphalt				Oil on Steel:	Y	Y	Y	Y	Y	Y	Y	2.81	
								Oil on Concrete:	Y	Y	Y	Y	Y	Y	Y		
								Oil on Wood:	Y	Y	Y	Y	Y	Y	Y		
								Oil on water surface:	Y	Y	Y	Y	Y	Y	Y		
8/1/19 11:02 - 12:04	8.6 - 13.7	35	1592	Asphalt				Dispersed oil in water:	Y	Y	Y	Y	Y	Y	Y	1.75	
								Observation						Conc.			
								Oil on Steel:	Y	Y	Y	Y	Y	Y	Y		
								Oil on Concrete:	Y	Y	Y	Y	Y	Y	Y		
7/31/19 2:47-3:52	30.1-28.3	35	vid 4	Asphalt				Oil on Wood:	Y	Y	Y	Y	Y	Y	Y	0.6	
								Oil on water surface:	N	N	N	N	N	N	N		
								Dispersed oil in water:	N	N	N	N	N	N	N		
								Observation						Conc.			
								Oil on Steel:	Y	Y	Y	Y	Y	Y	Y		
								Oil on Concrete:	Y	Y	Y	Y	Y	Y	Y		
								Oil on Water:	Y	Y	Y	Y	Y	Y	Y		
								Oil in Water:	N	N	N	N	N	N	N		

**SW-19 Cytosol**  
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 Website: cyticulture.com

Application Criteria:  
Straight  
Apply through brush application and allow a minimum of 1 hour retention time.

Application Criteria:			Straight			Observation												Conc. (ppm)
Date	Time	Temp (°C)	Salinity (ppt)	Visual Test ID	Petroleum	1 min	5 min	15 min	30 min	45 min	1 hr							
6/11/2019	11:32 - 1:32	23.7 - 23.7	38	628	Crude	Oil on Steel: Oil on Oil on Wood: Oil on water Dispersed oil in water:	Y N N Y N	Y N N Y N	N N N Y Y	N N N Y Y	N N N Y Y					1.98		
6/11/2019	2:24 - 4:24	31.7 - 28.3	39	751	Crude	Oil on Steel: Oil on Oil on Wood: Oil on water Dispersed oil in water:	Y N Y Y N	Y N Y Y N	N N Y Y Y	N N Y Y Y	N N N Y Y					1.57		
6/12/2019	12:49 - 2:50	6.0 - 11.8	31	875	Crude	Oil on Steel: Oil on Oil on Wood: Oil on water Dispersed oil in water:	N N N Y N	N N N Y N	N N N Y N	N N N Y N	N N N Y N					1.02		

Application Criteria:		Straight		Salinity		Visual Test ID		Petroleum		Observation					Conc.
Date	Time	Temp						1 min	5 min	15 min	30 min	45 min	1 hr		
6/11/2019	11:32 - 1:32	24.1 - 23.2	37	CAM 2	Diesel			Oil on Steel:	Y	N	N	N	N	N	0.3
								Oil on Concrete:	N	N	N	N	N	N	
								Oil on Wood:	N	N	N	N	N	N	
								Oil on water surface:	Y	Y	Y	Y	Y	Y	
6/11/2019	2:24 - 4:24	30.8 - 28.2	39	CAM3	Diesel			Dispersed oil in water:	Y	Y	Y	Y	Y	Y	0.73
								Oil on Steel:	N	N	N	N	N	N	
								Oil on Concrete:	N	N	N	N	N	N	
								Oil on Wood:	Y	Y	Y	N	N	N	
6/12/2019	12:49 - 2:50	5.5 - 11.2	29	CAM 4	Diesel			Oil on water surface:	Y	Y	Y	Y	Y	Y	0.28
								Dispersed oil in water:	N	N	N	N	N	N	
								Oil on Steel:	N	N	N	N	N	N	
								Oil on Concrete:	N	N	N	N	N	N	

Application Criteria:		Straight		Apply through brush application and allow a minimum of 1 hour retention time.									
Date	Time	Temp	Salinity	Visual Test ID	Petroleum	Observation					Conc.		
						1 min	5 min	15 min	30 min	45 min	1 hr		
6/27/2019	12:40-2:44	10.1-13.2	31	vid 6	6-oil	Oil on Steel:	Y	Y	Y	Y	Y	Y	
						Oil on Concrete:	Y	Y	Y	Y	Y	Y	
						Oil on Wood:	N	N	N	N	N	0.65	
						Oil on water surface:	Y	Y	Y	Y	Y		
						Dispersed oil in water:	Y	Y	Y	Y	Y		
Date	Time	Temp	Salinity	Visual Test ID	Petroleum	Observation					Conc.		
7/2/2001	1:42 - 3:43	22.1 - 21.8	38	2251	6-oil	Oil on Steel:	Y	Y	Y	Y	Y	Y	
						Oil on Concrete:	Y	Y	Y	Y	Y	Y	
						Oil on Wood:	N	N	N	N	N	1.95	
						Oil on water surface:	Y	Y	Y	Y	Y		
						Dispersed oil in water:	N	N	N	N	N		
Date	Time	Temp	Salinity	Visual Test ID	Petroleum	Observation					Conc.		
7/16/19	4:20 - 6:20	31.9 - 28.5	35	1511	6-oil	Oil on Steel:	N	N	N	N	N	N	
						Oil on Concrete:	N	N	N	N	N	N	
						Oil on Wood:	N	N	N	N	N	1.07	
						Oil on water surface:	Y	Y	Y	Y	Y		
						Dispersed oil in water:	Y	Y	N	N	N		

Application Criteria:		Straight		Apply through brush application and allow a minimum of 1 hour retention time.									
Date	Time	Temp	Salinity	Visual Test ID	Petroleum	Observation					Conc.		
						1 min	5 min	15 min	30 min	45 min	1 hr		
7/25/19	2:57-4:56	20.8-21.1	34	806	Asphalt	Oil on Steel:	Y	Y	Y	Y	Y	Y	
						Oil on Concrete:	Y	Y	Y	Y	Y	Y	
						Oil on Wood:	Y	Y	Y	Y	Y	Y	
	2:58 - 4:58	30.3 - 26.5	35	VID 7	Asphalt	Oil on water surface:	N	N	N	N	N	0.85	
						Dispersed oil in water:	N	N	N	N	N		
Date	Time	Temp	Salinity	Visual Test ID	Petroleum	Observation					Conc.		
						1 min	5 min	15 min	30 min	45 min	1 hr		
7/25/19	2:58 - 4:58	30.3 - 26.5	35	2295	Asphalt	Oil on Steel:	Y	Y	Y	Y	Y	Y	
						Oil on Concrete:	Y	Y	Y	Y	Y	Y	
						Oil on Wood:	Y	Y	Y	Y	Y	Y	
	8/9/19	10:50 - 12:50	9.4 - 13.0	35		Oil on water surface:	Y	Y	Y	Y	Y	Y	
						Dispersed oil in water:	N	N	N	N	N	1.88	

SW-20 Pinkwater (aka Biosolve)

BioSolve Company  
Mr. James Edgerly

Mrs. James Dugerry  
329 Massachusetts Avenue

MESSAGES IN THE

Lexington, MA 02420

Phano: 781 182 7900

FLUORINE. / 81 = 48 Z = / 300

Fax: 781-482-7909  
Web site: [biocolve.com](http://biocolve.com)

Application Criteria:		12% or 3:25		Apply solution by spray, followed by coarse stream of water.							
Date	Time	Temp (°C)	Salinity (ppt)	Visual Test ID	Petroleum	Observation					Conc. (ppm)
11/6/18/	2:00 - 4:00	22.2 - 22.0	37	0	Crude	Oil on Steel:	Y	N	N	N	N
						Oil on	Y	Y	Y	Y	N
						Oil on Wood:	Y	Y	Y	Y	Y
						Oil on water	Y	Y	Y	Y	N
						Dispersed oil in water:	N	N	Y	Y	1.52
6/25/2019	10:59 - 11:59	10.1 - 12.1	33	1263	Crude	Oil on Steel:	N	N	N	N	N
						Oil on	N	N	N	N	N
						Oil on Wood:	N	N	N	N	N
						Oil on water	Y	Y	Y	Y	1.65
						Dispersed oil in water:	Y	Y	Y	Y	
7/12/19	10:54 - 11:56	31.8 - 28.3	33	835	Crude	Oil on Steel:	N	N	N	N	N
						Oil on	N	N	N	N	N
						Oil on Wood:	N	N	N	N	N
						Oil on water	Y	Y	Y	Y	1.4
						Dispersed oil in water:	Y	Y	Y	Y	

Application Criteria:		12% or 3:25		Apply solution by spray, followed by coarse stream of water.																																																							
Date	Time	Temp	Salinity	Visual Test ID	Petroleum																																																						
11/15/2018	7:07 - 8:07	22.9 - 21.9	37	682	Diesel																																																						
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Dispersed oil in water:	Y	Y	Y	Y	Y	Y																																																					

Application Criteria:		12% or 3:25		Apply solution by spray, followed by coarse stream of water.							
Date	Time	Temp	Salinity	Visual Test ID	Petroleum	Observation					Conc.
						1 min	5 min	15 min	30 min	45 min	1 hr
5/21/2019	1:53 - 2:54	22.6 - 21.3	36	3455	6-oil	Oil on Steel: Oil on Concrete: Oil on Wood: Oil on water surface: Dispersed oil in water:	Y N N Y Y	Y N N Y Y	Y N N Y Y	Y N N Y Y	N N N N 1.57
Date	Time	Temp	Salinity	Visual Test ID	Petroleum	Observation					Conc.
						1 min	5 min	15 min	30 min	45 min	1 hr
6/24/2019	4:11 - 5:11	30.3 - 28.5	38	VID 8	6-oil	Oil on Steel: Oil on Concrete: Oil on Wood: Oil on water surface: Dispersed oil in water:	Y N N Y Y	Y N N Y Y	Y N N Y Y	Y N N Y Y	N N N N 0.88
Date	Time	Temp	Salinity	Visual Test ID	Petroleum	Observation					Conc.
						1 min	5 min	15 min	30 min	45 min	1 hr
7/17/19	1:04 - 2:04	9.5 - 12.4	32	VID 8	6-oil	Oil on Steel: Oil on Concrete: Oil on Wood: Oil on water surface: Dispersed oil in water:	N N N Y Y	N N N Y Y	N N N Y Y	N N N Y Y	N N N N 1.8

Application Criteria:		12% or 3:25		Apply solution by spray, followed by course stream of water.									
Date	Time	Temp	Salinity	Visual Test ID	Petroleum	Observation					Conc.		
						Oil on Steel:	1 min	5 min	15 min	30 min	45 min	1 hr	
7/24/19 3:47 - 4:47	32.1 - 28.5	36	vid 4	Asphalt	Oil on Concrete:	Y	Y	Y	Y	Y	Y	Y	
					Oil on Wood:	Y	Y	Y	Y	Y	Y	Y	
					Oil on water surface:	N	N	N	N	N	N	2.97	
					Dispersed oil in water:	Y	Y	Y	Y	Y	Y		
Date	Time	Temp	Salinity	Visual Test ID	Petroleum	Observation					Conc.		
7/31/19 2:50-3:52	22.8-23.1	37	1463	Asphalt	Oil on Steel:	Y	Y	Y	Y	Y	Y	Y	
					Oil on Concrete:	Y	Y	Y	Y	Y	Y	Y	
					Oil on Wood:	Y	Y	Y	Y	Y	Y	Y	
					Oil on water surface:	N	N	N	N	N	N	0.65	
8/8/19 11:23 - 12:24	7.5 - 10.5	35	2082	Asphalt	Dispersed oil in water:	N	N	N	N	N	N	N	
					Oil on Steel:	Y	Y	Y	Y	Y	Y	Y	
					Oil on Concrete:	Y	Y	Y	Y	Y	Y	Y	
					Oil on Wood:	Y	Y	Y	Y	Y	Y	Y	
Date	Time	Temp	Salinity	Visual Test ID	Petroleum	Observation					Conc.		



Application Criteria:		1:10		Apply solution to surface via brush or through pressure 100 PSI or more							
Date	Time	Temp	Salinity	Visual Test ID	Petroleum	Observation					Conc.
					Oil on Steel:	1 min	5 min	15 min	30 min	45 min	1 hr
11/27/2018	12:24 / 1:24	20.9 - 20.4	39	745	Diesel	N	N	Y	Y	Y	Y
					Oil on Concrete:	N	N	Y	Y	Y	Y
					Oil on Wood:	N	N	N	N	N	N
					Oil on water surface:	Y	Y	Y	Y	Y	Y
					Dispersed oil in water:	N	N	N	N	N	N
Date	Time	Temp	Salinity	Visual Test ID	Petroleum	Observation					Conc.
					Oil on Steel:	1 min	5 min	15 min	30 min	45 min	1 hr
6/5/2019	1:33 - 2:33	32.2 - 30.1	36	CAM 27	Diesel	N	N	N	N	N	N
					Oil on Concrete:	N	N	N	N	N	N
					Oil on Wood:	N	N	N	N	N	N
					Oil on water surface:	Y	Y	Y	Y	Y	Y
					Dispersed oil in water:	Y	Y	Y	Y	Y	Y
Date	Time	Temp	Salinity	Visual Test ID	Petroleum	Observation					Conc.
					Oil on Steel:	1 min	5 min	15 min	30 min	45 min	1 hr
6/5/2019	10:38 - 11:38	8.9 - 12.1	30	CAM 25	Diesel	N	N	N	N	N	N
					Oil on Concrete:	N	N	N	N	N	N
					Oil on Wood:	N	N	N	N	N	N
					Oil on water surface:	Y	Y	Y	Y	Y	Y
					Dispersed oil in water:	Y	Y	Y	Y	Y	Y

Application Criteria:		1:10		Apply solution to surface via brush or through pressure 100 PSI or more								
Date	Time	Temp	Salinity	Visual Test ID	Petroleum	Observation					Conc.	
					Oil on Steel:	1 min	5 min	15 min	30 min	45 min	1 hr	
5/20/2019	10:27 - 11:27	23.1 - 22.4	38	3327	6-oil	Oil on Concrete:	Y	Y	Y	Y	Y	Y
					Oil on Wood:	Y	Y	Y	Y	Y	Y	1.13
					Oil on water surface:	Y	Y	Y	Y	Y	Y	
					Dispersed oil in water:	Y	Y	Y	Y	Y	Y	
Date	Time	Temp	Salinity	Visual Test ID	Petroleum	Observation					Conc.	
5/21/2019	11:59 - 12:59	29.4 - 26.8	37	3389	6-oil	Oil on Steel:	Y	Y	Y	Y	Y	Y
					Oil on Concrete:	Y	Y	Y	Y	Y	Y	Y
					Oil on Wood:	Y	Y	Y	Y	Y	Y	1.8
					Oil on water surface:	Y	Y	Y	Y	Y	Y	
5/23/2019	11:49 - 12:49	9.5 - 11.5	33	vid 7	6-oil	Dispersed oil in water:	Y	Y	Y	Y	Y	Y
					Oil on Steel:	Y	Y	Y	Y	Y	Y	
					Oil on Concrete:	Y	Y	Y	Y	Y	Y	
					Oil on Wood:	Y	Y	Y	Y	Y	Y	1.23
Date	Time	Temp	Salinity	Visual Test ID	Petroleum	Observation					Conc.	

Application Criteria:		1:10		Salinity		Visual Test ID		Petroleum		Observation					Conc.		
Date	Time	Temp								1 min	5 min	15 min	30 min	45 min	1 hr		
7/22/19 3:20 - 4:21	23.6 - 23.1	37	vid 1	Asphalt						Oil on Steel:	Y	Y	Y	Y	Y	1.73	
										Oil on Concrete:	Y	Y	Y	Y	Y		
										Oil on Wood:	Y	Y	Y	Y	Y		
										Oil on water surface:	Y	Y	Y	Y	Y		
										Dispersed oil in water:	Y	N	N	N	N		
Date	Time	Temp		Salinity		Visual Test ID	Petroleum	Observation					Observation				
7/22/19 5:25 - 6:25	32.8 - 28.3	38	vid 2	Asphalt						Oil on Steel:	Y	Y	Y	Y	Y	0.72	
										Oil on Concrete:	Y	Y	Y	Y	Y		
										Oil on Wood:	Y	Y	Y	Y	Y		
										Oil on water surface:	Y	Y	Y	Y	Y		
										Dispersed oil in water:	Y	Y	Y	Y	Y		
Date	Time	Temp		Salinity		Visual Test ID	Petroleum	Observation					Observation				
8/7/19 11:30 - 12:30	8.1 - 11.8	35	1797	Asphalt						Oil on Steel:	Y	Y	Y	Y	Y	1.77	
										Oil on Concrete:	Y	Y	Y	Y	Y		
										Oil on Wood:	Y	Y	Y	Y	Y		
										Oil on water surface:	Y	Y	Y	Y	Y		
										Dispersed oil in water:	N	N	N	N	N		

## SW-25 SC-1000

Gemtek Products

Mrs. Sarah Kristoff

3808 N. 28<sup>th</sup> Avenue

Phoenix, AZ 85017

Phone: 602-265-8586

Fax: 602-265-7241

Website: [gemtek.com](http://gemtek.com)

Application Criteria:			20% to 100%			Pre-soak surface, apply mixture at 160°F in circular motion working towards center.										Conc. (ppm)	
Date	Time	Temp (°C)	Salinity (ppt)	Visual Test ID	Petroleum	Oil on Steel:	N	N	1 min	5 min	15 min	30 min	45 min	1 hr	Conc.	Conc.	
11/12/2018	3:40 - 5:00	22.0 - 22.1	36	344	Crude	Oil on Oil:	N	N							N	N	
						Oil on Wood:	N	N							N	N	
						Oil on water	Y	Y						Y	Y	0.9	
						Dispersed oil in water:	N	N						Y	Y		
Date	Time	Temp	Salinity	Visual Test ID	Petroleum	Oil on Steel:	N	N	1 min	5 min	15 min	30 min	45 min	1 hr	Conc.	Conc.	
7/3/2019	1:35 - 2:35	9.9 - 12.4	31	2516	Crude	Oil on Oil:	N	N							N	N	
						Oil on Wood:	N	N						N	N	1.1	
						Oil on water	Y	Y						Y	Y		
						Dispersed oil in water:	Y	Y						Y	Y		
Date	Time	Temp	Salinity	Visual Test ID	Petroleum	Oil on Steel:	N	N	1 min	5 min	15 min	30 min	45 min	1 hr	Conc.	Conc.	
7/11/19	3:36 - 4:36	30.8 - 30.8	38	772	Crude	Oil on Oil:	N	N							N	N	
						Oil on Wood:	N	N						N	N	1.23	
						Oil on water	Y	Y						Y	Y		
						Dispersed oil in water:	Y	Y						Y	Y		

Application Criteria:		20% to 100%		Pre-soak surface, apply mixture at 160°F in circular motion working towards center.							
Date	Time	Temp	Salinity	Visual Test ID	Petroleum	Observation					Conc.
						1 min	5 min	15 min	30 min	45 min	1 hr
11/28/2018	3:51 - 4:51	21.3 - 20.9	37	894	Diesel	Oil on Steel:	Y	Y	Y	N	N
						Oil on Concrete:	Y	Y	Y	N	N
						Oil on Wood:	Y	Y	Y	Y	Y
						Oil on water surface:	Y	Y	Y	Y	Y
7/3/2019	1:35 - 2:35	9.5 - 12.0	31	VID 5	Diesel	Dispersed oil in water:	Y	Y	Y	Y	Y
						Oil on Steel:	N	N	N	N	N
						Oil on Concrete:	N	N	N	N	N
						Oil on Wood:	N	N	N	N	N
7/11/19	3:36 - 4:36	30.8 - 30.8	36	VID 5	Diesel	Oil on water surface:	Y	Y	Y	Y	Y
						Dispersed oil in water:	Y	Y	Y	Y	Y
						Oil on Steel:	N	N	N	N	N
						Oil on Concrete:	N	N	N	N	N
7/11/19	3:36 - 4:36	30.8 - 30.8	36	VID 5	Diesel	Oil on Wood:	N	N	N	N	N
						Oil on water surface:	Y	Y	Y	Y	Y
						Dispersed oil in water:	Y	Y	Y	Y	Y



Application Criteria:		20% to 100%		Pre-soak surface, apply mixture at 160°F in circular motion working towards center.		Observation							Conc.
Date	Time	Temp	Salinity	Visual Test ID	Petroleum	1 min	5 min	15 min	30 min	45 min	1 hr		
7/23/19	9:22 - 10:22	22.6 - 22.4	35	vid 3	Asphalt	Oil on Steel:	Y	Y	Y	Y	Y	Y	1.23
						Oil on Concrete:	Y	Y	Y	Y	Y	Y	
						Oil on Wood:	Y	Y	Y	Y	Y	Y	
						Oil on water surface:	Y	Y	Y	Y	Y	Y	
7/23/19	11:06 - 12:06	32.6 - 28.8	35	vid 4	Asphalt	Dispersed oil in water:	Y	Y	Y	Y	Y	Y	3.29
						Oil on Steel:	Y	Y	Y	Y	Y	Y	
						Oil on Concrete:	Y	Y	Y	Y	Y	Y	
						Oil on Wood:	Y	Y	Y	Y	Y	Y	
8/8/19	3:22 - 4:35	10.4 - 13.4	33	2217	Asphalt	Oil on water surface:	Y	Y	Y	Y	Y	Y	1.7
						Dispersed oil in water:	Y	Y	Y	Y	Y	Y	
						Oil on Steel:	Y	Y	Y	Y	Y	Y	
						Oil on Concrete:	Y	Y	Y	Y	Y	Y	

**SW-26 Gold Crew SW**  
 Gold Crew Products & Services L.L.C.  
 Mr. Jim Figueira  
 P.O. Box 12032  
 Orange, CA 92859  
 Phone: 714-288-8781  
 Fax: 714-288-8730  
 Website: goldcrew.net

Application Criteria:		1% to 10%		Pre-soak surface, apply mixture at 160°F in circular motion working towards center.		Observation						Conc. (ppm)
Date	Time	Temp (°C)	Salinity (ppt)	Visual Test ID	Petroleum	1 min	5 min	15 min	30 min	45 min	1 hr	
10/15/2018	3:20	23.4 - 23.0	36	216	Crude	Oil on Steel: Y	N	N	N	N	N	
						Oil on Oil on	N	N	N	N	N	
						Oil on Wood: Oil on water	N	N	N	N	N	2.0ppm
						Dispersed oil in water:	Y	Y	Y	Y	Y	
Date	Time	Temp	Salinity	Visual Test ID	Petroleum	1 min	5 min	15 min	30 min	45 min	1 hr	Conc.
6/24/2019	12:27 - 1:27	32.2 - 30.1	39	1073	Crude	Oil on Steel: Y	N	N	N	N	N	
						Oil on Oil on	N	N	N	N	N	
						Oil on Wood: Oil on water	Y	N	N	N	N	1.8
						Dispersed oil in water:	N	N	Y	Y	Y	
Date	Time	Temp	Salinity	Visual Test ID	Petroleum	1 min	5 min	15 min	30 min	45 min	1 hr	Conc.
6/26/2019	1:43 - 2:43	7.9 - 10.9	33	1564	Crude	Oil on Steel: Y	N	N	N	N	N	
						Oil on Oil on	N	N	N	N	N	
						Oil on Wood: Oil on water	N	N	N	N	N	0.88
						Dispersed oil in water:	Y	Y	Y	Y	Y	

Application Criteria:		1% to 10%		Pre-soak surface, apply mixture at 160°F in circular motion working towards center.							
Date	Time	Temp	Salinity	Visual Test ID	Petroleum	Observation					Conc.
						1 min	5 min	15 min	30 min	45 min	1 hr
2/20/2018	11:54 - 12:57	21.1 - 20.7	32	1279	Diesel	Oil on Steel: Oil on Concrete: Oil on Wood: Oil on water surface: Dispersed oil in water:	N Y N Y Y	N N N Y Y	N N N Y Y	N N N N N	N N N N 2.09
Date	Time	Temp	Salinity	Visual Test ID	Petroleum	Observation					Conc.
						1 min	5 min	15 min	30 min	45 min	1 hr
6/24/2019	12:27 - 1:27	31.8 - 29.9	39	vid 6	Diesel	Oil on Steel: Oil on Concrete: Oil on Wood: Oil on water surface: Dispersed oil in water:	Y Y Y N N	N N N N N	N N N N N	N N N N N	N N N N 0.42
Date	Time	Temp	Salinity	Visual Test ID	Petroleum	Observation					Conc.
						1 min	5 min	15 min	30 min	45 min	1 hr
6/26/2019	1:43 - 2:43	8.1 - 10.7	32	vid 3	Diesel	Oil on Steel: Oil on Concrete: Oil on Wood: Oil on water surface: Dispersed oil in water:	N N N Y Y	N N N Y Y	N N N Y Y	N N N N N	N N N N 1.83



Application Criteria:		1% to 10%		Pre-soak surface, apply mixture at 160°F in circular motion working towards center.							
Date	Time	Temp	Salinity	Visual Test ID	Petroleum	Observation				Conc.	
7/23/19	9:19 - 10:19	23.1 - 23.2	36	191	Asphalt	Oil on Steel:	Y	Y	15 min	30 min	45 min
						Oil on Concrete:	Y	Y	Y	Y	Y
						Oil on Wood:	Y	Y	Y	Y	Y
						Oil on water surface:	Y	Y	Y	Y	Y
						Dispersed oil in water:	Y	Y	Y	Y	Y
7/23/19	12:38 - 1:38	30.7 - 28.3	37	301	Asphalt	Oil on Steel:	Y	Y	15 min	30 min	45 min
						Oil on Concrete:	Y	Y	Y	Y	Y
						Oil on Wood:	Y	Y	Y	Y	Y
						Oil on water surface:	Y	Y	Y	Y	Y
						Dispersed oil in water:	Y	Y	Y	Y	Y
8/7/19	1:33 - 2:33	10.7 - 12.4	33	1861	Asphalt	Oil on Steel:	Y	Y	15 min	30 min	45 min
						Oil on Concrete:	Y	Y	Y	Y	Y
						Oil on Wood:	Y	Y	Y	Y	Y
						Oil on water surface:	Y	Y	Y	Y	Y
						Dispersed oil in water:	N	N	N	N	N

SW-30 F-500  
 Hazard Control Technologies, Inc.  
 Mr. Michael Greiner  
 150 Walter Way  
 Fayetteville, GA 30214  
 Phone: 770-719-5112  
 Fax: 770-719-5117  
 Website: hct-world.com

Application Criteria:		2.5% to 3%		Apply at 70-200°F at 2500 - 3600 PSI or standard fire equipment delivery 80 - 150 PSI. Steam Cleaning is not suggested.									
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Date	Time	Temp (°C)	Salinity (ppt)	Visual Test ID	Petroleum	Observation					Conc. (ppm)	
						1 min	5 min	15 min	30 min	45 min		
10/22/2018	4:28 / 5:28	22.7 - 22.2	36	camcorder	Crude	Oil on Steel:	Y	Y	Y	Y	Y	0.93ppm
						Oil on Oil:	N	N	Y	Y	Y	
						Oil on Wood:	Y	Y	Y	Y	N	
						Oil on water	Y	Y	Y	Y	Y	
						Dispersed oil in water:	Y	Y	Y	Y	N	
Date	Time	Temp	Salinity	Visual Test ID	Petroleum	Observation					Conc.	
6/4/2019	3:44 - 4:44	32.7 - 30.0	38	288	Crude	Oil on Steel:	Y	Y	Y	Y	Y	0.93
						Oil on Oil:	N	N	N	N	N	
						Oil on Wood:	N	N	N	N	N	
						Oil on water	Y	Y	Y	Y	Y	
						Dispersed oil in water:	Y	Y	Y	Y	Y	
Date	Time	Temp	Salinity	Visual Test ID	Petroleum	Observation					Conc.	
6/27/19	10:41 - 11:41	9.1 - 11.7	31	1693	Crude	Oil on Steel:	N	N	N	N	N	1.8
						Oil on Oil:	N	N	N	N	N	
						Oil on Wood:	N	N	N	N	N	
						Oil on water	Y	Y	Y	Y	Y	
						Dispersed oil in water:	N	N	N	N	N	

Application Criteria: 2.5% to 3%  
Apply at 70-200°F at 2500 - 3600 PSI or standard fire equipment delivery 80 - 150  
PSI. Steam Cleaning is not suggested.

