

# Surface Washing Agents

## A Market Study of NCP Listed Products in the Gulf Coast



Project Research Conducted by:

National Spill Control School  
Texas A&M University Corpus Christi

Project Funded by:

Texas General Land Office  
Contract Number: 18-128-000-A668

July 2018

# **Surface Washing Agents**

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# 1. Introduction

## **1.0 Overall Project Description**

This market study was developed by the National Spill Control School at Texas A&M University Corpus Christi. It is the first 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 and 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

## **1.1 Report Description**

This SWA market study has been developed to assess and characterize the product availability of SWAs listed on the (NCP) Product Schedule and available in Texas and the Gulf coast states. The report seeks to classify each SWA and to identify those products that are both available and would likely meet the criteria established for use in Texas waters. An axillary purpose of this study is to determine the relevant SWA manufacturer's application recommendations, storage, shelf life, and relevant safety issues.

Over the course of this market assessment Texas A&M University- Corpus Christi (TAMU-CC) researchers interviewed surface washing agent manufacturers, oil spill response organizations (OSROs), and state and federal agencies, to obtain important data and much of the information presented here.

This study provides regulatory agencies, response organizations, and researchers current background information on approved and recommended SWA use and application. It will also aid the researchers conducting Phase 2 (lab-scale) and Phase 3 (meso-scale) experiments with information on the development and implementation of appropriate and test procedures for testing surface washing agents.

Certain surface washing agents NCP listed SWAs have already been pre-approved for cleaning oiled shoreline and equipment surfaces in certain areas of Texas. However, product

effectiveness, toxicity, and delayed performance and effects have not been thoroughly researched. This market study may provide additional insights about SWA use and performance as other geographic areas are considered for pre-approval.

This study starts with the consideration of all of the SWAs and associated products on the NCP list. Ultimately, the goal of the study is to focus strictly on SWA products that are, along with the oil, are recoverable. Such products are called “lift-and-float” agents. There are microbial additives on the market that can metabolize and degrade hydrocarbons. This study does not address the microbial product market.

### Types of Surface Washing Agents

- Lift And Float
- Lift And Sink
- Lift And Disperse
- Microbial Degradation

During manufacturer interviews and during the process of collecting surface washing agents, researchers obtained safety data sheets (SDS) for all agents located on the NCP Product Schedule. The SDS collection has been indexed and assembled in a physical and an electronic binder which are submitted along with this market study but under separate cover.



## **1.2 Study Objectives**

Study objectives and goals for this market study were determined during initial stages of proposed research development. Identified goals and objectives include:

- To interview chemical manufacturers and Gulf state OSRO's to determine the overall SWA market framework.
- To identify, categorize, and evaluate the available SWAs, along with their shelf life and storage capacities.
- To determine the effectiveness, favorable conditions, and delaying effects of all products readily obtained from the NCP Product Schedule Subpart J for surface washing agents.
- To list and report recommended efficient and proper surface washing agent application and safety procedures.
- To collect and categorize safety data sheets, physically and electronically, for immediate access by researchers, responders, and agency inspectors.
- To collect and safely store surface washing agent and petroleum samples for future lab scale and meso-scale testing.

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

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

The type of surface washing agent has yet to be established for all 56 agents. Some of the listed SWA products are not approved for application in waterways and should not be allowed to enter into any connected drainage system.

### **1.3.1 Lift and Float**

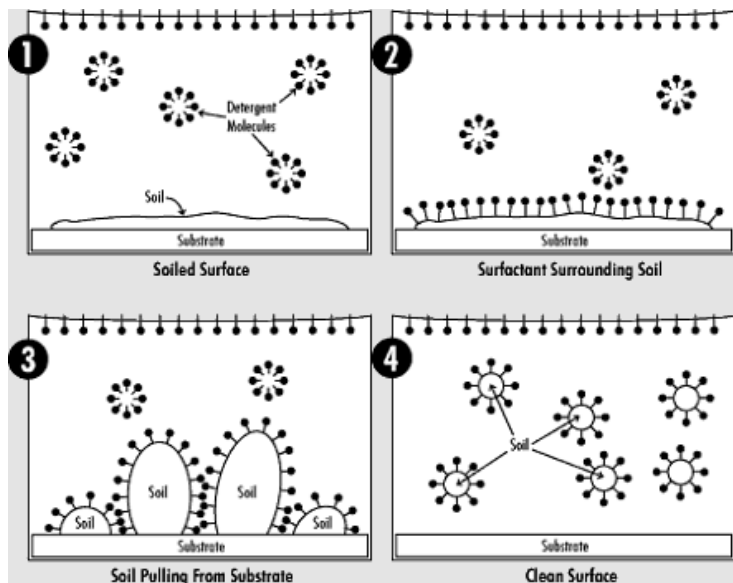
There are two primary physical-effect categories for surface washing agents. Generally these are described as “lift-and-float” and “lift-and-disperse” agents. The categories describe the post-application process of how the surfactant/petroleum mixture interacts in the water column. They also give an 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 via pressure washing at various temperatures and pressures, or removed by steam cleaning, are shown in Figure 1. If the applied SWA washes off and accumulates on the water’s surface, either immediately or after a delayed amount of time, 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 ground and that the product may 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**

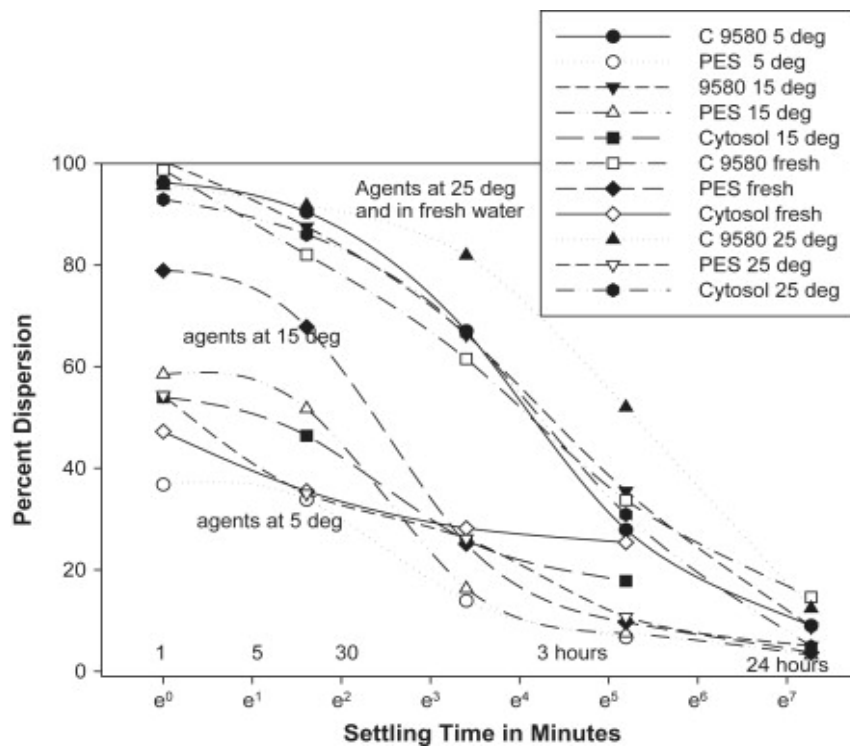
The other category type of surface washing agents are “lift and disperse” agents. These products perform like dispersants. They are emulsifying the oil product and disperse it in the water column. This method is not desirable to the lack of ability to recover the petroleum and chemical mixture. The act 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” agents should not 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 SWA use should be closely monitored by applicators, and in some cases should have regulatory oversight.

In a study done by Merv Fingas and Ben Fieldhouse, dispersion trials were conducted for 3 of the surface washing agents: Corexit 9580, PES 51, and Cytosol. Laboratory tests-based dispersion percentage on a high application energy rate based on dilution ratio, salinity, and temperature differences. It was determined that salinity had minor effects on dispersion. All SWA product dispersions become unstable after a longer period of time. (Fingas and Fieldhouse, 2011). Figure 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 should not be used on shorelines with high energy wave action. These environments will cause higher dispersion in tidal zones and 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.

### **1.3.3 Microbial Additives**

Surface washing agents traditionally are used for emulsifying oil coverage for cleaning and do not break down hydrocarbons. Manufacturers and OSRO suggestions show the possibility of adding hydrocarbon consuming microorganisms after or during surface washing agent application. The process of the biodegradation with microbes ultimately depends on the chemical properties of the oil and the oxygen demand for the microbes. The two major compounds that microbes target to break down are the oil's alkanes and aromatic hydrocarbons. The oil-consuming microbes come in contact with the oil and break down the alkane and hydrocarbon structure using enzymes. The residual byproducts are reportedly carbon dioxide and water. Breakdown of oil and petroleum product by microorganisms does show a more efficient remediation coverage and time with oil that is dispersed rather than collected and floating at the surface. Responders that use these microbes also may apply fertilizers and additives of nitrogen, phosphorus, or iron, to stimulate microbial population growth, also known as biostimulation. The NCP Product Schedule has a section of 25 bioremediation agents, focusing in sections of microbial cultures and enzyme additives. As a disclaimer, agents listed on the NCP Product Schedule are not necessarily approved or certified for use without approval. The products on this list of NCP bioremediation agents may be only be used with the expressed approval of the RRT and the FOSC in accordance with provisions contained in the Clean Water Act and the Oil Pollution Act of 1990. This approach to remediation might be favored situationally in areas with limited availability of oil recovery equipment for. Because it is generally accepted that applied SWAs and petroleum must be recovered after application these products are not generally considered to be viable SWAs in Texas waters.

Another detriment to the use of microbial as agents or biostimulation is that microbial growth and die-offs could lead to temporary anoxic conditions in the water column. This could be harmful to marine life in the surrounding areas.

## **1.4 Research Methodology**

### **1.4.1 Resources and Study Techniques**

Researchers established research goals and objectives that would be necessary to adequately characterize the SWA markets. Certain other information and logistical data evolved from the initial project research and interviews. Contact lists were created with information gathered from the NCP Product Schedule. Two primary sets of interviews were established: SWA Manufacturers and OSROs.

There are a total of 52 separate SWA manufacturers who produce the 56 SWA products on the NCP list. The NCP Product Schedule's September 2017 update did not have current contact records for each of the SWA manufacturers. Some product lines have been acquired by new companies. Phone and website investigations by NSCS researchers led to a nearly complete contact list for the 56 SWA products. EPA updated their NCP Product Schedule in March 2018

to indicate their concurrence with this NSCS research. A total of 81 contacts received the SWA questionnaire for manufacturers.

Excel contact lists for Gulf state's OSRO's were created with information gathered from Cleanupoil.com, *The Little Black Book of Oil Spill Contractors 7<sup>th</sup> Edition (2016)*. A total of 227 oil spill contractors contact information were listed in this directory. Most of the listed OSROs are not Gulf state contractors.

Researchers initially targeted 279 contractors. It was determined that an online questionnaire distributed by e-mail would be the most efficient method to collect market study data and provide the most relevant market information. The ability to follow-up in-phone and in-person interviews provided more comprehensive information and allowed researchers to complete this market study.

78 contacts received the OSRO questionnaire. An additional 24 interviews were done by phone or in person. In person interviews were conducted at the National Spill Control School office or at the Clean Gulf Conference and Exhibition in Houston in December 2017. While it does not represent the entire universe of OSROs, it does reflect a statistically relevant population.

The online questionnaire website eSurveyCreator served as a thorough and efficient survey structure. Data collection and exportation was flawless. The number of questions in the survey was not limited by the program. Participants had access to 24/7 online and phone IT support. Access to the survey by the targeted participants was established by the NSCS. Singular or entire questionnaire answers could be downloaded to excel, CSV, or PDF files along with graphs and data searching capabilities.

Questionnaire content was determined by researchers and approved by TGLO POC. Questionnaires are located in Attachment section 7.0 for Manufacturer's and OSRO's.

The research results, as established in the market study objectives and goals, are compared and listed in the Research Findings section, 3.0.

#### **1.4.2 Assumptions Made for This Report**

This report assesses the chemical surface washing agent cleaning market from the perspective of SWA manufacturers as well as the OSROs that have first-hand knowledge of their application. This study allowed researchers the tools to determine how to efficiently test the effectiveness of safely applying SWAs, as well as provide market findings for the guidance manual that will be developed in Phase 4 of this project.

# 2.0 Surface Washing Agent Market Assessment

## 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.”

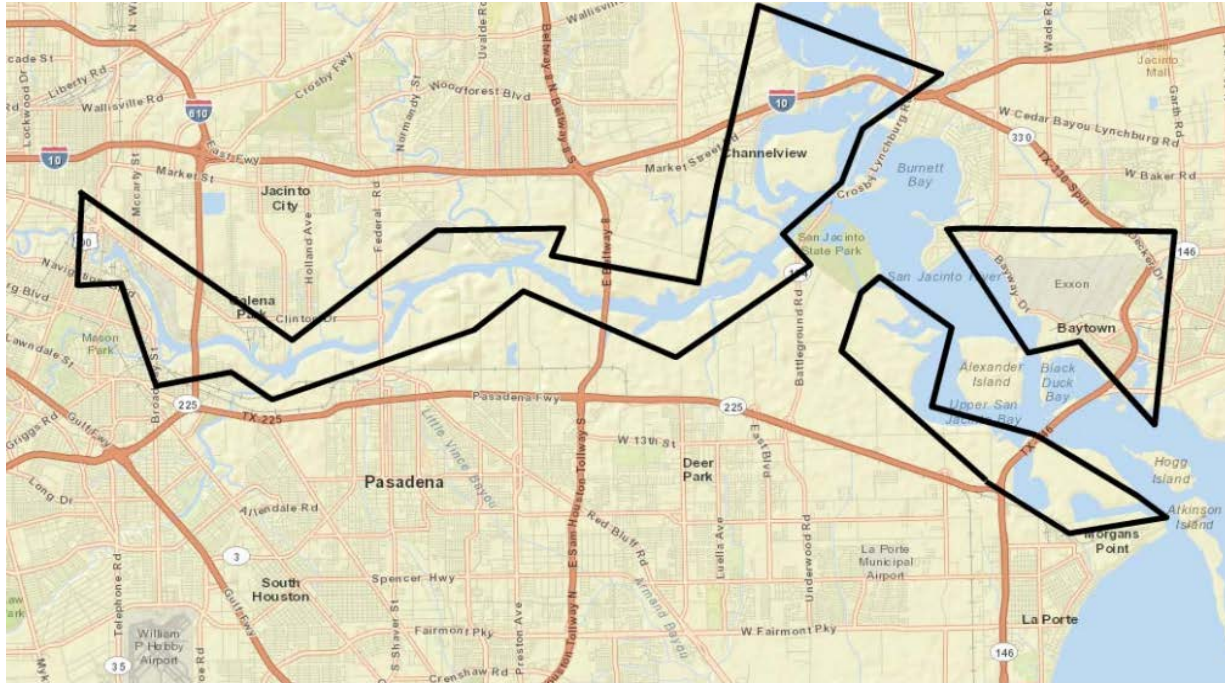
Under the Regional Response Team (RRT) 6, with coordination from the United States Coast Guard (USCG), the TGLO began the approval process for effective surface washing agent use for cleaning and demobilization of oiled vessels in Houston, Galveston, Bayport, Texas City and Freeport port areas, shown in Figure 1. The proposed pre-approval areas require “lift and float” agents, as well as the areas approved contained hard man-made substrates with fine grained

sandy beaches. These areas approved with accordance to not adversely affect the environment as well as approval use will be determined by the Federal On-Scene Coordinator (FOSC).

**FIGURE 2-1 - 2-4**

**Pre-Approved Areas for Surface Washing Agent Use Determined by RRT VI**

**Upper Houston Ship Channel**



**Bayport Ship Channel**

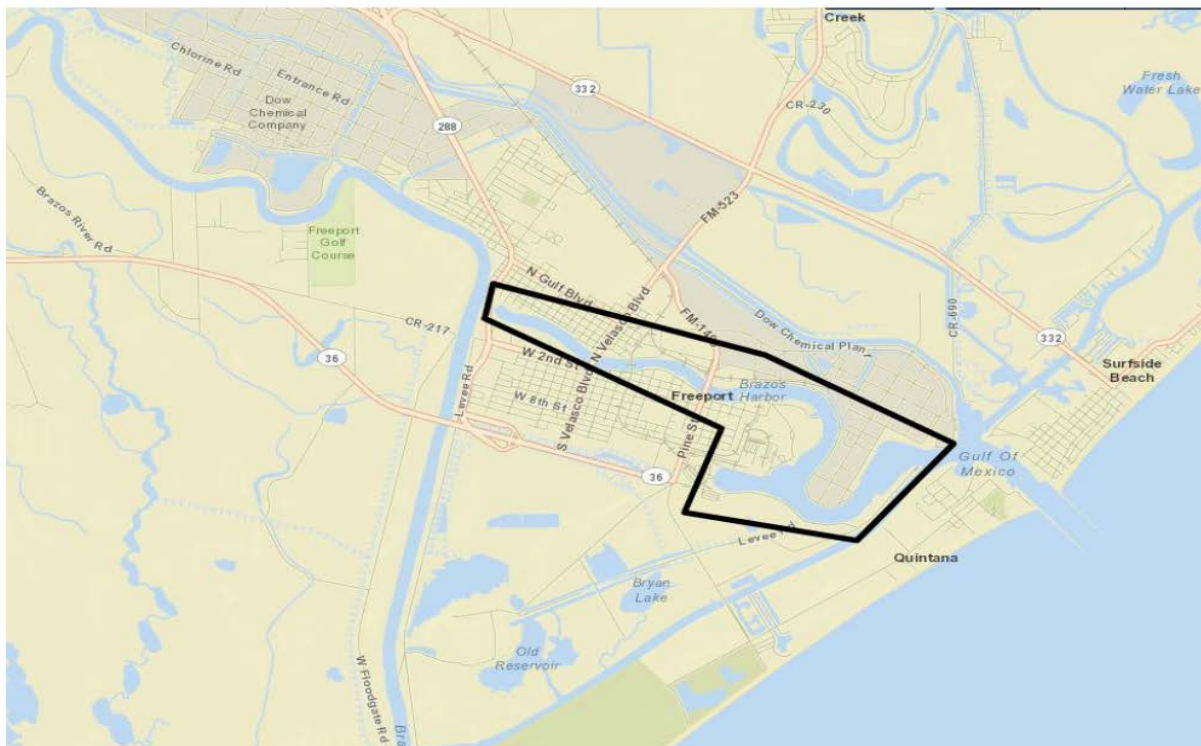




## Texas City and Galveston Ship Channel



## Freeport Ship Channel



Source: Texas General Land Office RRT VI Pre-Approved Surface Washing Guidelines Update

## **2.2 Company Profiles**

### **2.2.1 Surface Washing Agent Manufacturer's**

The 52 surface washing agent manufacturers are listed in SWA order in the following format:

Surface Washing Agent

Manufacturer name

Company SWA contact name

Contact Information

Brief company history and the products that they produce

Statement of their participation in the project questionnaire and providing samples.

