

AgriHit™ Natural Bio Cleaner Concentrate

The original heavy-duty eco-friendly cleaner designed and created to cut through the toughest dirt, including oil, grease, wax and fat. Perfect for every environmentally sensitive and commercial situation.

Available in bottles: 5 gallon, 30 gallon or 275 US gallon containers.

Dilution ratio with water to AgriHit™ 30:1 for industrial grade strength, and 60:1 for everyday strength.



- ✓ **Animals and Livestock** - AgriHit™ Natural Bio Cleaner is non-toxic, bio-based and non-hazardous to animals or humans. Perfect for equestrian establishments, veterinary surgeries, farmyards, zoos, poultry farms and any other animal-oriented environment. AgriHit™ Natural Bio Cleaner not only cleans, but disinfects and sterilizes too, while also being an effective inhibitor of bacterial and fungal infections. The cleaner's anti-colloidal properties make it ideal for thorough cleaning of all internal and external walls and flooring, especially concrete, plus plant, machinery and vehicles used in any of these environments where animal welfare is critical.
- ✓ **Food Processing Plants, Hotels, Restaurants, Cafés, etc.** Because of the 100% non-toxic and totally safe bio-based nature of AgriHit™ Natural Bio Cleaner, it is perfect for all environments where food preparation and cooking are concerned. Kitchen fat, grease and oil build up over time - AgriHit™ Natural Bio Cleaner leaves surfaces, walls and floors spotlessly clean, and simultaneously sanitized and disinfected through its antimicrobial properties.
- ✓ **Healthcare and Janitorial Use** - Hospitals, prisons, dental surgeries, schools, offices, the list is endless. Wherever humans come into contact with surfaces, traditional petrochemical-based cleaners and stringent disinfectants can be a potential hazard. AgriHit™ Natural Bio Cleaner performs exactly the same function as these toxic chemicals, and more besides, in a wholly natural way that is totally safe for humans and completely harmless to the environment.
- ✓ **Industrial, Marine, Garage and Petrochemical Environments** - AgriHit™ Natural Bio Cleaner's anti-colloidal properties make it ideal for use where oil and petrochemicals are a common source of contamination. AgriHit™ Natural Bio Cleaner can act efficiently as a chemical and hydrocarbon dispersant by emulsifying and detoxifying on contact.





AgriHit™ Bio Cleaner

Usage info sheet

Animal Care - For veterinarian, zoological and general farm and livestock usage

Because of its capabilities as an antimicrobial, antifungicidal and antibacterial agent, as being a highly efficient non-toxic cleaner, Bio Cleaner is gradually being heralded as an answer to a wide variety of horse, pet, livestock and wild animal problems. It has not only proven to be effective in the treatment of disease and injury, but is a superior product for general clean up, ranging from stables and pens to machinery, equipment and vehicles.

Bio Cleaner's special wash/treatment for animals is bio-based, non-hazardous and totally non-toxic. Unlike competitive products available in the marketplace today, which contain ingredients that can be harmful to both the human handler as well as the animal, Bio Cleaner is made primarily from extracts of grains, corn, potatoes soybeans and palm oil. It cannot affect the animal's eyes, ears or respiratory system. Even ingestion has no deleterious effect. When the basic concentration of ingredients is combined in a proper dilution with water and agitated, the result is a highly effective and economical cleaner for pens, stables and all types of enclosures. When applied with a mister, it provides immediate relief for such troublesome insects as mosquitoes, gnats, no-see-ums, fleas and ticks. It is also able to control or eliminate bacterial and fungal infections, while at the same time greatly accelerating the healing process

Over a period of several years, horse owners, handlers, breeders and vets have reported that Bio Cleaner has been successful in the treatment of;

Abrasions	Mange
Bacteria	Mud Fever
Cracked Heel	Mud Foot
Cuts	Nicks
Dew Poisoning	Parasites
Equine Scratches	Rain Rot
Foot Rot	Rain Scald
Fungus	Scratches
Girth Rash	Summer Itch
Grease Heel	Swamp Fever
Greasy Heel	Thrush
Lacerations	Wounds
Lice	Yeast

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One of the reasons for Bio Cleaner's popularity lies in its ease of application. The animal does not have to be clipped, scrubbed, scaped, soaked or warped. All that is required is a spray bottle application or gentle daub on the affected part of the animal. One race horse owner soaks a cloth in Bio Cleaner twice a day and applies it around any infected area. In the case of a bad infection in the bulb of his horse's foot he claims that an infection that normally would have taken weeks to heal disappeared over a four-to-five day period. Since the solution is gentle and non-irritating, minimal handling of the horse's tender areas is required, in particular painful or tender feet. Consequently, the possibility of injury to the horse owner, handler, blacksmith or veterinarian is minimized.

In addition to its medical applications, Bio Cleaner is also an excellent wash for the body and hair of the horse, leaving its coat shiny and free of tangles.

Because of its highly superior cleaning ability, Bio Cleaner is also the perfect product for the washing or cleaning of Tractors, Trailers, 4-Wheelers, Trucks, Cars, Stables, Barns, Pails, Containers, Horse Urine, Bedding, Fly Mask, Fly Sheets, Saddle Pads, Saddle Blankets, Grooming Brushes, Riding Pads, and Horse Blankets.