Date	Time	Temp	Salinity	Visual Test ID	Petroleum	Observation						Conc.
						1 min	5 min	15 min	30 min	45 min	1 hr	
1/30/2019	11:22 / 12:22	20.8 - 20.2	40	1050	Diesel	Oil on Steel:	N	N	N	N	N	N
						Oil on Concrete:	Y	Y	Y	Y	N	
						Oil on Wood:	N	N	N	N	N	
						Oil on water surface:	Y	Y	Y	Y	Y	0.44ppm
						Dispersed oil in water:	Y	Y	Y	Y	Y	
Date	Time	Temp	Salinity	Visual Test ID	Petroleum	Observation						Conc.
6/4/2019	3:44 - 4:44	31.8 - 29.8	37	CAM 5	Diesel	Oil on Steel:	N	N	N	N	N	N
						Oil on Concrete:	N	N	N	N	N	
						Oil on Wood:	N	N	N	N	N	
						Oil on water surface:	Y	Y	Y	Y	Y	1.7
						Dispersed oil in water:	Y	Y	Y	Y	Y	
Date	Time	Temp	Salinity	Visual Test ID	Petroleum	Observation						Conc.
6/27/19	10:41 - 11:41	9.3 - 11.8	31	VID 5	Diesel	Oil on Steel:	N	N	N	N	N	N
						Oil on Concrete:	N	N	N	N	N	
						Oil on Wood:	N	N	N	N	N	
						Oil on water surface:	Y	Y	Y	Y	Y	0.28
						Dispersed oil in water:	N	N	N	N	N	



Application Criteria: 2.5% to 3% Salinity

Apply at 70-200°F at 2500- 3600 PSI or standard fire equipment delivery 80 - 150 PSI. Steam Cleaning is not suggested.

Date	Time	Temp	Salinity	Visual Test ID	Petroleum	Observation					Conc.
						1 min	5 min	15 min	30 min	45 min	
7/24/19	11:38 - 12:38	23.0 - 22.5	36	441	Asphalt	Oil on Steel:	Y	Y	Y	Y	Y
						Oil on Concrete:	Y	Y	Y	Y	Y
						Oil on Wood:	Y	Y	Y	Y	Y
						Oil on water surface:	Y	Y	Y	Y	Y
						Dispersed oil in water:	Y	Y	N	N	N
Date	Time	Temp	Salinity	Visual Test ID	Petroleum	Observation					Conc.
7/24/19	11:39 - 12:39	30.5 - 27.6	34	VID 2	Asphalt	Oil on Steel:	Y	Y	Y	Y	Y
						Oil on Concrete:	Y	Y	Y	Y	Y
						Oil on Wood:	Y	Y	Y	Y	Y
						Oil on water surface:	Y	Y	Y	Y	Y
						Dispersed oil in water:	Y	Y	N	N	N
Date	Time	Temp	Salinity	Visual Test ID	Petroleum	Observation					Conc.
8/7/19	11:31 - 12:31	9.9 - 13.3	35	vid 11	Asphalt	Oil on Steel:	Y	Y	Y	Y	Y
						Oil on Concrete:	Y	Y	Y	Y	Y
						Oil on Wood:	Y	Y	Y	Y	Y
						Oil on water surface:	Y	Y	Y	Y	Y
						Dispersed oil in water:	Y	Y	N	N	N

SW-32 BG-Clean 401  
 Amiran BioChemicals LLC  
 Mr. Jason Wilde  
 7221 South 10<sup>th</sup> Street  
 Oak Creek, WI 53154  
 Phone: 414-571-6230  
 Fax: 414-571-6231  
 Website: biochemicals.amiran-technologies.com

Application Criteria:		1:5 to 1:100		Salinity (ppt)		Visual Test ID		Petroleum		Observation						Conc. (ppm)
Date	Time	Temp (°C)						Oil on Steel:	1 min	5 min	15 min	30 min	45 min	1 hr		
11/6/2018	4:10 - 5:25	22.4 - 22.6	36	62	Crude			Oil on Steel:	N	N	N	N	N	N	N	1.06
								Oil on Concrete:	N	N	N	N	N	N	N	
								Oil on Wood:	N	N	N	N	N	N	N	
								Oil on water surface:	Y	Y	Y	Y	Y	Y	Y	
								Dispersed oil in water:	Y	Y	Y	Y	Y	Y	N	
Date	Time	Temp	Salinity	Visual Test ID	Petroleum	Observation						Conc..				1.88
7/1/2019	10:50-12:20	9.7-13.5	32	1856	Crude			Oil on Steel:	N	N	N	N	N	N	N	1.88
								Oil on Concrete:	N	N	N	N	N	N	N	
								Oil on Wood:	N	N	N	N	N	N	N	
								Oil on water surface:	Y	Y	Y	Y	Y	Y	Y	
								Dispersed oil in water:	Y	Y	Y	Y	Y	Y	Y	
Date	Time	Temp	Salinity	Visual Test ID	Petroleum	Observation						Conc..				1.68
7/8/19	10:50 - 12:22	30.5 - 27.2	36	0	Crude			Oil on Steel:	N	N	N	N	N	N	N	1.68
								Oil on Concrete:	N	N	N	N	N	N	N	
								Oil on Wood:	N	N	N	N	N	N	N	
								Oil on water surface:	Y	Y	Y	Y	Y	Y	Y	
								Dispersed oil in water:	Y	Y	Y	Y	Y	Y	Y	

Application Criteria:		1:5 to 1:100		Begin with dilution (2-10%) at low pressure (20gpm) at 100-180°F, allow 15 to 30 minute soak. Second application with dilution (1-5%) at high pressure (70gpm).									
Date	Time	Temp	Salinity	Visual Test ID	Petroleum	Observation					Conc.		
						Oil on Steel:	1 min	5 min	15 min	30 min	45 min	1 hr	
2/1/2018	11:38 - 1:09	21.8 - 20.4	40	1126	Diesel	Oil on Concrete:	Y	Y	N	N	N	N	
						Oil on Wood:	Y	Y	N	N	N	N	
						Oil on water surface:	Y	Y	Y	Y	Y	Y	
						Dispersed oil in water:	Y	Y	Y	Y	Y	Y	
Date	Time	Temp	Salinity	Visual Test ID	Petroleum	Observation					Conc.		
						Oil on Steel:	N	N	N	N	N	N	
7/1/2019	10:50-12:20	9.6-12.8	33	vid 8	Diesel	Oil on Concrete:	N	N	N	N	N	N	
						Oil on Wood:	N	N	N	N	N	N	
						Oil on water surface:	Y	Y	Y	Y	Y	Y	
						Dispersed oil in water:	Y	Y	Y	Y	Y	Y	
Date	Time	Temp	Salinity	Visual Test ID	Petroleum	Observation					Conc.		
						Oil on Steel:	N	N	N	N	N	N	
7/8/19	10:50 - 12:22	30.1 - 27.7	36	vid 7	Diesel	Oil on Concrete:	N	N	N	N	N	N	
						Oil on Wood:	N	N	N	N	N	N	
						Oil on water surface:	Y	Y	Y	Y	Y	Y	
						Dispersed oil in water:	Y	Y	Y	Y	Y	Y	

Application Criteria:		1:5 to 1:100		Observation								Conc.	
Date	Time	Temp	Salinity	Visual Test ID	Petroleum	Oil on Steel:	1 min	5 min	15 min	30 min	45 min	1 hr	
7/1/19 2:44 - 4:20	23.1 - 21.4	37	2027	6-oil	Oil on Wood: Oil on water surface: Dispersed oil in water:	Oil on Steel:	Y	Y	Y	Y	Y	Y	1.88
						Oil on Concrete:	Y	Y	Y	Y	Y	Y	
						Oil on Wood:	N	N	N	N	N	N	
						Oil on water surface:	Y	Y	Y	Y	Y	Y	
						Dispersed oil in water:	Y	Y	Y	Y	Y	Y	
Date	Time	Temp	Salinity	Visual Test ID	Petroleum	Observation							
7/12/19 3:01 - 4:32	32.4 - 28.6	36	980	6-oil	Oil on Steel: Oil on Concrete: Oil on Wood: Oil on water surface: Dispersed oil in water:	Oil on Steel:	N	N	N	N	N	N	0.78
						Oil on Concrete:	N	N	N	N	N	N	
						Oil on Wood:	N	N	N	N	N	N	
						Oil on water surface:	Y	Y	Y	Y	Y	Y	
						Dispersed oil in water:	Y	Y	N	N	N	N	
Date	Time	Temp	Salinity	Visual Test ID	Petroleum	Observation							
7/17/19 5:43 - 6:45	10.5 - 14.5	35	VID 9	6-oil	Oil on Steel: Oil on Concrete: Oil on Wood: Oil on water surface: Dispersed oil in water:	Oil on Steel:	Y	Y	Y	Y	Y	Y	1.4
						Oil on Concrete:	N	N	N	N	N	N	
						Oil on Wood:	N	N	N	N	N	N	
						Oil on water surface:	Y	Y	Y	Y	Y	Y	
						Dispersed oil in water:	Y	Y	Y	Y	Y	Y	

Application Criteria:		1:5 to 1:100		Observation								Conc.
Date	Time	Temp	Salinity	Visual Test ID	Petroleum	1 min	5 min	15 min	30 min	45 min	1 hr	
7/25/19	10:18 - 11:48	23.1 - 22.3	37	651	Asphalt	Oil on Steel:	Y	Y	Y	Y	Y	Y
						Oil on Concrete:	Y	Y	Y	Y	Y	Y
						Oil on Wood:	Y	Y	Y	Y	Y	Y
						Oil on water surface:	Y	Y	Y	Y	Y	Y
						Dispersed oil in water:	Y	Y	Y	Y	Y	Y
						Oil on Steel:	Y	Y	Y	Y	Y	Y
7/25/19	10:18 - 11:48	30.8 - 26.7	37	vid 5	Asphalt	Oil on Concrete:	Y	Y	Y	Y	Y	Y
						Oil on Wood:	Y	Y	Y	Y	Y	Y
						Oil on water surface:	Y	Y	Y	Y	Y	Y
						Dispersed oil in water:	Y	Y	Y	Y	Y	Y
						Oil on Steel:	Y	Y	Y	Y	Y	Y
						Oil on Concrete:	Y	Y	Y	Y	Y	Y
8/8/19	11:26 - 12:45	11.1 - 14.2	35	VID 3	Asphalt	Oil on Wood:	Y	Y	Y	Y	Y	Y
						Oil on water surface:	N	N	N	N	N	N
						Dispersed oil in water:	N	N	N	N	N	N
						Oil on Steel:	Y	Y	Y	Y	Y	Y
						Oil on Concrete:	Y	Y	Y	Y	Y	Y
						Oil on Water:	N	N	N	N	N	N

SW-38 Nokomis 5-W  
 Mar-Len Supply Inc.  
 Mr. Frank Winter  
 23159 Kidder Street  
 Hayward, CA 94545  
 Phone: 510-782-3555  
 Fax: 510-782-2032  
 Website: marlensupply.com

Application Criteria:			1:10 to 1:600			Observation										Conc. (ppm)
Date	Time	Temp (°C)	Salinity (ppt)	Visual Test ID	Petroleum	1 min	5 min	15 min	30 min	45 min	1 hr					
11/8/2018	3:40 - 5:20	22.5 - 22.4	36	140	Crude	Oil on Steel: Oil on Concrete: Oil on Wood: Oil on water surface: Dispersed oil in water:	Y Y Y Y Y	N N N Y Y	N N N Y Y	N N N Y Y	N N N Y Y	1.18				
7/1/2019	12:53 - 2:10	10.1 - 13.1	36	1947	Crude	Oil on Steel: Oil on Concrete: Oil on Wood: Oil on water surface: Dispersed oil in water:	N N N Y Y	N N N Y Y	N N N Y Y	N N N Y Y	N N N Y Y					
7/10/19	2:32 - 3:42	31.7 - 28.1	36	501	Crude	Oil on Steel: Oil on Concrete: Oil on Wood: Oil on water surface: Dispersed oil in water:	N N N Y Y	N N N Y Y	N N N Y Y	N N N Y Y	N N N Y Y					
						Oil on Steel: Oil on Concrete: Oil on Wood: Oil on water surface: Dispersed oil in water:	N N N Y Y	N N N Y Y	N N N Y Y	N N N Y Y	N N N Y Y					
						Oil on Steel: Oil on Concrete: Oil on Wood: Oil on water surface: Dispersed oil in water:	N N N Y Y	N N N Y Y	N N N Y Y	N N N Y Y	N N N Y Y					
						Oil on Steel: Oil on Concrete: Oil on Wood: Oil on water surface: Dispersed oil in water:	N N N Y Y	N N N Y Y	N N N Y Y	N N N Y Y	N N N Y Y					
						Oil on Steel: Oil on Concrete: Oil on Wood: Oil on water surface: Dispersed oil in water:	N N N Y Y	N N N Y Y	N N N Y Y	N N N Y Y	N N N Y Y					
						Oil on Steel: Oil on Concrete: Oil on Wood: Oil on water surface: Dispersed oil in water:	N N N Y Y	N N N Y Y	N N N Y Y	N N N Y Y	N N N Y Y					
						Oil on Steel: Oil on Concrete: Oil on Wood: Oil on water surface: Dispersed oil in water:	N N N Y Y	N N N Y Y	N N N Y Y	N N N Y Y	N N N Y Y					
						Oil on Steel: Oil on Concrete: Oil on Wood: Oil on water surface: Dispersed oil in water:	N N N Y Y	N N N Y Y	N N N Y Y	N N N Y Y	N N N Y Y					

Application Criteria:		1:10 to 1:600		Apply by brush or spray and agitate surface. Spray at ambient to 125°F and allow 1-10 minute soak, then rinse clean.								
Date	Time	Temp	Salinity	Visual Test ID	Petroleum	Observation					Conc.	
						Oil on Steel:	1 min	5 min	15 min	30 min	45 min	1 hr
						Oil on Concrete:	N	N	N	N	N	N
						Oil on Wood:	N	N	N	N	N	N
						Oil on water surface:	Y	Y	Y	Y	Y	2.87
						Dispersed oil in water:	Y	Y	Y	Y	Y	
2/27/2019	1:59 - 3:12	22.8 - 22.3	32	1405	Diesel	Oil on Steel:	N	N	N	N	N	N
						Oil on Concrete:	N	N	N	N	N	N
						Oil on Wood:	N	N	N	N	N	N
						Oil on water surface:	Y	Y	Y	Y	Y	Y
						Dispersed oil in water:	Y	Y	Y	Y	Y	Y
Date	Time	Temp	Salinity	Visual Test ID	Petroleum	Observation					Conc.	
						Oil on Steel:	1 min	5 min	15 min	30 min	45 min	1 hr
						Oil on Concrete:	N	N	N	N	N	N
						Oil on Wood:	N	N	N	N	N	N
						Oil on water surface:	Y	Y	Y	Y	Y	2.04
						Dispersed oil in water:	Y	Y	Y	Y	Y	
7/1/2019	12:53 - 2:10	10.1 - 13.3	36	VID9	Diesel	Oil on Steel:	N	N	N	N	N	N
						Oil on Concrete:	N	N	N	N	N	N
						Oil on Wood:	N	N	N	N	N	N
						Oil on water surface:	Y	Y	Y	Y	Y	Y
						Dispersed oil in water:	Y	Y	Y	Y	Y	Y
Date	Time	Temp	Salinity	Visual Test ID	Petroleum	Observation					Conc.	
						Oil on Steel:	1 min	5 min	15 min	30 min	45 min	1 hr
						Oil on Concrete:	N	N	N	N	N	N
						Oil on Wood:	N	N	N	N	N	N
						Oil on water surface:	Y	Y	Y	Y	Y	Y
						Dispersed oil in water:	Y	Y	Y	N	N	0.28
7/10/19	2:32 - 3:42	31.3 - 27.5	37	VID 1	Diesel	Oil on Steel:	N	N	N	N	N	N
						Oil on Concrete:	N	N	N	N	N	N
						Oil on Wood:	N	N	N	N	N	N
						Oil on water surface:	Y	Y	Y	Y	Y	Y
						Dispersed oil in water:	Y	Y	Y	N	N	N

Application Criteria:		1:10 to 1:600		Observation										Conc.
Date	Time	Temp	Salinity	Visual Test ID	Petroleum		1 min	5 min	15 min	30 min	45 min	1 hr		
7/1/19 3:06 - 4:20	22.5 - 21.6	36	VTD 10	6-oil	Oil on Steel: Oil on Concrete: Oil on Wood: Oil on water surface: Dispersed oil in water:	Oil on Steel:	Y	Y	Y	Y	Y	Y		0.93
						Oil on Concrete:	N	N	N	N	N	N		
						Oil on Wood:	N	N	N	N	N	N		
						Oil on water surface:	Y	Y	Y	Y	Y	Y		
						Dispersed oil in water:	Y	Y	Y	Y	Y	Y		
Date	Time	Temp	Salinity	Visual Test ID	Petroleum		1 min	5 min	15 min	30 min	45 min	1 hr		Conc.
7/12/19 3:22 - 4:52	29.5 - 27.3	37	VTD 8	6-oil	Oil on Steel: Oil on Concrete: Oil on Wood: Oil on water surface: Dispersed oil in water:	Oil on Steel:	Y	Y	Y	Y	Y	Y		0.6
						Oil on Concrete:	N	N	N	N	N	N		
						Oil on Wood:	N	N	N	N	N	N		
						Oil on water surface:	Y	Y	Y	Y	Y	Y		
						Dispersed oil in water:	Y	Y	Y	Y	Y	Y		
Date	Time	Temp	Salinity	Visual Test ID	Petroleum		1 min	5 min	15 min	30 min	45 min	1 hr		Conc.
7/17/19 3:13 - 4:23	10.5 - 16.3	34	1764	6-oil	Oil on Steel: Oil on Concrete: Oil on Wood: Oil on water surface: Dispersed oil in water:	Oil on Steel:	Y	Y	Y	Y	Y	Y		1.43
						Oil on Concrete:	N	N	N	N	N	N		
						Oil on Wood:	N	N	N	N	N	N		
						Oil on water surface:	Y	Y	Y	Y	Y	Y		
						Dispersed oil in water:	Y	Y	Y	Y	Y	Y		

Apply by brush or spray and agitate surface. Spray at ambient to 125°F and allow 1-10 minute soak, then rinse clean.

Application Criteria:		1: 10 to 1:600		Observation											Conc.
Date	Time	Temp	Salinity	Visual Test ID	Petroleum	1 min	5 min	15 min	30 min	45 min	1 hr				
8/8/19	1:21 - 2:31	11.0 - 13.8	36	2144	Asphalt	Oil on Steel:	Y	Y	Y	Y	Y	Y	Y	Y	1.73
						Oil on Concrete:	Y	Y	Y	Y	Y	Y	Y	Y	
						Oil on Wood:	Y	Y	Y	Y	Y	Y	Y	Y	
						Oil on water surface:	Y	Y	Y	Y	Y	Y	Y	Y	
						Dispersed oil in water:	Y	Y	Y	Y	Y	Y	Y	Y	
7/30/19	10:15-11:30	23.2-22.4	35	1067	Asphalt	Oil on Steel:	Y	Y	Y	Y	Y	Y	Y	Y	1.7
						Oil on Concrete:	Y	Y	Y	Y	Y	Y	Y	Y	
						Oil on Wood:	Y	Y	Y	Y	Y	Y	Y	Y	
						Oil on water surface:	N	N	N	N	N	N	N	N	
						Dispersed oil in water:	N	N	N	N	N	N	N	N	
7/30/19	10:16 - 11:31	30.1 - 26.3	35	V/ID 10	Asphalt	Oil on Steel:	Y	Y	Y	Y	Y	Y	Y	Y	0.97
						Oil on Concrete:	Y	Y	Y	Y	Y	Y	Y	Y	
						Oil on Wood:	Y	Y	Y	Y	Y	Y	Y	Y	
						Oil on water surface:	N	N	N	N	N	N	N	N	
						Dispersed oil in water:	N	N	N	N	N	N	N	N	

SW-49 De-Solve-It Clean Away APC Super Concentrate  
 Orange-Sol Blending and Packaging  
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 Gilbert, AZ 85233  
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 Fax: 480-497-0444  
 Website: orange-sol.com

**Application Criteria:**

1:1 to 1:4

Apply straight or diluted mixture to contaminated surface, use pressure or steam cleaning equipment at high heat.

Application Criteria:				1:1 to 1:4		Observation										Conc. (ppm)
Date	Time	Temp (°C)	Salinity (ppt)	Visual Test ID	Petroleum	Oil on Steel:	1 min	5 min	15 min	30 min	45 min	1 hr				
10/30/2018	4:00 - 5:20	22.3 - 21.8	36	483	Crude	Oil on Concrete:	N	N	N	Y	N	N				
						Oil on Wood:	Y	Y	N	N	N	N				1.23
						Oil on water surface:	Y	Y	Y	Y	Y	Y				
						Dispersed oil in water:	N	N	N	N	N	N				
Date	Time	Temp	Salinity	Visual Test ID	Petroleum	Oil on Steel:	1 min	5 min	15 min	30 min	45 min	1 hr				Conc.
6/25/2019	3:30 - 4:30	33 - 29.5	36	1480	Crude	Oil on Concrete:	N	N	N	N	N	N				
						Oil on Wood:	N	N	N	N	N	N				1.9
						Oil on water surface:	Y	Y	Y	Y	Y	Y				
						Dispersed oil in water:	Y	Y	Y	Y	Y	Y				
Date	Time	Temp	Salinity	Visual Test ID	Petroleum	Oil on Steel:	1 min	5 min	15 min	30 min	45 min	1 hr				Conc.
7/2/19	12:08 - 1:10	7.8 - 9.5	34	2187	Crude	Oil on Concrete:	N	N	N	N	N	N				
						Oil on Wood:	N	N	N	N	N	N				1.65
						Oil on water surface:	Y	Y	Y	Y	Y	Y				
						Dispersed oil in water:	Y	Y	Y	Y	Y	Y				

Application Criteria:		1:1 to 1:4		Apply straight or diluted mixture to contaminated surface, use pressure or steam cleaning equipment at high heat.								
Date	Time	Temp	Salinity	Visual Test ID	Petroleum	Observation					Conc.	
						1 min	5 min	15 min	30 min	45 min	1 hr	
Date	Time	Temp	Salinity	Visual Test ID	Petroleum	Oil on Steel:	N	N	N	N	N	Conc.
2/27/2019	11:35 - 12:39	22.5 - 21.9	39	1342	Diesel	Oil on Concrete:	Y	N	N	N	N	1.22
						Oil on Wood:	N	N	N	N	N	
						Oil on water surface:	Y	Y	Y	Y	Y	
						Dispersed oil in water:	Y	Y	Y	Y	Y	
Date	Time	Temp	Salinity	Visual Test ID	Petroleum	Observation					Conc.	
						1 min	5 min	15 min	30 min	45 min	1 hr	
6/25/2019	3:30 - 4:30	30.1 - 28.1	35	vid 4	Diesel	Oil on Steel:	N	N	N	N	N	N
						Oil on Concrete:	N	N	N	N	N	N
						Oil on Wood:	N	N	N	N	N	1.61
						Oil on water surface:	Y	Y	Y	Y	Y	
						Dispersed oil in water:	Y	Y	Y	Y	Y	
Date	Time	Temp	Salinity	Visual Test ID	Petroleum	Observation					Conc.	
						1 min	5 min	15 min	30 min	45 min	1 hr	
7/2/19	12:08 - 1:10	8.5 - 10.4	31	VID 4	Diesel	Oil on Steel:	N	N	N	N	N	N
						Oil on Concrete:	N	N	N	N	N	N
						Oil on Wood:	N	N	N	N	N	0.42
						Oil on water surface:	Y	Y	Y	Y	Y	
						Dispersed oil in water:	Y	Y	Y	Y	Y	



Application Criteria:		1:1 to 1:4		Apply straight or diluted mixture to contaminated surface, use pressure or steam cleaning equipment at high heat.							
Date	Time	Temp	Salinity	Visual Test ID	Petroleum	Observation					Conc.
7/22/19	1:48 - 2:48	23.4 - 22.5	36	0	Asphalt	Oil on Steel:	Y	Y	15 min	30 min	45 min
						Oil on Concrete:	Y	Y	Y	Y	Y
						Oil on Wood:	Y	Y	Y	Y	Y
						Oil on water surface:	Y	Y	Y	Y	Y
8/7/19	3:13 - 4:15	10.7 - 13.3	36	1924	Asphalt	Dispersed oil in water:	Y	Y	Y	Y	Y
						Oil on Steel:	Y	Y	Y	Y	Y
						Oil on Concrete:	Y	Y	Y	Y	Y
						Oil on Wood:	Y	Y	Y	Y	Y
7/31/19	11:08 - 12:08	30.4 - 28.5	26	VID 2	Asphalt	Oil on water surface:	N	N	N	N	N
						Dispersed oil in water:	N	N	N	N	N
						Oil on Steel:	Y	Y	Y	Y	Y
						Oil on Concrete:	Y	Y	Y	Y	Y
7/31/19	11:08 - 12:08	30.4 - 28.5	26	VID 2	Asphalt	Oil on Wood:	Y	Y	Y	Y	Y
						Oil on water surface:	N	N	N	N	N
						Dispersed oil in water:	N	N	N	N	N

W-51 Dynamic Green  
Wechem Inc.