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. The list starts with SW-2 and then skips to SW-9. Numbers not showing have been dropped from the NCP list. It is likely that additional products will be dropped in the future.

- SW-2 Topsall #30 (aka, Superall #38)

Superall Products LLP

Mr. Sammy Roberts II

P.O. Box 2954

Spring, TX 77383

Phone: 281-351-4800

Fax: 281-351-4855

Website: superall.com

SAP produces 4 separate formulations of hydrocarbon cleaning solutions, in addition to producing and selling cleaning systems. SAP sell fully customizable pressure washing mobile units and additional equipment.

SuperAll has participated in the questionnaire and is committed to providing a sample.

- SW-9 CN-110

Chemex Inc.

Mr. Gale Campbell

107-B Balboa Dr.

Broussard, LA 70518

\*no valid phone number available

Website: chemexinc.net

Chemex Inc. was founded in 1989 as a wholesale manufacturer of specialty drilling, production and refinery chemical additives. They produce 6 different chemicals involved

in paraffin inhibition, lubricity fluid enhancers, oil recovery enhancers, and drag reducing products.

Chemex has not participated in the NSCS questionnaire after many efforts for contact.

- SW-10 Corexit EC9580A  
Nalco Environmental Solutions LLC  
Mrs. Debby Theriot  
7705 Highway 90-A  
Sugar Land, TX 77478  
Office Phone: 281-263-7709  
Mobile Phone: 832-851-5164  
Website: [nalcoenvironmentalsolutionsllc.com](http://nalcoenvironmentalsolutionsllc.com)  
NES LLC was established in 2010 for oil and gas industry response and has developed spill dispersants and shoreline cleaning products. NES LLC produces 3 different formulations of dispersants and 1 formulation of SWA.  
NES LLC has participated in the questionnaire and is providing the NSCS a sample.
- SW-11 De-Solv-It Industrial Formula  
Orange-Sol Blending and Packaging  
Mr. Tim Farnsworth  
1400 N Fiesta Boulevard  
Gilbert, AZ 85233  
Phone: 800-877-7771  
Fax: 480-497-0444  
Website: [orange-sol.com](http://orange-sol.com)  
Orange-Sol was formally established in 1976, focusing on citrus based cleaning products. Orange-Sol produces 15 different brands of cleaners and degreasers. They produce 2 SWA listed on the NCP Product Schedule.  
Orange-Sol Blending and Packaging has participated in the questionnaire and has provided the NSCS a sample.
- SW-12 Premier 99  
Gold Coast Chemical Products  
Mr. Eli Finkelberg and Ms. Maria Morris  
2357 Stirling Road  
Dania Beach, FL 33312  
Phone: 954-893-0044  
Fax: 954-893-8884  
Website: [goldcoastchemical.com](http://goldcoastchemical.com)  
GCC is a manufacturer and distributor for agricultural, industrial, janitorial and specialty chemical, established in 1989. GCC produces 110 chemical products. GCC have 1 SWA listed on the NCP Product Schedule.

GCC Products was contacted via phone. GCC indicated that they do not want to participate in the NSCS research project.

- SW-15 Simple Green

Sunshine Makers Inc.

Ms. Carol Chapin

15922 Pacific Coast Highway

Huntington Beach, CA 92649

Office Phone: 800-228-0709

Mobile Phone: 592-795-6000

Fax: 562-592-3830

Website: simplegreen.com

The Simple Green product was produced 30+ years ago to remove tannic acid and by-products of coffee roasting machinery as well as automotive and industrial companies. There are 31 different formulations of Simple Green, 2 which are listed as SWA on the NCP Product Schedule.

Sunshine Makers Inc. has participated in the questionnaire and has provided the NSCS a sample.

- SW-16 AquaClean

Madison Chemical Company Inc.

Ms. Cara Cyrus

3141 Clifty Dr.

Madison, IN 47250

Phone: 812-273-6000

Fax: 812-273-6002

Website: madchem.com

MCC was established in 1947 and has chemical products pertaining to 6 different categories: metal and composite fabricators, paper mill, transportation, industrial maintenance, food industry, and wastewater treatment. MCC has 1 chemical product listed on the NCP Product Schedule.

MCC has not participated in the NSCS questionnaire after many efforts for contact.

- SW-18 Nature's Way HS

Integra Environmental Ltd.

Ms. Cathy Kaiser

5825 Centralcrest

Houston, TX 77092

\*no valid phone number available

\*no valid website is available

Integra Environmental produced SWA Nature's Way in 1993 with the intended use of a combination of surfactants and microbes for petroleum cleanup. Integra Environmental has 1 SWA listed on the NCP Product Schedule.

Integra Environmental has not participated in the NSCS questionnaire after many efforts for contact.

- SW-19 Cytosol  
CytoCulture International Inc.  
Dr. Randall von Wedel  
249 Tewksbury Avenue  
Point Richmond, CA 94801  
Phone: 510-233-0102  
Fax: 510-233-3777  
Website: [cytoculture.com](http://cytoculture.com)  
Founded in 1986, CytoCulture's services include application protocols and production of oil cleaning agents as well as microbiological bioremediation products. CytoCulture has 1 SWA product listed on the NCP Product Schedule.  
CytoCulture has completed a phone interview/questionnaire and is providing the NSCS a sample.
- SW-20 Pinkwater (aka Biosolve)  
BioSolve Company  
Mr. James Edgerly  
329 Massachusetts Avenue  
Lexington, MA 02420  
Phone: 781-482-7900  
Fax: 781-482-7909  
Website: [biosolve.com](http://biosolve.com)  
BioSolve/Pinkwater product was founded in 1975 which was a surfactant chemical that was intended to replace volatile vapor and fire hazard suppressing foams. BioSolve currently produces 4 formulations of their product. Only 1 SWA formulation is listed on the NCP Product Schedule.  
BioSolve has completed the questionnaire and has provided the NSCS a sample.
- SW-21 Petrotech 25  
Petrotech America Corporation  
Mr. Lawrence Gallo  
130 William St., Suite 802  
New York, NY 10038  
Phone: 212-933-9071  
Fax: 877-226-4028  
Website: [petrotechamerica-na.com](http://petrotechamerica-na.com)  
Founded in 1992, Petrotech America Corporation produced a water based, natural product that contains no solvents. They have now expanded to 5 separate products involved in deodorizing, degreasing, sanitizing and spot removal. They have 1 SWA listed on the NCP Product Schedule.

PAC has not participated in the NSCS questionnaire after many efforts for contact.

- SW-23 Petro-Clean  
B.R.A.T. Microbial Products Inc. / Alabaster Corp.  
Mr. John Sheffield  
P.O. Box 7089  
Pasadena, TX 77508  
Phone: 713-724-9226  
Website: alabastercorp.com  
Alabaster Corporation produces products used for bioremediation, emergency response, oil spill clean-up, and additional environmental services. Alabaster manufactures 1 SWA listed on the NCP Product Schedule.  
Alabaster/B.R.A.T. Microbial has completed the questionnaire and has provided the NSCS a sample.
- SW-24 Do-All #18  
Radcob Solutions Inc.  
Mr. Adam Goldberg  
4800 North State Road 7  
Suite #105  
Lauderdale Lakes, FL 33319  
Phone: 954-249-2178  
Fax: 954-640-7080  
\*no valid website is available  
Radcob Solutions Inc. has only 1 SWA listed on the NCP Product Schedule  
Radcob Solutions has not participated in the NSCS questionnaire after many efforts for contact.
- 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  
Gemtek has been a manufacturer of plant-based cleaners, degreasers, solvents, lubricants, and specialty chemicals since 1992. They have 3 major products marketed one being Safe Care, with 15 formulations of the initial SC product. Gemtek has 1 SWA listed on the NCP Product Schedule.  
Gemtek Products has completed the questionnaire and has provided the NSCS a sample.

- SW-26 Gold Crew SW  
 Gold Crew Products & Services LLC.  
 Mr. Jim Figueira  
 P.O. Box 12032  
 Orange, CA 92859  
 Phone: 714-288-8781  
 Fax: 714-288-8730  
 Website: goldcrew.net  
 Gold Crew was developed in 1966 of the U.S. Navy's oil spill response and now markets product involved in petroleum oils and lubricants, fats and greases, and volatile organic compounds. GC produces 6 different products. GC has 1 SWA listed on the NCP Product Schedule.  
 Gold Crew has completed the questionnaire and has provided the NSCS a sample.
- SW-28 Nale-It  
 SPL Control LLC  
 Mr. Tom Lester  
 P.O. Box 627  
 Elemore City, OK 73433  
 Phone: 580-788-2187  
 Website: nale-it.com  
 SPL Control LLC has 1 SWA listed on the NCP Product Schedule. Their product Nale-It is non-hazardous, biodegradable, and is used in bioremediation processes in contaminated soils, refinery and crude waste, and drilling projects.  
 SPL Control LLC has not participated in the NSCS questionnaire after many efforts for contact.
- 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  
 HCT provides products involved in fire suppression and environmental impact protection chemicals, as well as provides training and consulting services. They have 1 SWA listed on the NCP Product Schedule for surface washing agents that serves as a SWA as well as fire suppressant agent.  
 HCT has completed the questionnaire and has provided the NSCS a sample.
- SW-31 Enviroclean  
 Enviro Clean Services LLC.

Mr. Jonathan Behymer  
P.O. Box 721090  
Oklahoma City, OK 73172  
Phone: 405-373-4545  
Fax: 405-373-4549  
Website: eccgrp.com

ECS has 1 SWA listed on the NCP Product Schedule but provides 9 products involving in oil spill cleanup, saltwater remediation, odor control, vapor suppression, and paraffin and asphaltene removal. They also provide spill response kits and trailers with equipment.

Enviro Clean Services has not participated in the NSCS questionnaire after many efforts for contact.

- 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](http://biochemicals.amiran-technologies.com)

ABC LLC. produces and markets products involved in industrial degreasers, concrete cleaners, odor removal, surface cleaners, bioremediation aids, and many more. ABC has 1 SWA listed on the NCP Product Schedule.

Amiran BioChemicals has completed the questionnaire and has provided the NSCS a sample.

- SW-33 E-Safe

Plutus Environmental Technologies Inc.  
Mr. James Hatcher  
300 John L. Marshall Drive  
Sevierville, TN 37862  
Phone: 865-214-0350

\*no valid website is available

PET Inc. has 2 listed products on the NCP Product Schedule. Their E-Safe product is built for hydrocarbon remediation removal on all types of land spills.

Plutus ET has completed the questionnaire and has provided the NSCS a sample and has agreed to provide a sample before lab testing begins.

- SW-34 Sheen-Magic

Plutus Environmental Technologies Inc.  
Mr. James Hatcher  
300 John L. Marshall Drive



Sevierville, TN 37862

Phone: 865-214-0350

\*no valid website is available

PET Inc. has 2 listed products on the NCP Product Schedule. Their Sheen-Magic product is built for hydrocarbon remediation in water sources.

Plutus ET has completed the questionnaire and has provided the NSCS a sample and has agreed to provide a sample before lab testing begins.

- SW-35 Procleans

Eximco International Inc.

Mr. Nat Brown

5250 Gulfton, #2-B

Houston, TX 77081

Phone: 713-432-7899

Website: [eximco.net](http://eximco.net)

Eximco was founded in 1992 and markets industrial umbilical, floating and long length hoses and reels. In addition, they provide 6 different types of transfer pumps as well as Haz-Mat and oil spill chemicals and equipment. Eximco has 1 SWA listed on the NCP Product Schedule.

Eximco International Inc. has completed the questionnaire and agreed to provide a sample before lab testing begins.

- SW-36 Spillclean

Super Sat Ventures Inc.

Mr. Daniel Klein

S96 W34577 Jericho Drive

Eagle, WI 53119

Phone: 414-840-9223

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

SSV was established in 1997 and markets products used for vehicle and road spill cleanup detergents. SSV also provides application tanks and pumps calibrated for their products. SSV has 1 SWA listed on the NCP Product Schedule.

Super Sat Ventures Inc. has not participated in the NSCS questionnaire after many efforts for contact.

- SW-37 TXChem HE-1000

Texas EnviroChem Inc.

Mr. Pete Franks

11410 Dumas Street

Houston, TX 77034

Phone: 713-806-4099

\*no valid website is available

After many phone and web research attempts for contact, researchers found information regarding TEC from archived records at corporationwiki.com. It states that TEC is no longer an active corporation in the state of Texas. As of July 2018, TXChem HE-1000 remains listed on the NCP Product Schedule.

- 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  
MLS was founded in 1958 and markets products for industrial cleaning equipment and cleaning chemicals. MLS has 5 formulations of Nokomis chemical, and has 1 SWA listed on the NCP Product Schedule.  
Mar-Len Supply has completed the questionnaire and has provided the NSCS a sample.
- SW-39 G-Clean OSC-1809  
Green Earth Technologies  
Mr. Michael Lukco  
1136 Celebration Boulevard  
Celebration, FL 34347  
Phone: 330-540-4220  
Fax: 815-331-0931  
Website: getg.com  
GET markets environmentally friendly lubricant and cleaning products for industrial and household uses. GET has 1 SWA listed on the NCP Product Schedule.  
GET has not participated in the NSCS questionnaire after many efforts for contact.
- SW-40 Green Beast Oil Spill & Odor Remediator  
BioFusion Corporation  
Mr. David Gubb  
310 Godwin Avenue  
Ridgewood, NJ 07450  
Phone: 201-447-6241  
Fax: 201-444-2307  
Website: biofusion.co  
BioFusion established their products line for wastewater as well as grease and hydrocarbon remediation treatment in 2006. BioFusion has 3 products marketed for hydrocarbon remediation and has 1 SWA listed on the NCP Product Schedule.  
BioFusion has not participated in the NSCS questionnaire after many efforts for contact.

- SW-41 Tulxa  
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  
Website: grupoarthuriana.com.mx  
GA has not participated in the NSCS questionnaire after many efforts for contact. No valid emails are given off NCP Product Schedule
- SW-42 Marine Green Clean  
AGS Solutions Inc.  
Mrs. Linda Whiteley  
5647 Nunn Street  
Houston, TX 77087  
Phone: 713-645-4933  
Fax: 713-645-4903  
Website: agstx.org  
AGS Solutions has marketed products in cleaning chemicals, equipment, and systems for the past 24 years. In addition to their marketed products, they provide equipment and chemical training services as well as unmanned aerial drone site surveying services. AGS has 2 SWA listed on the NCP Product Schedule.  
AGS Solutions has completed the questionnaire and agreed to provide a sample before lab testing begins.
- SW-43 Marine Green Clean Plus  
AGS Solutions Inc.  
Mrs. Linda Whiteley  
5647 Nunn Street  
Houston, TX 77087  
Phone: 713-645-4933  
Fax: 713-645-4903  
Website: agstx.org  
AGS Solutions has marketed products in cleaning chemicals, equipment, and systems for the past 24 years. In addition to their marketed products, they provide equipment and chemical training services as well as unmanned aerial drone site surveying services. AGS has 2 SWA listed on the NCP Product Schedule.  
AGS Solutions has completed the questionnaire and agreed to provide a sample before lab testing begins.

- SW-44 Clean Green (aka, CleanGreen Planet Wash)  
 U.S. AG LLC.  
 Mr. Carl Schneider  
 P.O. Box 368  
 Luthersville, GA 30251  
 Phone: 770-927-3206  
 Fax: 770-927-3968  
 Website: [unitedstatesag.com](http://unitedstatesag.com)  
 U.S. AG is a liquid fertilizer manufacturer that markets fertility and surfactant products.  
 U.S. AG has 1 SWA listed on the NCP Product Schedule  
 U.S. AG has not participated in the NSCS questionnaire after many efforts for contact.
- SW-45 SOC 10  
 Oil Treatment International AG  
 Mr. Paul Schuler  
 Seestrasse 5  
 CH-6300 Zug  
 Switzerland  
 Phone: 01141-41-727-21000  
 Fax: 01141-41-727-2109  
 Website: [oti.ag/en/](http://oti.ag/en/)  
 OTI AG is a surfactant based manufacturer with product application involved in industrial cleaning in marine and land remediation. OTI AG has 1 SWA listed on the NCP Product Schedule.  
 OTI AG has not participated in the NSCS questionnaire after many efforts for contact.
- SW-46 Biograss Extra  
 Química del Desierto, S. De R.L. de C.V.  
 Ing. Erich Wolf  
 Trasviña y Retes 6103-2  
 Col. Panamericana  
 Chihuahua, Chihuahua, Mexico  
 C.P. 31210  
 Phone: +52-1-614-110-2650  
 Website: [biograssextra.com/en\\_us/](http://biograssextra.com/en_us/)  
 Q.D. has not participated in the NSCS questionnaire after many efforts for contact.
- SW-47 Environmental 1 Crude Oil Cleaner  
 Environmental 1 LLC  
 Ms. Mary Blankenship  
 P.O. Box 9  
 Jackson, TN 38302

Phone: 615-269-0506

Fax: 615-269-0025

Website: environmental-one.com

Environmental 1 markets 9 different products involved in household and industrial cleaners. Environmental 1 has 1 SWA listed on the NCP Product Schedule.

Environmental 1 was contacted via phone and has asked to not participate in the research project.

- SW-48 Sandklene 950

MDEChem Inc.

Mr. Paul Sack

923 10<sup>th</sup> Street PMB 101

Floresville, TX 78114

Phone: 830-393-5293

Website: mdechem.com

MDEChem was established in 1996 and produces three products involved in fuel additives, corrosion removal, and hydrocarbon remediation products. MDEChem has 1 SWA listed on the NCP Product Schedule that is built for oil recovery on tar/oil contaminated sands.

MDEChem has not participated in the NSCS questionnaire after many efforts for contact.

- SW-49 De-Solve-It Clean Away APC Super Concentrate

Orange-Sol Blending and Packaging

Mr. Tim Farnsworth

1400 N Fiesta Boulevard

Gilbert, AZ 85233

Phone: 800-877-7771

Fax: 480-497-0444

Website: orange-sol.com

Orange-Sol was formally established in 1976, focusing on citrus based cleaning products. Orange-Sol produces 15 different brands of cleaners and degreasers. They produce 2 SWA listed on the NCP Product Schedule.

Orange-Sol Blending and Packaging has participated in the questionnaire and is committed to providing a sample.

- SW-50 EO All Purpose Soap-Lavender

EO Products/Small World Trading

Mr. Sam Borri and Ms. Joyce Tsang

90 Windward Way

San Rafael, CA 94901

Phone: 415-945-1900

Fax: 415-945-7117

Website: eoproducts.com

EO Products was established in 2004 and manufactures products in essential oils and human hygiene cleaning soaps and sanitizers. EO Products produce 1 SWA listed on the NCP Product Schedule.

EO Products has not participated in the NSCS questionnaire after many efforts for contact.

- SW-51 Dynamic Green  
Wechem Inc.  
Mr. Michael Wisecarver  
5734 Susitna Drive  
Harahan, LA 70123  
Phone: 800-426-0512  
Phone: 504-733-1152  
Fax: 504-733-2218  
Website: wechem.com

Wechem markets products for pesticides, lubricants, disinfectants, herbicides, solvents, adhesives, and cleaners. In addition to their chemical products, Wechem also distributes dispensers, pumps, sprayers, and additional cleaning equipment. Wechem produces 1 SWA listed on the NCP Product Schedule.

Wechem has completed the questionnaire and has provided the NSCS a sample.

- SW-52 Veru-Solve Marine 200HP  
VeruTEK Technologies  
Ms. Bethany McAvoy  
65 West Dudley Town Road, Suite 100  
Bloomfield, CT 06002  
\*no valid phone  
Website: verutek.com  
Website has indicated that VeruTEK has been acquired by EthicalChem LLC

EthicalChem LLC  
Ms. Geeta Dahal  
177 Governors Highway  
South Windsor, CT 06074  
Phone: 860-640-0074  
Phone: 701-212-8087  
Website: ethicalchem.com

EthicalChem manufactures chemical solvents, dissolvent, surfactants, and oil remediation products. EthicalChem now manufactures surfactant S-ISCO which is formerly known as the VeruSOL agent. The NCP Product schedule has the Veru-Solve agent listed, but the new S-ISCO agent is not listed.

- SW-53 Naturama G3 A-5  
Green Life Development Inc.  
Mr. David Levy  
5112 W. Charleston Boulevard, Suite C  
Las Vegas, NC 89146  
Phone: 702-966-1284  
Phone: 702-355-5102  
Fax: 702-448-6977  
Website: [greenlifedevelopment.com](http://greenlifedevelopment.com)  
GLD is a chemical manufacturer that focusses on environmentally safe products used in odor elimination, dissolvants, soil remediation, oil recovery, and food and automotive processes. GLD produces 1 SWA listed on the NCP Product Schedule  
GLD has completed the questionnaire and has indicated that they will not provide a sample after many attempts for additional contact.
- SW-54 Safe Kleen  
Anti Slip Solutions Ltd.  
Mr. Dan Bayliss  
Bridge House  
Severn House  
Riverside North, Bewdley, Worcestershire,  
DY12 1AB, UK  
Phone: 44(0)1299-406-011  
Fax: 44(0)1299-406-023  
Website: [safe-grip.co.uk](http://safe-grip.co.uk)  
Anti Slip Solutions is a chemical manufacturer for anti-slip and protective coating solutions as well as multi-purpose cleaning agents. Anti Slip Solutions produces 1 SWA listed on the NCP Product Schedule.  
Researchers have come in contact with U.S. distributor Mr. Todd Vitek, who has stated he no longer sells the product, and the contact information he gave to NSCS researchers was no longer valid.  
Anti Slip Solutions has not participated in the NSCS questionnaire after many efforts for contact.
- SW-55 Coriba 700 SR  
Coriba Technologies LLC  
Mr. Harvey Cobb  
5708 Cadron Creek  
North Little Rock, AR 72116  
\*no valid phone number available  
\*no valid website is available  
After many phone and web research attempts for contact, researchers concluded that there is no valid contact information available for Coriba Technologies. Coriba has over

20 patents and was in litigation until 2014. However, it appears that the company may not be in business anymore.

Coriba Technologies has not participated in the NSCS questionnaire after many efforts to establish contact.

- SW-56 Coriba 713 SR

Coriba Technologies LLC

Mr. Harvey Cobb

5708 Cadron Creek

North Little Rock, AR 72116

\*no valid phone number available

\*no valid website is available

After many phone and web research attempts for contact, researchers concluded that there is no valid contact information available for Coriba Technologies. Coriba has over 20 patents and was in litigation until 2014. However, it appears that the company may not be in business anymore.

Coriba Technologies has not participated in the NSCS questionnaire after many efforts to establish contact.

- SW-57 JEP-Marine Clean

Nuance Solutions

Mr. Neil Houtsma

900 E. 103<sup>rd</sup> Street, Suite D

Chicago, IL 60628

Phone: 800-621-8553

Fax: 800-621-1276

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

Nuance Solutions manufactures products involved in industrial cleaning, microfiber and sanitation, as well as agricultural and food services. Nuance Solutions produces 1 SWA listed on the NCP Product Schedule.

Nuance Solutions has not participated in the NSCS questionnaire after many efforts for contact.

- SW-58 Ethos Clean

MAG7 Venture Group LLC

Mr. Greg Goodell and Mr. Trevor Quig

1 Lepage Place, Suite 100

Syracuse, NY 13206

\*no valid phone number available

\*no valid website is available

After many phone and web research attempts for contact, researchers concluded that there is no valid contact information available for MAG7 Venture Group.



MAG7 Venture Group has not participated in the NSCS questionnaire after many efforts to establish contact.

- SW-59 OSR-10  
MAG7 Venture Group LLC  
Mr. Greg Goodell and Mr. Trevor Quig  
1 Lepage Place, Suite 100  
Syracuse, NY 13206  
\*no valid phone number available  
\*no valid website is available  
After many phone and web research attempts for contact, researchers concluded that there is no valid contact information available for MAG7 Venture Group.  
MAG7 Venture Group has not participated in the NSCS questionnaire after many efforts to establish contact.

- SW-60 Accell Clean SWA  
Advanced BioCatalytics Corporation  
Mr. Carl Podella  
18010 Skypark Circle, #130  
Irvine, CA 92614  
Phone: 949-442-0880  
Website: abiocat.com  
ABC manufactures products involved in industrial and marine cleaners, wastewater treatment, agricultural growth stimulation proteins, and oil and gas cleaners. ABC produces 1 SWA listed on the NCP Product Schedule.  
ABC has not participated in the NSCS questionnaire after many efforts for contact.

- SW-61 EPA Oil Field Solution (aka, Hydro-Clean)  
Environmental Protections Associates Inc.  
Mr. Nathan Hall  
2578 Enterprise Rd., Suite 141  
Orange City, FL 32763  
Phone: 407-687-6742  
No valid Website  
As of 2015, EPA Inc. was acquired by World Oil Group Inc.

World Oil Group Inc.  
2578 Enterprise Rd., Suite 141  
Orange City, FL 32763  
Phone: 407-777-9228  
Website: WorldOilGroup.com  
WOG is an oil exploration operating company that produces products designed for oil and gas industry pipeline cleaners, and oil spill cleaners. WOG now manufactures

surfactant Hydro-Clean which is formerly known as the EPA Inc. agent. The NCP Product schedule has the EPA Inc. agent listed, but the new Hydro-Clean agent is not listed.

- SW-62 Petromax PSC 3  
Saxon Petrotechnologies S.A.  
Mr. Scot von Bergen  
Ancona 14-Bis  
Carrasco, Montevideo  
Uruguay  
Phone: 598-2-604-1006  
U.S. Phone: (305) 600-4927  
Fax: (508) 256-8318  
Website: [alfaluz.net](http://alfaluz.net)  
SP is a Switzerland based manufacturer that produces products in oil cleaning and remediation. SP has 11 formulations of the Petromax product. SP produces 1 SWA listed on the NCP Product Schedule.  
SP has participated the questionnaire and has provided the NSCS a sample.
- 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](http://itsenvironmental.com)  
ITS manufactures environmentally friendly bioremediation products, industrial cleaning and operating chemicals, emulsifying agents, surfactants, and suppressants agents. ITS produces 1 SWA listed on the NCP Product Schedule.  
ITS has completed the questionnaire and has provided the NSCS a sample
- SW-64 Nontox Surface Washing Agent  
Bio-Organic Catalyst Inc.  
Mr. Jay Johnston  
711 West 17<sup>th</sup> Street, Suite E-6  
Costa Mesa, CA 92627  
Phone: 949-515-1301  
Phone: 800-92-8676  
Fax: 949-515-1314  
Website: [bio-organic.com](http://bio-organic.com)

BOC manufactures products involved in aquaculture, agriculture, biological film growth, mineralization, and hydrocarbon remediation. BOC produces 9 different products. BOC produces 1 SWA listed on the NCP Product Schedule.

BOC has participated in the questionnaire and is committed to providing a sample.

- SW-65 Simple Green 2013 Reformulation

Sunshine Makers Inc.

Ms. Carol Chapin

15922 Pacific Coast Highway

Huntington Beach, CA 92649

Office Phone: 800-228-0709

Mobile Phone: 592-795-6000

Fax: 562-592-3830

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

The Simple Green product was produced 30+ years ago to remove tannic acid and by products of coffee roasting machinery as well as automotive and industrial companies.

There are 31 different formulations of Simple Green, 2 which are listed as SWA on the NCP Product Schedule.

Sunshine Makers Inc. has participated in the questionnaire and has provided the NSCS a sample.

- 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](http://naturalsoapformulas.com)

NSF manufactures non-ionic soap-based surfactants and cleaning compounds. They produce products involved in agricultural, aerospace, maritime, commercial, and industrial services. NSF produces 1 SWA listed on the NCP Product Schedule.

NSF has participated in the questionnaire and is committed to providing a sample.

- SW-67 Rhamnolipid 10

Rhamnolipid Inc.

Mr. Samuel Grecco

511 West Bay Street, Suite 350

Tampa, FL 33606

Phone: 917-576-7381

Phone: 704-564-6445

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

Rhamnolipid produces bacterial surfactants used in pest control, agricultural practices, and hydrocarbon removal washing. Rhamnolipid produces 1 SWA listed on the NCP Product Schedule.

NSCS Researchers spoke on the phone with Rhamnolipid, who stated that they are currently conducting research with another group and would not like to participate in our project at this time.

- SW-68 ADP-7  
Petro-Green Inc.  
Mr. Michael Paddock  
P.O. Box 814665  
Dallas, TX 75381  
Phone: 214-484-7336  
Website: petro-green.com  
Petro-Green manufactures 1 product, the ADP-7, which is a water-soluble, surfactant blend used to wash a variety of crude oil from structures.  
Petro-Green has not participated in the NSCS questionnaire after many efforts for contact.
- 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  
Keteca produces aqueous cleaning solution for automotive, industrial, printing, aerospace, and oil/gas industries. Keteca manufactures 8 products. Keteca produces 1 SWA listed on the NCP Product Schedule.  
Keteca USA has participated in the questionnaire and has provided the NSCS a sample.

### **2.2.2 Miscellaneous Oil Spill Control Agent Manufacturer's**

NSCS determined in addition to the NCP approved SWA a majority of OSRO's use a Miscellaneous Oil Spill Control Agent (MOSCA), also located on National Contingency Plan Subpart J.

The MOSCA manufacturers are listed in the following format:

Miscellaneous Oil Spill Control Agent

Manufacturer name

Company contact name

Contact Information

Brief company history and the products that they produce

Statement of their participation in the project questionnaire and providing samples.

All products listed are derived from September 2017 NCP Product Schedule, and all contact information is derived from March 2018 Update NCP Product Schedule.

- 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  
PES produces 5 formulations of the PES product used in washing/cleaning, decontamination, and remediation of petroleum covered substrates. PES produces 1 SWA listed on the NCP Product Schedule.  
PES has participated in the questionnaire and has provided the NSCS a sample.

### **2.2.3 Oil Spill Response Organization's**

The OSRO's that have responded or completed the survey are listed in alphabetical order and separated by coastal state in the following format:

Oil Spill Response Organization

Contact Information

Brief company history

Statement of their SWA use.

All OSRO's listed are derived from Cleanupoil.com, "The Little Black Book of Oil Spill Contractors 7<sup>th</sup> Edition".

- Accuworx Inc.  
1122 State Hwy 72 West  
Yorktown, TX 78164  
Phone: 832-934-1221  
Phone: 855-114-5663  
Fax: 832-230-4610  
Founded in 1989, Accuworx began as an outdoor sign-cleaning company and has now expanded to remediation and response for land and marine emergencies for waste water treatment, industrial cleaning, and fuel and chemical spill response.

Accuworx has stated that they use SWA Simple Green in addition to other agents such as Microblaze, Dalimamine, and Citriclean.

- America Pollution Control Corporation (AMPOL)  
101 TX Hwy 365                      401 W. Admiral Doyle Dr.  
Port Arthur, TX 77640              New Iberia, LA 70560  
Phone: 409-365-4205              Phone: 337-365-7847  
Phone: 800-482-6765              Fax: 337-365-8890  
Fax: 409-736-2728  
Website: [ampol.net](http://ampol.net)  
Founded in 1993, AMPOL was an oil and gas response industry based out of South Louisiana and has now expanded to part of Texas. They supply remediation and collection equipment and provide numerous cleaning, transporting, and remediation services.  
AMPOL, Texas and Louisiana locations, has stated that they do not use any SWA in their services.
- Masters Advanced Remediation Services Inc. (ARS)  
31503 Huffman-Cleveland Rd.  
Huffman, TX 77336  
Phone: 281-419-7800  
Phone: 877-419-7806  
Fax: 281-359-1495  
Website: [mastersars.com](http://mastersars.com)  
ARS is a 24/7 emergency response company involved in servicing commercial vehicle accident and fixed facility incidents of hazardous and non-hazardous material spill sites. Their response servicing areas include the greater Houston area and surrounding cities. ARS has stated that they use NCP Bioremediation agent #41, Micro-Blaze, in their responses.
- Bulldog Environmental Services  
4011 Clovis Rd.  
Lubbock, TX 79415  
Phone: 432-413-5463  
Phone: 833-371-9630  
Website: [bulldogenvironmentalservices.com](http://bulldogenvironmentalservices.com)  
Bulldog Environmental is a full service response company involved in waste disposal, waste minimization, HAZMAT response, tank cleaning, and training services. Bulldog Environmental has joined with OiLinator LLC in manufacturing and applying a microbial solution for hydrocarbon involved spills as well as waste water treatment. Bulldog Environmental has stated that they do not use SWA, but use their own OiLinator product.

- **CB&I**  
 2103 Research Forest Drive  
 Woodlands, TX 77380  
 Phone 832-513-1000  
 Website: cbi.com  
 CB&I is a technology and infrastructure provider for the energy industry. They provided services and products in oil and gas chemicals, power, waste and wastewater, and industrial storage.  
 CB&I has stated that they do not use any SWA in their services.
- **Clean Tank Inc. (Acquired by Accuworx Inc., see above listing)**  
 1122 State Hwy 72 West  
 Yorktown, TX 78164  
 Phone: 361-574-8823  
 Fax: 832-934-1226  
 Website: cleantankinc.com
- **Cura Emergency Services**  
 6205 Chapel Hill Boulevard, Suite 100  
 Plano, TX 75093  
 Phone: 972-378-7333  
 Phone: 800-579-2872  
 Fax: 972-378-6789  
 Website: curaes.com  
 CES was established in 1997 from Cura Inc, an environmental consulting firm, and specializes in emergency response and remediation services in fuel, cargo, and hazardous materials spills. CEW also distributes absorbents and spill cleaning kits.  
 CES has stated that they do not use any SWA in their services.
- **Corpus Christi Area Oil Spill Control Association**  
 1231 Navigation Blvd.  
 Corpus Christi, TX 78407  
 Phone: 361-882-2656  
 Fax: 361-881-5162  
 CCAOSCA was founded in 1970 to provide the Coastal Bend area of South Texas with oil spill response capabilities. They specialize in marine spill oil collection and removal.  
 CCAOSCA has stated that they do not use any SWA in their services.
- **Environmental Restoration LLC.**  
 211 North 11<sup>th</sup> Street  
 LaPorte, TX 77571  
 Phone: 281-416-5731  
 Phone: 888-814-7477

Website: erllc.om

ER is a remediation contractor for federal, state, and local agencies since 1997, and provides services in hazardous waste material management and removal, environmental remediation, and emergency response.

ER has stated that they do not use any SWA in their services.

- Miller Environmental Services Inc.

401 Navigation Blvd.

Corpus Christi, TX 78408

Phone: 361-289-9800

Fax: 361-289-6363

Website: millerenviro.com

MES was founded in 1985 and provides services in industrial cleaning, waste management, vapor control, dredging, and spill response on both land and water.

MES has stated that they use miscellaneous agent PES-51 in their services.

- MSRC

1667 Main St.

Ingleside, TX 78362

Phone: 361-776-5336

Phone: 800-645-7745

Website: msrc.org

MSRC was founded in 1990 for large scale oil spill response services and mitigation.

They offer services in aerial observation, shallow and open water response, shoreline protection and cleanup, and chemical application.

MSRC has stated they do not use any SWA in their services, but do use Corexit dispersants in their services.