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5734 Susitna Drive  
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Fax: 504-733-2218  
Website: [wechem.com](http://wechem.com)

Application Criteria:		1:1		Apply solution by spray, brush, or mop. Allow time for penetration, and rinse thoroughly with water.									
Date	Time	Temp (°C)	Salinity (ppt)	Visual Test ID	Petroleum	Observation					Conc. (ppm)		
10/30/2018	2:15 - 4:00	22.1 - 22.3	37	420	Crude	Oil on Steel:	Y	Y	N	N	N		
						Oil on Concrete:	Y	Y	N	N	N		
						Oil on Wood:	Y	Y	N	N	N		
						Oil on water surface:	Y	Y	Y	Y	Y		
						Dispersed oil in water:	Y	Y	N	Y	N		
											1.05ppm		
7/3/2019	9:52 - 11:07	7.5 - 11.5	32	3274	Crude	Oil on Steel:	N	N	N	N	N		
						Oil on Concrete:	N	N	N	N	N		
						Oil on Wood:	N	N	N	N	N		
						Oil on water surface:	Y	Y	Y	Y	Y		
						Dispersed oil in water:	Y	Y	Y	Y	Y		
											1.93		
7/11/19	11:59 - 12:04	30.6 - 29.2	36	641	Crude	Oil on Steel:	N	N	N	N	N		
						Oil on Concrete:	N	N	N	N	N		
						Oil on Wood:	N	N	N	N	N		
						Oil on water surface:	Y	Y	Y	Y	Y		
						Dispersed oil in water:	Y	Y	Y	Y	Y		
											1.93		

Application Criteria:		1:1		Observation										Conc.
Date	Time	Temp	Salinity	Visual Test ID	Petroleum	1 min	5 min	15 min	30 min	45 min	1 hr			
7/12/2019	12:42 - 2:00	25.4 - 23.1	38	899	Diesel	Oil on Steel:	N	N	N	N	N	N	N	0.22
						Oil on Concrete:	N	N	N	N	N	N	N	
						Oil on Wood:	N	N	N	N	N	N	N	
						Oil on water surface:	Y	Y	Y	Y	Y	Y	Y	
7/3/2019	9:52 - 11:07	7.4 - 12.3	33	vid 3	Diesel	Dispersed oil in water:	Y	Y	Y	Y	Y	Y	Y	0.53
						Oil on Steel:	N	N	N	N	N	N	N	
						Oil on Concrete:	N	N	N	N	N	N	N	
						Oil on Wood:	N	N	N	N	N	N	N	
7/11/19	11:59 - 12:04	30.3	35	VID 3	Diesel	Oil on water surface:	Y	Y	Y	Y	Y	Y	Y	0.34
						Dispersed oil in water:	Y	Y	Y	Y	Y	Y	Y	
						Oil on Steel:	N	N	N	N	N	N	N	
						Oil on Concrete:	N	N	N	N	N	N	N	

Application Criteria:		1:1		Observation								Conc.
Date	Time	Temp	Salinity	Visual Test ID	Petroleum	1 min	5 min	15 min	30 min	45 min	1 hr	
6/6/2019 2:35 - 3:55	22.0 - 23.0	35	535 "ish"	6-oil	Oil on Steel:	N	N	N	N	N	N	1.32
					Oil on Concrete:	Y	Y	Y	Y	Y	Y	
					Oil on Wood:	N	N	N	N	N	N	
					Oil on water surface:	Y	Y	Y	Y	Y	Y	
					Dispersed oil in water:	Y	Y	Y	Y	Y	Y	
Date	Time	Temp	Salinity	Visual Test ID	Petroleum	1 min	5 min	15 min	30 min	45 min	1 hr	Conc.
7/12/19 12:42 - 2:00	30.6 - 28.1	38	VID 7	6-oil	Oil on Steel:	N	N	N	N	N	N	0.72
					Oil on Concrete:	N	N	N	N	N	N	
					Oil on Wood:	N	N	N	N	N	N	
					Oil on water surface:	Y	Y	Y	Y	Y	Y	
					Dispersed oil in water:	Y	Y	Y	Y	Y	Y	
Date	Time	Temp	Salinity	Visual Test ID	Petroleum	1 min	5 min	15 min	30 min	45 min	1 hr	Conc.
7/17/19 12:59 - 2:04	10.0 - 13.0	31	1697	6-oil	Oil on Steel:	N	N	N	N	N	N	1.05
					Oil on Concrete:	N	N	N	N	N	N	
					Oil on Wood:	N	N	N	N	N	N	
					Oil on water surface:	Y	Y	Y	Y	Y	Y	
					Dispersed oil in water:	Y	Y	Y	Y	Y	Y	

Application Criteria:		1:1		Observation										Conc.	
Date	Time	Temp	Salinity	Visual Test ID	Petroleum	1 min	5 min	15 min	30 min	45 min	1 hr				
7/23/19	2:05 - 3:22	22.7 - 22.9	35	362	Asphalt	Oil on Steel:	Y	Y	Y	Y	Y	Y	Y	1.82	
						Oil on Concrete:	Y	Y	Y	Y	Y	Y	Y		
						Oil on Wood:	Y	Y	Y	Y	Y	Y	Y		
						Oil on water surface:	Y	Y	Y	Y	Y	Y	Y		
						Dispersed oil in water:	Y	Y	Y	Y	Y	Y	Y		
Date	Time	Temp	Salinity	Visual Test ID	Petroleum	Observation									
7/23/19	2:05 - 3:22	30.0 - 28.3	35	vid 6	Asphalt	Oil on Steel:	Y	Y	Y	Y	Y	Y	Y	1.23	
						Oil on Concrete:	Y	Y	Y	Y	Y	Y	Y		
						Oil on Wood:	Y	Y	Y	Y	Y	Y	Y		
						Oil on water surface:	Y	Y	Y	Y	Y	Y	Y		
						Dispersed oil in water:	Y	Y	Y	Y	Y	Y	Y		
Date	Time	Temp	Salinity	Visual Test ID	Petroleum	Observation									
8/1/19	11:03 - 12:05	9.9 - 12.2	35	VID 6	Asphalt	Oil on Steel:	Y	Y	Y	Y	Y	Y	Y	1.3	
						Oil on Concrete:	Y	Y	Y	Y	Y	Y	Y		
						Oil on Wood:	Y	Y	Y	Y	Y	Y	Y		
						Oil on water surface:	N	N	N	N	N	N	N		
						Dispersed oil in water:	N	N	N	N	N	N	N		

SW-53 Naturama G3 A-5  
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Application Criteria:		1:6 for light oiling 25% for heavy/thicker oiling		May be applied by drum pump, pressurization, brush, or wash tank. For light application, apply diluted mixture and allow 2-3 minute soak., for heavy/thicker application, apply diluted mixture and allow 10-15 minutes soak. Rinse with pressure or steam at ambient temperatures.							
Date	Time	Temp (°C)	Salinity (ppt)	Visual Test ID	Petroleum	Observation					
11/10/2018	3:30 - 4:45	22.4 - 22	36	214	Crude	Oil on Steel:	Y	Y	Y	Y	Y
						Oil on Concrete:	Y	Y	N	N	N
						Oil on Wood:	Y	Y	N	N	N
						Oil on water surface:	Y	Y	Y	Y	Y
						Dispersed oil in water:	Y	Y	Y	Y	Y

Application Criteria:		1:6 for light oiling 25% for heavy/thicker oiling		May be applied by drum pump, pressurization, brush, or wash tank. For light application, apply diluted mixture and allow 2-3 minute soak., for heavy/thicker application, apply diluted mixture and allow 10-15 minutes soak. Rinse with pressure or steam at ambient temperatures.							
Date	Time	Temp	Salinity	Visual Test ID	Petroleum	Observation					
7/3/2019	11:55 - 1:00	9.6 - 14.3	35	2451	Crude	Oil on Steel:	N	N	N	N	N
						Oil on Concrete:	N	N	N	N	N
						Oil on Wood:	N	N	N	N	N
						Oil on water surface:	Y	Y	Y	Y	Y
						Dispersed oil in water:	Y	Y	Y	Y	Y

Application Criteria:		1:6 for light oiling 25% for heavy/thicker oiling		May be applied by drum pump, pressurization, brush, or wash tank. For light application, apply diluted mixture and allow 2-3 minute soak., for heavy/thicker application, apply diluted mixture and allow 10-15 minutes soak. Rinse with pressure or steam at ambient temperatures.							
Date	Time	Temp	Salinity	Visual Test ID	Petroleum	Observation					
7/8/19	1:23 - 2:33	30.6 - 28.5	37	94	Crude	Oil on Steel:	N	N	N	N	N
						Oil on Concrete:	N	N	N	N	N
						Oil on Wood:	N	N	N	N	N
						Oil on water surface:	Y	Y	Y	Y	Y
						Dispersed oil in water:	Y	Y	Y	Y	Y

Application Criteria:		1:6 for light oiling 25% for heavy/thicker oiling		May be applied by drum pump, pressurization, brush, or wash tank. For light application, apply diluted mixture and allow 2-3 minute soak., for heavy/thicker apply diluted mixture and allow 10-15 minutes soak. Rinse with pressure or steam at ambient temperatures.									
Date	Time	Temp	Salinity	Visual Test ID	Petroleum	Observation					Conc.		
						Oil on Steel:	1 min	5 min	15 min	30 min	45 min	1 hr	
						Oil on Concrete:	N	N	N	N	N	N	
						Oil on Wood:	N	N	N	N	N	N	1.96
3/1/2019	10:27 - 11:32	22.4 - 21.7	31	1477	Diesel	Oil on water surface:	Y	Y	Y	Y	Y	Y	
						Dispersed oil in water:	N	N	N	N	N	N	
Date	Time	Temp	Salinity	Visual Test ID	Petroleum	Observation					Conc.		
						Oil on Steel:	N	N	N	N	N	N	
						Oil on Concrete:	N	N	N	N	N	N	
						Oil on Wood:	N	N	N	N	N	N	2.39
7/3/2019	11:55 - 1:00	9.1 - 13.5	33	VD 4	Diesel	Oil on water surface:	Y	Y	Y	Y	Y	Y	
						Dispersed oil in water:	Y	Y	Y	Y	Y	Y	
Date	Time	Temp	Salinity	Visual Test ID	Petroleum	Observation					Conc.		
						Oil on Steel:	N	N	N	N	N	N	
						Oil on Concrete:	N	N	N	N	N	N	
						Oil on Wood:	N	N	N	N	N	N	0.2
7/8/19	1:23 - 2:33	30.3 - 28.0	38	vid 8	Diesel	Oil on water surface:	Y	Y	Y	Y	Y	Y	
						Dispersed oil in water:	Y	Y	Y	Y	Y	Y	

Application Criteria:	1:6 for light oiling 25% for heavy/thicker oiling						May be applied by drum pump, pressurization, brush, or wash tank. For light application, apply diluted mixture and allow 2-3 minute soak, for heavy/thicker application diluted mixture and allow 10-15 minutes soak. Rinse with pressure or steam at ambient temperatures.	
	Date	Time	Temp	Salinity	Visual Test ID	Petroleum	Observation	Conc.
6/6/2019	2:32 - 3:35	21.2 - 22.8	36	CAM 1	6-oil	Oil on Steel:	Y	1 hr
						Oil on Oil:	Y	Y
						Concrete:	Y	Y
						Oil on Wood:	N	Y
						Oil on water surface:	Y	Y
						Dispersed oil in water:	Y	Y
7/15/19	11:18 - 12:28	9.5 - 14.1	32	1135	6-oil	Oil on Steel:	N	1 hr
						Oil on Oil:	Y	Y
						Concrete:	Y	Y
						Oil on Wood:	N	Y
						Oil on water surface:	Y	Y
						Dispersed oil in water:	Y	Y
7/15/19	11:18 - 12:38	30.6 - 28.6	36	VID 9	6-oil	Oil on Steel:	N	1 hr
						Oil on Oil:	Y	Y
						Concrete:	Y	Y
						Oil on Wood:	N	Y
						Oil on water surface:	Y	Y
						Dispersed oil in water:	Y	Y

Application Criteria:		1:6 for light oiling 25% for heavy/thicker oiling		May be applied by drum pump, pressurization, brush, or wash tank. For light application, apply diluted mixture and allow 2-3 minute soak., for heavy/thicker apply diluted mixture and allow 10-15 minutes soak. Rinse with pressure or steam at ambient temperatures.							
Date	Time	Temp	Salinity	Visual Test ID	Petroleum	Observation					Conc.
8/8/19	1:28 - 2:38	10.0 - 14.3	36	VID 4	Asphalt	Oil on Steel:	Y	Y	Y	Y	Y
						Oil on Concrete:	Y	Y	Y	Y	Y
						Oil on Wood:	Y	Y	Y	Y	Y
						Oil on water surface:	Y	Y	Y	Y	Y
						Dispersed oil in water:	Y	Y	Y	Y	Y
7/29/19	2:04-3:14	22.4-22.0	36	925	Asphalt	Oil on Steel:	Y	Y	Y	Y	Y
						Oil on Concrete:	Y	Y	Y	Y	Y
						Oil on Wood:	Y	Y	Y	Y	Y
						Oil on water surface:	N	N	N	N	N
						Dispersed oil in water:	N	N	N	N	N
7/29/19	2:05 - 3:15	30.7 - 27.5	36	VID 8	Asphalt	Oil on Steel:	Y	Y	Y	Y	Y
						Oil on Concrete:	Y	Y	Y	Y	Y
						Oil on Wood:	Y	Y	Y	Y	Y
						Oil on water surface:	N	N	N	N	N
						Dispersed oil in water:	N	N	N	N	N



Application Criteria:		1%		Apply at ambient temperatures through physical, hydro-blasting/pressure washing, application.		Observation							Conc.
Date	Time	Temp	Salinity	Visual Test ID	Petroleum	1 min	5 min	15 min	30 min	45 min	1 hr		
5/28/2019	11:50 - 12:50	23.3 - 22.5	38	3712	Diesel	Oil on Steel:	Y	N	N	N	N	N	2.13
						Oil on Concrete:	Y	N	N	N	N	N	
						Oil on Wood:	Y	N	N	N	N	N	
						Oil on water surface:	Y	Y	Y	Y	Y	Y	
7/9/19	11:25 - 12:28	5.6 - 11.4	30	VID 10	Diesel	Dispersed oil in water:	Y	Y	Y	Y	Y	Y	1.61
						Oil on Steel:	N	N	N	N	N	N	
						Oil on Concrete:	N	N	N	N	N	N	
						Oil on Wood:	N	N	N	N	N	N	
7/11/19	1:53 - 2:53	30.1 - 28.2	34	VID 4	Diesel	Oil on water surface:	Y	Y	Y	Y	Y	Y	1.51
						Dispersed oil in water:	Y	Y	Y	Y	Y	Y	
						Oil on Steel:	N	N	N	N	N	N	
						Oil on Concrete:	N	N	N	N	N	N	

Application Criteria:		1%		Apply at ambient temperatures through physical, hydro-blasting/pressure washing, application.									
Date	Time	Temp	Salinity	Visual Test ID	Petroleum	Observation					Conc.		
						1 min	5 min	15 min	30 min	45 min	1 hr		
5/28/2019	11:50 - 12:50	23.7 - 22.1	36	CAM 17	6-oil	Oil on Steel:	Y	Y	Y	Y	Y	1.65	
						Oil on Concrete:	Y	Y	Y	Y	Y		
						Oil on Wood:	Y	Y	Y	Y	Y		
						Oil on water surface:	Y	Y	Y	Y	Y		
						Dispersed oil in water:	Y	Y	Y	Y	Y		
Date	Time	Temp	Salinity	Visual Test ID	Petroleum	Observation					Conc.		
						1 min	5 min	15 min	30 min	45 min	1 hr		
7/16/19	12:15 - 1:15	32.5 - 30.2	36	1332	6-oil	Oil on Steel:	N	N	N	N	N	1.93	
						Oil on Concrete:	Y	Y	Y	Y	Y		
						Oil on Wood:	Y	Y	Y	Y	Y		
						Oil on water surface:	Y	Y	Y	Y	Y		
						Dispersed oil in water:	Y	Y	Y	Y	Y		
Date	Time	Temp	Salinity	Visual Test ID	Petroleum	Observation					Conc.		
						1 min	5 min	15 min	30 min	45 min	1 hr		
7/17/19	3:22 - 4:23	11.0 - 16.8	36	VID 8	6-oil	Oil on Steel:	Y	Y	Y	Y	Y	1.25	
						Oil on Concrete:	N	N	N	N	N		
						Oil on Wood:	N	N	N	N	N		
						Oil on water surface:	Y	Y	Y	Y	Y		
						Dispersed oil in water:	Y	Y	Y	Y	Y		

Application Criteria:		1%		Apply at ambient temperatures through physical, hydro-blasting/ pressure washing, application.		Observation							Conc.
Date	Time	Temp	Salinity	Visual Test ID	Petroleum	1 min	5 min	15 min	30 min	45 min	1 hr		
7/23/19	12:37 - 1:37	30.1 - 27.2	38	vid 5	Asphalt	Oil on Steel:	Y	Y	Y	Y	Y	Y	1.35
					Oil on Concrete:	Y	Y	Y	Y	Y	Y	Y	
					Oil on Wood:	Y	Y	Y	Y	Y	Y	Y	
					Oil on water surface:	Y	Y	Y	Y	Y	Y	Y	
					Dispersed oil in water:	Y	Y	Y	Y	Y	Y	Y	
Date	Time	Temp	Salinity	Visual Test ID	Petroleum	1 min	5 min	15 min	30 min	45 min	1 hr		Conc.
8/1/19	1:09 - 2:11	8.7 - 13.1	35	VID 9	Asphalt	Oil on Steel:	Y	Y	Y	Y	Y	Y	0.78
					Oil on Concrete:	Y	Y	Y	Y	Y	Y	Y	
					Oil on Wood:	Y	Y	Y	Y	Y	Y	Y	
					Oil on water surface:	Y	Y	Y	Y	Y	Y	Y	
					Dispersed oil in water:	N	N	N	N	N	N	N	
Date	Time	Temp	Salinity	Visual Test ID	Petroleum	1 min	5 min	15 min	30 min	45 min	1 hr		Conc.
7/31/19	4:44-5:44	23.5-23.1	35	1528	Asphalt	Oil on Steel:	Y	Y	Y	Y	Y	Y	0.8
					Oil on Concrete:	Y	Y	Y	Y	Y	Y	Y	
					Oil on Wood:	Y	Y	Y	Y	Y	Y	Y	
					Oil on water surface:	N	N	N	N	N	N	N	
					Dispersed oil in water:	N	N	N	N	N	N	N	

SW-63 Green Technologies Solutions-Oil Recovery (GTS-OR)  
 International Technologies and Services Inc.

Mrs. Pilar Ortega  
 302 W. 5<sup>th</sup> Street, Suite 100 B  
 San Pedro, CA 90731  
 Phone: 310-791-4487  
 Fax: 877-744-9975  
 Website: itsenvironmental.com

Application Criteria:	1:10 for heavy weathered on rock 1:1 fr heavy weathered on sand 1:20 for light/ moderated oiling	May be applied by spraying, dispensing, pouring, or manual/automatic scrubbing machine. Preferred application is to apply at mid-pressure (100 PSI) or direct application and allow 30 minute soaking time.
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Date	Time	Temp (°C)	Salinity (ppt)	Visual Test ID	Petroleum	Observation						Conc. (ppm)	
						Oil on Steel:	1 min	5 min	15 min	30 min	45 min	1 hr	
10/7/2018	3:15 - 4:45	23.8 - 22.0	37	902	Crude	Oil on Concrete:	Y	Y	Y	Y	Y	Y	1.13
						Oil on Wood:	Y	Y	Y	Y	Y	Y	
						Oil on water surface:	Y	Y	Y	Y	Y	Y	
						Dispersed oil in water:	N	N	N	Y	Y	Y	
Date	Time	Temp (°C)	Salinity (ppt)	Visual Test ID	Petroleum	Observation						Conc. (ppm)	
						Oil on Steel:	N	N	N	N	N	N	1.1
						Oil on Concrete:	N	N	N	N	N	N	
						Oil on Wood:	Y	Y	Y	Y	N	N	
3/22/2019	2:30 - 4:05	29.6 - 27.2	37	2085	Crude	Oil on water surface:	Y	Y	Y	Y	Y	Y	1.1
						Dispersed oil in water:	N	N	N	N	N	N	
Date	Time	Temp	Salinity	Visual Test ID	Petroleum	Observation						Conc.	
						Oil on Steel:	Y	Y	Y	Y	Y	Y	1.07
						Oil on Concrete:	Y	Y	Y	Y	Y	Y	
						Oil on Wood:	N	N	Y	N	N	N	
4/10/2019	12:19 - 1:52	11.3 - 13.0	32	CAM 1	Crude	Oil on water surface:	Y	Y	Y	Y	Y	Y	1.07
						Dispersed oil in water:	Y	Y	N	N	N	N	

Application Criteria:										Observation									
Date	Time	Temp	Salinity	Visual Test ID	Petroleum	Oil on Steel:	1 min	5 min	15 min	30 min	45 min	1 hr	Conc.						
1/9/2019	2:11 - 3:41	21.2 - 20.7	36	957	Diesel	Oil on Concrete:	Y	Y	Y	N	N	N	0.75						
						Oil on Wood:	Y	Y	Y	Y	Y	Y							
						Oil on water surface:	Y	Y	Y	Y	Y	Y							
						Dispersed oil in water:	Y	Y	Y	N	N	N							
Date	Time	Temp	Salinity	Visual Test ID	Petroleum	Oil on Steel:	1 min	5 min	15 min	30 min	45 min	1 hr	Conc.						
1/4/2019	2:45 - 4:15	30.1 - 29.8	40	1050	Diesel	Oil on Concrete:	Y	Y	Y	Y	Y	N	0.44						
						Oil on Wood:	N	N	N	N	N	N							
						Oil on water surface:	Y	Y	Y	Y	Y	Y							
						Dispersed oil in water:	Y	Y	Y	Y	Y	Y							
Date	Time	Temp	Salinity	Visual Test ID	Petroleum	Oil on Steel:	1 min	5 min	15 min	30 min	45 min	1 hr	Conc.						
4/10/2019	12:19 - 1:52	10.8 - 13.0	32	2592	Diesel	Oil on Concrete:	Y	Y	Y	Y	Y	Y	1.73						
						Oil on Wood:	N	N	Y	Y	Y	Y							
						Oil on water surface:	Y	Y	Y	Y	Y	Y							
						Dispersed oil in water:	N	N	N	N	N	N							

Application Criteria:	1:10 for heavy weathered on rock 1:1 for heavy weathered on sand 1:20 for light/moderated oiling								May be applied by spraying, dispensing, pouring, or manual/automatic scrubbing machine. Preferred application is to apply at mid-pressure (100 PSI) or direct application and allow 30 minute soaking time.				
	Date	Time	Temp	Salinity	Visual Test ID	Petroleum	Observation				Conc.		
							Oil on Steel:	1 min	5 min	15 min	30 min	45 min	1 hr
4/3/2019	11:27 - 12:59	22.2 - 21.4	40	2274	6-oil		Oil on Concrete:	Y	Y	Y	Y	Y	Y
							Oil on Wood:	Y	Y	Y	Y	Y	Y
							Oil on water surface:	Y	Y	Y	Y	Y	Y
							Dispersed oil in water:	Y	Y	Y	Y	Y	Y
Date	Time	Temp	Salinity	Visual Test ID	Petroleum		Observation				Conc.		
							Oil on Steel:	1 min	5 min	15 min	30 min	45 min	1 hr
4/29/2019	6:04 - 7:37	32.7 - 30.6	36	2180	6-oil		Oil on Concrete:	Y	Y	Y	Y	Y	Y
							Oil on Wood:	Y	Y	Y	Y	Y	Y
							Oil on water surface:	Y	Y	Y	Y	Y	Y
							Dispersed oil in water:	Y	Y	Y	Y	Y	Y
Date	Time	Temp	Salinity	Visual Test ID	Petroleum		Observation				Conc.		
							Oil on Steel:	1 min	5 min	15 min	30 min	45 min	1 hr
4/5/2019	12:46 - 2:20	11.3 - 13.2	35	2496	6-oil		Oil on Concrete:	Y	Y	Y	Y	Y	Y
							Oil on Wood:	Y	Y	Y	Y	Y	Y
							Oil on water surface:	Y	Y	Y	Y	Y	Y
							Dispersed oil in water:	N	Y	Y	Y	Y	Y

Application Criteria:											
Date	Time	Temp	Salinity	Visual Test ID	Petroleum	Observation					Conc.
7/24/19	1:29 - 2:59	23.4 - 22.5	36	504	Asphalt	Oil on Steel:	Y	Y	15 min	30 min	1 hr
						Oil on Concrete:	Y	Y	Y	Y	Y
						Oil on Wood:	Y	Y	Y	Y	Y
						Oil on water surface:	Y	Y	Y	Y	Y
						Dispersed oil in water:	Y	Y	Y	Y	Y
Date	Time	Temp	Salinity	Visual Test ID	Petroleum	Observation					Conc.
7/24/19	1:29 - 2:59	31.7 - 27.9	36	vid 3	Asphalt	Oil on Steel:	Y	Y	15 min	30 min	1 hr
						Oil on Concrete:	Y	Y	Y	Y	Y
						Oil on Wood:	Y	Y	Y	Y	Y
						Oil on water surface:	Y	Y	Y	Y	Y
						Dispersed oil in water:	Y	Y	Y	Y	Y
Date	Time	Temp	Salinity	Visual Test ID	Petroleum	Observation					Conc.
8/7/19	5:03 - 6:40	10.5 - 13.5	34	VID 2	Asphalt	Oil on Steel:	Y	Y	15 min	30 min	1 hr
						Oil on Concrete:	Y	Y	Y	Y	Y
						Oil on Wood:	Y	Y	Y	Y	Y
						Oil on water surface:	Y	Y	Y	Y	Y
						Dispersed oil in water:	N	N	N	N	N

SW-66 Formula 206-1x Biowash (aka, Castoff)  
 Natural Soap Formulas Inc.  
 Ms. Kaylin D'Aire

3200 S Andrews Avenue, Suite 113  
 Fort Lauderdale, FL 33316

Phone: 888-759-7256  
 Phone: 954-789-5656

Website: naturalsoapformulas.com

Application Criteria:  
 1:5 to 1:200 first application is  
 1:10

May be applied by spraying, pressure washing, mopping, scrubbing, cloth, or sponge. Apply diluted mixture at ambient temperature and allow 5-30 minutes to soak, then rinse. During soak, physical agitation may be required.