- Oil Spill Response Limited

800 Town & Country Blvd., Suite 300

Houston, TX 77024

Phone: 832-431-3191

Fax: 832-431-3001

Website: oilspillresponse.com

OSRL was established in 1985 as an oil spill response organization and has now expanded to operations on 6 countries. They offer services in spill response, subsea capping and containment, and response training. OSRL has 2 locations on the Gulf Coast, Texas and Florida.

OSRL has stated that use SWA Corexit EC9580A, and have previously used Corexit 9547 in their services.

- Phoenix Pollution Control & Environmental Services Inc.

7111 Decker Dr.



Baytown, TX 77520  
Phone: 281-838-3400  
Fax: 281-424-7748

Website: phoenixpollution.com

PPCES was founded in 2001 as an environmental and emergency response contractor and provides services in spill/hazmat response, disaster response, waste management, as well as training. In addition to their services, they provide the sale of response equipment including containment boom, sorbents, skimmers, etc.

PPCES has stated that they use miscellaneous agent PES-51 in their services.

- Protect Environmental Services Inc.

6504 Midway Road, Suite 200  
Haltom City, Texas 76117

Phone: 817-589-9005

Phone: 877-589-9500

Fax: 817-838-9898

Website: protectusa.net

PES is an emergency response contractor, ChemNet responder, and ChemTrec responder for North and Central Texas since 1996. PES provides services in spill response and cleanup, land and water abatement, plant fire response, waste disposal, etc..

PES has stated that they use SWA Simple Green in their services.

- Resolute Environmental & Response Services LLC

2814 N Alexander Dr.

Baytown, TX 77521

Phone: 832-770-3227

Fax: 713-673-8013

Website: resolute-response.com

RERS is an independent environmental response company that provides services in tank cleaning, waste disposal and management, excavation, and emergency response. RERS also distributes spill sorbent pads, rolls, boom, and response kits.

RERS has stated that they do not use any SWA in their services.

- Clean Gulf Associates

650 Poydras St., Suite 1020

New Orleans, LA 70130

Phone: 504-799-3035

Fax: 504-799-3036

Website: cleangulfassoc.com

CGA is a not-for-profit oil spill cooperative to mitigate marine spill incidents both offshore and inshore along the Gulf of Mexico. Their membership is comprised of 113 major and independent companies.

CGA has stated that they use miscellaneous agent PES-51 in their services.

- T&T Marine Salvage Inc.  
735 Peters Road  
Harvey, LA 70058  
Phone: 504-875-2415  
Phone: 713-534-0700  
Website: teichmangroup.com  
Established in 1957, TTMS provides services in maritime salvage, firefighting, pollution control, emergency response, etc.. TTMS has 5 main office locations in the United States, and 4 additional office locations in Europe, South America, and Asia. TTMS has stated that they use miscellaneous agent PES-51 in their services.
- OMG Solutions LLC.  
PO Box 4345  
Victoria, TX 77903  
Phone: 361-564-4541  
Website: omgsol.com  
OMGS is an oil remediation company specializing in non-invasive soil and water remediation techniques. OMGS produces a product called ELMN8 that breaks down hydrocarbon chains and produces a non-hazardous bio-dust. OMGS has stated that they do not use any SWA in their services but use their ELMN8 product.

A total of 78 companies across the Gulf coastal states were distributed the questionnaires. In addition to the above responses, 19 additional responses were gathered which included the company no longer was in business, did not want to participate in the questionnaire, or was not considered an OSRO.

### **2.3 Product Valuation**

For assessing the values of SWA's, researchers gathered 1-gallon prices from the manufacturers if available. These prices are based off online and direct prices given at the time of this report and may be subject to change in bulk orders. Manufacturers that have product pricings not listed and are order specific and will be listed in the table as "Propriety".

## 2-1 SWA Product Pricing

Name	SWA #	Price per Gallon	Information
Supercall	2	\$21.50-\$27.50	5-gallon pail is \$27.50/gal 55-gallon drum is \$21.50/gal 275-gallon tote is \$21.50/gal 330-gallon tote is \$21.50/gal
CN-110	9	-	Propriety
Corexit EC9580A	10	\$220	*Gallon price based off OSRO statement and is only sold in 55-gallon drums.
De-solv-it Ind. Formula	11	~\$90	*Gallon price based off Amazon 32 oz price of \$23.52. Distributor price may be different.
Premier 99	12	-	Propriety
Simple Green	15	\$10-\$25	1-gallon/ \$9.95- \$25.38 5-gallon pail/ \$61.28- \$107.52 55-gallon drum/ \$517.43- \$912.62 275-gallon tote/ \$2,544.63- \$3,331
Aquaclean	16	-	Propriety
Nature's Way HS	18	-	Propriety
Cytosol	19	-	Propriety
Biosolve/Pinkwater	20	-	Propriety
Petrotech 25	21	-	Propriety
Petro-Clean	23	\$18-\$20	5 gallon pail rates \$20/gal Drum to totes rates \$18/gallon
Do-All	24	-	Propriety
SC-1000	25	\$10.67	Product packaged in 4x55-gal drums or 275-gal totes.
Gold Crew SW	26	-	Propriety
Nale-it	28	-	Propriety
F-500	30	-	Propriety
Enviroclean	31	-	Propriety
BG-Clean 401	32	\$16.35-\$16.65	5-gallon pail is \$16.65/gallon 55-gallon drum is \$16.45/gallon 265-gallon tote is \$16.35/gallon
E-Safe	33	-	Propriety
Sheen-magic	34	-	Propriety
Procleans	35	-	Propriety
Spillclean	36	-	Propriety
TXChem HE-1000	37	-	Propriety
Nokomis 5-W	38	~ \$20	12-quart case/ \$84.58 4-gallon case/ \$79.50 5-gallon pail/ \$105.56 55-gallon drum/ \$609.95 330-gallon tote/ \$2,669.72
G-Clean OSC- 1809	39	-	Propriety

Name	SWA #	Price per Gallon	Information
Green Beast Oil Spill & Odor Remediator	40	-	Propriety
Tulxa	41	-	Propriety
Marine Green Clean	42	-	Propriety
Marine Green Clean Plus	43	-	Propriety
Green Clean	44	-	Propriety
SOC 10	45	-	Propriety
Biograss Extra	46	-	Propriety
Env. 1 Crude Oil Cleaner	47	-	Propriety
SandKlene 950	48	~\$16.75	*Price gathered from SEC.gov Joint Venture Agreement. Distributor price may be different.
De-solv-it Clean Away APC Super Concentrate	49	~\$90	*Gallon price based off Amazon 32 oz price of \$23.52. Distributor price may be different.
EO All Purpose Soap-Lavender	50	~\$325.53	*Gallon price based off Amazon 32 oz price of \$81.38. Distributor price may be different.
Dynamic Green	51	-	Propriety
Veru-Solve Marine 200 HP	52	-	*Product no longer offered through originally listed company.
Naturama G3 A-5	53	\$17.50-\$39.50	1-gallon is \$27-\$39.50/gal 5-gallon is \$24- \$27.50/gal 55-gallon drum is \$20- \$21/gal 275-gallon tote is \$17.50- \$19/gal
Safe Kleen	54	-	Propriety
Coriba 700 SR	55	-	Propriety
Coriba 713 SR	56	-	Propriety
JEP-Marine Clean	57	-	Propriety
Ethos Clean	58	-	Propriety
OSR-10	59	-	Propriety
Accell Clean SWA	60	~\$134	*Gallon price based off Grainger Industrial Supply gallon price of \$134. Distributor price may be different.
EPA Oil Field Solution	61	-	Propriety
Petromax PSC 3	62	~\$11	Market price is \$2.9/liter
Green Technologies Solution-Oil Recovery	63	\$39.99	5-gallon pail/ \$199.95 55-gallon barrel/ \$2,089.45 275 gallon tote/ \$9,897.25

Name	SWA #	Price per Gallon	Information
Nontox Surface Washing Agent	64	-	Propriety
Simple Green 2013 Reformulation	65	\$10-\$25	1-gallon/ \$9.95- \$25.38 5-gallon/ \$61.28- \$107.52 55-gallon drum/ \$517.43- \$912.62 275-gallon tote/ \$2,544.63- \$3,331
Formula 206-1X Biowash	66	-	Propriety
Rhamnowash 10	67	-	Propriety
ADP-7	68	-	Propriety
Water Works HD Degreaser Conc.	69	-	Propriety

Name	MOSCA #	Price per Gallon	Information
PES-51	12	\$45	55-gallon drum/ \$3,000

## **2.4 Market Dynamics**

To characterize the Surface Washing Agent Market in the Texas Gulf coastal areas, this study will need to determine the forces driving and restraining the market. Factors acting upon the market include such as the valuation and accessibility to the product, as well as the cost of application.

### **2.4.1 Driving Forces**

With the EPA initiating the study of SWA in response to the Oil Pollution Act of 1990, EPA researchers began assessing performance and generating informative reports of the cleaning agents. Initial research by EPA scientists found that in the past chemical dispersants were used to clean shorelines and break oil-water surface bonds to move the oil off impermeable substrates. Although beneficial for cleaning shoreline substrates as well as preventing shoreline wash-ups from offshore, this is found to be undesirable as the dispersed oil remains in the water column and hinders recovery. Essentially, EPA scientists found that many chemical SWAs act similarly to dispersants. SWAs promote oil removal from substrates, but some allow and some prevent coalescence of the oil droplets. Those that allow the oil to coalesce can allow the oil to resurface for effective recovery.

The recoverability of the cleaning agent and oil mix greatly appeals to OSRO's and environmental contractors for efficient and effective remediation of shoreline oil contamination. In addition to the effectiveness of the cleaning agent, no adverse incidents have been documented for SWA application, however skin irritation and rashes have been verbally stated in association with SWA use.

#### **2.4.2 Restraints**

Although prior SWA testing has only been slightly established, effectiveness of SWA show setbacks of cleaning aged oils on surfaces. In addition, some listed NCP agents result in dispersion of oil drops in the water column in high energy removal situations which could allow intrusion and re-mobilization of oil further down the shoreline of subsurface. SWA have not undergone penetration testing, but dispersants have shown increases of oil in porous sediment areas of various shoreline types.

The NSCS OSRO questionnaire results show that, only 2 of the 56 SWA, and 1 of the Miscellaneous NCP approved SWA agents are predominantly used in the Gulf Coast market. This is likely the result of little prior knowledge of SWA as well as the limited areas that are approved for application. Assessing usage from manufacturers and OSRO's, the market of petroleum remediation of shorelines still relies on dispersants, but with expansion of the pre-approved areas, a significant increase of SWA production and use is projected.

## 3.0 Research Findings

### **3.1 Questionnaire Results and Implications from Manufacturer**

During the period of market study data collection, a running total of 81 manufacturer contacts were established. (Some products have more than one distributor). Questionnaire distribution and initial effort for contact began in November, 2017. A total of 23 manufacturers completed the questionnaire for 27 SWA and Miscellaneous Agents on the NCP Product Schedule. (Some manufacturers produce more than 1 NCP Listed product). In addition, 2 manufacturers indicated they would not participate in the research project because they are invested in other research projects or would not like outside researchers testing their products. Research findings are based off manufacturer's statements and inquires, SDS, and published online findings.

#### **3.1.1 Toxicological and Safety Information**

The Hazard Communication Standard (HCS), located in 29 CFR 1910.1200(g), requires chemical manufacturers to provide Safety Data Sheets (SDSs) for each chemical. SDSs are designed to communicate information on potential hazards in a 16-section format. These guidance documents allow workers to properly handle and use the chemicals. Information such as physical and chemical properties, physical and environmental health hazards, protective measures, and safety in storage and transport of the chemicals are assessed in this report. This market study is not designed to independently assess the toxicological information about the SWA products, but instead it incorporates SDS toxicological data into future research and guidance for researchers and inspectors.

##### **3.1.1.1 Safety Data Sheet Information**

Descriptive table of SDS information is located on the following pages. All information in this section is derived from the SDS acquired by manufacturer or EPA website listings. Proprietary information, or unstated information, regarding the products were not gathered or included.

The legend for the table is as follows:

- "Yes"
- "No"
- ∅ "No, under any circumstances"
- \* "No information available"





### 3-1 SDS Information Chart

Product ID		Hazards					First Aid				PPE			
Name	SWA #	Skin	Eyes	Ingestion	Inhalation	Carcinogenic	Flush Eye	Wash Skin/Mouth	Fresh Air	Induce Vomit	Glasses	Gloves	Protective Clothing	Respirator
Supercall	2	●	●	●	●	○	●	●	●	∅	●	●	●	○
CN-110	9	●	●	*	*	*	●	●	○	*	●	●	●	○
Corexit EC9580A	10	●	●	●	●	○	●	●	●	∅	●	●	●	●
De-solv-it Ind. Formula	11	●	●	●	●	○	●	●	●	∅	●	●	●	○
Premier 99	12	●	●	●	●	*	●	●	●	∅	●	●	●	*
Simple Green	15	●	●	*	*	*	●	●	○	*	●	●	●	*
Aquaclean	16	●	●	●	●	○	●	●	●	●	●	●	●	○
Nature's Way HS	18	●	●	*	●	*	●	●	●	*	●	●	●	*
Cytosol	19	●	●	*	●	*	●	●	●	*	●	●	●	*
Biosolve/Pinkwater	20	●	●	●	●	○	●	●	●	*	●	●	●	○
Petrotech 25	21	●	●	*	*	*	*	*	*	*	●	●	●	○
Petro-Clean	23	○	○	●	○	○	●	●	●	∅	●	●	●	○
Do-All	24	●	●	*	*	*	●	●	*	*	●	●	●	*
SC-1000	25	○	○	○	○	○	●	●	●	∅	●	●	●	○
Gold Crew SW	26	●	●	●	○	○	●	●	○	*	●	●	●	○
Nale-it	28	●	●	*	●	*	*	*	*	*	●	●	●	●
F-500	30	●	●	●	●	○	●	●	●	∅	●	●	●	○

Legend			
●	Yes	∅	No, under any circumstances
○	No	*	No Information available

Product ID		Hazards					First Aid				PPE			
Name	SWA #	Skin	Eyes	Ingestion	Inhalation	Carcinogenic	Flush Eye	Wash Skin/Mouth	Fresh Air	Induce Vomit	Glasses	Gloves	Protective Clothing	Respirator
Enviroclean	31	●	●	●	●	○	●	●	●	∅	●	●	●	○
BG-Clean 401	32	●	●	●	●	○	●	●	●	*	●	●	●	○
E-Safe	33	○	○	●	○	○	●	●	●	∅	●	●	●	○
Sheen-magic	34	○	○	●	○	○	●	●	●	∅	●	●	●	○
Procleans	35	●	●	●	●	*	●	●	●	∅	●	●	●	●
Spillclean	36	●	●	●	*	*	●	●	*	∅	●	●	●	*
TXChem HE-1000	37	●	●	*	●	*	●	●	*	*	●	●	●	●
Nokomis 5-W	38	●	●	●	●	*	●	●	●	∅	●	●	●	○
G-Clean OSC- 1809	39	○	○	○	○	○	○	○	○	○	○	○	○	○
Green Beast Oil Spill & Odor Remediator	40	●	●	*	●	*	●	●	*	*	●	○	○	*
Tulxa	41	●	●	●	●	*	●	●	*	∅	●	●	●	●
Marine Green Clean	42	●	●	●	●	○	●	●	●	*	●	●	●	○
Marine Green Clean Plus	43	●	●	*	●	*	●	●	*	*	●	●	●	○
Green Clean	44	●	●	*	○	*	●	●	*	*	●	●	○	○
SOC 10	45	●	●	●	○	*	●	●	*	●	●	●	●	○
Bioglass Extra	46	○	●	○	○	*	●	*	*	*	●	○	○	○

Legend			
●	Yes	∅	No, under any circumstances
○	No	*	No Information available

Product ID		Hazards					First Aid				PPE			
Name	SWA #	Skin	Eyes	Ingestion	Inhalation	Carcinogenic	Flush Eye	Wash Skin/Mouth	Fresh Air	Induce Vomit	Glasses	Gloves	Protective Clothing	Respirator
Env. 1 Crude Oil Cleaner	47	○	●	○	○	*	●	*	*	*	●	○	○	○
SandKlene 950	48	●	●	○	○	*	●	●	*	*	●	●	○	○
De-solv-it Clean Away APC Super Concentrate	49	●	●	●	●	○	●	●	●	∅	●	●	●	○
EO All Purpose Soap Lavender	50	●	●	●	●	*	●	●	*	*	●	●	●	○
Dynamic Green	51	●	●	●	●	○	●	●	●	∅	●	●	●	○
Veru-Solve Marine 200 HP	52	●	●	●	●	*	●	●	*	∅	●	●	●	●
Naturama G3 A-5	53	●	●	●	●	○	●	●	●	*	●	●	●	○
Safe Kleen	54	●	●	*	●	*	●	●	*	*	●	●	●	*
Coriba 700 SR	55	●	●	*	●	*	●	●	*	*	●	●	●	*
Coriba 713 SR	56	●	●	*	●	*	●	●	*	*	●	●	●	*
JEP-Marine Clean	57	●	●	*	*	*	*	*	*	*	●	●	●	○
Ethos Clean	58	●	●	*	●	*	●	●	●	*	●	●	●	*
OSR-10	59	●	●	*	●	*	●	●	●	*	●	●	●	*
Accell Clean SWA	60	●	●	*	●	*	●	●	*	*	●	●	●	*

Legend			
●	Yes	∅	No, under any circumstances
○	No	*	No Information available

Product ID		Hazards					First Aid				PPE			
Name	SWA #	Skin	Eyes	Ingestion	Inhalation	Carcinogenic	Flush Eye	Wash Skin/Mouth	Fresh Air	Induce Vomit	Glasses	Gloves	Protective Clothing	Respirator
EPA Oil Field Solution	61	○	●	*	○	*	●	●	*	*	●	○	○	○
Petromax PSC 3	62	●	●	●	●	*	●	●	●	∅	●	●	●	○
Solution-Oil Recovery	63	●	●	●	●	○	●	●	●	*	●	●	●	○
Nontox Surface Washing Agent	64	●	●	●	●	○	●	●	●	∅	●	●	●	○
Simple Green 2013 Reformulation	65	○	○	●	○	○	●	●	●	*	●	●	●	○
Formula 206-1X Biowash	66	○	○	●	○	○	●	●	●	*	○	○	○	○
Rhamnwash 10	67	●	●	●	●	*	●	●	●	∅	●	●	●	●
ADP-7	68	●	●	●	●	●	●	●	●	∅	●	●	●	●
Water Works HD Degreaser Conc.	69	○	●	●	○	○	●	●	●	∅	●	●	●	○

Product ID		Hazards					First Aid				PPE			
Name	MOSCA #	Skin	Eyes	Ingestion	Inhalation	Carcinogenic	Flush Eye	Wash Skin/Mouth	Fresh Air	Induce Vomit	Glasses	Gloves	Protective Clothing	Respirator
PES-51	12	●	●	●	●	*	●	●	●	∅	●	●	●	●

Legend			
●	Yes	∅	No, under any circumstances
○	No	*	No Information available

Product ID		Fire Hazard					Ecological			
Name	SWA #	Flamability	Reactivity	Extinguishing	Decomposition Gas	Combustion	Biodegradable	Bioaccumulates	Mobile in Soil	Marine Toxic
Superclean	2	○	○	○	●	○	●	○	●	○
CN-110	9	○	*	○	*	○	*	*	*	*
Corexit EC9580A	10	●	●	●	●	●	*	*	*	*
De-solv-it Ind. Formula	11	●	●	○	●	●	●	*	*	○
Premier 99	12	○	*	○	*	○	*	*	*	*
Simple Green	15	○	*	○	*	○	*	*	*	*
Aquaclean	16	○	●	○	●	○	*	*	*	○
Nature's Way HS	18	○	*	○	*	○	*	*	*	*
Cytosol	19	○	*	*	*	○	*	*	*	*
Biosolve/Pinkwater	20	○	●	○	○	○	○	●	*	●
Petrotech 25	21	○	*	*	*	*	*	*	*	*
Petro-Clean	23	○	○	○	●	○	●	*	●	○
Do-All	24	○	*	*	*	*	*	*	*	*
SC-1000	25	○	○	○	○	○	●	○	●	○
Gold Crew SW	26	○	○	○	○	○	●	*	*	●
Nale-it	28	○	*	*	*	*	*	*	*	*
F-500	30	○	○	○	○	○	*	*	*	○
Enviroclean	31	○	●	○	○	○	*	*	*	*
BG-Clean 401	32	○	●	○	●	○	*	○	*	○

Legend			
●	Yes	∅	No, under any circumstances
○	No	*	No Information available

Product ID		Fire Hazard					Ecological			
Name	SWA #	Flamability	Reactivity	Extinguishing	Decomposition Gas	Combustion	Biodegradable	Bioaccumulates	Mobile in Soil	Marine Toxic
E-Safe	33	○	○	○	○	○	*	*	*	*
Sheen-magic	34	○	○	○	○	○	*	*	*	*
Procleans	35	○	○	○	*	○	*	*	*	○
Spillclean	36	●	*	*	*	*	*	*	*	*
TXChem HE-1000	37	○	*	*	*	*	*	*	*	*
Nokomis 5-W	38	○	●	○	●	○	*	*	*	●
G-Clean OSC- 1809	39	○	○	○	○	○	●	*	*	○
Green Beast Oil Spill & Odor Remediator	40	○	*	*	*	*	*	*	*	*
Tulxa	41	○	*	*	*	*	*	*	*	*
Marine Green Clean	42	○	○	○	○	○	●	○	●	○
Marine Green Clean Plus	43	○	*	*	*	*	*	*	*	*
Green Clean	44	○	*	*	*	*	*	*	*	*
SOC 10	45	○	*	*	*	*	*	*	*	*
Biogress Extra	46	○	*	*	*	*	*	*	*	*
Env. 1 Crude Oil Cleaner	47	○	*	*	*	*	*	*	*	*
SandKlene 950	48	○	*	*	*	*	*	*	*	*
De-solv-it Clean Away APC Super Concentrate	49	○	○	○	○	○	●	*	*	○

Legend			
●	Yes	∅	No, under any circumstances
○	No	*	No Information available

Product ID		Fire Hazard					Ecological			
Name	SWA #	Flamability	Reactivity	Extinguishing	Decomposition Gas	Combustion	Biodegradable	Bioaccumulates	Mobile in Soil	Marine Toxic
EO All Purpose Soap Lavender	50	○	*	*	*	*	*	*	*	*
Dynamic Green	51	○	●	○	●	○	●	*	*	●
Veru-Solve Marine 200 HP	52	○	*	*	*	*	*	*	*	*
Naturama G3 A-5	53	○	*	○	○	○	*	*	*	*
Safe Kleen	54	○	*	*	*	○	*	*	*	*
Coriba 700 SR	55	○	*	*	*	*	*	*	*	*
Coriba 713 SR	56	○	*	*	*	*	*	*	*	*
JEP-Marine Clean	57	○	*	*	*	*	*	*	*	*
Ethos Clean	58	○	*	*	*	*	*	*	*	*
OSR-10	59	○	*	*	*	*	*	*	*	*
Accell Clean SWA	60	○	*	*	*	*	*	*	*	*
EPA Oil Field Solution	61	○	*	*	*	*	*	*	*	*
Petromax PSC 3	62	○	●	○	*	○	*	*	*	●
Green Technologies Solution-Oil Recovery	63	○	○	○	○	○	●	*	*	○
Nontox Surface Washing Agent	64	○	*	○	●	○	●	*	○	○
Simple Green 2013 Reformulation	65	○	*	○	○	○	●	*	*	○

Legend			
●	Yes	∅	No, under any circumstances
○	No	*	No Information available

Product ID		Fire Hazard					Ecological			
Name	SWA #	Flamability	Reactivity	Extinguishing	Decomposition Gas	Combustion	Biodegradable	Bioaccumulates	Mobile in Soil	Marine Toxic
Formula 206-1X Biowash	66	○	○	○	○	○	*	*	*	*
Rhamnowash 10	67	○	*	○	*	○	*	*	*	*
ADP-7	68	○	*	○	○	○	*	*	*	●
Water Works HD Degreaser Conc.	69	*	○	○	○	*	●	*	*	●

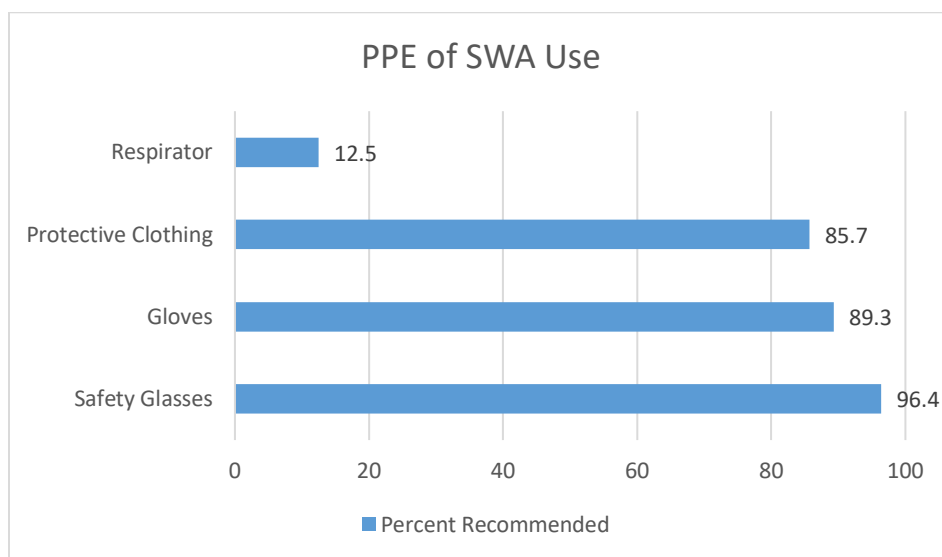
Product ID		Fire Hazard					Ecological			
Name	MOSCA #	Flamability	Reactivity	Extinguishing	Decomposition Gas	Combustion	Biodegradable	Bioaccumulates	Mobile in Soil	Marine Toxic
PES-51	12	●	○	○	●	●	●	*	●	○

Legend			
●	Yes	∅	No, under any circumstances
○	No	*	No Information available



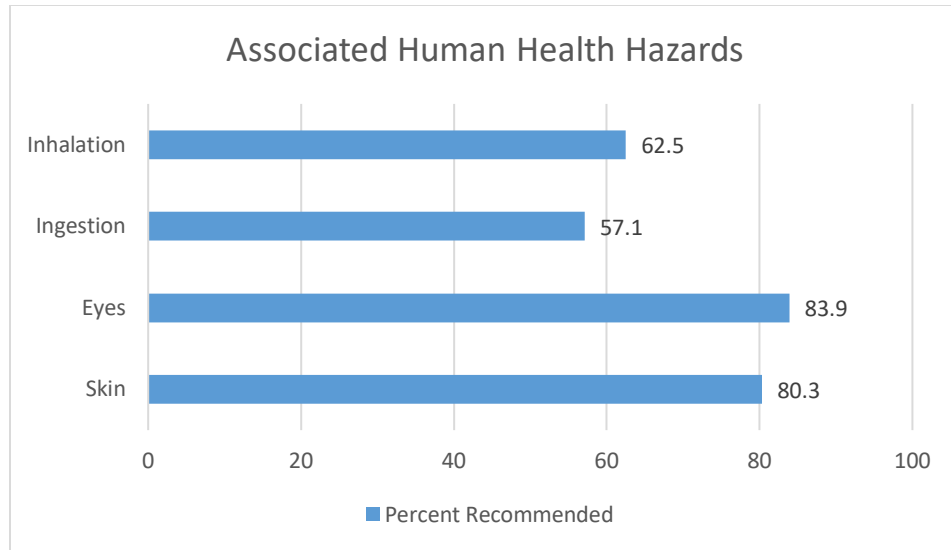
The following graph below depicts the recommendations or requirements of the manufacturers regarding personal protective equipment (PPE). Although these safety guidelines are stated, many of the agent's SDS state that there will be no human or environmental health hazards associated unless the user or location environment has specific circumstantial sensitivities. Nearly all agents SDS have indications following OSHA Standards from 29 CFR 1910.94, proper ventilation or clean air must be adequate during application and use.

For firefighting measures, 5.3% of the agents indicated a flammability hazard associated with their product. 16.1% indicated a reactivity hazard associated with strong oxidizers and require special care in storage and use. Combustion is unlikely with most products unless exposed to high pressures or heat.



Of the 56 SWA, nearly all agents require or recommend personal protective equipment of safety glasses, gloves, and protective clothing during the application of the products, and 7 agents require or recommend the use of a form of half-face respirators or full-face respirators during application.

Nearly all SWA's have associated human health hazards involved in inhalation, ingestion, eyes, or skin. The graph below depicts the percentage of agents out of the total 56 that have health hazard. Of the listed NCP agents, 2 have stated in their SDS that they have no human health hazards linked to their manufactured products.



Of the 56 SWA, nearly all agents state a physical hazard associated with contact of the SWA. In addition to the physical hazards, 1 agent’s SDS states vulnerability of high dose contact could be carcinogenic.

In addition to the descriptive table of SDS information located in section 3.1.1.1, a SWA SDS binder will be submitted electronically and physically under separate copy.

### 3.1.2 Lift and Float Identification

It’s determined that dilution ratio and pressure washing energy could alter the physical nature of the SWA between floating and dispersing in the water column. With these factors considered, page 12 of the ESurvey questionnaire distributed to SWA manufacturers states: “Would the SWA(s) that the company produces be considered "Lift and Float" or "Lift and Disperse"? (check all that apply)” with answer options of “Lift and Float” or “Lift and Disperse”. The results are as follows:

### 3-2 Lift and Float Identification

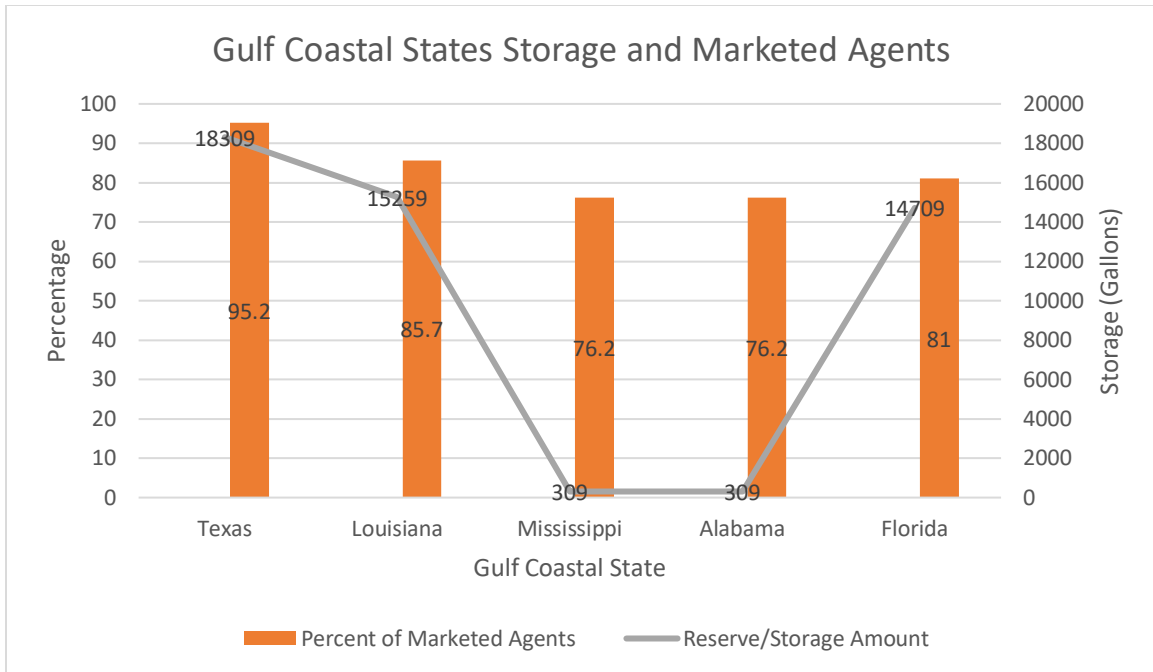
SWA Name and Number	LF or LD
Supercall (#2)	LF/LD
Corexit EC9580A (#10)	LF
Cytosol (#19)	LF
Petro-Clean (#23)	LF/LD
SC-1000 (#25)	LF/LD
Gold Crew SW (#26)	LF/LD
F-500 (#30)	LD
BG-Clean 401 (#39)	LF
Procleans (#35)	LD
Nokomis 5-W (#38)	LF/LD
Marine Green Clean (#42)	LF
Marine Green Clean Plus (#43)	LF
Dynamic Green (#51)	LF
Petromax PSC 3 (#62)	LF/LD
Green Technologies Soluitor-Oil Recovery (#63)	LF
Nontox Surface Washing Agent (#64)	LF/LD
Simple Green 2013 Reformulation (#65)	LF
Formula 206-1X Biowash (#66)	LD
ADP-7 (#68)	LD

MOSCA Name and Number	LF or LD
PES-51 (#12)	LF

Post market study laboratory testing's will reiterate the physical nature of the SWA's as well as identify for manufacturers that did not indicate on the questionnaire. "Lift and Float" agents will then be used in meso-scale testing.

#### 3.1.3 Gulf State's Storage and Market

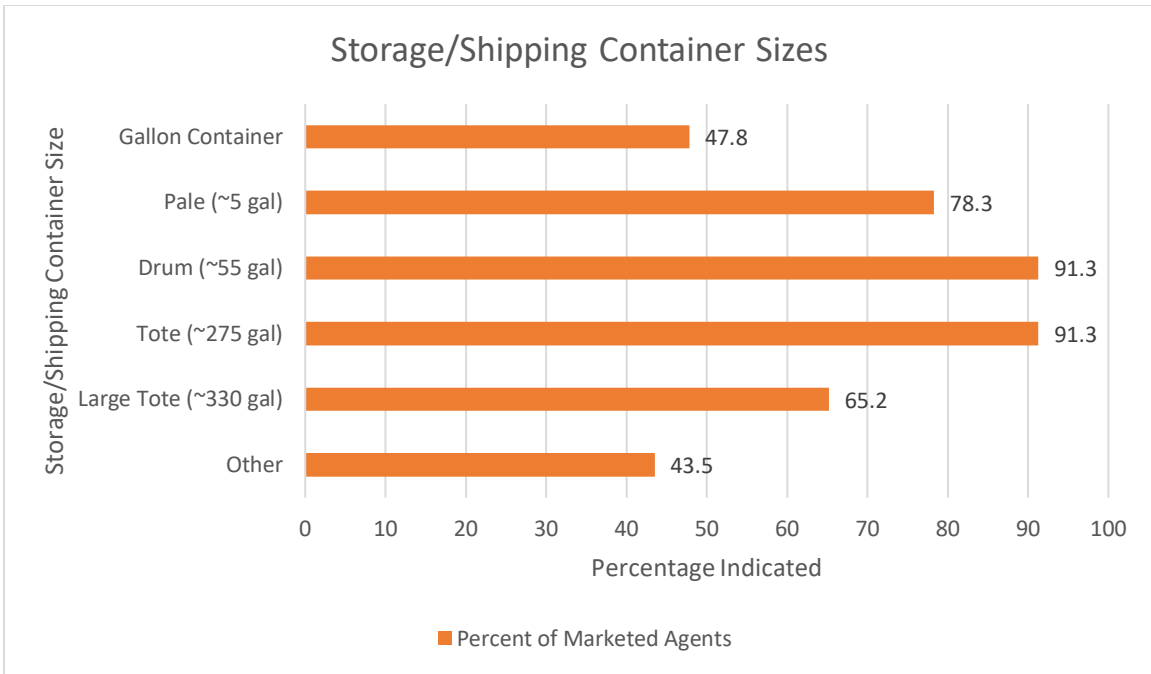
Indicated by the questionnaire results, there is not a Gulf coastal state that markets all SWA's. Of the Gulf coastal states, Texas has the majority of market agents at a near 100% as well as the largest current storage/reserve amount at 18,309 gallons, as shown by the graph below. This indicates a large potential for the SWA market with the expansion of pre-approved areas in Texas. Current storage/reserve amounts are significantly low in Mississippi and Alabama at 309 gallons. The total U.S. storage of SWA indicated by the questionnaire amounts to 196,409 gallons with an average of 13, 093 gallons per manufacturer.