Date	Time	Temp (°C)	Salinity (ppt)	Visual Test ID	Petroleum	Observation					Conc. (ppm)
						1 min	5 min	15 min	30 min	45 min	
11/12/2018	5:50 - 7:15	22.4 - 22.0	36	409	Crude	Oil on Steel:	N	N	N	N	N
						Oil on Concrete:	N	N	N	N	N
						Oil on Wood:	N	N	N	N	0.93
						Oil on water surface:	Y	Y	Y	Y	
3/8/2019	1:01 - 2:14	33.2 - 29.7	31	1756	Crude	Dispersed oil in water:	Y	Y	Y	Y	
						Oil on Steel:	N	N	N	N	
						Oil on Concrete:	Y	N	N	N	
						Oil on Wood:	N	N	N	N	1.15
4/12/2019	2:07 - 3:24	9.1 - 12.6	32	CAM 2	Crude	Oil on water surface:	Y	Y	Y	Y	
						Dispersed oil in water:	N	N	N	N	1.5
						Oil on Steel:	N	N	N	N	
						Oil on Concrete:	Y	Y	Y	Y	



Application Criteria:		1:5 to 1:200 first application is 1:10		May be applied by spraying, pressure washing, mopping, scrubbing, cloth, or sponge. Apply diluted mixture at ambient temperatures and allow 5-30 minutes to soak, then rinse. During soak, physical agitation may be required.												
Date	Time	Temp	Salinity	Visual Test ID	Petroleum	Observation					Conc.					
										Oil on Steel:	1 min	5 min	15 min	30 min	45 min	1 hr
4/3/2019	2:14 - 3:47	22.8 - 22.1	35	2367	6-oil	Oil on Concrete:	Y	Y	Y	Y	Y	Y	Y	Y	Y	
						Oil on Wood:	Y	Y	Y	Y	Y	Y	Y	Y	Y	
						Oil on water surface:	Y	Y	Y	Y	Y	Y	Y	Y	Y	
						Dispersed oil in water:	Y	Y	Y	Y	Y	Y	Y	Y	Y	
						Observation					Conc.					
Date	Time	Temp	Salinity	Visual Test ID	Petroleum	Observation					1 min	5 min	15 min	30 min	45 min	1 hr
4/12/2019	11:05 - 12:36	30.9 - 29.1	37	2685	6-oil	Oil on Steel:	Y	Y	Y	Y	Y	Y	Y	Y	Y	
						Oil on Concrete:	Y	Y	Y	Y	Y	Y	Y	Y	Y	
						Oil on Wood:	N	N	N	N	N	N	N	N	N	
						Oil on water surface:	Y	Y	Y	Y	Y	Y	Y	Y	Y	
						Dispersed oil in water:	Y	Y	Y	Y	Y	Y	Y	Y	Y	
Date	Time	Temp	Salinity	Visual Test ID	Petroleum	Observation					Conc.					
4/26/2019	11:57 - 1:23	10.9	34	3108	6-oil	Oil on Steel:	Y	Y	Y	Y	Y	Y	Y	Y		
						Oil on Concrete:	Y	Y	Y	Y	Y	Y	Y	Y		
						Oil on Wood:	Y	Y	Y	Y	Y	Y	Y	Y		
						Oil on water surface:	Y	Y	Y	Y	Y	Y	Y	Y		
						Dispersed oil in water:	Y	Y	Y	Y	Y	Y	Y	Y		

Application Criteria:		1.5 to 1:200 first application is 1:10		May be applied by spraying, pressure washing, mopping, scrubbing, cloth, or sponge. Apply diluted mixture at ambient temperatures and allow 5-30 minutes to soak, then rinse. During soak, physical agitation may be required.								
Date	Time	Temp	Salinity	Visual Test ID	Petroleum	Observation					Conc.	
						Oil on Steel:	1 min	5 min	15 min	30 min	45 min	1 hr
7/30/19	4:24 - 5:54	30.2 - 28.4	37	VID 1	Asphalt	Oil on Concrete:	Y	Y	Y	Y	Y	Y
						Oil on Wood:	Y	Y	Y	Y	Y	Y
						Oil on water surface:	N	N	N	N	N	0.53
						Dispersed oil in water:	N	N	N	N	N	
Date	Time	Temp	Salinity	Visual Test ID	Petroleum	Observation					Conc.	
7-30-19	4:24-5:34	23.7-24.0	37	1238	Asphalt	Oil on Steel:	Y	Y	Y	Y	Y	Y
						Oil on Concrete:	Y	Y	Y	Y	Y	Y
						Oil on Wood:	Y	Y	Y	Y	Y	Y
						Oil on water surface:	N	N	N	N	N	0.6
						Dispersed oil in water:	N	N	N	N	N	
Date	Time	Temp	Salinity	Visual Test ID	Petroleum	Observation					Conc.	
8/8/19	3:19 - 4:35	9.8 - 13.0	37	vid 6	Asphalt	Oil on Steel:	Y	Y	Y	Y	Y	Y
						Oil on Concrete:	Y	Y	Y	Y	Y	Y
						Oil on Wood:	Y	Y	Y	Y	Y	Y
						Oil on water surface:	Y	Y	Y	Y	Y	1.77
						Dispersed oil in water:	Y	Y	N	N	N	

SW-69 Water Works Heavy Duty Degreaser Concentrate  
 Keteca USA Inc.  
 Ms. Kathy Parks  
 4280 W. Opportunity Way  
 Phoenix, AZ 85086  
 Phone: 602-278-7789  
 Website: ketecawaterworks.com

Application Criteria:		1:3 to 1:7		Visual Test ID		Petroleum	Observation						Conc. (ppm)
Date	Time	Temp (°C)	Salinity (ppt)				1 min	5 min	15 min	30 min	45 min	1 hr	
11/1/2018	4:12 - 5:40	22.2 - 21.0	37	607	Crude		Oil on Steel: Oil on Concrete: Oil on Wood: Oil on water surface: Dispersed oil in water:	Y Y Y Y N	N N N Y N	N N N Y N	N N N Y N	Y N N Y N	
							Observation						1.18
Date	Time	Temp	Salinity	Visual Test ID	Petroleum		1 min	5 min	15 min	30 min	45 min	1 hr	Conc.
4/24/2019	12:17 - 1:18	31.8 - 30.4	39	2983	Crude		Oil on Steel: Oil on Concrete: Oil on Wood: Oil on water surface: Dispersed oil in water:	N Y N Y Y	N N N Y N	N N N Y N	N N N Y N	N N N Y N	
							Observation						1.1
Date	Time	Temp	Salinity	Visual Test ID	Petroleum		1 min	5 min	15 min	30 min	45 min	1 hr	Conc.
5/22/2019	12:30 - 1:30	6.8 - 11.0	34	3518	Crude		Oil on Steel: Oil on Concrete: Oil on Wood: Oil on water surface: Dispersed oil in water:	Y N N Y Y	Y N N Y Y	N N N Y Y	N N N Y Y	N N N Y Y	
							Observation						1.5



Application Criteria:				1:3 to 1:7				Visual Test ID				Petroleum				Observation						Conc.
Date	Time	Temp	Salinity	Date	Time	Temp	Salinity	Visual Test ID	Petroleum	Oil on Steel:	1 min	5 min	15 min	30 min	45 min	1 hr						
7/10/2019	11:50 - 12:53	23.5 - 23.4	37	434	6-oil					Oil on Steel:	N	N	N	N	N	N						
										Oil on Concrete:	N	N	N	N	N	N						
										Oil on Wood:	N	N	N	N	N	N						
										Oil on water surface:	Y	Y	Y	Y	Y	Y						
										Dispersed oil in water:	Y	Y	Y	Y	Y	Y						
Date	Time	Temp	Salinity	Date	Time	Temp	Salinity	Visual Test ID	Petroleum	Observation						Observation						Conc.
5/1/2019	10:44 - 11:45	31.2 - 30.8	37	3264	6-oil					Oil on Steel:	Y	Y	Y	Y	Y	Y						
										Oil on Concrete:	Y	Y	Y	Y	Y	Y						
										Oil on Wood:	Y	Y	Y	Y	Y	Y						
										Oil on water surface:	Y	Y	Y	Y	Y	Y						
										Dispersed oil in water:	Y	Y	Y	Y	Y	Y						
Date	Time	Temp	Salinity	Date	Time	Temp	Salinity	Visual Test ID	Petroleum	Observation						Observation						Conc.
5/23/2019	11:49 - 12:49	9.3 - 11.4	33	3581	6-oil					Oil on Steel:	Y	Y	Y	Y	Y	Y						
										Oil on Concrete:	Y	Y	Y	Y	Y	Y						
										Oil on Wood:	Y	Y	Y	Y	Y	Y						
										Oil on water surface:	Y	Y	Y	Y	Y	Y						
										Dispersed oil in water:	Y	Y	Y	Y	Y	Y						

Application Criteria:				1:3 to 1:7		Salinity		Visual Test ID		Petroleum		Observation						Conc.
Date	Time	Temp	Time									1 min	5 min	15 min	30 min	45 min	1 hr	
8/7/19	1:36 - 2:36	13.3 - 14.5	36	vid 1	Asphalt							Oil on Steel:	Y	Y	Y	Y	Y	Y
												Oil on Concrete:	Y	Y	Y	Y	Y	Y
												Oil on Wood:	Y	Y	Y	Y	Y	Y
												Oil on water surface:	Y	Y	Y	Y	Y	Y
												Dispersed oil in water:	N	N	N	N	N	N
												Observation						
7/31/19	12:51 - 1:51	23.3 - 22.2	35	1395	Asphalt							Oil on Steel:	Y	Y	Y	Y	Y	Y
												Oil on Concrete:	Y	Y	Y	Y	Y	Y
												Oil on Wood:	Y	Y	Y	Y	Y	Y
												Oil on water surface:	N	N	N	N	N	N
												Dispersed oil in water:	N	N	N	N	N	N
												Observation						
7/31/19	12:51 - 1:51	30.1 - 26.9	35	VID 3	Asphalt							Oil on Steel:	Y	Y	Y	Y	Y	Y
												Oil on Concrete:	Y	Y	Y	Y	Y	Y
												Oil on Wood:	Y	Y	Y	Y	Y	Y
												Oil on water surface:	N	N	N	N	N	N
												Dispersed oil in water:	N	N	N	N	N	N
												Observation						

M-12 PES-51  
Practical Environmental Solutions.  
Mr. Bill Sims  
P.O. Box 12563  
San Antonio, TX 78212  
Phone: 210-493-7172  
Fax: 210-493-7172  
Website: [pes51.com](http://www.pes51.com)

Application Criteria:				1:10 to 1:25				Apply mixture at ambient temperatures and allow sitting time of 3-5 minutes, scrub if necessary, and rinse area clean.			
Date	Time	Temp (°C)	Salinity (ppt)	Visual Test ID	Petroleum	Observation	Conc. (ppm)				
10/22/2018	4:52 - 5:52	24.9 - 23.3	37	452	Crude	Oil on Steel: Oil on Concrete: Oil on Wood: Oil on water surface: Dispersed oil in water:	Y N Y N N	1 min 5 min 15 min 30 min 45 min 1 hr	N N N N N	N N N N N	
7/2/2019	10:36 - 11:40	8.2 - 11.1	34	2119	Crude	Oil on Steel: Oil on Concrete: Oil on Wood: Oil on water surface: Dispersed oil in water:	N N N Y Y	1 min 5 min 15 min 30 min 45 min 1 hr	N N N N N	N N N N N	
7/11/19	10:02 - 11:07	31.0 - 29.7	36	573	Crude	Oil on Steel: Oil on Concrete: Oil on Wood: Oil on water surface: Dispersed oil in water:	N N N Y Y	1 min 5 min 15 min 30 min 45 min 1 hr	N N N N N	N N N N N	

Application Criteria:				1:10 to 1:25		Apply mixture at ambient temperatures and allow sitting time of 3-5 minutes, scrub if necessary, and rinse area clean.							
Date	Time	Temp	Salinity	Visual Test ID	Petroleum	Observation						Conc.	
						Oil on Steel:	1 min	5 min	15 min	30 min	45 min	1 hr	
5/23/2019	2:05 - 3:10	22.7 - 23.4	36	CAM 9	Diesel	Oil on Concrete:	N	N	N	N	N	N	1.74
						Oil on Wood:	N	N	N	N	N	N	
						Oil on water surface:	Y	Y	Y	Y	Y	Y	
						Dispersed oil in water:	Y	Y	Y	Y	Y	Y	
Date	Time	Temp	Salinity	Visual Test ID	Petroleum	Observation						Conc.	
						Oil on Steel:	N	N	N	N	N	N	
7/2/2019	10:36 - 11:40	9.1 - 11.6	33	vid 4 & vid 3	Diesel	Oil on Concrete:	N	N	N	N	N	N	0.48
						Oil on Wood:	N	N	N	N	N	N	
						Oil on water surface:	Y	Y	Y	Y	Y	Y	
						Dispersed oil in water:	Y	Y	Y	Y	Y	Y	
Date	Time	Temp	Salinity	Visual Test ID	Petroleum	Observation						Conc.	
						Oil on Steel:	N	N	N	N	N	N	
7/11/19	10:02 - 11:07	31.3 - 29.5	36	VID 2	Diesel	Oil on Concrete:	N	N	N	N	N	N	0.2
						Oil on Wood:	N	N	N	N	N	N	
						Oil on water surface:	Y	Y	Y	Y	Y	Y	
						Dispersed oil in water:	Y	Y	Y	Y	Y	Y	

Application Criteria:		1:10 to 1:25		Salinity		Visual Test ID		Petroleum	Observation						Conc.
Date	Time	Temp							1 min	5 min	15 min	30 min	45 min	1 hr	
5/23/2019 2:05 - 3:10	22.3 - 23.0	36	3644	6-oil					Oil on Steel:	Y	Y	Y	N	N	N
									Oil on Concrete:	Y	Y	Y	N	N	N
									Oil on Wood:	N	N	N	N	N	N
									Oil on water surface:	Y	Y	Y	Y	Y	1.3
									Dispersed oil in water:	Y	Y	Y	Y	Y	
Date	Time	Temp		Salinity		Visual Test ID	Petroleum		Observation						Conc.
7/16/19 2:05 - 3:11	30.7 - 301	34	VID 5	6-oil					Oil on Steel:	N	N	N	N	N	N
									Oil on Concrete:	N	N	N	N	N	N
									Oil on Wood:	N	N	N	N	N	1.18
									Oil on water surface:	Y	Y	Y	Y	Y	
									Dispersed oil in water:	Y	Y	Y	Y	Y	
Date	Time	Temp		Salinity		Visual Test ID	Petroleum		Observation						Conc.
7/17/19 5:17 - 6:45	10.0 - 14.1	35	1833	6-oil					Oil on Steel:	N	N	N	N	N	N
									Oil on Concrete:	N	N	N	N	N	N
									Oil on Wood:	N	N	N	N	N	1.35
									Oil on water surface:	Y	Y	Y	Y	Y	
									Dispersed oil in water:	Y	Y	Y	Y	Y	

Apply mixture at ambient temperatures and allow sitting time of 3-5 minutes, scrub if necessary, and rinse area clean.

Application Criteria:		1:10 to 1:25				Observation									
Date	Time	Temp	Salinity	Visual Test ID	Petroleum	Oil on Steel:	1 min	5 min	15 min	30 min	45 min	1 hr	Conc.		
8/1/19	1:06 - 2:11	9.7 - 13.7	35	1666	Asphalt	Oil on Steel:	Y	Y	Y	Y	Y	Y	Y		
						Oil on Concrete:	Y	Y	Y	Y	Y	Y	Y		
						Oil on Wood:	Y	Y	Y	Y	Y	Y	Y		
						Oil on water surface:	Y	Y	Y	Y	Y	Y	Y		
						Dispersed oil in water:	Y	Y	Y	Y	Y	Y	Y		
Date	Time	Temp	Salinity	Visual Test ID	Petroleum	Observation									
7/25/19	12:59-2:00	23.1-22.6	35	743	Asphalt	Oil on Steel:	Y	Y	Y	Y	Y	Y	Y		
						Oil on Concrete:	Y	Y	Y	Y	Y	Y	Y		
						Oil on Wood:	Y	Y	Y	Y	Y	Y	Y		
						Oil on water surface:	Y	Y	Y	Y	Y	Y	Y		
						Dispersed oil in water:	Y	Y	Y	Y	Y	Y	Y		
Date	Time	Temp	Salinity	Visual Test ID	Petroleum	Observation									
7/25/19	12:59 - 2:00	30.6 - 28.3	35	VID 6	Asphalt	Oil on Steel:	Y	Y	Y	Y	Y	Y	Y		
						Oil on Concrete:	Y	Y	Y	Y	Y	Y	Y		
						Oil on Wood:	Y	Y	Y	Y	Y	Y	Y		
						Oil on water surface:	Y	Y	Y	Y	Y	Y	Y		
						Dispersed oil in water:	Y	Y	Y	Y	Y	Y	Y		

- Control Tests

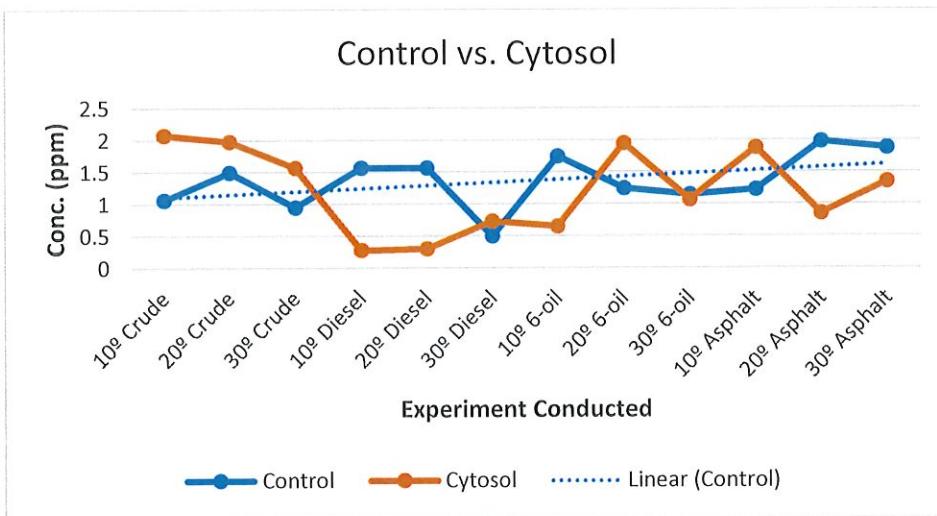
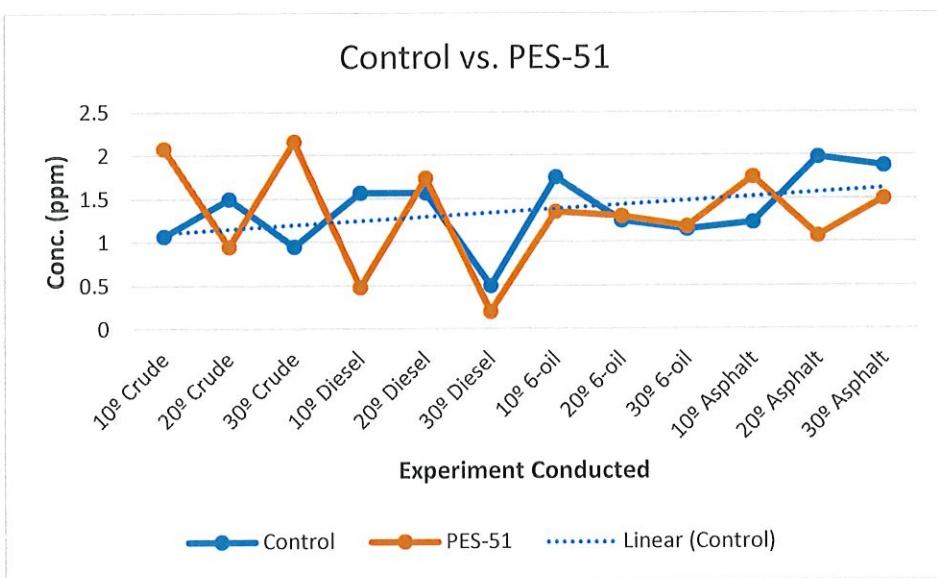
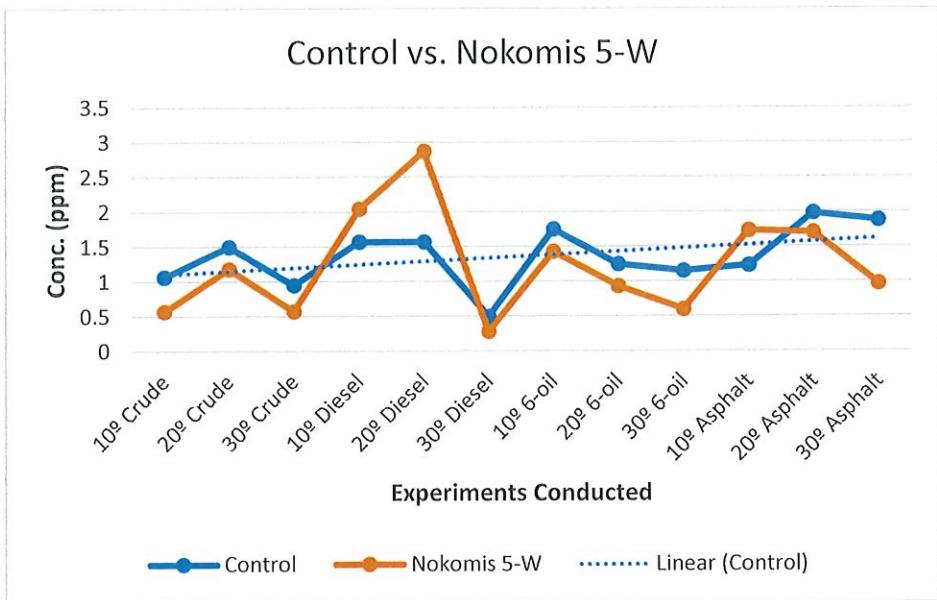
Application Criteria:						Observation						Conc. (ppm)
Date	Time	Temp (°C)	Salinity (ppt)	Visual Test ID	Petroleum	1 min	5 min	15 min	30 min	45 min	1 hr	
7/9/2019	3:39 - 4:39	23.5 - 23.1	37	372	Crude	Oil on Steel:	Y	N	N	N	N	N
						Oil on Concrete:	N	N	N	N	N	N
						Oil on Wood:	N	N	N	N	N	N
						Oil on water surface:	Y	Y	Y	Y	Y	Y
						Dispersed oil in water:	Y	Y	Y	Y	Y	Y
Date	Time	Temp	Salinity	Visual Test ID	Petroleum	Observation						Conc.
7/13/2019	3:34 - 4:34	32.0 - 29.4	38	1073	Crude	Oil on Steel:	Y	Y	Y	Y	Y	Y
						Oil on Concrete:	N	N	N	N	N	N
						Oil on Wood:	N	N	N	N	N	N
						Oil on water surface:	Y	Y	Y	Y	Y	Y
						Dispersed oil in water:	Y	Y	Y	Y	Y	Y
Date	Time	Temp	Salinity	Visual Test ID	Petroleum	Observation						Conc.
7/18/19	11:59 - 12:59	10.9 - 14.4	35	1988	Crude	Oil on Steel:	N	N	N	N	N	N
						Oil on Concrete:	N	N	N	N	N	N
						Oil on Wood:	N	N	N	N	N	N
						Oil on water surface:	Y	Y	Y	Y	Y	Y
						Dispersed oil in water:	Y	Y	Y	Y	Y	Y