Manufacturers were asked to indicate the types of storage and shipping container sizes they distribute their product in. The majority stated they store and ship in drums (~55 gallons) and tote's (~275 gallons), as shown in the graph below. Responses in the "Other" field include:

- 1x 2-2.5 gallon containers per case
- 4x Tanker (5,500-11,600 gallon)
- 1x 6-gallon container per case
- 4x Purchaser request

In addition to storage/shipping sizes, manufacturing companies were asked if they produce their product based off purchaser orders, 75% indicated that they do. With a large majority of manufacturers producing their agent based off orders, there is a production time added before response can occur should a large spill be present. However, the current reserve amount in Texas, Louisiana, and Florida would serve sufficient for initial response as the manufacturers produce more of their product during response.



### 3.14 Application Criteria

The criteria table below is based off responses of SWA manufacturers through the online questionnaire, direct contact, or on the EPA’s NCP Product Schedule Technical Notebook, Section VI, Recommended Application Procedure. Criteria for application may be subject to change depending on environmental factors as well as the type of contaminant aimed to be cleaned. Dilution will be affected by state of contaminated materials as well as coverage size. No indication of water properties, salt or freshwater, will affect the application of the agents. Manufacturers have asked prior to application, appropriate containment and collection mechanisms need to be deployed and operational for effective treatment and cleanup.

### 3-3 Application Criteria

SWA #	SWA Name	Dilution Ratio ( :parts water)	Temperature	Pressure	Soaking Time	Additional Instructions
2	Topsall (Superal)	1:10 to 1:20 for LD 1:50 to 1:100 for LF	120-140°F	1000-3000 PSI	N/A	Steam cleaning is not suggested.
10	Corexit EC9580A	Straight	-	-	30 minutes	Apply directly to oiled surfaces, rinse clean.
11	De-solv-it Ind. Formula	Straight or up to 1:9	High heat	-	N/A	Apply directly to oiled surfaces, pressure or steam cleaning is allowed.
15	Simple Green	1:10	-	-	1-2 minutes	Dilute in hot or cold water and apply to contaminated surface. Scub surface if heavily oiled or greased surface. Rinse off surface and blot dry, apply again if necessary.
20	Biosolve/Pinkwater	12% or 3:25	-	-	-	Apply solution by spray, followed by course stream of water.
23	Petro-Clean	1:10 to 1:30	-	100+ PSI	-	Apply solution to surface via brush.
25	SC-1000	1:100 for Vegetation cleaning 1:5 for Heavy cleaning 1:20 for Average cleaning	80+°F	-	1-2 minutes 5-10 minutes for vegetation	Apply via spray or manually, agitate if needed, rinse clean.
26	Gold Crew SW	1%-10%	160°F	-	-	Pre-soak surface, apply mixture in circular motion working towards center.
30	F-500	2.5% to 3%	70-200°F	2500-3600 PSI	-	For standard fire equipment delivery use 80-150 PSI. Steam cleaning is not suggested.
32	BG-Clean 401	1:5 to 1:100	100-180°F	-	15-30 minutes	Begin with dilution (2-10%) at low pressure (20gpm) , allow soak time. Second application with dilution (1-5%) at high pressure (70gpm).
33	E-Safe	Straight or 1%	-	-	-	Apply full strength and steam clean, or apply dilution at high pressure.
34	Sheen-magic	1:1	-	-	-	Apply full strength and steam clean.
35	Procleans	1:10	70°F	120 PSI	-	N/A
38	Nokomis 5-W	1:10 to 1:600	Ambient-125°F	-	1-10 minutes	Apply by brush or spray and agitate surface, then rinse clean.
42	Marine Green Clean	Straight to 14%	Ambient	low-medium	30 minutes	Steam is only used for heavy oils sitting for 4+ weeks.
43	Marine Green Clean Plus	Straight to 14%	Ambient	low-medium	30 minutes	Steam is only used for heavy oils sitting for 4+ weeks.
49	De-solv-it Clean Away APC Super Concentrate	Straight to 1:4	High heat	-	-	Use pressure or steam cleaning equipment.
51	Dynamic Green	1:1	-	-	-	Apply solution by spray, brush or mop. Allow time for penetration, and rinse thoroughly with water.
53	Naturama G3 A-5	1:6 for light oiling 20-25% for heavy/thicker oiling	Ambient	-	2-3 minutes for light oiling 10-15 minutes for heavy oiling	May be applied by drum pump, pressurization, brush, or wash tank. Rinse with pressure or steam equipment.

SWA #	SWA Name	Dilution Ratio ( _:parts water)	Temperature	Pressure	Soaking Time	Additional Instructions
62	Petromax PSC 3	1%	Ambient	-	-	Apply through physical, hydro-blasting/pressure washing, application.
63	Green Technologies Solutions-Oil Recovery	1:10 for heavy weathered on rock 1:1 for heavy weathered on sand 1:20 for light/moderated oiling	-	100 PSI	30 minutes	May be applied by spraying, dispensing, pouring, or manual/automatic scrubbing machines.
64	Nontox Surface Washing Agent	1:256 to 1:50	-	-	30 minutes	Apply and pressure wash off (pressure depends on oil and dilution)
65	Simple Green 2013 Reformulation	1:10	-	-	1-2 minutes	Dilute in hot or cold water and apply to contaminated surface. Scub surface if heavily oiled or greased surface. Rinse off surface and blot dry, apply again if necessary.
66	Formula 206-1X Biowash	1:5 to 1:200 First application is 1:10	Ambient	-	5-30 minutes	May be applied by spraying, pressure washing, mopping, scrubbing, cloth or sponge. During soak, physical agitation may be required.
69	Water Works HD Degreaser Conc.	1:3 to 1:7	100-125°F	-	-	Apply via pressure washing. Do not use steam.

MOSCA #	MOSCA Name	Dilution Ratio ( _:parts water)	Temperature	Pressure	Soaking Time	Additional Instructions
12	PES-51	1:10 to 1:25	Ambient	-	3-5 minutes	Apply and scrub if necessary, rinse area clean.

The following application criteria chart shows dilution and application instructions of SWA's that have not completed the questionnaire. Instructions are gathered from NCP Subpart J, Technical Notebook to the NCP Product Schedule, located on the EPA website. Information on dilution and application instructions are assumed to be updated and accurate.

### 3-3 Application Criteria

SWA #	SWA Name	Dilution Ratio ( :parts water)	Temperature	Pressure	Soaking Time	Application Instructions
9	CN-110	No lower than 10% product	-	-	30-60 minutes	Wash off the product and contaminant. (Stated there are no application restrictions excluding the minimum dilution ratio)
12	Premier 99	1:20 - normal cleaning 1:15 - heavy cleaning 1:5 - severe cleaning 1:50 - steam cleaning 1:30 - pressure washing	-	-	-	Apply by spray, mop, pressure washing, or steamer. Agitate the applied chemical on the surface for severe contamination, and rinse thoroughly.
16	Aquaclean	1:3 - small spill application 50% with fresh water for pressure	-	-	-	Apply with pressure spray and agitate the contaminated surface with water using a solid stream flow.
18	Nature's Way HS	Undiluted for heavy contamination 1:10 - average contamination	-	-	15 minutes	Apply undiluted to contaminated surface with a sprayer and agitate surface with a brush, mop, or broom.
19	Cytosol	0.5:1 or 1:1 for general application undiluted for large application	-	-	1 hour	Apply through spray or washing equipment.
21	Petrotech 25	10:25 - 10:90 for general application 3%-10% for light oils 6%-10% for diesel and jet fuels	-	100 PSI	-	Apply diluted mixture during general application through commercial pressure washing, hot or cold. Apply diluted general application dilution through firefighting apparatus. Apply undiluted manually to surface and agitate with a brush, then apply water via sprayer
24	Do-All	1:3 for pre-treatment 1:15 for secondary treatment 1:20 for normal treatment 1:15 for heavy cleaning 1:5 for severe cleaning 1:50 for steam cleaning 1:30 for pressure cleaning	-	50-100 PSI	30-45 minutes	For beach and shoreline general cleaning, apply pre-treatment dilution, wait, then apply secondary treatment. For normal, heavy, severe, steam, and pressure treatment, apply dilution and rinse clean. Do not apply undiluted mixture on composition floors, water-based paint surfaces, or aluminum.
28	Nale-It	1:20	-	-	-	Apply through pressure washing and rinse clean
31	Enviroclean	1%-2% for gasoline 3% for light oils 6% for heavy oils or if explosion hazard is present Flush at 1%-3%	-	-	1 hour	Apply diluted mixture via manual pressure applicator and agitate with a brush, flush with diluted mixture. For heavy dilution, allow retention time and rinse with flush mixture.

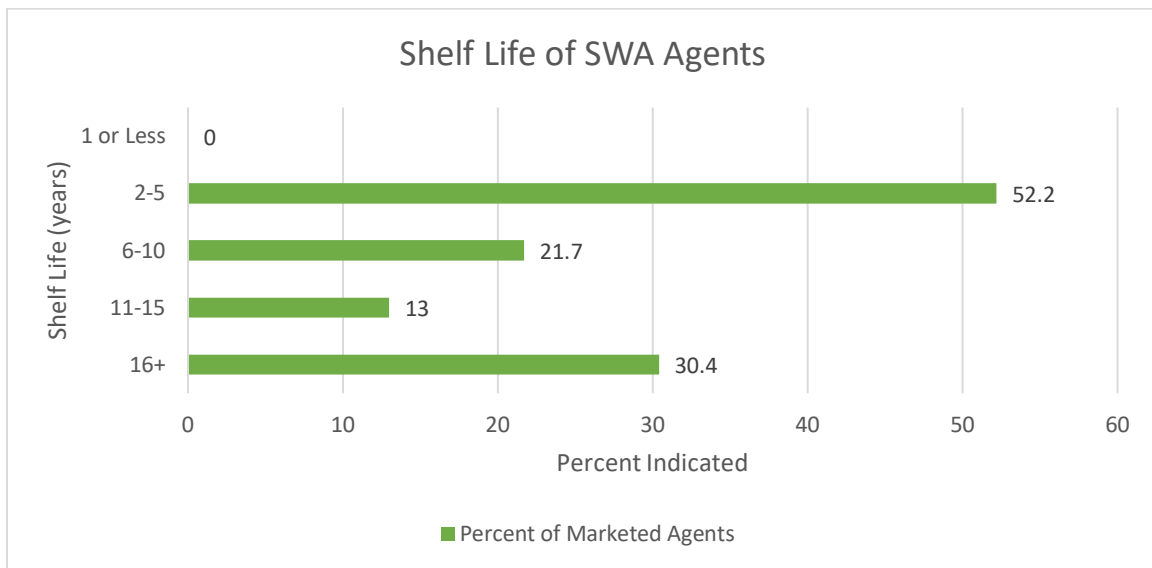


SWA #	SWA Name	Dilution Ratio ( _:parts water)	Temperature	Pressure	Soaking Time	Application Instructions
36	Spillclean	30% for concentrate form 10% for original form	-	60 PSI	-	For light oils and gasoline, apply concentrate manually around perimeter of spill to contain from migration, then apply original form directly to contaminant, use a broom or brush to agitate, and rinse clean. For large spills, apply original concentrate, agitate with broom or brush, and rinse with pressure wash.
37	TXChem HE-1000	1:10	50°+ F	-	-	Apply diluted mixture by pressure sprayer, heated washer or fire hose, agitate to slurry consistency, and rinse clean.
39	G-Clean OSC-1809	1:3 - heavily weathered oil on rock 1:5 - heavily weathered oil on sand undiluted for tar balls 1:10-1:20 - oil on vegetation 1:20 - general application	78°+ F	100 PSI	30 minutes	Apply diluted mixture via spraying or pressure washing, allow retention time, rinse clean. For small spills, apply diluted mixture via scrubber, mop, or cloth.
40	Green Beast Oil Spill & Odor Rem	1:15 - general application	38° - 60° F	500 PSI	-	For heavy consistency spills, apply mixture over the course of 3 consecutive days maximum.
41	Tulxa	1:200	-	low-medium	25 minutes	N/A
44	Clean Green	1:10 - highly concentrated oil 1:10-1:30 - light contamination	-	-	-	Apply diluted mixture via pump or spray, and rinse clean.
45	SOC-10	1:12	25° C	-	3 minutes	N/A
46	Bioglass Extra	1:1	-	-	-	Apply diluted mixture via sprayer or manually. Agitate surface for optimum results, rinse clean.
47	Env. 1 Crude Oil Cleaner	1:10-1:30 - light contamination Undiluted - heavy oil accumulation	-	-	-	Apply diluted or undiluted mixture via drum or hand pump sprayer and normal climatic temperatures, and rinse clean.
48	Sandklene 950	0.15%-1%	100°-150°F	-	-	Place contaminated sand and diluted mixture in an enclosed system, agitate the sediment at optimum temperature.
50	EO All Purpose Soap-Lavender	1:4 - normal application Undiluted - heavy contamination	-	-	-	Apply diluted or undiluted mixture via spraying or manual pouring, agitate surface with scrubber, and rinse clean.
51	Dynamic Green	1:4 - heavy oils on rock 1:7 - heavy oils on sand 1:10-1:20 - oil on vegetation 1:20 - pressure washing	-	-	20-30 minutes	Apply diluted mixture via chemical inductor or feed pump/sprayer or manually via sponge, mop, or brush. Allow retention time, rinse clean with pressure washer with dilution.

SWA #	SWA Name	Dilution Ratio ( :parts water)	Temperature	Pressure	Soaking Time	Application Instructions
52	Veru-Solve Marine 200 HP	Undiluted	-	Low	-	Apply undiluted mixture via standard spray equipment (no steamer allowed) at low pressure, rinse clean.
54	Safe Kleen	1:3 - small spill application 1:1 - large spill application	-	-	-	Apply via brush, mop, sprayer, or standard pressure washing, and allow sufficient retention time and agitation before rinsing clean.
55	Coriba 700SR	Undiluted	-	-	-	Transfer contaminated sand to standard sand washer and apply undiluted agent. Remove free floating oil and dry sand in a centrifuge. This process can not include any water.
56	Coriba 713SR	Undiluted	-	-	-	Transfer contaminated sand to standard sand washer and apply undiluted agent. Remove free floating oil and dry sand in a centrifuge. This process can not include any water.
57	JEP-Marine Clean	1:3 - presoak 1:15 - pressure washing	45°-212°F	-	10-15 minutes	Apply presoak dilution via manual pump and pressure wash clean.
58	Ethos Clean	1:2-1:10 - normal application 1:50 - light contamination Undiluted - heavy contamination	-	-	30 minutes	Apply diluted or undiluted mixture via sprayer, mop, sponge, brush or pressure washer, and rinse clean.
59	OSR-10	1:5-1:30 - normal application 1:2 - heavy contamination	35°-120°F	-	10 minutes	Apply diluted mixture via sprayer, mop, sponge or pressure washer.
60	Accell Clean SWA	0.25%-2% - sand application Undiluted - oil on vegetation	-	-	15-30 minutes	Place contaminated sand and diluted mixture in an enclosed system, agitate the sediment and remove free floating oil and dry the sand in a centrifuge. Apply undiluted agent to contaminated vegetation, agitate if necessary for rocks, and rinse clean.
61	EPA Oil Field Solution	1:3 - heavy weathered oil on rock 1:5 - heavy weathered oil on sand 1:10-1:20 - oil on vegetation	78°F	100 PSI	30 minutes	Apply diluted mixture via pressure washer or fire pump. Agitate contaminated area if necessary, and rinse clean.
67	Rhamnowash 10	Undiluted- heavy contamination 1:100 - Crude/refined oils 1:100-1:1000 - light contamination	-	-	30-240 minutes	Apply undiluted or diluted mixture via manually or pressure washer and rinse clean.
68	ADP-7	2.4% - average land spills	35°-150°F	-	-	Apply diluted mixture, agitate if necessary, and rinse clean.

### 3.1.5 Shelf Life of Products

Indicated in the questionnaire, half of the listed SWA's have a shelf life of 2-5 years, with a remaining majority being in the 16+ year range. The graph below shows 52.2% being 2-5 and 30.4% being 16+ years. Assessing the shelf life results, 4 manufacturers indicated that their product fits in two categories of shelf life time range depending on storage and amount.



Graph results show over half of the agents have a short 2-5-year shelf life, meaning OSRO's and other response companies will continue to stock and update inventory to keep supplies current in working condition should a spill event arise.

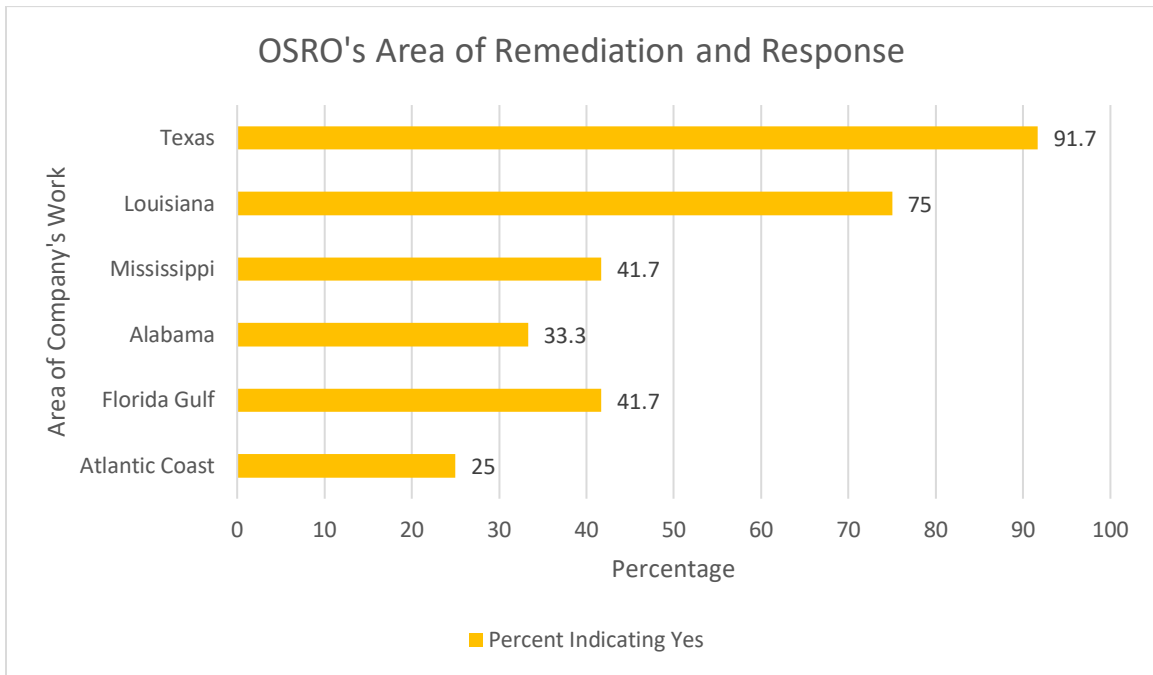
## **3.2 Questionnaire Results and Implications from OSRO Survey**

During the period of market study data collection, a running total of 78 OSRO contacts were established. Distribution and initial effort for contact began November 28<sup>th</sup>, 2017. A total of 14 OSRO's completed the questionnaire as well as 24 phone or in-person interviews. During the period of market study data collection, 7 OSRO's indicated they would not participate in the research project or were no longer in business. Research findings are based off OSRO's statements and inquiries, interview answers, and online findings.

### **3.2.1 Summary of OSRO Interviews and Other Guidance**

Target OSRO's for the market study report have main offices or branches located in the Gulf States. The highest response rate for this study is Texas with 91.7% of OSRO scope of work. The table below shows the additional area of OSRO zone of response. Inquiries regarding time the

company has been established was asked and show nearly 75% of the responding OSRO's have been established before the Deepwater Horizon Spill.



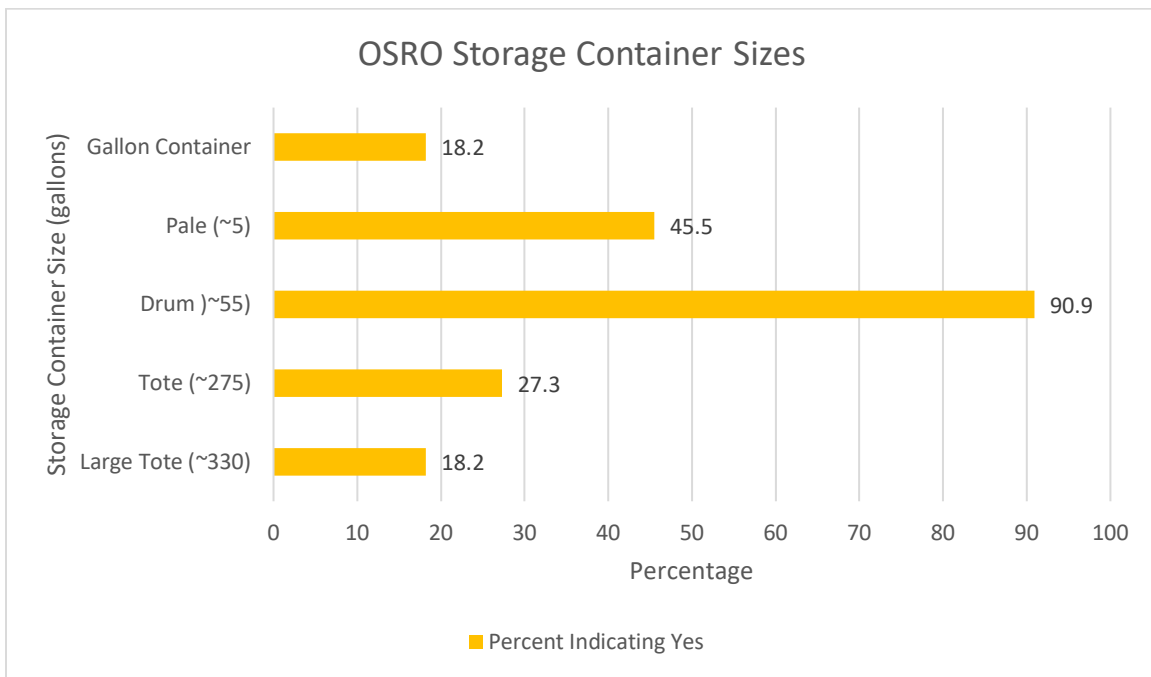
The answer responses from Gulf state OSRO's have indicated that 9 companies currently or previously have used NCP listed surface washing agents for oil cleaning and surface treatment. All responses have stated they have used SWA's Simple Green, Corexit EC9580A or Cytosol, and MOSCA PES-51. Additional responses state the use of other surface cleaning agents and microbial solutions not listed such as Microblaze, D-limonene, Citriclean, ELMN8, Olinimator Microbial Solution, or Mighty Red. 66.7% of the OSRO's have been established as a response company for 15+ years, and 90.9% those companies primarily use the PES-51 or Simple Green SWA and have used them since the start of the business. From the responses of those OSRO's, 70% stated that the agent effectively cleaned the surface and floated after application and washing.

OSRO facility storage capacity shows a total of over 350,000 gallons from the responses to the questionnaire. Many OSRO facilities have indicated that they prefer just-in-time deliveries and do not store agent's onsite. These OSROs order in bulk from the manufacturer upon need.

Response on storage capacity are heavily ranges in responses such as:

- 57 gallons
- 500 gallons
- Several 55-gallon drums
- 5-10 pallets of drums
- 4,000 gallons
- 20,000 gallons
- 300,000 gallons

The following table shows OSRO facility storage container size and type for SWA. Comparative to the manufacturers shipping and storage size, the most request shipping/ storage size is the 55-gallon drum. Manufacturers however ship in larger bulk sizes such as totes and large totes, which would mean that OSRO's that purchase the SWA products upon need tend to purchase in large bulk orders.



Questionnaire responses have shown a majority of OSROs apply SWA either by low pressure or wiping the agent on the surface, and then wash off with high temperatures and pressures. Steam cleaning has a low appearance in OSRO application methods. Those that have stated responses including steam cleaning indicated that they are most productive in situations where the contaminating petroleum products have little retention time and are not at a high consistency. During application all OSRO's require gloves for application, and around 80% require splash protective clothing and face shields. Only 45% of OSRO's require air-purifying respirators. These safety measures required by OSRO's reflect the response of health and safety concerns associated with the SWA's they use. 36.4% indicated a concern for human or environmental health that they have personally experience using SWA's, such as skin rashes and respiratory irritation. OSRO's were asked to state environmental conditions that allow SWA to perform the most and least effective. Responses indicate sunny/warm and dry days are the outlying response for optimum application. Environmental conditions such as cloud/cold days with heavy wind/wave action result in the least effective application response.

Assessing the responses from the OSRO's, researchers have concluded a large potential for SWA growth in response to expanding the knowledge of the few known agents that are used in the market today. Although the agents predominantly used work well, there seems to be no efforts to seek out other agents that may work at the same level or more efficiently.

# 4.0 Product Acquisition

## 4.1 Collected Samples

During the period of market study data collection, the NSCS obtained 18 samples of NCP listed SWA's. There are 9 additional manufacturers that have committed to providing the researchers with 1-gallon product samples. During the market study period, 2 manufacturers indicated that they do not want to participate in the NSCS research project. The table below states the products researchers have obtained or will be obtaining.

### 4-1 Attained SWA Products

SWA #	SWA Name	Company	Completed Surve	Sent in Sample
2	Topsall (Supercall)	Supercall Products LLP	X	Will send
10	Corexit EC9580A	Nalco Env. Solutions LLC	X	Will send
11	De-solv-it Ind. Formula	Orange-Sol Blending and Packaging	X	X
15	Simple Green	Sunshine Makers Inc.	X	X
19	Cytosol	Cytoculture Int. Inc.	X	Will send
20	Biosolve/Pinkwater	BioSolve Company	X	X
23	Petro-Clean	B.R.A.T. Microbial Products Inc. (Alabaster Corp/Petro Clean)	X	X
25	SC-1000	Gemteck Products	X	X
26	Gold Crew SW	Gold Crew Products & Services LLC (ECS)	X	X
30	F-500	Hazard Control Technologies Inc.	X	X
32	BG-Clean 401	Amiran BioChemicals LLC	X	X
33	E-Safe	Plutus Env. Tech. Inc.	X	Will send
34	Sheen-magic	Plutus Env. Tech. Inc.	X	Will send
35	Procleans	Eximco Int. Inc.	X	Will send
38	Nokomis 5-W	Mar-Len Supply Inc.	X	X
42	Marine Green Clean	AGS Solutions Inc.	X	Will send
43	Marine Green Clean Plus	AGS Solutions Inc.	X	Will send
49	De-solv-it Clean Away APC Super Concentrate	Orange-Sol Blending and Packaging	X	X
51	Dynamic Green	Wechem Inc.	X	X
53	Naturama G3 A-5	Green Life Development Inc.	X	X
62	Petromax PSC 3	Saxon Petrotechnologies S.A. (Alfaluz)	X	X
63	Green Technologies Solutions-Oil Recovery	International Technologies and Services	X	X
64	Nontox Surface Washing Agent	Bio-Organic Catalyst Inc.	X	Will send
65	Simple Green 2013 Reformulation	Sunshine Makers Inc.	X	X
66	Formula 206-1X Biowash	Natural Soap Formulas Inc.	X	X
69	Water Works HD Degreaser Conc.	Keteca USA Inc.	X	X
MOSCA #	MOSCA Name	Company	Completed Surve	Sent in Sample
12	PES-51	Practical Env. Solutions	X	X

# 5.0 Summary

## **5.1 Conclusions**

Introducing the report, the physical, chemical and biological processes of the SWA were described and categorized. The physical aspect of the agents was described in 2 categories, “lift and float” and “lift and disperse” agents. This property of the agents will describe whether the agents will be used in coastline responses. Assessment of the SWA market between the manufacturer’s and the OSRO’s showed researchers the predominant use of miscellaneous oil spill control agents in the surface cleaning response market.

Currently the main restraints for the SWA market is the lack of knowledge on the listed products and the cleaning aspect of the agents. Once the knowledge of product evaluation is established, responders will have adequate information to expand their use of agents depending on the response situations. The cleaning aspect of SWA is that they effectively clean the oil off the surface of the substrates, but don’t break down the contaminant. Many responders state their response efforts work based off efficiency and time, so they use microbial solutions to clean oil and hydrocarbon spills. Many SWA manufacturers are working and have begun creating solutions with microbial additives, which will lead the SWA market in a short time. The biggest driving force for the market now would be access to greater SWA knowledge as well as expansion of pre-approval zones.

Research findings from manufacturers and OSRO’s of current safety and toxicological information suggest a majority of the agents have minor to no damaging effects to human or environmental health and can easily be counteracted. However, some agents listed have concerning information that would suggest the agents to not be applied in certain situations. Comparing the current production/reserve amount manufacturers have to the storage capacity of OSRO’s, there is a significant difference. Roughly, 2/3<sup>rd</sup> of the storage capacity is reserving the chemical, but there is the capability of storing around 100,000-gallons more. This difference in the reserve and storage capacity most likely is due to the average shelf life of product being only 2-5-years long. It would be estimated with a push for microbial symbiosis, the shelf life of products would lessen.

## **5.2 Applications of Market Study Research**

This report will be give not only Texas, but any Gulf State spill responders, valuable information regarding the accessibility and general background of the NCP listed SWA’s and MOSCA’s. Information regarding safety of products, as well as shelf life, will allow companies the opportunity to assess which product would efficiently clean and last for their type of response for budgeting and response purposes.



Information gathered from this report will allow researchers to effectively test surface washing and cleaning agents in a lab and 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.

## 6.0 References

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## **7.0 Attachments**

**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
	<b>Total Products</b>	<b>119</b>

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**

**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  
 IMPROVE 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  
 WELLAID 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\***

<b>PRODUCT NAME (BULLETIN NUMBER)</b>	<b>PRODUCT CATEGORY</b>	<b>PAGE NUMBER</b>
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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<b>PRODUCT NAME (BULLETIN NUMBER)</b>	<b>PRODUCT CATEGORY</b>	<b>PAGE NUMBER</b>
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 Washing 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 Washing 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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<b>PRODUCT NAME (BULLETIN NUMBER)</b>	<b>PRODUCT CATEGORY</b>	<b>PAGE NUMBER</b>
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
HYDROREMEDIATION (AKA of SPILLREMEDIATION (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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<b>PRODUCT NAME (BULLETIN NUMBER)</b>	<b>PRODUCT CATEGORY</b>	<b>PAGE NUMBER</b>
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
<b>PES-51 (M-12)</b>	<b>Miscellaneous Oil Spill Control Agent</b>	<b>10</b>
PETRO-CLEAN (SW-23)	Surface Washing Agent	16
<b>PETROCLEAN™ (B-72)</b>	<b>Bioremediation Agent</b>	<b>5</b>
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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<b>PRODUCT NAME (BULLETIN NUMBER)</b>	<b>PRODUCT CATEGORY</b>	<b>PAGE NUMBER</b>
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
SPIILLCLEAN (SW-36)	Surface Washing Agent	18
SPIILLCLEAN ["CONCENTRATE"] (AKA of SPIILLCLEAN)	Surface Washing Agent	18
SPIILLREMED (INDUSTRIAL) (AKA of SPIILLREMED (MARINE)®)	Bioremediation Agent	2
SPIILLREMED (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 SPIILLREMED (MARINE)®)	Bioremediation Agent	2

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**ALPHABETICAL TABLE OF CONTENTS**  
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<b>PRODUCT NAME (BULLETIN NUMBER)</b>	<b>PRODUCT CATEGORY</b>	<b>PAGE NUMBER</b>
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

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# NCP PRODUCT SCHEDULE

## BIOREMEDIATION AGENTS

BULLETIN NUMBER	PRODUCT CATEGORY LISTED	PRODUCT NAME	SUBMITTER	DATE LISTED; RELISTED*; REMOVED#
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+
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+
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+
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@bionutratech.com">shruza@bionutratech.com</a> WEBSITE: <a href="http://www.bionutratech.com">www.bionutratech.com</a> (Ms. Sandra L. Hruza)	01/03/92 02/05/97+
B-43	MC	<u>STEP ONE (aka, B&amp;S INDUSTRIAL)</u>	B&S Research, Inc. 4345 Highway 21 Embarrass, 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+

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

# NCP PRODUCT SCHEDULE

## 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: 5/18/2006 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 Chems) 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.osei.us">www.osei.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:jim.lynn@iepusa.com">jim.lynn@iepusa.com</a> (Mr. James Lynn)	07/24/02
B-57	MC	<u>SPILLREMEDI (MARINE)<sup>®</sup></u> <i>(aka, AGROREMEDI, SPILLREMEDI (INDUSTRIAL), HYDROREMEDI, VAPORREMEDI)</i>	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

# NCP PRODUCT SCHEDULE

## BIOREMEDIATION AGENTS (continued)

BULLETIN NUMBER	PRODUCT CATEGORY LISTED	PRODUCT NAME	SUBMITTER	DATE LISTED; RELISTED*; REMOVED#
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 BIOREMEDIATION HYDROCARBON TREATMENT PRODUCTS (BioWorld 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 Scuille, COO)	10/28/10
B-61	MC/NA	<u>SOIL RX (aka, BIO- REGEN 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, OILCLEAN 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

# NCP PRODUCT SCHEDULE

## BIOREMEDIATION AGENTS (continued)

BULLETIN NUMBER	PRODUCT CATEGORY LISTED	PRODUCT NAME	SUBMITTER	DATE LISTED; RELISTED*; REMOVED#
B-63	MC	<u>BIOREM-2000 OIL DIGESTER™ (aka, BIOREM-2000 SC)</u>	Cliff 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@cliffindustries.com">matt@cliffindustries.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

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



# NCP PRODUCT SCHEDULE

## BIOREMEDIATION AGENTS (continued)

BULLETIN NUMBER	PRODUCT CATEGORY LISTED	PRODUCT NAME	SUBMITTER	DATE LISTED; RELISTED*; REMOVED#
B-68	NA	<u>SHAMANTRA GREEN</u> (aka, <u>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:dhowardcxi@outlook.com">dhowardcxi@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 (aka, ACT-TF)</u>	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@greeneearthnaturally.com">bcarroll@greeneearthnaturally.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*; REMOVED#
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.theriot@nalco.com">debby.theriot@nalco.com</a> (Ms. Debby Theriot)	03/10/78 12/18/95+
D-2	D	<u>NEOS AB3000</u> (Hydrocarbon Solvent Based) <i>LISTING CHANGES PENDING,            FOLLOWING VERIFICATION            BY MANUFACTURER AND EPA</i>	NEOS Company Limited Daisan Kendai 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+
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+
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.theriot@nalco.com">debby.theriot@nalco.com</a> (Ms. Debby Theriot)	04/13/94 12/18/95+
D-5	D	<u>DISPERSIT SPC 1000™</u> <u>(aka, SEACARE E.P.A.</u> <u>(ECOSPERSER™</u> <u>POLLUTION</u> <u>ABATEMENT))</u>	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 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@helpenvironmental.com">Info@helpenvironmental.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

# NCP PRODUCT SCHEDULE

## DISPERSANTS (continued)

BULLETIN NUMBER	PRODUCT CATEGORY LISTED	PRODUCT NAME	SUBMITTER	DATE LISTED; RELISTED*; REMOVED#
D-12	D	<u>SAF-RON GOLD</u> (aka, SF-GOLD DISPERSANT) <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 <sup>+</sup> ; REMOVED <sup>#</sup>
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 Whiteley)	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.theriot@nalco.com">debby.theriot@nalco.com</a> (Ms. Debby Theriot)	08/01/13

# NCP PRODUCT SCHEDULE

## MISCELLANEOUS OIL SPILL CONTROL AGENTS

BULLETIN NUMBER	PRODUCT CATEGORY LISTED	PRODUCT NAME	SUBMITTER	DATE LISTED; RELISTED*; REMOVED#
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+
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+
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+
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+