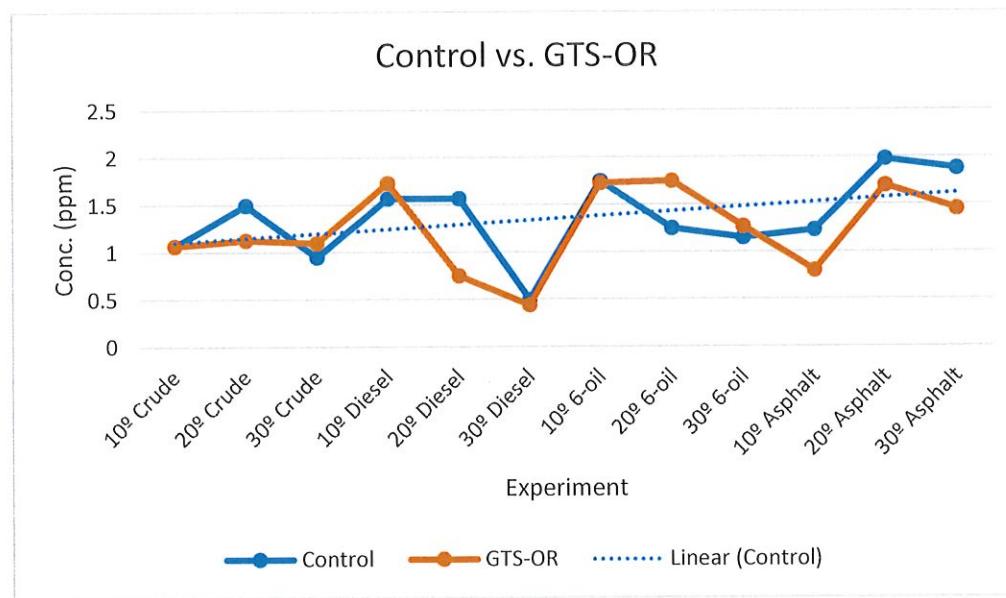
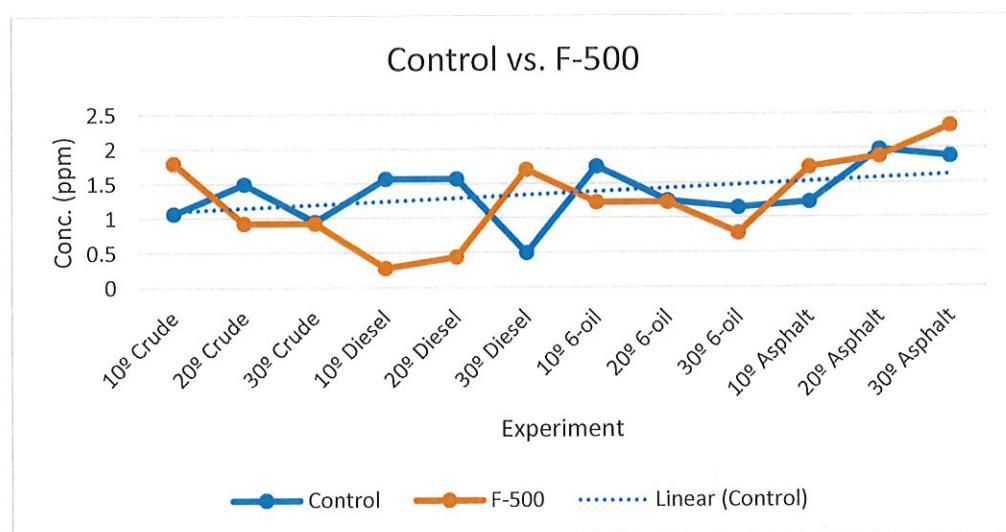
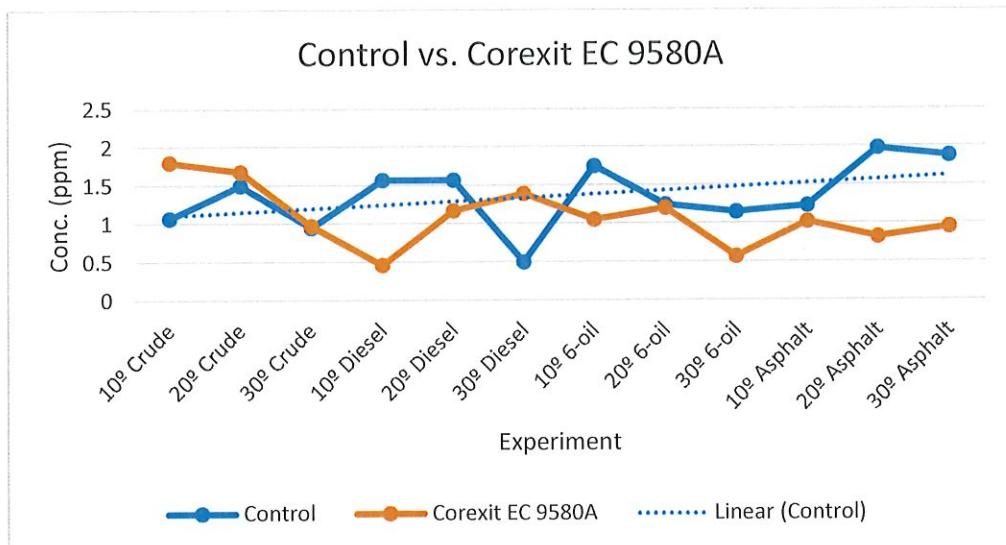
Application Criteria:		Observation						Conc.				
Date	Time	Temp	Salinity	Visual Test ID	Petroleum	1 min	5 min	15 min	30 min	45 min	1 hr	
7/9/2019	3:39 - 4:39	23.4 - 23.1	37	VID 12	Diesel	Oil on Steel:	N	N	N	N	N	N
						Oil on Concrete:	N	N	N	N	N	N
						Oil on Wood:	N	N	N	N	N	N
		9.5 - 13.5	35	2063	Diesel	Oil on water surface:	Y	Y	Y	Y	Y	Y
						Dispersed oil in water:	Y	N	N	N	N	N
Date	Time	Temp	Salinity	Visual Test ID	Petroleum	1 min	5 min	15 min	30 min	45 min	1 hr	Conc.
7/13/2019	3:34 - 4:34	30.5 - 29.0	37	VID 9	Diesel	Oil on Steel:	Y	Y	Y	Y	Y	Y
						Oil on Concrete:	N	N	N	N	N	N
						Oil on Wood:	N	N	N	N	N	N
		9.5 - 13.5	35	2063	Diesel	Oil on water surface:	Y	Y	Y	Y	Y	Y
						Dispersed oil in water:	Y	Y	Y	Y	Y	Y
Date	Time	Temp	Salinity	Visual Test ID	Petroleum	1 min	5 min	15 min	30 min	45 min	1 hr	Conc.
7/19/2019	2:29 - 3:39	9.5 - 13.5	35	2063	Diesel	Oil on Steel:	Y	Y	Y	Y	Y	Y
						Oil on Concrete:	N	N	N	N	N	N
						Oil on Wood:	N	N	N	N	N	N
		9.5 - 13.5	35	2063	Diesel	Oil on water surface:	N	N	N	N	N	N
						Dispersed oil in water:	N	N	N	N	N	N

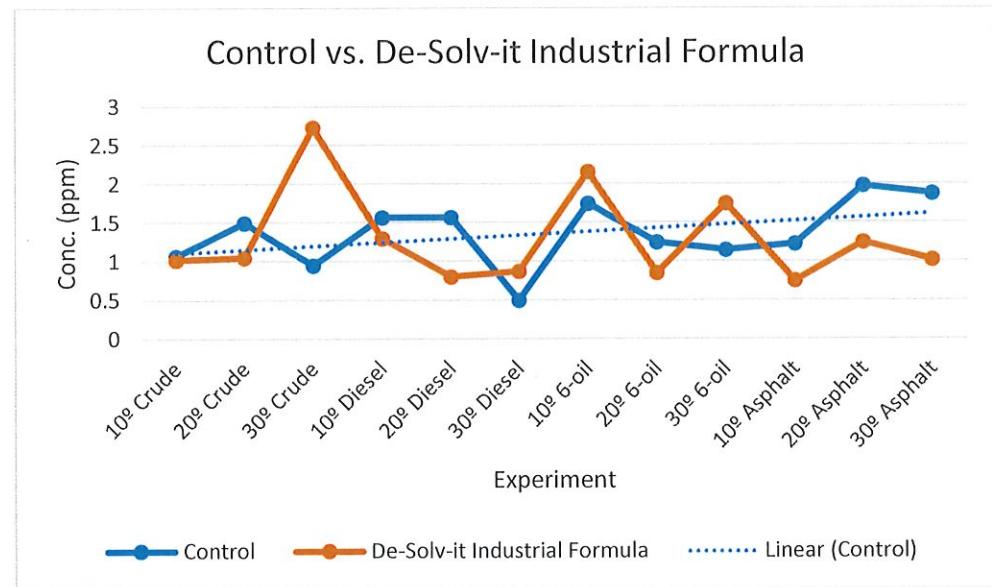
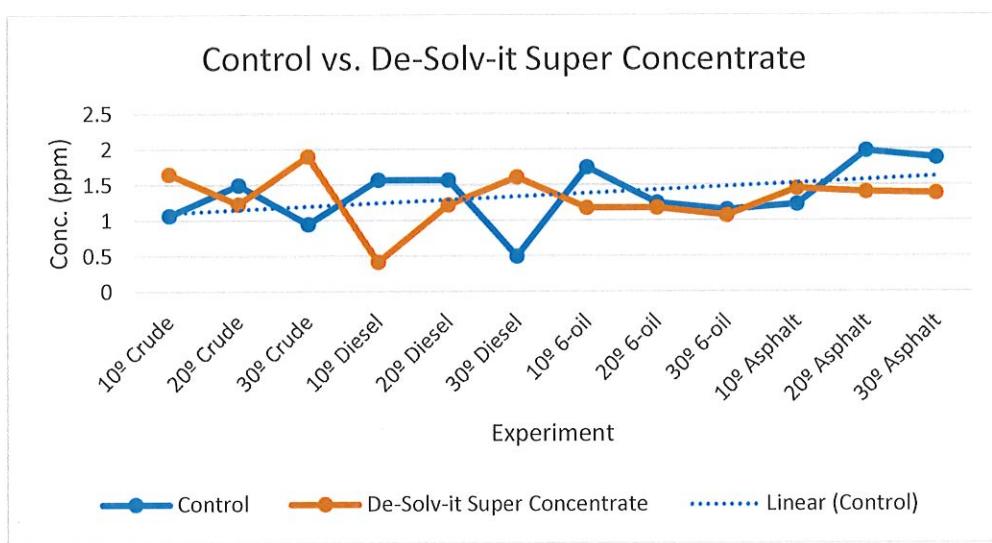
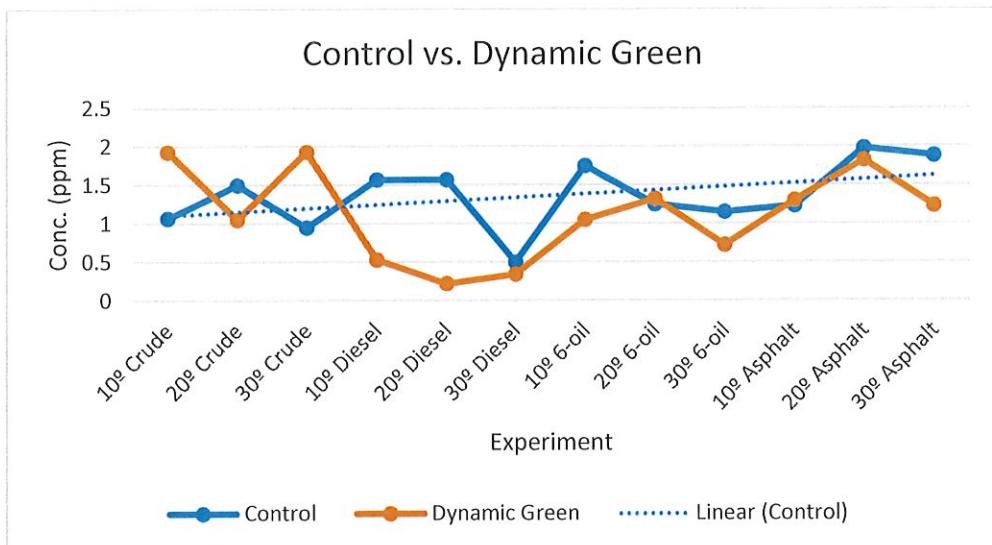
Application Criteria:						Observation						Conc.
Date	Time	Temp	Salinity	Visual Test ID	Petroleum	1 min	5 min	15 min	30 min	45 min	1 hr	
7/3/19	3:18 - 4:19	21.7 - 22.3	37	VID 6	6-oil	Oil on Steel:	N	N	N	N	N	1.25
						Oil on Concrete:	N	N	N	N	N	
						Oil on Wood:	N	N	N	N	N	
	12:15 - 1:15	32.1 - 30.1	35	VID 3	6-oil	Oil on water surface:	Y	Y	Y	Y	Y	
						Dispersed oil in water:	N	Y	Y	Y	Y	
Date	Time	Temp	Salinity	Visual Test ID	Petroleum	1 min	5 min	15 min	30 min	45 min	1 hr	Conc.
7/9/19	1:47 - 2:49	8.8 - 14.9	36	VID 11	6-oil	Oil on Steel:	Y	Y	Y	Y	Y	1.75
						Oil on Concrete:	N	N	N	N	N	
						Oil on Wood:	N	N	N	N	N	
	12:15 - 1:15	32.1 - 30.1	35	VID 3	6-oil	Oil on water surface:	Y	Y	Y	Y	Y	
						Dispersed oil in water:	Y	Y	Y	Y	Y	
Date	Time	Temp	Salinity	Visual Test ID	Petroleum	1 min	5 min	15 min	30 min	45 min	1 hr	Conc.
7/16/19	12:15 - 1:15	32.1 - 30.1	35	VID 3	6-oil	Oil on Steel:	Y	Y	Y	Y	Y	1.15
						Oil on Concrete:	Y	Y	Y	Y	Y	
						Oil on Wood:	Y	Y	Y	Y	Y	
	12:15 - 1:15	32.1 - 30.1	35	VID 3	6-oil	Oil on water surface:	Y	Y	Y	Y	Y	
						Dispersed oil in water:	Y	Y	Y	Y	Y	

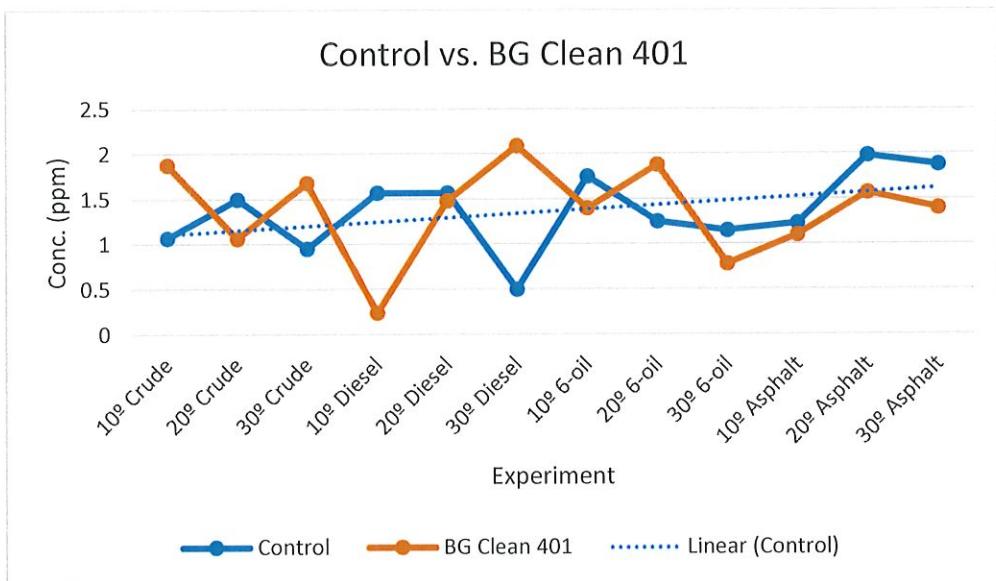
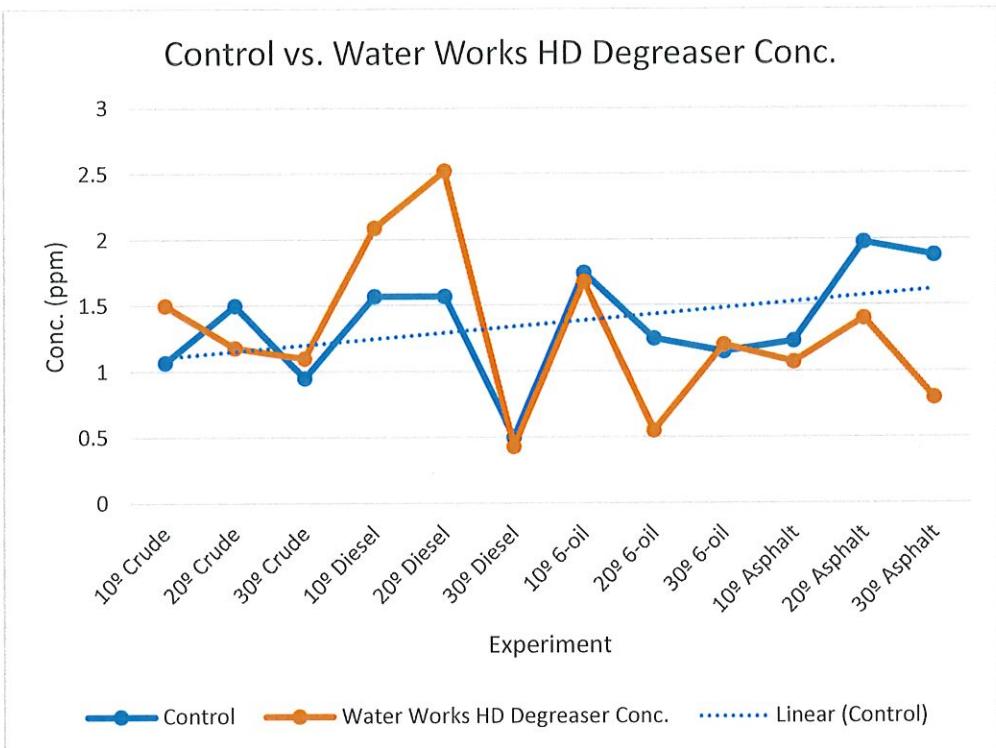
Application Criteria:										
Date	Time	Temp	Salinity	Visual Test ID	Petroleum	Observation				Conc.
7/29/19	4:23:523	30.7 - 27.5	1004	Asphalt	Oil on Steel:	Y	Y	Y	Y	Y
					Oil on Concrete:	Y	Y	Y	Y	Y
					Oil on Wood:	Y	Y	Y	Y	Y
					Oil on water surface:	N	N	N	N	1.98
					Dispersed oil in water:	N	N	N	N	
					Observation				Conc.	
7/29/19	4:24 - 5:24	23.2 - 22.7	VID 9	Asphalt	Oil on Steel:	Y	Y	Y	Y	Y
					Oil on Concrete:	Y	Y	Y	Y	Y
					Oil on Wood:	Y	Y	Y	Y	Y
					Oil on water surface:	N	N	N	N	1.88
					Dispersed oil in water:	N	N	N	N	
					Observation				Conc.	
8/9/19	10:47 - 11:47	10.5 - 13.0	35	Asphalt	Oil on Steel:	Y	Y	Y	Y	Y
					Oil on Concrete:	Y	Y	Y	Y	Y
					Oil on Wood:	Y	Y	Y	Y	Y
					Oil on water surface:	N	N	N	N	1.23
					Dispersed oil in water:	N	N	N	N	
					Observation				Conc.	











# **U.S. ENVIRONMENTAL PROTECTION AGENCY**

## **NATIONAL CONTINGENCY PLAN**

### **PRODUCT SCHEDULE**

**APRIL 2018**

**(4/25/2018)**



Prepared by:

NCP Product Schedule Manager  
U.S. Environmental Protection Agency  
Office of Land and Emergency Management (OLEM)  
Office of Emergency Management (OEM – RID)  
1200 Pennsylvania Avenue, NW (Mail Code 5104A, Room 6450CC)  
William Jefferson Clinton North Building  
Washington, DC 20460

For Information Contact:

NCP Subpart J Information Line, at (202) 260-2342

*Disclaimer: [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. The listing means only that data have been submitted to EPA as required by Subpart J of the National Oil and Hazardous Substances Pollution Contingency Plan, Section 300.915. (Source: 40 CFR §300.920 (e))*

<u>Category Abbreviations</u>	<u>Currently Listed Products by Category</u>	<u>Number of Products</u>
B	Bioremediation Agents	26
BA	Biological Additives (20)	
MC	Microbiological Cultures (19)	
EA	Enzyme Additives (1)	
NA	Nutrient Additives (6)	
D	Dispersants	18
M	Miscellaneous Oil Spill Control Agents	17
	Solidifiers (11)	
S	Surface Collecting Agents	2
SW	Surface Washing Agents	56
	Total Products	119

All changes and additions to the NCP Product Schedule are indicated in bold under the applicable product listing.

Changes to the Product Schedule: PES 51 (M-12), updated contact information

New Listings to the Product Schedule: PETROCLEAN™ (B-72)

New Deletions from the Product Schedule: None

Product Schedule Changes Pending EPA Verification: SYSTEM E.T. 20 (B-45); SUMP SAFE BIO-RECLAIM (B-69); COREXIT® EC9527A (D-1); NEOS AB3000 (D-2); COREXIT® EC9500A (D-4); SAF-RON GOLD (D-12); COREXIT® EC9500B (D-18); THICKSLICK 6535 (S-5); SILTECH OP-40 (S-6); COREXIT® EC9580A (SW-10); G-CLEAN OSC-1809 (SW-39); VERU-SOLVE™ MARINE 200 HP (SW-52); CORIBA 700 SR (SW-55), CORIBA 713 SR (SW-56); and EPA OIL FIELD SOLUTION™ (SW-61)

Contact Information Could Not Be Verified (last attempt dates provided with product listing): BET BIOPETRO (B-48); LAND AND SEA RESTORATION PRODUCT 001 (VELITE) (B-55); BIODISPERS (D-9); WASTE-SET #3200® (M-19); and WASTE-SET #3400® (M-20); CN-110 (SW-9); NATURE'S WAY HS (SW-18); PETROTECH 25 (SW-21); DO-ALL #18 (SW-24); SOC-10 (SW-45); ETHOS CLEAN (SW-58); and OSR-10 (SW-59)

**Note: Product manufacturer's data summary information can be found in the NCP Product Schedule Technical Notebook.**

As a compendium to the NCP Product Schedule, the NCP Product Schedule Technical Notebook presents the product manufacturer's data summary information. The NCP Product Schedule Technical Notebook can be found at: <https://www.epa.gov/emergency-response/ncp-product-schedule-products-available-use-oil-spills>.

The NCP Product Schedule presents products (and aka's) in an alphabetical table of contents and by category type (i.e., Bioremediation Agents, Dispersants, Miscellaneous Oil Spill Control Agents, Surface Collecting Agents, or Surface Washing Agents). In addition, NCP Product Schedule users can navigate to the online Technical Notebook product bulletins by clicking on the product listing names (and aka's) under the category type. Products are numbered as they are listed. Numbering may not be consecutive if products were removed from the NCP Product Schedule. For example, Bioremediation Agents begin with B-19. Products numbered B-1 through B-18 were removed from the NCP Product Schedule.

**Updated: 4/25/2018**

\*Listing maintained per requirements of the revised Subpart J, Federal Register, Volume 59, Number 17, September 15, 1994

**PRODUCTS THAT HAVE BEEN REMOVED FROM THE NCP PRODUCT SCHEDULE\***

**BIOREMEDIATION AGENTS**

ABR BI-CHEM PETROLEUM BLEND (B-20)  
 ADVANCED BIO CULTURES L-103 (B-25)  
 ADVANCED BIO CULTURES L-104 (B-26)  
 AE-BIOSEA PROCESS (B-15)  
 BACTOZYME (B-9)  
 BIOGEE HC (B-35)  
 BIO-ZYME 1000-HC (B-11)  
 BIOMAX (B-49)  
 BR (B-37)  
 DBC PLUS TYPE R-5 (B-8)  
 DBC PLUS TYPE L (B-7)  
 EEC BIOLOGICAL MEDIA (B-14)  
 EN-2000 CONCENTRATE (B-27)  
 ENZYT (LIQUID/CRYSTAL) (B-52)  
 HYDROBAC (B-1)  
*INIPOL EAP 22 (B-10), No Longer Manufactured – 2005*  
 KBC 100 (B-46)  
 LRC-1 (B-50)  
 LRC-4 (B-51)  
 MAX BAC CUSTOMBLEN (B-13)  
 MEDINA MICROBIAL ACTIVATOR (B-44)  
 MICROPRO D (B-22)  
 MICROPRO NOW BAC (B-21)  
 MICROPRO SUPER CEE (B-23)  
 MICROPRO G (B-24)  
 MUNOX 212 (B-17)  
 MUNOX 512 (B-18)  
 MUNOX 112 (B-16)  
 NO-SCUM (B-2)  
 NUTRI-BIO 1000 (B-30)  
 PES-31 (B-39)  
 PETROBAC (B-3)  
 PETRODEG-100 (B-5)  
 PETRODEG-200 (B-6)  
 PETROVORE (B-47)  
 PHENOBAC (B-4)  
*PRISTINE SEA II (B-54), Product No Longer Manufactured – 2005*  
 PRP (B-29)  
 PUTIDOIL (B-40)  
 WOODACE BRIQUETTES (B-12)  
 WST BIOBLEND H-JM (B-31)  
 WST BIOBLEND M-B4W (B-32)  
 WST BIOBLEND M-B4C (B-34)  
 WST BIOBLEND M-5 (B-38)  
 WST BIOBLEND M-4 (B-33)

**DISPERSANTS**

ANTECO OIL SPILL DISPERSANT  
 BIOGENESIS BG-CLEAN 401  
 COLD CLEAN 500  
 COREXIT 8667  
 COREXIT 9550  
 COREXIT 9554  
 DISPERSANT 11  
 EC.O ATLAN'TOL AT7  
 ECO/+  
 ENERGY III  
 ENERSPERSE 700  
 ENERSPERSE 1100  
 FINASOL OSR-7  
 FORMULA 98  
 GOLD CREW DISPERSANT  
 HAZCLEAN-ER  
 INIPOL IP 90  
 INPROVE COLLOIDAL  
 M.C. #1 DISPERSANT  
 MAGNOTOX  
 MICRO-BLAZE OUT  
 NAXCHEM DISPERSANT K  
 NK-3  
 NURTURE BIO-EMULSIFIER  
 OFC D-609  
 OIL SPILL ELIMINATOR  
 OSD/LT OIL SPILL DISPERSANT  
 PETROMEND MP-900-W  
 PETROTECH PTI-25  
 PETROTECH II  
 PROFORM-POLLUTION  
 SDS-300  
 SEA MASTER NS-555  
 SEACARE ECOSPERSE  
 SEACARE OSD  
 SLICKGONE NS  
 SLIK-A-WAY  
 SUPERSPERSE™ WAO2500  
 DISPERSANT (D-15), Voluntary Removal  
 TOXIGON-2000  
 VALUE 100  
 VECLEAN OIL DISPERSANT  
 WELLAIID 3316  
 WITCOMUL 4016  
 WITCOMUL 4078  
 WITCOMUL 3234  
 YCC BLUECLEAN

**MISCELLANEOUS OIL SPILL CONTROL AGENTS**

ENVIRO-BOND 403 (M-11)  
 LIQUID OIL BOND-200 (M-3)  
 NOCHAR'S A610/A650 (M-9)  
 OIL BOND-100 (M-2)  
 OMNI-ZORB #8000 (M-16)  
 OMNI-ZORB #4000 (M-15)  
 OMNI-ZORB #2000 (M-14)  
 RE-ENTRY KNI (M-5)  
 RE-ENTRY D SOLVENT (M-8)  
 SEE-JELL (M-1)  
 SPILCAT (M-13)  
 WASTE-SET  
 AGGLOMERATE (M-21)

**SURFACE COLLECTING AGENTS**

COREXIT OC-5 (S-1)  
 OIL COMPRESS/BINDER (S-2)  
 OIL HERDER (S-3)  
 OIL SPILL REMOVER (S-4)

**SURFACE WASHING AGENTS**

COREXIT® EC7664A (SW-1), Voluntary Removal  
 CRUDEX (SW-5)  
 EDF EMULSA FIRE (SW-6)  
 FM-186-2SW (SW-29), Voluntary Removal  
 GRANCONTROL-O (SW-14)  
 JANSOLV-60 (SW-3)  
 OMNI-CLEAN OSD (SW-13)  
 PETRO-GREEN ADP-7 (SW-17)  
 PETRO TITE M.M.E. (SW-7)  
 RUFFNEK (SW-4)  
 SPLIT DECISION SC (SW-22), Voluntary Removal  
 SX-100 (SW-27), Voluntary Removal

\*Listing maintained per requirements of the revised Subpart J, Federal Register, Volume 59, Number 17, September 15, 1994

**ALPHABETICAL TABLE OF CONTENTS**  
**LIST OF PRODUCTS (INCLUDING AKA's) ON THE NCP PRODUCT SCHEDULE\***

PRODUCT NAME (BULLETIN NUMBER)	PRODUCT CATEGORY	PAGE NUMBER
ACCELL CLEAN® DWD (D-16)	Dispersant	8
ACCELL CLEAN® SWA (SW-60)	Surface Washing Agent	22
ACT TERRA FIRMA (B-71)	Bioremediation Agent	5
ACT-TF (AKA of ACT-TERRA FIRMA)	Bioremediation Agent	5
ADP-7 (SW-68)	Surface Washing Agent	24
AGROREMED (AKA of SPILLREMED (MARINE)®)	Bioremediation Agent	2
ALL PURPOSE CLEANER & REMEDIATOR (AKA of GREEN BEAST™ OIL SPILL & ODOR REMEDIATOR)	Surface Washing Agent	18
ALSOCUP (M-23)	Miscellaneous Oil Spill Control Agent	11
AQUA N-CAP™ POLYMER (AKA of OIL SOLUTIONS POWDER)	Miscellaneous Oil Spill Control Agent	11
AQUACLEAN (SW-16)	Surface Washing Agent	15
AWAN PRA OIL FIELD SOLUTION™ (AKA of EPA OIL FIELD SOLUTION™)	Surface Washing Agent	23
B&S INDUSTRIAL (AKA of STEP ONE)	Bioremediation Agent	1
BET BIOPETRO (B-48)	Bioremediation Agent	2
BG-CLEAN™ 401 (SW-32)	Surface Washing Agent	17
BIO-REGEN HYDROCARBON (AKA of SOIL RX)	Bioremediation Agent	3
BIODISPERS (D-9)	Dispersant	7
BIOGRASS EXTRA®(SW-46)	Surface Washing Agent	20
BIOREM-2000 OIL DIGESTER™ (B-63)	Bioremediation Agent	4
BIOREM-2000 SC (AKA of BIOREM-2000 OIL DIGESTER™)	Bioremediation Agent	4
BIOSOLVE® PINKWATER®(SW-20)	Surface Washing Agent	15
BIOWORLD BHTP (B-59)	Bioremediation Agent	3
CAS 100® (M-31)	Miscellaneous Oil Spill Control Agent	12
CAST OFF™ (AKA of FORMULA 206-1x BIO- WASH™)	Surface Washing Agent	24
CIAGENT (M-17)	Miscellaneous Oil Spill Control Agent	10
CLEAN GREEN (SW-44)	Surface Washing Agent	19
CLEANGREEN® PLANET WASH (AKA of CLEAN GREEN)	Surface Washing Agent	19
CN-110 (SW-9)	Surface Washing Agent	14
COREXIT® EC9500A (D-4)	Dispersant	6
COREXIT® EC9500B (D-19)	Dispersant	9

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**LIST OF PRODUCTS (INCLUDING AKA's) ON THE NCP PRODUCT SCHEDULE\***

PRODUCT NAME (BULLETIN NUMBER)	PRODUCT CATEGORY	PAGE NUMBER
COREXIT® EC9527A (D-1)	Dispersant	6
COREXIT® EC9580A (SW-10)	Surface Washing Agent	14
CORIBA 700 ER (AKA of CORIBA 700 SR)	Surface Washing Agent	21
CORIBA 700 OS (AKA of CORIBA 700 SR)	Surface Washing Agent	21
CORIBA 700 SR (SW-55)	Surface Washing Agent	21
CORIBA 713 ER (AKA of CORIBA 713 SR)	Surface Washing Agent	22
CORIBA 713 OS (AKA of CORIBA 713 SR)	Surface Washing Agent	22
CORIBA 713 SR (SW-56)	Surface Washing Agent	22
CYTOSOL (SW-19)	Surface Washing Agent	15
DE-SOLV-IT CLEAN AWAY APC SUPER CONCENTRATE (SW-49)	Surface Washing Agent	20
DE-SOLV-IT INDUSTRIAL FORMULA (SW-11)	Surface Washing Agent	14
DISPERSIT SPC 1000™ (D-5)	Dispersant	6
DO-ALL #18 (SW-24)	Surface Washing Agent	16
DRYLET™ MB BIOREMEDIATION (B-64)	Bioremediation Agent	4
DUALZORB® (B-65)	Bioremediation Agent	4
DYNAMIC GREEN™ (SW-51)	Surface Washing Agent	21
E-SAFE®(SW-33)	Surface Washing Agent	17
ECOVOOM-MARINE (AKA of JEP-MARINE CLEAN)	Surface Washng Agent	22
ELASTOL (M-26)	Miscellaneous Oil Spill Control Agent	11
ENVIROCLEAN (SW-31)	Surface Washing Agent	17
ENVIRONMENTAL 1 CRUDE OIL CLEANER (SW-47)	Surface Washing Agent	20
ENVIRONMENTAL 1 WASHING AGENT (AKA of ENVIRONMENTAL 1 CRUDE OIL CLEANER)	Surface Washing Agent	20
EO ALL PURPOSE SOAP-LAVENDER (SW-50)	Surface Washing Agent	20
EPA OIL FIELD SOLUTION™ (SW-61)	Surface Washng Agent	23
ERGOFIT MICROMIX AQUA (B-67)	Bioremediation Agent	4
ETHOS CLEAN (SW-58)	Surface Washing Agent	22
F-500 (SW-30)	Surface Washing Agent	17
FFT-SOLUTION®(D-17)	Dispersant	8
FINASOL® OSR 52 (D-11)	Dispersant	7
FIREMAN'S BRAND SPILLCLEAN (AKA of SPILLCLEAN)	Surface Washing Agent	18
FORMULA 206-1x (AKA of FORMULA 206-1x BIO-WASH™)	Surface Washing Agent	24

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PRODUCT NAME (BULLETIN NUMBER)	PRODUCT CATEGORY	PAGE NUMBER
FORMULA 206-1x BIO-WASH™ (SW-66)	Surface Washing Agent	24
G-CLEAN OSC-1809 (SW-39)	Surface Washing Agent	18
GELCO 200 (M-29)	Miscellaneous Oil Spill Control Agent	12
GLOBAL ENVIRONMENTAL CLEANER™ (AKA of EPA OIL FIELD SOLUTION™)	Surface Washing Agent	23
GOLD CREW SW (SW-26)	Surface Washing Agent	16
GREEN BEAST™ OIL SPILL & ODOR REMEDIATOR (SW-40)	Surface Washing Agent	18
GREEN BEAST WASHING AGENT (AKA of GREEN BEAST OIL SPILL & ODOR REMEDIATOR)	Surface Washing Agent	18
GREEN TECHNOLOGIES SOLUTIONS-OIL RECOVERY (GTS-OR) (SW-63)	Surface Washing Agent	23
HEAVY DUTY DEGREASER CONCENTRATE (AKA of WATER WORKS™ HEAVY DUTY DEGREASER CONCENTRATE)	Surface Washing Agent	24
HYDRO-BOND™ (M-33)	Miscellaneous Oil Spill Control Agent	12
HYDRO-CLEAN™ (AKA of EPA OIL FIELD SOLUTION™)	Surface Washing Agent	23
HYDROREMED (AKA of SPILLREMED (MARINE)®)	Bioremediation Agent	2
JD-109 (D-6)	Dispersant	6
JD-2000™ (D-7)	Dispersant	7
JE1058BS (B-58)	Bioremediation Agent	3
JEP-MARINE CLEAN (SW-57)	Surface Washing Agent	22
LAND AND SEA RESTORATION PRODUCT 001 (VELITE) (B-55)	Bioremediation Agent	2
LIQUID ELASTOL (AKA of ELASTOL)	Miscellaneous Oil Spill Control Agent	11
MARE CLEAN 200 (D-3)	Dispersant	6
MARI-ZYME (AKA of ZYME-FLOW)	Miscellaneous Oil Spill Control Agent	10
MARINE D-BLUE CLEAN™ (D-18)	Dispersant	9
MARINE GREEN CLEAN™ (SW-42)	Surface Washing Agent	19
MARINE GREEN CLEAN PLUS™ (SW-43)	Surface Washing Agent	19
MICRO-BLAZE® (B-41)	Bioremediation Agent	1
MICROSORB SC (AKA of OPPENHEIMER FORMULA)	Bioremediation Agent	1
MUNOX SR® (B-60)	Bioremediation Agent	3
NALE-IT (SW-28)	Surface Washing Agent	17
NATURAMA G3 A-5 (SW-53)	Surface Washing Agent	21

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PRODUCT NAME (BULLETIN NUMBER)	PRODUCT CATEGORY	PAGE NUMBER
NATURE'S WAY HS (SW-18)	Surface Washing Agent	15
NEOS AB3000 (D-2)	Dispersant	6
NOKOMIS 3-AA (D-14)	Dispersant	8
NOKOMIS 3-F4 (D-8)	Dispersant	7
NOKOMIS 5-W (SW-38)	Surface Washing Agent	18
NONTOX™ SURFACE WASHING AGENT (SW-64)	Surface Washing Agent	23
NORSOREX® APX (M-30)	Miscellaneous Oil Spill Control Agent	12
OIL BOND® (M-27)	Miscellaneous Oil Spill Control Agent	11
OILCLEAN w/ACTIVATOR (AKA of PRO-ACT)	Bioremediation Agent	3
OIL SOLUTIONS POWDER (M-25)	Miscellaneous Oil Spill Control Agent	11
OIL SPILL CLEANUP (AKA of G-CLEAN OSC-1809)	Surface Washing Agent	18
OIL SPILL EATER II (OSE II) (B-53)	Bioremediation Agent	2
OPFLEX® (M-28)	Miscellaneous Oil Spill Control Agent	11
OPPENHEIMER FORMULA (B-36)	Bioremediation Agent	1
OSR-10 (SW-59)	Surface Washing Agent	22
PES-51 (M-12)	Miscellaneous Oil Spill Control Agent	10
PETRO-CLEAN (SW-23)	Surface Washing Agent	16
PETROCLEAN™ (B-72)	Bioremediation Agent	5
PETROMAX PSC 3 (SW-62)	Surface Washing Agent	23
PETROMAX SOIL CLEANING AND WASHING AGENT (AKA of PETROMAX PSC 3)	Surface Washing Agent	23
PETROTECH 25 (SW-21)	Surface Washing Agent	16
PREMIER 99 (SW-12)	Surface Washing Agent	14
PRO-ACT (B-62)	Bioremediation Agent	3
PROCLEANS (SW-35)	Surface Washing Agent	18
PX-700™ (M-22)	Miscellaneous Oil Spill Control Agent	10
RAPIDGRAB 2000™ (M-24)	Miscellaneous Oil Spill Control Agent	11
REMEDIADE™ (B-66)	Bioremediation Agent	4
RHAMNOWASH 10 (SW-67)	Surface Washing Agent	24
S-200 OILGONE® (M-32)	Miscellaneous Oil Spill Control Agent	12
S-200C (B-56)	Bioremediation Agent	2
SAF-RON GOLD (D-12)	Dispersant	8
SAFE KLEEN (SW-54)	Surface Washing Agent	21
SANDKLENE 950 (SW-20)	Surface Washing Agent	20

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**LIST OF PRODUCTS (INCLUDING AKA's) ON THE NCP PRODUCT SCHEDULE\***

PRODUCT NAME (BULLETIN NUMBER)	PRODUCT CATEGORY	PAGE NUMBER
SC-1000™ (SW-25)	Surface Washing Agent	16
SEA BRAT #4 (D-10)	Dispersant	7
SEACARE ECOSPERSE 52 (AKA of FINASOL® OSR 52)	Dispersant	7
SEACARE E.P.A. (AKA of DISPERSIT SPC 1000™)	Dispersant	6
SEPARATE (AKA of ELASTOL)	Miscellaneous Oil Spill Control Agent	11
SF-GOLD DISPERSANT (AKA of SAF-RON GOLD)	Dispersant	8
SHAMANTRA BIO (AKA of SHAMANTRA GREEN)	Bioremediation Agent	5
SHAMANTRA GREEN (B-68)	Bioremediation Agent	5
SHEEN-MAGIC® (SW-34)	Surface Washing Agent	17
SILTECH OP-40 (S-6)	Surface Collecting Agent	13
SIMPLE GREEN® (SW-15)	Surface Washing Agent	15
SIMPLE GREEN® 2013 Reformulation (SW-65)	Surface Washing Agent	23
SOC 10 (SW-45)	Surface Washing Agent	19
SOIL RX (B-61)	Bioremediation Agent	3
SP 7010 (AKA of REMEDIADE™)	Bioremediation Agent	4
SPILLCLEAN (SW-36)	Surface Washing Agent	18
SPILLCLEAN ["CONCENTRATE"] (AKA of SPILLCLEAN)	Surface Washing Agent	18
SPILLREMED (INDUSTRIAL) (AKA of SPILLREMED (MARINE)®)	Bioremediation Agent	2
SPILLREMED (MARINE)® (B-57)	Bioremediation Agent	2
STEP ONE (B-43)	Bioremediation Agent	1
SUMP SAFE BIO-RECLAIM (B-69)	Bioremediation Agent	5
SUPERALL #38 (AKA of TOPSALL #30)	Surface Washing Agent	14
SYSTEM E.T. 20 (B-45)	Bioremediation Agent	2
THE OPPENHEIMER FORMULA 1 (AKA of OPPENHEIMER FORMULA)	Bioremediation Agent	1
THICKSLICK 6535 (S-5)	Surface Collecting Agent	13
TOPSALL #30 (SW-2)	Surface Washing Agent	14
TRAILZORB (AKA of DUALZORB®)	Bioremediation Agent	4
TULXA (SW-41)	Surface Washing Agent	19
TXCHEM HE-1000™ (SW-37)	Surface Washing Agent	18
UNITED 658 PETRO-ZYME (AKA of ZYME-FLOW)	Miscellaneous Oil Spill Control Agent	10
VAPORREMED (AKA of SPILLREMED (MARINE)®)	Bioremediation Agent	2

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PRODUCT NAME (BULLETIN NUMBER)	PRODUCT CATEGORY	PAGE NUMBER
VB591™, VB997™, BINUTRIX® (B-42)	Bioremediation Agent	1
VERU-SOLVE™ MARINE 200 HP (SW-52)	Surface Washing Agent	21
WASTE AWAY® (B-70)	Bioremediation Agent	5
WASTE-SET #3200® (M-19)	Miscellaneous Oil Spill Control Agent	10
WASTE-SET #3400® (M-20)	Miscellaneous Oil Spill Control Agent	10
WATER WORKS™ HEAVY DUTY DEGREASER CONCENTRATE (SW-69)	Surface Washing Agent	24
WHITZORB (AKA of DUALZORB®)	Bioremediation Agent	4
WMI-2000 (B-19)	Bioremediation Agent	1
ZI-400 (D-13)	Dispersant	8
ZI-400 OIL SPILL DISPERSANT (AKA of ZI-400)	Dispersant	8
ZYME-FLOW (M-18)	Miscellaneous Oil Spill Control Agent	10
ZYME-TREAT (AKA of ZYME-FLOW))	Miscellaneous Oil Spill Control Agent	10

# NCP PRODUCT SCHEDULE

## BIOREMEDIATION AGENTS

BULLETIN NUMBER	PRODUCT CATEGORY LISTED	PRODUCT NAME	SUBMITTER	DATE LISTED; RELISTED <sup>†</sup> ; REMOVED <sup>#</sup>
B-19	MC	<u>WMI-2000</u>	WMI International, Inc. 2104 Brentwood Drive Houston, TX 77019 PHONE: (713) 526-5829 MOBILE: (832) 798-5610 FAX: (877) 347-7770 E-MAIL: <a href="mailto:wmiintlinc@gmail.com">wmiintlinc@gmail.com</a> or <a href="mailto:teri@oxygenorchard.com">teri@oxygenorchard.com</a> (Mr. Joseph Jennings)	06/18/90 01/11/96 <sup>†</sup>
B-36	MC	<u>OPPENHEIMER FORMULA (aka, THE OPPENHEIMER FORMULA I, MICROSORB SC)</u>	Oppenheimer Biotechnology, Inc. P.O. Box 1490 Pflugerville, TX 78691-1490 PHONE: (512) 474-1016 FAX: (512) 681-0367 E-MAIL: <a href="mailto:jen.neve@obio.com">jen.neve@obio.com</a> WEBSITE: <a href="http://www.obio.com">www.obio.com</a> (Ms. Jen Neve)	07/17/91 10/06/96 <sup>†</sup>
B-41	MC	<u>MICRO-BLAZE®</u>	Verde Environmental, Inc. 9223 Eastex Freeway Houston, TX 77093 PHONE: (713) 691-6468 (800) 626-6598 FAX: (713) 691-2331 E-MAIL: <a href="mailto:bscogin@micro-blaze.com">bscogin@micro-blaze.com</a> WEBSITE: <a href="http://www.micro-blaze.com">www.micro-blaze.com</a> (Mr. William L. Scogin)	12/18/91 01/21/97 <sup>†</sup>
B-42	NA	<u>VB591™, VB997™, BINUTRIX®</u>	BioNutraTech, Inc. P.O. Box 290 Porter, TX 77365 PHONE: (281) 354-5900 MOBILE: (713) 301-0254 FAX: (281) 354-1997 E-MAIL: <a href="mailto:shruza@blonutratech.com">shruza@blonutratech.com</a> WEBSITE: <a href="http://www.bionutratech.com">www.bionutratech.com</a> (Ms. Sandra L. Hruza)	01/03/92 02/05/97 <sup>†</sup>
B-43	MC	<u>STEP ONE (aka, B&amp;S INDUSTRIAL)</u>	B&S Research, Inc. 4345 Highway 21 Embarass, MN 55732 PHONE: (218) 984-3757 FAX: (218) 984-3212 E-MAIL: <a href="mailto:farmforprofit@frontier.com">farmforprofit@frontier.com</a> (Mr. H.W. Lashmett)	03/12/92 03/21/97 <sup>†</sup>

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## BIOREMEDIATION AGENTS (continued)

BULLETIN NUMBER	PRODUCT CATEGORY LISTED	PRODUCT NAME	SUBMITTER	DATE LISTED; RELISTED <sup>†</sup> ; REMOVED <sup>#</sup>
B-45	MC	<u>SYSTEM E.T. 20</u> <i>LISTING CHANGES PENDING, FOLLOWING VERIFICATION BY MANUFACTURER AND EPA</i>	Environmental Restoration Services 9211 Lakewood Drive Windsor, CA 95492 PHONE: (619) 253-0664 E-MAIL: <a href="mailto:ERS.BTI@gmail.com">ERS.BTI@gmail.com</a> (Mr. John Chase) PHONE: (760) 746-5145 FAX: (760) 746-2034 (Mr. Jack Roberts)	01/28/93 11/14/95 <sup>+</sup>
B-48	MC	<u>BET BIOPETRO</u> <i>Last Communication with Manufacturer: 5/10/2006 Last Attempt: 8/29/2016</i>	BioEnviroTech 14615 FM 2920 Tomball, TX 77375 (Mr. Warren Butler)	11/10/93 08/31/00 <sup>+</sup>
B-53	EA	<u>OIL SPILL EATER II (OSE II)</u>	OSEI Corporation (Formerly Sky Blue Chem's) P.O. Box 515429 Dallas, TX 75251-5429 PHONE: (972) 669-3390 E-MAIL: <a href="mailto:oseicorp@msn.com">oseicorp@msn.com</a> WEBSITE: <a href="http://www.osel.us">www.osel.us</a> (Mr. Steven Pedigo, Chairmen, CEO, Inventor)	08/26/96 08/16/05 <sup>#</sup> 09/22/09 <sup>+</sup>
B-55	NA	<u>LAND AND SEA RESTORATION PRODUCT 001 (VELITE)</u> <i>Last Communication with Manufacturer: 4/02/2007 Last Attempt: 8/30/2016</i>	Land and Sea Restoration LLC 4147 Acorn Hill San Antonio, TX 78217 (Mr. Shawn Parker)	09/10/99
B-56	NA	<u>S-200C</u>	RBL Environmental, LLC 1311 Dorothy Avenue Phoenixville, PA 19460 PHONE: (610) 520-7665 E-MAIL: <a href="mailto:jlm.lynn@lepusa.com">jlm.lynn@lepusa.com</a> (Mr. James Lynn)	07/24/02
B-57	MC	<u>SPILLREMED (MARINE)®</u> <u>(aka, AGROREMED,</u> <u>SPILLREMED</u> <u>(INDUSTRIAL),</u> <u>HYDROREMED,</u> <u>VAPORREMED)</u>	Sarva Bio Remed, LLC 25 Marianne Drive, Suite 'B' York, PA 17406 PHONE: (717) 779-0040 PHONE: (877) 717-2782 FAX: (419) 710-5831 E-MAIL: <a href="mailto:sales@sarvabioremed.com">sales@sarvabioremed.com</a> WEBSITE: <a href="http://www.sarvabioremed.com">www.sarvabioremed.com</a> (Mr. Satya Ganti)	01/08/07

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## BIOREMEDIATION AGENTS (continued)

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B-58	NA	<u>JE1058BS</u>	Japan Energy Corporation Business Development Department, Bio Research Center 3-17-35 Niizo-Minami Toda-shi, Saitama 335-8502 Japan PHONE: (81) 48-433-2191 FAX: (81) 48-444-3223 E-MAIL: <a href="mailto:saeki@j-energy.co.jp">saeki@j-energy.co.jp</a> (Mr. Hisashi Saeki)	12/03/07
B-59	MC	<u>BIOWORLD</u> <u>BIOREMEDIATION</u> <u>HYDROCARBON</u> <u>TREATMENT</u> <u>PRODUCTS (BioWorld</u> <u>BHTP)</u>	BioWorld Products International Headquarters 6734B W. Pershing Avenue Visalia, CA 93291 PHONE: (559) 651-2042 FAX: (559) 651-9041 E-MAIL: <a href="mailto:support@bioworldusa.com">support@bioworldusa.com</a> WEBSITE: <a href="http://www.bioworldusa.com">www.bioworldusa.com</a> (Ms. Diane R. Barnes)	11/24/08
B-60	MC	<u>MUNOX SR®</u>	Osprey Biotechnics 1833-A 57 <sup>th</sup> Street Sarasota, FL 34243 PHONE: (941) 351-2700 FAX: (941) 351-0026 E-MAIL: <a href="mailto:ldanielson@ospreybiotechnics.com">ldanielson@ospreybiotechnics.com</a> or <a href="mailto:vscuilla@ospreybiotechnics.com">vscuilla@ospreybiotechnics.com</a> (Ms. Lauren Danielson, President & CEO or Mr. Vincent Scuilla, COO)	10/28/10
B-61	MC/NA	<u>SOIL RX (aka, BIO-</u> <u>REGEN</u> <u>HYDROCARBON)</u>	3 Tier Technologies LLC Worldwide Headquarters 250 National Place, Suite 142 Longwood, FL 32750 PHONE: (877) 226-7498 FAX: (877) 570-0072 E-MAIL: <a href="mailto:dburdette@3tiertech.com">dburdette@3tiertech.com</a> WEBSITE: <a href="http://www.3tiertech.com">www.3tiertech.com</a> (Mr. Daniel J. Burdette, President)	11/17/10
B-62	MC/NA	<u>PRO-ACT (aka,</u> <u>OILCLEAN</u> <u>w/ACTIVATOR)</u>	Pro-Act Biotech a Unit of LLG,LLC 64 Church Street Warren, RI 02885 PHONE: (401) 245-7004 FAX: (401) 633-6270 E-MAIL: <a href="mailto:bill@proactbiotech.com">bill@proactbiotech.com</a> WEBSITE: <a href="http://www.oil-clean.net">www.oil-clean.net</a> (Mr. William Campion)	12/15/10

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## BIOREMEDIATION AGENTS (continued)

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B-63	MC	<u>BIOREM-2000 OIL DIGESTER™ (aka, BIOREM-2000 SC)</u>	Clift Industries, Inc. P.O. Box 471578 Charlotte, NC 28247 <u>CUSTOMER SERVICE:</u> PHONE: (800) 996-9901 <u>PRODUCT MANAGEMENT:</u> PHONE: (704) 752-0031 FAX: (704) 544-2532 E-MAIL: <a href="mailto:matt@cliftindustries.com">matt@cliftindustries.com</a> (Mr. Matt Barnhill)	12/15/10
B-64	MC	<u>DRYLET™ MB BIO</u>	DryLet, LLC 8300 FM 1960 West Suite #450 Houston, TX 77070 PHONE: (346) 980-9570 E-MAIL: <a href="mailto:sales@drylet.com">sales@drylet.com</a> (Mr. Scott Conley)	02/22/11
B-65	MC	<u>DUALZORB® (aka, TRAILZORB, WHITZORB)</u>	LBI Renewable P.O. Box 637 22 Plains Drive Buffalo, WY 82834 <u>CUSTOMER SERVICE:</u> PHONE: (307) 684-9340 FAX: (307) 684-5815 E-MAIL: <a href="mailto:aaron@lbirenewable.com">aaron@lbirenewable.com</a> (Mr. Aaron Larsen)	05/18/11
B-66	NA	<u>REMEDIADE™ (aka, SP 7010)</u>	GrowMate International, LLC 17150 Butte Creek Drive, Suite 100 Houston, TX 77090 PHONE: (281) 866-9042 FAX: (281) 866-9714 E-MAIL: <a href="mailto:victor@growmateintl.com">victor@growmateintl.com</a> WEBSITE: <a href="http://www.growmateintl.com">www.growmateintl.com</a> (Mr. Victor J. Cardenas)	06/08/11
B-67	MC/EA/NA	<u>ERGOFIT MICROMIX AQUA</u>	Evadine Technologies, LLC 217 Deborah Drive New Braunfels, TX 78130 PHONE: (310) 929-7925 E-MAIL: <a href="mailto:Info@evadinetech.com">Info@evadinetech.com</a> (Mr. Warren Russell)	07/27/11

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# NCP PRODUCT SCHEDULE

## BIOREMEDIATION AGENTS (continued)

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B-68	NA	<u>SHAMANTRA GREEN</u> <u>(aka, SHAMANTRA BIO)</u>	Molecular Mediation LLC C/- Molecular Mediation Pty Ltd Level 3, Suite 405 152 Bunnerong Road Eastgardens 2036 Australia PHONE: +612-9659-4553 FAX: +612-9659-5594 E-MAIL: <a href="mailto:info@molecularmediation.com">info@molecularmediation.com</a> E-MAIL: <a href="mailto:mark@molecularmediation.com">mark@molecularmediation.com</a> (Mr. Mark Pilgrim, Manager)	08/17/11
B-69	MC	<u>SUMP SAFE BIO-RECLAIM</u>  <i>LISTING CHANGES PENDING, FOLLOWING VERIFICATION BY MANUFACTURER AND EPA</i>	Teamwork Distributing P.O. Box 2506 Stony Plain, Alberta T7Z 1X1 PHONE: (780) 968-5367 (Plant) MOBILE: (780) 238-2741 FAX: (780) 958-9070 E-MAIL: <a href="mailto:marlin@xplornet.com">marlin@xplornet.com</a> E-MAIL: <a href="mailto:marlin@teamwrk.ca">marlin@teamwrk.ca</a> (Mr. Marlin Rudolph)	10/13/11
B-70	MC	<u>WASTE AWAY®</u>	Chem-X International, LLC (aka, CXI) 1100 East Sandy Lake Road Coppell, Texas 75019 PHONE: (972) 471-7775 FAX: (972) 393-2011 E-MAIL: <a href="mailto:dhowardcxl@outlook.com">dhowardcxl@outlook.com</a> WEBSITE: <a href="http://www.cxinternational.com">www.cxinternational.com</a> (Mr. David Howard)	02/07/13
B-71	MC	<u>ACT TERRA FIRMA</u> (aka, ACT-TF)	Franssen Enterprises, Inc. 511 N. McKinley Avenue Fort Lupton, CO 80621 PHONE: (303) 833-5393 FAX: (303) 833-2872 EMAIL: <a href="mailto:actcleaners@comcast.net">actcleaners@comcast.net</a> WEBSITE: <a href="http://www.actcleaners.com">www.actcleaners.com</a> (Mr. Todd Franssen)	04/07/14
B-72	MC	<u>PETROCLEAN™</u>	Green Earth Naturally, L.L.C. 2314 Ridgefield Street NE Roanoke, VA 24102 PHONE: (540) 362-5636 FAX: (540) 362-9447 E-MAIL: <a href="mailto:bcarroll@greenearthnaturally.com">bcarroll@greenearthnaturally.com</a> WEBSITE: <a href="http://www.GreenEarthNaturally.com">www.GreenEarthNaturally.com</a> (Mr. Brian Carroll)	