\*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*; REMOVED#
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+
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@opfalexinventor.com">ssmith@opfalexinventor.com</a> WEBSITE: <a href="http://www.opfalex.com">www.opfalex.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*; REMOVED#
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@tessmexico.com">mharper@tessmexico.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@iepusa.com">jim.lynn@iepusa.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

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



# 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

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# NCP PRODUCT SCHEDULE

## SURFACE WASHING AGENTS

BULLETIN NUMBER	PRODUCT CATEGORY LISTED	PRODUCT NAME	SUBMITTER	DATE LISTED; RELISTED*; REMOVED#
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+
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+
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+
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# 07/07/10+
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+

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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 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 Kaiser)	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:rvwedel@gmail.com">rvwedel@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

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# NCP PRODUCT SCHEDULE

## SURFACE WASHING AGENTS (continued)

BULLETIN NUMBER	PRODUCT CATEGORY LISTED	PRODUCT NAME	SUBMITTER	DATE LISTED; RELISTED*; REMOVED#
SW-21	SW	<u>PETROTECH 25</u> <i>Last Communication with Manufacturer: 9/20/2012 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@helpenvironmental.com">info@helpenvironmental.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 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)	

# NCP PRODUCT SCHEDULE

## SURFACE WASHING AGENTS (continued)

BULLETIN NUMBER	PRODUCT CATEGORY LISTED	PRODUCT NAME	SUBMITTER	DATE LISTED; RELISTED*; REMOVED#
SW-28	SW	<u>NALE-IT</u>	SPL Control LLC P.O. Box 627 Elemore 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

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# NCP PRODUCT SCHEDULE

## SURFACE WASHING AGENTS (continued)

BULLETIN NUMBER	PRODUCT CATEGORY LISTED	PRODUCT NAME	SUBMITTER	DATE LISTED; RELISTED*; REMOVED#
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"] (aka, FIREMAN'S BRAND <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> (aka, <u>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>REMIATOR</u> (aka, <u>GREEN BEAST</u> <u>WASHING AGENT; ALL</u> <u>PURPOSE CLEANER &amp;</u> <u>REMIATOR</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

# NCP PRODUCT SCHEDULE

## SURFACE WASHING AGENTS (continued)

BULLETIN NUMBER	PRODUCT CATEGORY LISTED	PRODUCT NAME	SUBMITTER	DATE LISTED; RELISTED*; REMOVED#
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:sgarcia@arthuriana.com.mx">sgarcia@arthuriana.com.mx</a> , <a href="mailto:sgarcia@onsite.com.mx">sgarcia@onsite.com.mx</a> , <a href="mailto:bescorcía@arthuriana.com.mx">bescorcía@arthuriana.com.mx</a> , <a href="mailto:bescorcía@onsite.com.mx">bescorcía@onsite.com.mx</a> WEBSITE: <a href="http://www.grupoarthuriana.com.mx">www.grupoarthuriana.com.mx</a> (Ms. Susana Garcia Ballesteros or Ms. Bertha Escorcía 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

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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-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 (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 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@safe-grip.co.uk">info@safe-grip.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

# 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. Neil Houtsma)	05/11/11
SW-58	SW	<u>ETHOS CLEAN</u> <i>Last Communication with Manufacturer: 9/27/2012 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 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> <u>PRODUCT MANAGEMENT:</u> 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</i> <i>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@itseenvironmental.com">pilarladybug@itseenvironmental.com</a> WEBSITE: <a href="http://www.ITSEenvironmental.com">www.ITSEenvironmental.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 Chapin)	07/09/13

# 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:greccosg@rhamnolipid.com">greccosg@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™ HEAVY DUTY DEGREASER CONCENTRATE (aka, HEAVY DUTY DEGREASER 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

# Surface Washing Agent Manufacturing Facility Questionnaire

## Page 1

Researchers at the Texas A&M University National Spill Control School are conducting a market evaluation of surface washing agents (SWA). Ultimately, this project will result in a guidance document for safe and effective SWA application. The document will serve decision makers involved with the application of SWA in Texas waters and coastal zones. We are evaluating all of the SWA's on the National Contingency Plan Product Schedule. The project is funded and overseen by the Texas General Land Office, Oil Spill Response Division. If you have questions about this survey please feel free to contact the NSCS, Director - Tony Wood, 361-825-3335 [tony.wood@tamucc.edu](mailto:tony.wood@tamucc.edu), or Lead Researcher, Andrew Dittmar, 512-658-8473 [adittmar@islander.tamucc.edu](mailto:adittmar@islander.tamucc.edu).

This questionnaire should take about 10 minutes to complete. Your responses are essential and will help us to more accurately characterize the industry's response capabilities. Thank you for your time.

## Page 2

### Name of Interviewee and Contact Information for the company \*

Name	<input type="text"/>
Company Name	<input type="text"/>
Position in Company	<input type="text"/>
Phone	<input type="text"/>
Email	<input type="text"/>

## Page 3

Does your company manufacture, store, or distribute surface washing agents?

yes

no

## Page 4

Are you aware of what the National Spill Control School is and its instruction, consulting, and research services?

yes

no

## Page 5

The National Spill Control School was established in 1977 and was named as a consulting, training, and research resource for the National Response Team in the Oil Pollution Act of 1990. The NSCS offers specialized hands-on OSHA mandated training for professionals and workers in the Oil Spill, HAZMAT, and Emergency Management industries as well as others in exploration, production, and transportation who deal with spill prevention, planning, and response.

The School was recognized in 1998 by the TEXAS GENERAL LAND OFFICE "In recognition of your leadership in protecting the environmental quality of Texas coastal waters." Again in 2007 the School was awarded by the Texas General Land Office; this time with the OSPRA Award (Oil Spill Prevention & Response Act) for 30 years of service. The responsibility that recognition places on the National Spill Control School is taken seriously, and every effort is made to maintain the quality of instruction that earned us our position as a leader in training of spill responders.

## Page 6

Are you aware of the Texas General Land Office (TGLO) and its role in oil spill research and response?

yes

no

## Page 7

The Texas General Land Office (TGLO) agency's mission is to preserve our State's history, maximize state revenue through innovative administration, and through the prudent stewardship of state lands and natural resources. The Oil Spill Prevention and Response staff of TGLO support educational opportunities, daily patrol water and shorelines, and have firehouse-ready response teams to prevent and immediately address environmental problems. The research division grant awards approximately \$1.25 million per fiscal year to State of Texas institutions of higher education to be dedicated towards research and development activities. Funding offers continued support for ongoing, long-term projects, as well as soliciting for new prospective projects designed to enhance forecasting models, wetlands restoration, data delivery, and other oil spill prevention and response related activities.

## Page 8

Manufacturing Company Background

**Page 9**

**How long has the company been in business?**

- 1-7yrs
- 8-15yrs
- 16+yrs

**Is this manufacturing site the only location that the company distributes from?**

- yes
- no

**Page 10**

**In which Gulf coast states do you currently market your SWA products. (select all that apply)**

- Texas
- Louisiana
- Mississippi
- Alabama
- Florida

**Page 11**

What volume of your SWA product is currently in reserve/storage in each of these states?

	Volume (gallons)
Texas	<input type="text"/>
Louisiana	<input type="text"/>
Mississippi	<input type="text"/>
Alabama	<input type="text"/>
Florida	<input type="text"/>
Total US	<input type="text"/>

Does the company start to produce the SWA product(s) based on orders?

- yes
- no

**Page 12**

Which brand/formulation(s) of surface washing agent products does the company produce?

Would the SWA(s) that the company produces be considered "Lift and Float" or "Lift and Disperse"? (check all that apply)

- Lift and Float
- Lift and Disperse



**Page 13**

What specific certifications and training is required of the employees of the manufacturing company for producing and handling the surface washing agent products? (select all that apply, and comment additional if needed)

- Oil Spill Prevention, Planning, & Response
- Hazard Communication
- HAZWOPER
- Proprietary Safety Training
- 

**Page 14**

Products and Storage

**Page 15**

Are there any Surface Washing Agents that your company no longer produces?

- yes
- no

If so, please state the SWA(s), and the reasons why they no longer are manufactured.

**Page 16**

What type(s) of storage and shipping containers do you use for SWA(s)? (select all that apply, and comment additional if needed)

- Gallon Container
- Pale (~5 gallons)
- Drum (~55 gallons)
- Tote (~275 gallons)
- Large Tote (~330 gallons)
- 

**Page 17**

What is the shelf life of the SWA products? (yrs)

- 1 or less
- 2-5
- 6-10
- 11-15
- 16+

**Page 18**

What is the recommended dilution factors for each brand/formulation?

What is the most effective application method for the SWA? Would it be more efficient to use steam equipment compared to pressure washing? What temperature and pressure level should be used when washing the SWA?

**Page 19**

What specific PPE is used for the manufacturing process of SWA(s)? (select all that apply, and comment additional if needed)

- Gloves
- Splash protective clothing
- Face shield
- Air-purifying respirator
- 

**Page 20**

Are there any specific environmental, health, or safety concerns with the SWA product(s) that our researchers should be aware of?

- yes
- no

If so, please explain below.

## Page 21

Would the company be able to provide a digital copy of the Safety Data Sheet for the SWA(s)?

yes

no

If available, please attach the Safety Data Sheet below.

## Page 22

Have you conducted studies showing the results of your product's effectiveness as a SWA on oil?

yes

no

If available, please provide a copy of the corresponding reports.

## Page 23

Lab and Meso-Scale Testing

As part of the meso-scale testing for the surface washing agent project with TGLO, we are to attempt to gather 1 gallon samples for each brand/formulation of SWA's that OSRO and Manufacturing Companies make and/or use. If the company chooses in agreement to provide the National Spill Control School with a 1 gallon sample of SWA's, we will have to ability to show the importance and effectiveness of SWA's, and to assist in guidance instruction to TGLO Responders. These 1 gallon samples will be used to test the effectiveness, physical behavior, and product recoverability. The meso-scale testing will be conducted in open top containers with large steel, concrete, and wooden structures with petroleum coverage for full scale simulation and clean-up.

## Page 24

**Would the company be receptive to donating 1 gallon samples of each brand/formulation of SWA(s) that they manufacture to further research and effectiveness studies of petroleum clean-up?**

yes

no

## Page 25

The National Spill Control School and the Texas General Land Office thanks you for your donation of Surface Washing Agent samples. The samples will allow our research to effectively write up a proper comprehensive guidance manual for decision making of Surface Washing Agents in Texas Coastal Waters and set a baseline to further research in the future.

**Are there any waiver or disclosure paperwork that the NSCS must fill out to receive samples?**

yes

no

**If so, please explain what is needed for the NSCS to sign and any additional instructions. Please contact Mr. Andrew Dittmar for additional questions or instructions for mailing samples. (contact information located on the final page)**

## Page 26

Is there any specific handling precautions of the SWA(s) when received? If so, please state below.

## Page 27

Please mail samples to the following address:

Mr. Tony Wood  
National Spill Control School/TexasA&M Uni. Corpus Christi  
6300 Ocean Dr., NRC 1100, Unit 5850  
Corpus Christi, TX 78412-5850

## Page 28

Thank you for your time and agreeing to aid in furthering research knowledge on surface washing agents. If there are any additional questions or concerns please call or email.

Mr. Andrew Dittmar: Lead Researcher (512)658-8473 [adittmar@islander.tamucc.edu](mailto:adittmar@islander.tamucc.edu)

Mr. Tony Wood: Director, NSCS (361)825-3335 [tony.wood@tamucc.edu](mailto:tony.wood@tamucc.edu)

National Spill Control School/TexasA&M Uni. Corpus Christi  
6300 Ocean Dr., NRC 1100, Unit 5850  
Corpus Christi, TX 78412-5850

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# Surface Washing Agent Oil Spill Response Organization Questionnaire

## Introduction

Researchers at the Texas A&M University National Spill Control School are conducting a market evaluation of surface washing agents (SWA). Ultimately, this project will result in a guidance for safe and effective SWA application and comprehensive guidance document for decision makers involved with the application of SWA in Texas waters and coastal zones. The market study will cover all of the SWA's on the National Contingency Plan Product Schedule. The project is funded and overseen by the Texas General Land Office, Oil Spill Response Division. If you have questions about this survey please feel free to contact the NSCS, Director - Tony Wood, 361-825-3335 [tony.wood@tamucc.edu](mailto:tony.wood@tamucc.edu), or Lead Researcher, Andrew Dittmar, 512-658-8473 [adittmar@islander.tamucc.edu](mailto:adittmar@islander.tamucc.edu).

This questionnaire should take about 10-15 minutes to complete. Your responses are essential and will help us to more accurately characterize the industry's response capabilities. Thank you for your time.

## Page 2

### Name of Interviewee and Contact Information for the company \*

Name:

Company Name:

Position in Company:

Phone:

Email:

## Page 3

Does your company use, or have used, surface washing agent(s) for oil cleaning and surface treatment?

yes

no

## Page 4

Are you aware of what the National Spill Control School is and its instructions, consulting, and research services?

yes

no

## Page 5

The National Spill Control School was established in 1977 and was named as a consulting, training, and research resource for the National Response Team in the Oil Pollution Act of 1990. The NSCS offers specialized hands-on OSHA mandated training for professionals and workers in the Oil Spill, HAZMAT, and Emergency Management industries as well as others in exploration, production, and transportation who deal with spill prevention, planning, and response.

The School was recognized in 1998 by the TEXAS GENERAL LAND OFFICE "In recognition of your leadership in protecting the environmental quality of Texas coastal waters." Again in 2007 the School was awarded by the Texas General Land Office; this time with the OSPRA Award (Oil Spill Prevention & Response Act) for 30 years of service. The responsibility that recognition places on the National Spill Control School is taken seriously, and every effort is made to maintain the quality of instruction that earned us our position as a leader in training of spill responders.

## Page 6

Does the company meet with TGLO and/or attend area committee meetings?

yes

no

## Page 7

The Texas General Land Office (TGLO) agency's mission is to preserve our State's history, maximize state revenue through innovative administration, and through the prudent stewardship of state lands and natural resources. The Oil Spill Prevention and Response staff of TGLO support educational opportunities, daily patrol water and shorelines, and have firehouse-ready response teams to prevent and immediately address environmental problems. The research division grant awards approximately \$1.25 million per fiscal year to State of Texas institutions of higher education to be dedicated towards research and development activities. Funding offers continued support for ongoing, long-term projects, as well as soliciting for new prospective projects designed to enhance forecasting models, wetlands restoration, data delivery, and other oil spill prevention and response related activities.

## Page 8

Section 1: Company Background



## Page 9

How long has the company been in business?

- 1-7yrs
- 8-15yrs
- 15+yrs

Has the current location been the only location for this specific company?

- yes
- no

## Page 10

What is the area's of the company's work, do they work in Texas coastal areas or any other Gulf Coastal parts of the United States? (select all that apply)

- Texas
- Louisiana
- Mississippi
- Alabama
- Florida Gulf
- Atlantic Only
- Pacific Only

**Page 11**

What brand/formulation(s) of surface washing agent products does the company use, and which manufacturing company do you purchase the products from?

If available, please provide the name and contact information of a representative at the manufacturer? If so please state below.

**Page 12**

Would the SWA(s) that the company uses be considered "Lift and Float" or "Lift and Disperse"?

- Lift and Float
- Lift and Disperse

What specific certifications and training is required of the employees of the company for handling and application of surface washing agents? (select all that apply, and comment additional if needed)

- Oil Spill Prevention, Planning, & Response training
- Hazmat/Hazwoper course
-

**Page 13**

Section 2: Product Use and Storage

**Page 14**

Has the brand/formulation(s) of surface washing agents that the company uses been the same since the start of the business?

yes

no

If not, please state the previously used SWA's as well as the reasons why you changed.

**Page 15**

Which SWA's has the company used in the past been the most effective? Least? (skip if not applicable)

**Page 16**

What type of storage container are the SWA stored in? (select all that apply, and comment additional if needed)

- Gallon Container
- Pale (~5 gallon)
- Drum (~55 gallon)
- Tote (275 gallon)
- Large Tote (330 gallon)
- 

**Page 17**

What is the facility's total storage capacity for SWA's?

What is the shelf life of the SWA products? (yr)

- 1 or less
- 2-5
- 6-10
- 11-15
- 16+

**Page 18**

What quantity of SWA(s) does the company currently have in stock and what is the recommended dilution factor by the manufacturer? (gallons)

**Page 19**

What is the specific application method used by the company? What kind of equipment is used, steam and/or pressure washing? At what temperature and pressure level is the steamer and/or pressure washer used?

**Page 20**

What specific PPE is used when handling and applying the SWA? (select all that apply, and comment additional if needed)

- Face Shield
- Air-purifying respirator
- Splash protective clothing
- Gloves
-

## Page 21

What environmental conditions show the SWA(s) to have the most effect? (select all that apply, and comment additional if needed)

Sunny/Warm

Cloudy/Cold

Wind/Waves

No wind

Humid

## Page 22

What environmental conditions show the SWA(s) to have the least effect? (select all that apply, and comment additional if needed)

Sunny/Warm

Cloudy/Cold

Wind/Waves

No wind

Humid

## Page 23

Are there any specific environmental, health, or safety concerns with the SWA product(s) that you know of or have experienced?

yes

no

If so, please state below.

## Page 24

What is the typical delivery time for SWA(s)?

- Overnight
- 2-5 days
- more than 5 business days

## Page 25

Would the company be able to provide a copy of the Safety Data Sheet for the SWA(s)?

- yes
- no

If available online, please attach the Safety Data Sheet below.

Browse...

## Page 26

Thank you for your time and agreeing to aid in furthering research knowledge on surface washing agents. If there are any additional questions or concerns please call or email.

Mr. Andrew Dittmar: Lead Researcher (512)658-8473 [adittmar@islander.tamucc.edu](mailto:adittmar@islander.tamucc.edu)

Mr. Tony Wood: Director, NSCS (361)825-3335 tony.wood@tamucc.edu

National Spill Control School/TexasA&M Uni. Corpus Christi  
6300 Ocean Dr., NRC 1100, Unit 5850  
Corpus Christi, TX 78412-5850

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