\*Listing maintained per requirements of the revised Subpart J, Federal Register, Volume 59, Number 17, September 15, 1994

# NCP PRODUCT SCHEDULE

## DISPERSANTS

BULLETIN NUMBER	PRODUCT CATEGORY LISTED	PRODUCT NAME	SUBMITTER	DATE LISTED; RELISTED <sup>+</sup> ; REMOVED <sup>#</sup>
D-1	D	<u>COREXIT® EC9527A</u> <i>LISTING CHANGES PENDING, FOLLOWING VERIFICATION BY MANUFACTURER AND EPA</i>	Nalco Environmental Solutions LLC 7705 Highway 90-A Sugar Land, TX 77478 <u>PRODUCT MANAGEMENT:</u> OFFICE: (281) 263-7709 MOBILE: (832) 851-5164 E-MAIL: <a href="mailto:debby.therlot@nalco.com">debby.therlot@nalco.com</a> (Ms. Debby Therlot)	03/10/78 12/18/95 <sup>+</sup>
D-2	D	<u>NEOS AB3000</u> <i>(Hydrocarbon Solvent Based) LISTING CHANGES PENDING, FOLLOWING VERIFICATION BY MANUFACTURER AND EPA</i>	NEOS Company Limited Daisan Kendal Building 1-2, 3-chome Isobedori Chuo-ku, Kobe, Japan 651-0084 PHONE: (81) 78-331-9384 (Mr. T. Ishii, Manager)	04/22/85 01/26/96 <sup>+</sup>
D-3	D	<u>MARE CLEAN 200</u>	Ichinen Chemicals Co., Ltd Mita Twin Building, East Wing 8F 4-2-8, Shibaura, Minato-ku Tokyo, Japan 108-0023 PHONE: (81) 3-6414-5601 FAX: (81) 3-6414-5621 (Mr. Tsuyoshi Imai)	02/23/88 01/26/96 <sup>+</sup>
D-4	D	<u>COREXIT® EC9500A</u> <i>LISTING CHANGES PENDING, FOLLOWING VERIFICATION BY MANUFACTURER AND EPA</i>	Nalco Environmental Solutions LLC 7705 Highway 90-A Sugar Land, TX 77478 <u>PRODUCT MANAGEMENT:</u> OFFICE: (281) 263-7709 MOBILE: (832) 851-5164 E-MAIL: <a href="mailto:debby.therlot@nalco.com">debby.therlot@nalco.com</a> (Ms. Debby Therlot)	04/13/94 12/18/95 <sup>+</sup>
D-5	D	<u>DISPERSIT SPC 1000™</u> <i>(aka, SEACARE E.P.A. (ECOSPERSE™ POLLUTION ABATEMENT))</i>	U.S. Polychemical Corp. 584 Chestnut Ridge Road Chestnut Ridge, NY 10977 PHONE: (845) 356-5530 FAX: (845) 356-6656 E-MAIL: <a href="mailto:bruceg@uspoly.com">bruceg@uspoly.com</a> (Mr. Bruce Gebhardt)	04/22/99
D-6	D	<u>JD-109</u>	GlobeMark Resources Ltd. 1312 Mill Creek Drive Salado, TX 76571 MOBILE: (254) 231-2251 E-MAIL: <a href="mailto:joannie@globemarkresources.com">joannie@globemarkresources.com</a> or <a href="mailto:fiddler656@gmail.com">fiddler656@gmail.com</a> WEBSITE: <a href="http://www.globemarkresources.com">www.globemarkresources.com</a> (Ms. Joannie Docter)	09/20/00

\*Listing maintained per requirements of the revised Subpart J, Federal Register, Volume 59, Number 17, September 15, 1994

# NCP PRODUCT SCHEDULE

## DISPERSANTS (continued)

BULLETIN NUMBER	PRODUCT CATEGORY LISTED	PRODUCT NAME	SUBMITTER	DATE LISTED; RELISTED*; REMOVED#
D-7	D	<u>JD-2000™</u>	GlobeMark Resources Ltd. 1312 Mill Creek Drive Salado, TX 76571 MOBILE: (254) 231-2251 E-MAIL: <a href="mailto:joannie@globemarkresources.com">joannie@globemarkresources.com</a> or <a href="mailto:fiddler656@gmail.com">fiddler656@gmail.com</a> WEBSITE: <a href="http://www.globemarkresources.com">www.globemarkresources.com</a> (Ms. Joannie Docter)	D-7
D-8	D	<u>NOKOMIS 3-F4</u>	Mar-Len Supply, Inc. 23159 Kidder Street Hayward, CA 94545 PHONE: (510) 782-3555 FAX: (510) 782-2032 (Mr. Frank Winter)	D-8
D-9	D	<u>BIODISPERS</u> <i>Last Communication with Manufacturer: 9/20/2012</i> <i>Last Attempt: 3/21/2018</i>	Petrotech America Corporation 130 William Street, Suite 802 New York, NY 10038 PHONE: (212) 933-9071, ext. 7001 FAX: (877) 226-4028 E-MAIL: <a href="mailto:info@helppenvironmental.com">info@helppenvironmental.com</a> (Mr. Lawrence Gallo)	D-9
D-10	D	<u>SEA BRAT #4</u>	B.R.A.T. Microbial Products Inc. P.O. Box 7089 Pasadena, TX 77508 PHONE: (713) 724-9226 E-MAIL: <a href="mailto:alabastercorp@gmail.com">alabastercorp@gmail.com</a> (Mr. John Sheffield)	D-10
D-11	D	<u>FINASOL® OSR 52 (aka, SEACARE ECOSPERSE 52)</u>	TOTAL FLUIDES 24 cours Michelet La Défense 10 92069 Paris La Défense Cedex France PHONE: +33-1-41-35-60-29 UNITED STATES: (713) 297-1996 <u>24-HOUR EMERGENCY NUMBER:</u> (713) 297-1996 E-MAIL: <a href="mailto:david.doucet@total.com">david.doucet@total.com</a> WEBSITE: <a href="http://www.totalspecialfluids.com">www.totalspecialfluids.com</a> (Mr. David Doucet)	D-11

\*Listing maintained per requirements of the revised Subpart J, Federal Register, Volume 59, Number 17, September 15, 1994

# NCP PRODUCT SCHEDULE

## DISPERSANTS (continued)

BULLETIN NUMBER	PRODUCT CATEGORY LISTED	PRODUCT NAME	SUBMITTER	DATE LISTED; RELISTED <sup>†</sup> ; REMOVED <sup>#</sup>
D-12	D	<u>SAF-RON GOLD (aka, SF-GOLD DISPERSANT)</u> <i>LISTING CHANGES PENDING, FOLLOWING VERIFICATION BY MANUFACTURER AND EPA</i>	Sustainable Environmental Technologies, Inc. 55 Ivan Allen Jr. Boulevard, Suite 850 Atlanta, GA 30308 <u>CUSTOMER SERVICE:</u> PHONE: (404) 946-3585 <u>24-HOUR EMERGENCY NUMBER:</u> PHONE: (281) 845-9919 E-MAIL: <a href="mailto:support@sustainable-corp.com">support@sustainable-corp.com</a> ; <a href="mailto:bruce@sustainable-corp.com">bruce@sustainable-corp.com</a> WEBSITE: updated information required (Mr. Bruce Richards)	01/03/05
D-13	D	<u>ZI-400 (aka, ZI-400 OIL SPILL DISPERSANT)</u>	Z.I. Chemicals 8605 Santa Monica Boulevard, #38201 Los Angeles, CA 90069 PHONE: (818) 827-1301 E-MAIL: <a href="mailto:admin@zichemicals.com">admin@zichemicals.com</a> E-MAIL: <a href="mailto:zichemicals@mac.com">zichemicals@mac.com</a> WEBSITE: <a href="http://www.zichemicals.com">www.zichemicals.com</a> (Mr. Barnaby Zelman)	06/16/05
D-14	D	<u>NOKOMIS 3-AA</u>	Mar-Len Supply, Inc. 23159 Kidder Street Hayward, CA 94545 PHONE: (510) 782-3555 FAX: (510) 782-2032 (Mr. Frank Winter)	07/31/08
D-16	D	<u>ACCELL CLEAN® DWD</u>	Advanced BioCatalytics Corporation 18010 Skypark Circle, #130 Irvine, California 92614-6456 OFFICE: (949) 442-0880 GENERAL E-MAIL: <a href="mailto:info@abiocat.com">info@abiocat.com</a> WEBSITE: <a href="http://www.abiocat.com">www.abiocat.com</a> <u>PRODUCT MANAGEMENT:</u> MOBILE: (949) 981-6510 E-MAIL: <a href="mailto:cpodella@abiocat.com">cpodella@abiocat.com</a> (Mr. Carl Podella)	07/18/11
D-17	D	<u>FFT-SOLUTION®</u>	Fog Free Technologies, LLC 4365 Dorchester Road Building 300, Suite 301 North Charleston, SC 29405 <u>PRODUCT MANAGEMENT</u> OFFICE PHONE: (843) 735-6626 MOBILE: (478) 697-2588 E-MAIL: <a href="mailto:doc@fogfreetechnologies.com">doc@fogfreetechnologies.com</a> WEBSITE: <a href="http://www.fogfreetechnologies.com">www.fogfreetechnologies.com</a> (Mr. William Knight)	11/01/11

\*Listing maintained per requirements of the revised Subpart J, Federal Register, Volume 59, Number 17, September 15, 1994

# NCP PRODUCT SCHEDULE

## DISPERSANTS (continued)

BULLETIN NUMBER	PRODUCT CATEGORY LISTED	PRODUCT NAME	SUBMITTER	DATE LISTED; RELISTED*; REMOVED#
D-18	D	<u>MARINE D-BLUE CLEAN™</u>	AGS Solutions, Inc. 5647 Nunn Street Houston, TX 77087 PHONE: (713) 645-4933 FAX: (713) 645-4903 (Mrs. Linda Whitley)	04/23/12
D-19	D	<u>COREXIT® EC9500B</u> <i>LISTING CHANGES PENDING, FOLLOWING VERIFICATION BY MANUFACTURER AND EPA</i>	Nalco Environmental Solutions LLC 7705 Highway 90-A Sugar Land, TX 77478 <u>PRODUCT MANAGEMENT:</u> OFFICE: (281) 263-7709 MOBILE: (832) 851-5164 E-MAIL: <a href="mailto:debby.therlot@nalco.com">debby.therlot@nalco.com</a> (Ms. Debby Therlot)	08/01/13

# NCP PRODUCT SCHEDULE

## MISCELLANEOUS OIL SPILL CONTROL AGENTS

BULLETIN NUMBER	PRODUCT CATEGORY LISTED	PRODUCT NAME	SUBMITTER	DATE LISTED; RELISTED <sup>+</sup> ; REMOVED <sup>#</sup>
M-12	M	<u>PES-51</u>	Practical Environmental Solutions (formerly known as Petroleum Environmental Services) P.O. Box 12563 San Antonio, TX 78212 PHONE: (210) 493-7172 MOBILE : (210) 875-4011 FAX: (210) 493-7172 E-MAIL: <a href="mailto:simsbi@aol.com">simsbi@aol.com</a> E-MAIL: <a href="mailto:bill.sims@pes51.com">bill.sims@pes51.com</a> WEBSITE: <a href="http://www.pes51.com">www.pes51.com</a> (Mr. Bill Sims)	08/31/92 09/13/95 <sup>+</sup>
M-17	M-Solidifier	<u>CIAGENT</u>	CIAGENT Solutions, LLC 11760 Commonwealth Drive Louisville, KY 40299 PHONE: (502) 267-0101 PHONE: (800) 255-6073 FAX: (502) 267-0181 E-MAIL: <a href="mailto:dan@ciagent.com">dan@ciagent.com</a> WEBSITE: <a href="http://www.ciagent.com">www.ciagent.com</a> (Mr. Dan Parker)	02/25/94 06/14/95 <sup>+</sup>
M-18	M	<u>ZYME-FLOW (aka, ZYME-TREAT, MARI- ZYME, UNITED 658 PETRO-ZYME)</u>	United Laboratories, Inc. 320 37th Avenue St. Charles, IL 60174 PHONE: (630) 377-0900 x7408 PHONE: (800) 323-2594 FAX: (630) 377-0960 E-MAIL: <a href="mailto:nsherrel@unitedlabsinc.com">nsherrel@unitedlabsinc.com</a> (Ms. Nancy Sherrel)	03/29/94 03/12/97 <sup>+</sup>
M-19	M-Solidifier	<u>WASTE-SET #3200®</u> <i>Last Communication with Manufacturer: 11/03/2008</i> <i>Last Attempt: 8/30/2016</i>	Environmental & Fire Technology, LLC 3374 West River Drive NW Grand Rapids, MI 49544 (Mr. Cal Blystra)	04/22/96
M-20	M-Solidifier	<u>WASTE-SET #3400®</u> <i>Last Communication with Manufacturer: 11/03/2008</i> <i>Last Attempt: 8/30/2016</i>	Environmental & Fire Technology, LLC 3374 West River Drive NW Grand Rapids, MI 49544 (Mr. Cal Blystra)	04/22/96
M-22	M	<u>PX-700™</u>	Enviro-Tech 1907 Southwest 47 <sup>th</sup> Street Cape Coral, FL 33914 PHONE: (239) 997-6300 FAX: (239) 424-8408 E-MAIL: <a href="mailto:Info@envirotechofamerica.com">Info@envirotechofamerica.com</a> WEBSITE: <a href="http://www.px700.com">www.px700.com</a> (Mr. Charlie Jones)	02/27/98 10/05/98 <sup>+</sup>

\*Listing maintained per requirements of the revised Subpart J, Federal Register, Volume 59, Number 17, September 15, 1994

# NCP PRODUCT SCHEDULE

## MISCELLANEOUS OIL SPILL CONTROL AGENTS (continued)

BULLETIN NUMBER	PRODUCT CATEGORY LISTED	PRODUCT NAME	SUBMITTER	DATE LISTED; RELISTED <sup>+</sup> ; REMOVED <sup>#</sup>
M-23	M-Solidifier	<u>ALSOCUP</u>	REVCOM Associates 1550 Rimpau Avenue #53 Corona, CA 92881 PHONE: (951) 737-0104 E-MAIL: <a href="mailto:revcom@sbcglobal.net">revcom@sbcglobal.net</a> (Mr. Dave Naylor, President)	11/23/98
M-24	M-Solidifier	<u>RAPIDGRAB 2000™</u>	GlobeMark Resources Ltd. 1312 Mill Creek Drive Salado, TX 76571 MOBILE: (254) 231-2251 E-MAIL: <a href="mailto:joannie@globemarkresources.com">joannie@globemarkresources.com</a> or <a href="mailto:fiddler656@gmail.com">fiddler656@gmail.com</a> WEBSITE: <a href="http://www.globemarkresources.com">www.globemarkresources.com</a> (Ms. Joannie Docter)	01/26/01
M-25	M-Solidifier	<u>OIL SOLUTIONS POWDER (aka, AQUA N-CAP™ POLYMER)</u>	Oil Solutions International 35 Mill Street Amityville, NY 11701 PHONE: (631) 608-8889 FAX: (631) 789-1676 E-MAIL: <a href="mailto:4oilgreen@gmail.com">4oilgreen@gmail.com</a> WEBSITE: <a href="http://www.cleaningupoil.com">www.cleaningupoil.com</a> (Mr. Dennis J. Traina, President)	11/09/06
M-26	M	<u>ELASTOL (aka, SEPARATE; LIQUID ELASTOL)</u>	Action Additives, Inc. 205 Industrial Road P.O. Box 965 Ducktown, TN 37326 PHONE: (423) 496-5000 PHONE: (800) 496-5110 (Mr. Tim Kaylor)	06/30/08 <sup>+</sup>
M-27	M-Solidifier	<u>OIL BOND®</u>	Solidification Products International, Inc. P.O. Box 35 524 Forrest Road Northford, CT 06472 PHONE: (203) 484-9494 PHONE: (800) 758-3634 FAX: (203) 484-9492 E-MAIL: <a href="mailto:dgannon@oilbarriers.com">dgannon@oilbarriers.com</a> (Ms. Donna Gannon)	06/03/10
M-28	M	<u>OPFLEX®</u>	Opflex Solutions P.O. Box 355 West Hyannisport, MA 02672 PHONE: (508) 345-6520 FAX: (508) 425-2990 E-MAIL: <a href="mailto:ssmith@opflexinventor.com">ssmith@opflexinventor.com</a> WEBSITE: <a href="http://www.opflex.com">www.opflex.com</a> (Mr. Scott Smith)	08/17/10

\*Listing maintained per requirements of the revised Subpart J, Federal Register, Volume 59, Number 17, September 15, 1994

# NCP PRODUCT SCHEDULE

## MISCELLANEOUS OIL SPILL CONTROL AGENTS (continued)

BULLETIN NUMBER	PRODUCT CATEGORY LISTED	PRODUCT NAME	SUBMITTER	DATE LISTED; RELISTED <sup>†</sup> ; REMOVED <sup>‡</sup>
M-29	M-Solidifier	<u>GELCO 200</u>	UESS, Ltd. Box 6088 Drayton Valley, AB, Canada T7A 1R6 PHONE: (780) 621-6870 E-MAIL: <a href="mailto:hugh.morrison@telus.net">hugh.morrison@telus.net</a> (Mr. Hugh Morrison)	08/17/10
M-30	M-Solidifier	<u>NORSOREX® APX</u>	D-NOV GmbH Perfektastrasse 86 A-1230 Vienna Austria, Europe OFFICE: 43-1-869-07-60-0 PHONE: 43-664-100-8567 FAX: 43-1-869-07-60-10 E-MAIL: <a href="mailto:office@d-nov.com">office@d-nov.com</a> WEBSITE: <a href="http://www.d-nov.com">www.d-nov.com</a> (Mr. Gerhard Karall, COO)	04/26/12
M-31	M-Solidifier	<u>CAS 100©</u>	Tradewinds Environmental Safety Services SA de CV Calle 1 "E" No. 245 por 30 y 36 Col. Campestre Merida, Mexico C.P 97120 PHONE: 52-1-999-227-4238 EMAIL: <a href="mailto:mharper@lessmexico.com">mharper@lessmexico.com</a> (Mr. Michael Harper)	11/09/15
M-32	M	<u>S-200 OILGONE®</u>	RBL Environmental, LLC 1311 Dorothy Avenue Phoenixville, PA 19460 PHONE: (610) 520-7665 E-MAIL: <a href="mailto:jim.lynn@lepusa.com">jim.lynn@lepusa.com</a> (Mr. James Lynn)	04/21/16
M-33	M-Solidifier	<u>HYDRO-BOND™</u>	Oil Spill Solutions, LLC 153 Foster Street Center, TX 75953 PHONE: (936) 598-6595 FAX: (936) 598-6338 E-MAIL: <a href="mailto:fred@fredwulf.com">fred@fredwulf.com</a> WEBSITE: <a href="http://www.oilspillsolutionsllc.com">www.oilspillsolutionsllc.com</a> (Mr. Fred Wulf)	8/22/2016

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# NCP PRODUCT SCHEDULE

## SURFACE COLLECTING AGENTS

BULLETIN NUMBER	PRODUCT CATEGORY LISTED	PRODUCT NAME	SUBMITTER	DATE LISTED; RELISTED <sup>†</sup> ; REMOVED <sup>#</sup>
S-5	S	<u>THICKSLICK 6535</u> <i>LISTING CHANGES PENDING, FOLLOWING VERIFICATION BY MANUFACTURER AND EPA</i>	Desmi, Inc. 1119 Cavalier Boulevard Chesapeake, VA 23323 PHONE: (716) 662-0632 E-MAIL: <a href="mailto:pla@desmi.com">pla@desmi.com</a> WEBSITE: <a href="http://www.desmi.com">www.desmi.com</a> (Mr. Peter Lane)	06/29/12
S-6	S	<u>SILTECH OP-40</u> <i>LISTING CHANGES PENDING, FOLLOWING VERIFICATION BY MANUFACTURER AND EPA</i>	Desmi, Inc. 1119 Cavalier Boulevard Chesapeake, VA 23323 PHONE: (716) 662-0632 E-MAIL: <a href="mailto:pla@desmi.com">pla@desmi.com</a> WEBSITE: <a href="http://www.desmi.com">www.desmi.com</a> (Mr. Peter Lane)	06/29/12

\*Listing maintained per requirements of the revised Subpart J, Federal Register, Volume 59, Number 17, September 15, 1994

# NCP PRODUCT SCHEDULE

## SURFACE WASHING AGENTS

BULLETIN NUMBER	PRODUCT CATEGORY LISTED	PRODUCT NAME	SUBMITTER	DATE LISTED; RELISTED <sup>†</sup> ; REMOVED <sup>#</sup>
SW-2	SW	<u>TOPSALL #30 (Oil and Petroleum Cleaning Agent) (aka, SUPERALL #38)</u>	Stutton North Corporation P.O. Box 724 Mandeville, LA 70470 PHONE: (985) 626-3900 FAX: (985) 674-0476 (Mr. David Anton)  Superall Products LLP P.O. Box 2954 Spring, TX 77383 PHONE: (281) 351-4800 FAX: (281) 351-4855 WEBSITE: <a href="http://www.superall.com">www.superall.com</a> E-MAIL: <a href="mailto:info@superall.com">info@superall.com</a> (Mr. Sammy Roberts II)	01/07/85 08/21/95 <sup>+</sup>
SW-9	SW	<u>CN-110</u>  <i>Last Communication with Manufacturer: 11/03/2008</i>  <i>Last Attempt: 3/21/2018</i>	Chemex, Incorporated 107-B Balboa Drive Broussard, LA 70518 E-MAIL: <a href="mailto:chemex@msn.com">chemex@msn.com</a> (Mr. Gale Campbell)	05/25/89 04/16/96 <sup>+</sup>
SW-10	SW	<u>COREXIT® EC9580A</u>  <i>LISTING CHANGES PENDING, FOLLOWING VERIFICATION BY MANUFACTURER AND EPA</i>	Nalco Environmental Solutions LLC 7705 Highway 90-A Sugar Land, TX 77478 <u>PRODUCT MANAGEMENT:</u> OFFICE: (281) 263-7709 MOBILE: (832) 851-5164 E-MAIL: <a href="mailto:debby.theriot@nalco.com">debby.theriot@nalco.com</a> (Ms. Debby Theriot)	07/21/89 09/27/95 <sup>+</sup>
SW-11	SW	<u>DE-SOLV-IT INDUSTRIAL FORMULA</u>	Orange-Sol Blending and PackagIng 1400 N Fiesta Boulevard Gilbert, AZ 85233 PHONE: (800) 877-7771 FAX: (480) 497-0444 E-MAIL: <a href="mailto:albert.farnsworth@orange-sol.com">albert.farnsworth@orange-sol.com</a> WEBSITE: <a href="http://www.orange-sol.com">www.orange-sol.com</a> (Mr. Albert Farnsworth or Mr. Jack Farnsworth at (480) 319-0141)	06/26/89 09/15/94 <sup>#</sup> 07/07/10 <sup>+</sup>
SW-12	SW	<u>PREMIER 99</u>	Gold Coast Chemical Products 2357 Stirling Road Dania Beach, FL 33312 PHONE: (954) 893-0044 FAX: (954) 893-8884 E-MAIL: <a href="mailto:noslime@goldcoastchemical.com">noslime@goldcoastchemical.com</a> (Mr. Eli Finkelberg or Ms. Maria Morris)	08/11/89 11/02/95 <sup>+</sup>

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# NCP PRODUCT SCHEDULE

## SURFACE WASHING AGENTS (continued)

BULLETIN NUMBER	PRODUCT CATEGORY LISTED	PRODUCT NAME	SUBMITTER	DATE LISTED; RELISTED <sup>+</sup> ; REMOVED <sup>#</sup>
SW-15	SW	<u>SIMPLE GREEN® (Water Based)</u>	Sunshine Makers, Inc. 15922 Pacific Coast Highway Huntington Beach, CA 92649 PHONE: (800) 228-0709 PHONE: (562) 795-6000 FAX: (562) 592-3830 (Ms. Carol Chapin)	04/23/90 08/30/95 <sup>+</sup>
SW-16	SW	<u>AQUACLEAN</u>	Madison Chemical Company, Inc. 3141 Clifty Drive Madison, IN 47250 PHONE: (812) 273-6000 FAX: (812) 273-6002 E-MAIL: <a href="mailto:cara.cyrus@madchem.com">cara.cyrus@madchem.com</a> (Ms. Cara Cyrus)	07/08/91 06/14/95 <sup>+</sup>
SW-18	SW	<u>NATURE'S WAY HS</u> <i>Last Communication with Manufacturer: 6/20/2016</i> <i>Last Attempt: 3/21/2018</i>	Integra Environmental, Ltd. 5825 Centralcrest Houston, TX 77092 PHONE: updated information required FAX: updated information required E-MAIL: updated information required WEBSITE: updated information required (Ms. Cathy Kalser)	10/23/96
SW-19	SW	<u>CYTOSOL</u>	CytoCulture International, Inc. 249 Tewksbury Avenue Point Richmond, CA 94801-3829 PHONE: (510) 233-0102 EMERGENCY MOBILE: (510) 233-0102 FAX: (510) 233-3777 E-MAIL: <a href="mailto:rwwedel@gmail.com">rwwedel@gmail.com</a> E-MAIL: <a href="mailto:cytoculture@gmail.com">cytoculture@gmail.com</a> WEBSITE: <a href="http://www.cytosolbiosolvent.com">www.cytosolbiosolvent.com</a> WEBSITE: <a href="http://www.cytoculture.com">www.cytoculture.com</a> (Dr. Randall von Wedel)	01/30/97
SW-20	SW	<u>BIOSOLVE®</u> <u>PINKWATER®</u>	The BioSolve® Company 329 Massachusetts Avenue Lexington, MA 02420 PHONE: (781) 482-7900 PHONE: (800) 225-3909 FAX: (781) 482-7909 E-MAIL: <a href="mailto:Info@biosolve.com">Info@biosolve.com</a> WEBSITE: <a href="http://www.biosolve.com">www.biosolve.com</a> (Mr. Karl Loos or Mr. James Edgerly)	03/21/97

\*Listing maintained per requirements of the revised Subpart J, Federal Register, Volume 59, Number 17, September 15, 1994

# NCP PRODUCT SCHEDULE

## SURFACE WASHING AGENTS (continued)

BULLETIN NUMBER	PRODUCT CATEGORY LISTED	PRODUCT NAME	SUBMITTER	DATE LISTED; RELISTED <sup>+</sup> ; REMOVED <sup>#</sup>
SW-21	SW	<u>PETROTECH 25</u> <i>Last Communication with Manufacturer: 9/20/2012</i> <i>Last Attempt: 3/21/2018</i>	Petrotech America Corporation 130 William Street, Suite 802 New York, NY 10038 PHONE: (212) 933-9071, ext. 7001 FAX: (877) 226-4028 E-MAIL: <a href="mailto:info@helppenvironmental.com">info@helppenvironmental.com</a> (Mr. Lawrence Gallo)	03/02/98
SW-23	SW	<u>PETRO-CLEAN</u>	B.R.A.T. Microbial Products Inc. P.O. Box 7089 Pasadena, TX 77508 PHONE: (713) 724-9226 E-MAIL: <a href="mailto:alabastercorp@gmail.com">alabastercorp@gmail.com</a> (Mr. John Sheffield)	03/01/99
SW-24	SW	<u>DO-ALL #18</u> <i>Last Communication with Manufacturer: 8/17/2012</i> <i>Last Attempt: 3/21/2018</i>	Radcob Solutions, Inc. 4800 North State Road 7 Suite #105 Lauderdale Lakes, FL 33319 PHONE: (954) 249-2178 FAX: (954) 640-7080 E-MAIL: updated information required WEBSITE: updated information required (Mr. Adam Goldberg)	07/14/00
SW-25	SW	<u>SC-1000™</u>	GEMTEK® Products 3808 North 28 <sup>th</sup> Avenue Phoenix, AZ 85017 EMERGENCY NUMBER: (602) 265-8586 PHONE: (800) 331-7022 FAX: (602) 265-7241 E-MAIL: <a href="mailto:info@gemtek.com">info@gemtek.com</a> (Mr. Kim Kristoff)	07/09/01
SW-26	SW	<u>GOLD CREW SW</u>	Gold Crew Products & Services, LLC P.O. Box 12032 Orange, CA 92859 PHONE: (714) 288-8781 FAX: (714) 288-8730 E-MAIL: <a href="mailto:jfigueira@goldcrew.net">jfigueira@goldcrew.net</a> WEBSITE: <a href="http://www.goldcrew.net">www.goldcrew.net</a> (Mr. Jim Figueira)	08/06/01
			ECS 9014 Peacock Hill Avenue, Suite 200 Gig Harbor, WA 98332 PHONE: (877) 253-2665 (Mr. Ed Grubbs)	

\*Listing maintained per requirements of the revised Subpart J, Federal Register, Volume 59, Number 17, September 15, 1994

# NCP PRODUCT SCHEDULE

## SURFACE WASHING AGENTS (continued)

BULLETIN NUMBER	PRODUCT CATEGORY LISTED	PRODUCT NAME	SUBMITTER	DATE LISTED; RELISTED <sup>†</sup> ; REMOVED <sup>#</sup>
SW-28	SW	<u>NALE-IT</u>	SPL Control LLC P.O. Box 627 Etemore City, OK 73433 PHONE: (580) 788-2187 E-MAIL: <a href="mailto:splcontrol@aol.com">splcontrol@aol.com</a> (Mr. Tom Lester)	11/05/01
SW-30	SW	<u>F-500</u>	Hazard Control Technologies, Inc. 150 Walter Way Fayetteville, GA 30214 PHONE: (770) 719-5112 FAX: (770) 719-5117 (Mr. Christopher L. Champion)	07/24/02
SW-31	SW	<u>ENVIROCLEAN</u>	Enviro Clean Services, LLC P.O. Box 721090 Oklahoma City, OK 73172-1090 PHONE: (405) 373-4545 FAX: (405) 373-4549 E-MAIL: <a href="mailto:info@eccgrp.com">info@eccgrp.com</a> E-MAIL: <a href="mailto:jonathan.behymer@eccgrp.com">jonathan.behymer@eccgrp.com</a> WEBSITE: <a href="http://www.eccgrp.com">www.eccgrp.com</a> (Mr. Jonathan Behymer)	10/27/03
SW-32	SW	<u>BG-CLEAN™ 401</u>	Amiran BioChemicals, LLC 7221 South 10 <sup>th</sup> Street Oak Creek, WI 53154 PHONE: (414) 571-6230 FAX: (414) 571-6231 (Dr. Mohsen Amiran) PHONE: (414) 939-8405 FAX: (414) 571-6231 E-MAIL: <a href="mailto:samiran@amiran-technologies.com">samiran@amiran-technologies.com</a> E-MAIL: <a href="mailto:jwilde@amiran-technologies.com">jwilde@amiran-technologies.com</a> (Mr. Sherwin Amiran or Mr. Jason Wilde at (703) 216-0194)	07/21/05
SW-33	SW	<u>E-SAFE®</u>	PLUTUS Environmental Technologies, Inc. 300 John L Marshall Drive Sevierville, TN 37862 PHONE: (865) 214-0350 E-MAIL: <a href="mailto:plutusceo@mail.com">plutusceo@mail.com</a> (Mr. James Hatcher)	11/27/06
SW-34	SW	<u>SHEEN-MAGIC®</u>	PLUTUS Environmental Technologies, Inc. 300 John L Marshall Drive Sevierville, TN 37862 PHONE: (865) 214-0350 E-MAIL: <a href="mailto:plutusceo@mail.com">plutusceo@mail.com</a> (Mr. James Hatcher)	11/27/06

\*Listing maintained per requirements of the revised Subpart J, Federal Register, Volume 59, Number 17, September 15, 1994

# NCP PRODUCT SCHEDULE

## SURFACE WASHING AGENTS (continued)

BULLETIN NUMBER	PRODUCT CATEGORY LISTED	PRODUCT NAME	SUBMITTER	DATE LISTED; RELISTED <sup>†</sup> ; REMOVED <sup>#</sup>
SW-35	SW	<u>PROCLEANS</u>	Eximco International, Inc. 5250 Gulfton, #2-B Houston, TX 77081 PHONE: (713) 432-7899 E-MAIL: <a href="mailto:procleans@procleans.com">procleans@procleans.com</a> E-MAIL: <a href="mailto:eximco@eximco.net">eximco@eximco.net</a> (Mr. Nat Brown)	06/16/08
SW-36	SW	<u>SPILLCLEAN</u> <u>SPILLCLEAN</u> ("Concentrate") <u>(aka, FIREMAN'S BRAND</u> <u>SPILLCLEAN)</u>	Super Sat Ventures, Inc. S96 W34577 Jericho Drive Eagle, WI 53119 PHONE: (414) 840-9223 (Mr. Daniel W. Klein)	03/30/09
SW-37	SW	<u>TXCHEM HE-1000™</u>	Texas EnviroChem, Inc. 11410 Dumas Street Houston, TX 77034 PHONE: (713) 806-4099 (Mr. Pete Franks)	03/15/10
SW-38	SW	<u>NOKOMIS 5-W</u>	Mar-Len Supply, Inc. 23159 Kidder Street Hayward, CA 94545 PHONE: (510) 782-3555 FAX: (510) 782-2032 (Mr. Frank Winter)	05/11/10
SW-39	SW	<u>G-CLEAN OSC-1809</u> <u>(aka, OIL SPILL</u> <u>CLEANUP</u> <i>LISTING CHANGES PENDING, FOLLOWING VERIFICATION BY MANUFACTURER AND EPA</i>	Green Earth Technologies 1136 Celebration Boulevard Celebration, FL 34347 PHONE: (330) 540-4220 FAX: (815) 331-0931 E-MAIL: <a href="mailto:mlukco@getg.com">mlukco@getg.com</a> E-MAIL: <a href="mailto:jloch@getg.com">jloch@getg.com</a> WEBSITE: <a href="http://www.getg.com">www.getg.com</a> (Mr. Michael Lukco)	07/02/10
SW-40	SW	<u>GREEN BEAST™ OIL</u> <u>SPILL &amp; ODOR</u> <u>REMEDIATOR (aka,</u> <u>GREEN BEAST</u> <u>WASHING AGENT; ALL</u> <u>PURPOSE CLEANER &amp;</u> <u>REMEDIATOR)</u>	BioFusion Corporation 310 Godwin Avenue Ridgewood, NJ 07450 PHONE: (201) 447-6241 FAX: (201) 444-2307 E-MAIL: <a href="mailto:gubb@biofusion.com">gubb@biofusion.com</a> (Mr. David Gubb)	07/06/10

\*Listing maintained per requirements of the revised Subpart J, Federal Register, Volume 59, Number 17, September 15, 1994

# NCP PRODUCT SCHEDULE

## SURFACE WASHING AGENTS (continued)

BULLETIN NUMBER	PRODUCT CATEGORY LISTED	PRODUCT NAME	SUBMITTER	DATE LISTED; RELISTED <sup>†</sup> ; REMOVED <sup>#</sup>
SW-41	SW	<u>TULXA</u>	Grupo Arthuriana S.A. de C.V. Cuernavaca No. 43 Colonia Condesa Delegación Cuauhtémoc Mexico, Distrito Federal C.P. 06140 PHONE: 011 52 (55) 52 41 11 90 FAX: 011 52 (55) 53 61 13 54 E-MAIL: <a href="mailto:sogarcia@arthuriana.com.mx">sogarcia@arthuriana.com.mx</a> , <a href="mailto:sogarcia@onsite.com.mx">sogarcia@onsite.com.mx</a> , <a href="mailto:bescorcia@arthuriana.com.mx">bescorcia@arthuriana.com.mx</a> , <a href="mailto:bescorcia@onsite.com.mx">bescorcia@onsite.com.mx</a> WEBSITE: <a href="http://www.grupoarthuriana.com.mx">www.grupoarthuriana.com.mx</a> (Ms. Susana Garcia Ballesteros or Ms. Bertha Escorcia Rodriguez)	07/13/10
SW-42	SW	<u>MARINE GREEN CLEAN™</u>	AGS Solutions, Inc. 5647 Nunn Street Houston, TX 77087 PHONE: (713) 645-4933 FAX: (713) 645-4903 E-MAIL: <a href="mailto:agssolutionsinc@gmail.com">agssolutionsinc@gmail.com</a> WEBSITE: <a href="http://www.agstx.com">www.agstx.com</a> (Mrs. Linda Whiteley)	07/28/10
SW-43	SW	<u>MARINE GREEN CLEAN PLUS™</u>	AGS Solutions, Inc. 5647 Nunn Street Houston, TX 77087 PHONE: (713) 645-4933 FAX: (713) 645-4903 E-MAIL: <a href="mailto:agssolutionsinc@gmail.com">agssolutionsinc@gmail.com</a> WEBSITE: <a href="http://www.agstx.com">www.agstx.com</a> (Mrs. Linda Whiteley)	07/28/10
SW-44	SW	<u>CLEAN GREEN (aka, CLEANGREEN® PLANET WASH)</u>	U.S. AG, LLC P.O. Box 368 Luthersville, GA 30251 PHONE: (770) 927-3206 FAX: (770) 927-3968 E-MAIL: <a href="mailto:unitedstatesag@yahoo.com">unitedstatesag@yahoo.com</a> WEBSITE: <a href="http://www.unitedstatesag.org">www.unitedstatesag.org</a> (Mr. Carl Schneider)	08/05/10
SW-45	SW	<u>SOC 10 (SURFACE OIL CLEANER)</u> <i>Last Communication with Manufacturer: 8/05/2010 Last Attempt: 3/21/2018</i>	Oil Treatment International AG Seestrasse 5 CH-6300 Zug Switzerland PHONE: 01141-41-727-2100 FAX: 01141-41-727-2109 (Mr. Paul Schuler)	08/05/10

\*Listing maintained per requirements of the revised Subpart J, Federal Register, Volume 59, Number 17, September 15, 1994

# NCP PRODUCT SCHEDULE

## SURFACE WASHING AGENTS (continued)

BULLETIN NUMBER	PRODUCT CATEGORY LISTED	PRODUCT NAME	SUBMITTER	DATE LISTED; RELISTED <sup>†</sup> ; REMOVED <sup>#</sup>
SW-46	SW	<u>BIOGRASS EXTRA®</u>	Química del Desierto, S. De R.L. de C.V. Trasviña y Retes 6103-2 Col. Panamericana Chihuahua, Chihuahua, Mexico C.P. 31210 PHONE: +52-1-614-110-2650 E-MAIL: <a href="mailto:erich.wolf@biograssextra.com">erich.wolf@biograssextra.com</a> WEBSITE: <a href="http://www.biograssextra.com">www.biograssextra.com</a> (Ing. Erich Wolf)	08/17/10
SW-47	SW	<u>ENVIRONMENTAL 1 CRUDE OIL CLEANER</u> <u>(aka, ENVIRONMENTAL 1 WASHING AGENT)</u>	Environmental 1, LLC P.O. Box 9 Jackson, TN 38302 PHONE: (615) 269-0506 FAX: (615) 269-0025 E-MAIL: <a href="mailto:info@environmental-one.com">info@environmental-one.com</a> E-MAIL: <a href="mailto:mfb@environmental-one.com">mfb@environmental-one.com</a> WEBSITE: <a href="http://www.environmental-one.com">www.environmental-one.com</a> (Ms. Mary Frances Blankenship, President)	08/25/10
SW-48	SW	<u>SANDKLENE 950</u>	MDEChem, Inc. 923 10 <sup>th</sup> Street PMB 101 Floresville, TX 78114 PHONE: (830) 393-5293 E-MAIL: <a href="mailto:corporateoffice@mdechem.com">corporateoffice@mdechem.com</a> WEBSITE: <a href="http://www.mdechem.com">www.mdechem.com</a> (Mr. Paul Sack)	10/04/10
SW-49	SW	<u>DE-SOLV-IT CLEAN AWAY APC SUPER CONCENTRATE</u>	Orange-Sol Blending and Packaging 1400 N Fiesta Boulevard Gilbert, AZ 85233 PHONE: (800) 877-7771 FAX: (480) 497-0444 E-MAIL: <a href="mailto:albert.farnsworth@orange-sol.com">albert.farnsworth@orange-sol.com</a> WEBSITE: <a href="http://www.orange-sol.com">www.orange-sol.com</a> (Mr. Albert Farnsworth or Mr. Jack Farnsworth at (480) 319-0141)	11/10/10
SW-50	SW	<u>EO ALL PURPOSE SOAP-LAVENDER</u>	EO Products/Small World Trading Company 90 Windward Way San Rafael, CA 94901 PHONE: (415) 945-1900 FAX: (415) 945-7117 E-MAIL: <a href="mailto:joyce@eoproducts.com">joyce@eoproducts.com</a> or <a href="mailto:sam@eoproducts.com">sam@eoproducts.com</a> WEBSITE: <a href="http://www.eoproducts.com">www.eoproducts.com</a> (Ms. Joyce Tsang or Mr. Sam Borri)	11/17/10

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# NCP PRODUCT SCHEDULE

## SURFACE WASHING AGENTS (continued)

BULLETIN NUMBER	PRODUCT CATEGORY LISTED	PRODUCT NAME	SUBMITTER	DATE LISTED; RELISTED*; REMOVED#
SW-51	SW	<u>DYNAMIC GREEN™</u>	Wechem, Inc. 5734 Susitna Drive Harahan, LA 70123 PHONE: (800) 426-0512 PHONE: (504) 733-1152 FAX: (504) 733-2218 E-MAIL: <a href="mailto:mwisecarver@wechem.com">mwisecarver@wechem.com</a> or <a href="mailto:okropog@wechem.com">okropog@wechem.com</a> WEBSITE: <a href="http://www/wechemc.com">www/wechemc.com</a> (Mr. Mike WiseCarver)	12/07/10
SW-52	SW	<u>VERU-SOLVE™ MARINE 200 HP</u> <i>Last Communication with Manufacturer: 8/29/2012</i> <i>Last Attempt: 3/21/2018</i>	VeruTEK® Technologies 65 West Dudley Town Road, Suite 100 Bloomfield, CT 06002 PHONE: updated information required FAX: updated information required E-MAIL: <a href="mailto:bmcavoy@verutek.com">bmcavoy@verutek.com</a> WEBSITE: <a href="http://www.verutek.com">www.verutek.com</a> (Ms. Bethany McAvoy)	12/09/10
SW-53	SW	<u>NATURAMA G3 A-5</u>	Green Life Development, Inc. 5112 W. Charleston Boulevard, Suite C Las Vegas, NV 89146 PHONE: 702-966-1284 MOBILE: 702-355-5102 FAX: 702-448-6977 E-MAIL: <a href="mailto:david@greenlifedevelopment.com">david@greenlifedevelopment.com</a> WEBSITE: <a href="http://www.greenlifedevelopment.com">www.greenlifedevelopment.com</a> (Mr. David A. Levy)	01/26/11
SW-54	SW	<u>SAFE KLEEN</u>	Anti Slip Solutions Ltd. Bridge House Severn House Riverside North, Bewdley, Worcestershire, DY12 1AB, UK PHONE: 44(0)1299-406-011 FAX: 44(0)1299-406-023 E-MAIL: <a href="mailto:info@safegrip.co.uk">info@safegrip.co.uk</a> (Mr. Dan Bayliss)	02/25/11
SW-55	SW	<u>CORIBA 700 SR (aka, CORIBA 700 ER, CORIBA 700 OS)</u> <i>LISTING CHANGES PENDING, FOLLOWING VERIFICATION BY MANUFACTURER AND EPA</i>	Coriba Technologies, LLC 5708 Cadron Creek North Little Rock, AR 72116 PHONE: updated information required E-MAIL: <a href="mailto:ronrios@bellsouth.net">ronrios@bellsouth.net</a> (Mr. Harvey G. Cobb)	02/25/11

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# NCP PRODUCT SCHEDULE

## SURFACE WASHING AGENTS (continued)

BULLETIN NUMBER	PRODUCT CATEGORY LISTED	PRODUCT NAME	SUBMITTER	DATE LISTED; RELISTED*; REMOVED#
SW-56	SW	<u>CORIBA 713 SR (aka, CORIBA 713 ER, CORIBA 713 OS)</u> <i>LISTING CHANGES PENDING, FOLLOWING VERIFICATION BY MANUFACTURER AND EPA</i>	Coriba Technologies, LLC 5708 Cadron Creek North Little Rock, AR 72116 PHONE: updated information required E-MAIL: <a href="mailto:ronrios@bellsouth.net">ronrios@bellsouth.net</a> (Mr. Harvey G. Cobb)	02/25/11
SW-57	SW	<u>JEP-MARINE CLEAN (aka, ECOVOOM-MARINE)</u>	Nuance Solutions* 900 E. 103 <sup>rd</sup> Street, Suite D Chicago, IL 60628 PHONE: (800) 621-8553 FAX: (800) 621-1276 (Mr. Neill Houtsma)	05/11/11
SW-58	SW	<u>ETHOS CLEAN</u> <i>Last Communication with Manufacturer: 9/27/2012</i> <i>Last Attempt: 3/21/2018</i>	MAG7 Venture Group, LLC, DBA MAG 7 Technologies 1 Lepage Place, Suite 100 Syracuse, NY 13206 PHONE: updated information required FAX: updated information required E-MAIL: updated information required WEBSITE: updated information required (Mr. Greg Goodell or Mr. Trevor Quig)	06/28/11
SW-59	SW	<u>OSR-10</u> <i>Last Communication with Manufacturer: 9/27/2012</i> <i>Last Attempt: 3/21/2018</i>	MAG7 Venture Group, LLC, DBA MAG 7 Technologies 1 Lepage Place, Suite 100 Syracuse, NY 13206 PHONE: updated information required FAX: updated information required E-MAIL: updated information required WEBSITE: updated information required (Mr. Greg Goodell or Mr. Trevor Quig)	06/28/11
SW-60	SW	<u>ACCELL CLEAN® SWA</u>	Advanced BioCatalytics Corporation 18010 Skypark Circle, #130 Irvine, CA 92614-6456 OFFICE: (949) 442-0880 GENERAL E-MAIL: <a href="mailto:info@abiocat.com">info@abiocat.com</a> WEBSITE: <a href="http://www.abiocat.com">www.abiocat.com</a> PRODUCT MANAGEMENT: MOBILE: (949) 981-6510 E-MAIL: <a href="mailto:cpodella@abiocat.com">cpodella@abiocat.com</a> (Mr. Carl Podella)	07/13/11

\*Listing maintained per requirements of the revised Subpart J, Federal Register, Volume 59, Number 17, September 15, 1994

# NCP PRODUCT SCHEDULE

## SURFACE WASHING AGENTS (continued)

BULLETIN NUMBER	PRODUCT CATEGORY LISTED	PRODUCT NAME	SUBMITTER	DATE LISTED; RELISTED*; REMOVED#
SW-61	SW	<u>EPA OIL FIELD SOLUTION™ (aka, HYDRO-CLEAN™, GLOBAL ENVIRONMENTAL CLEANER™, AWAN PRA OIL FIELD SOLUTION™)</u>  <i>Last Communication with Manufacturer: 10/19/2016 Last Attempt: 3/21/2018</i>	Environmental Protection Associates, Inc. 2578 Enterprise Road, Suite 141 Orange City, FL 32763  PHONE: updated information required E-MAIL: updated information required WEBSITE: updated information required (Mr. Nathan Hall)	10/13/11
SW-62	SW	<u>PETROMAX PSC 3 (aka, PETROMAX SOIL CLEANING AND WASHING AGENT)</u>	Saxon Petrotechnologies S.A. Ancona 14-Bis Carrasco, Montevideo Uruguay  PHONE: 598-2-604-1006 US Contact: (305) 600-4927 FAX: (508) 256-8318 E-MAIL: <a href="mailto:svb@saxon-technologies.com">svb@saxon-technologies.com</a> WEBSITE: <a href="http://www.alfaluz.net">www.alfaluz.net</a> (Mr. Scot von Bergen)	03/05/12
SW-63	SW	<u>GREEN TECHNOLOGIES SOLUTIONS-OIL RECOVERY (GTS-OR)</u>	International Technologies and Services 302 W. 5th Street, Suite 100 B San Pedro, CA 90731  PHONE: (310) 791-4487 FAX: (877) 744-9975 E-MAIL: <a href="mailto:pilarladybug@itsenvironmental.com">pilarladybug@itsenvironmental.com</a> WEBSITE: <a href="http://www.ITSEnvironmental.com">www.ITSEnvironmental.com</a> (Ms. Pilar Ortega)	07/12/12
SW-64	SW	<u>NONTOX™ SURFACE WASHING AGENT</u>	Bio-Organic Catalyst, Inc. (wholly owned subsidiary of Neozyme International, Inc.) 711 West 17 <sup>th</sup> Street, Suite E-6 Costa Mesa, CA 92627  PHONE: (949) 515-1301 PHONE: (800) 982-8676 FAX: (949) 515-1314 E-MAIL: <a href="mailto:parker@bio-organic.com">parker@bio-organic.com</a> WEBSITE: <a href="http://www.bio-organic.com">www.bio-organic.com</a> (Mr. Parker Dale)	01/23/14
SW-65	SW	<u>SIMPLE GREEN® 2013 Reformulation</u>	Sunshine Makers, Inc. 15922 Pacific Coast Highway Huntington Beach, CA 92649  PHONE: (800) 228-0709 PHONE: (562) 795-6000 FAX: (562) 592-3830 (Ms. Carol Chaplin)	07/09/13

\*Listing maintained per requirements of the revised Subpart J, Federal Register, Volume 59, Number 17, September 15, 1994

# NCP PRODUCT SCHEDULE

## SURFACE WASHING AGENTS (continued)

BULLETIN NUMBER	PRODUCT CATEGORY LISTED	PRODUCT NAME	SUBMITTER	DATE LISTED; RELISTED*; REMOVED#
SW-66	SW	<u>FORMULA 206-1x BIO-WASH™ (aka, CAST OFF™, FORMULA 206-1x)</u>	Natural Soap Formulas, Inc. 3200 S Andrews Avenue, Suite 113 Fort Lauderdale, FL 33316 PHONE: (888) 759-7256 PHONE: (954) 789-5656 SKYPE: KaylinDaire2 E-MAIL: <a href="mailto:kaylin@naturalsoapformulas.com">kaylin@naturalsoapformulas.com</a> (Ms. Kaylin D'Aire)	05/07/15
SW-67	SW	<u>RHAMNOWASH 10</u>	Rhamnolipid, Inc. 511 West Bay Street, Suite 350 Tampa, FL 33606 PHONE: (917) 576-7381 DIRECT: (704) 564-6445 EMAIL: <a href="mailto:greccosq@rhamnolipid.com">greccosq@rhamnolipid.com</a> WEBSITE: <a href="http://www.rhamnolipid.com">www.rhamnolipid.com</a> (Mr. Samuel G. Grecco)	08/03/15
SW-68	SW	<u>ADP-7</u>	Petro-Green, Inc. 3952 Candlenut Lane Dallas, TX 75244 <u>MAILING ADDRESS:</u> P.O. Box 814665 Dallas, TX 75381 PHONE: (214) 484-7336 FAX: (214) 484-7336 EMAIL: <a href="mailto:adp7@petro-green.com">adp7@petro-green.com</a> WEBSITE: <a href="http://www.petro-green.com">www.petro-green.com</a> (Mr. Michael Paddock)	08/22/16
SW-69	SW	<u>WATER WORKS™</u> <u>HEAVY DUTY</u> <u>DEGREASER</u> <u>CONCENTRATE (aka,</u> <u>HEAVY DUTY</u> <u>DEGREASER</u> <u>CONCENTRATE)</u>	Keteca USA, Inc. 4280 W. Opportunity Way Phoenix, AZ 85086 Phone: (602) 278-7789 Fax: (602) 278-7749 E-mail: <a href="mailto:sales@ketecausa.com">sales@ketecausa.com</a> Web site: <a href="http://www.ketecawaterworks.com">www.ketecawaterworks.com</a> (Ms. Kathy Parks)	09/07/16

\*Listing maintained per requirements of the revised Subpart J, Federal Register, Volume 59, Number 17, September 15, 1994