It has a particular relevance in the cleaning of pens, concrete areas and enclosures within a zoo setting. It is an extremely effective cleaner and does not cause any behavioral problems brought on due to toxic petrochemical residues, either on the pen surface or in the air. The final benefit it offers the animal caretaker lies in its economical cost of application. It also provides a labor savings of 50% or more, compared with conventional cleaning products and practices, because it leaves no residues and therefore requires no clean-up or final rinsing.

To summarize, Bio Cleaner is a new generational product for the treatment of animal maladies. It is inexpensive to purchase and use, simple and safe to handle and is gentle and non-irritating to both humans and animals. It has a record of suppressing bacterial and fungal infections, ridding animals of parasites and accelerating recovery from minor skin abrasions and infections. Organic, totally safe, entirely non-toxic Bio Cleaner is equally effective for the treatment of dogs, cats, cattle, sheep, goats, pigs, and other farm animals as well as domestic pets and horses, and wild animals housed in zoological parks.

Marine & Oil Industry

The environmental damage caused by the maritime practices of huge shipping lines, as well as the recreational boating industry, must be brought under control before new massive oil spills, as well as the endless discharge of noxious wastes into the world's waterways ends up in catastrophic contamination that will affect us all.

After World War II, in 1948 when first statistics are available, there were 29,340 ocean going ships with a gross tonnage of 80,292,000. By 2004, the number of ships on the high seas had increased to 89,960 and gross tonnage stood at

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633,321,000. As of January 2006, the world merchant fleet, measured in DWT tonnage, stood at 929 million tons. The size of the average ocean going vessel also increased during the period from 2737 tons to 7040 tons.

Occasionally, we hear of a massive oil spill, which threatens the adjoining coastal areas and poses an imminent danger to a wide variety of wild life. Such was the famous case of the Exxon Valdez. However, in any ordinary year, there are very large numbers of small spills, which accomplish the same type of devastation, but over an extended time period.

In 2001, a typical year, there were 7,559 smaller spills put on record. Large tankers and barges only accounted for 314 of these. Other 'vessels' accounted for 4,680, and 'facilities', which were land based, had 2,538 spill incidents. In all, they accounted for some one million gallons of mainly crude oil polluting the world's waters and killing all sorts of marine wildlife, as well as migrating birds. Occasionally, there are reports of larger disasters, such as the 100,000 gallons of thick bunker oil spilled off the shores of the Philippines in September 2006, which caused the displacement of 26,000 villagers.

As if this were not enough, the U.S. alone had 12,854,054 total recreational boat registrations in 2002, of which an estimated 2,247,000 were stern drive or outboard driven – i.e. gasoline or diesel fuelled. There are no numbers available to determine the estimated total world ownership of recreational boats.

Almost all ocean going vessels periodically must blow their tanks to clean their bilges of whatever residues remain, consisting of stagnant contaminated water, oil deposits, etc. This normally takes place at sea, further adding to the detritus that is gradually raising the level of pollution in waterways, in particular inland waterways.

Then, of course, there are the land based spills caused by leaks or sabotage to pipelines, such as the 267,000 gallons of oil the spilt into the tundra of Alaska's North Slope, the largest such spill in history, on March 20, 2006.

The strongest attribute of Bio Cleaner is its appetite to consume hydrocarbons. Perhaps emulsify is a better word. To get a better understanding of just how potent it is, take a clear jar and fill it halfway with water. Pour about an inch or two of oil on top of the water. It will float on the surface, like a dark topping. Then take a beaker of Bio Cleaner, pour it into the jar and swish is around with a stick or paddle. You'll notice that the dark oil completely disappears. It has become totally emulsified into a milkish soup. The oil smell will also be gone. And it happens in a manner of seconds.

The conventional method of handling any significant maritime oil spill, is to contain it within a floating booms and then to pump it into the holding tanks of nearby tankers. Other methods include the use of bacterial agents, which consider oil a

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delicacy, but this takes an inordinate amount of time to consume, except for minor spills, or manual shovels and other land-based equipment. However, none of these methods can come even close to the results and economics that can be obtained by using Bio Cleaner as a dispersal agent. By literally emulsifying the oil or any other hydrocarbon, the result is a total dispersal of the congealed oil globs into an almost non-noticeable waterous state, or a highly viscous state that can easily be vacuumed up.

Bio Cleaner solubilizes, emulsifies and separates the hydrocarbons into exceptionally tiny nano-emulsions, while surrounding them with the water based solution. This has the effect of rendering volatile hydrocarbons non-flammable, while at the same time greatly stimulating bioremediation of the hydrocarbon by increasing the end chain exposure created by the nano-emulsions. This makes the traces of hydrocarbons that remain a readily available and easy to assimilate food source for bacteria.

Bio Cleaner offers a unique, versatile, and environmentally supportive technology for use in fuel and oil spill clean-up, firefighting, fuel and oil remediation, vapor suppression and general cleaning and degreasing applications. As with its other applications, concentrated Bio Cleaner must first be diluted with water to become effective, and this water can be salt, fresh, brine or dirty. It can also be applied by any type of equipment, from fire hose to hand pump.

Bio cleaner offers the shipping industry, as well as the power boat recreational user, a swift, easy to administer and effective solution to their bilge and other cleaning problems. And most important of all, it does so at a remarkably economical price. It not only saves on labor costs, and down-time, but also on the expense of the cleaning agents. Combined, this provides a new-age method for an ago-old problem at literally a small fraction of what it is presently costing and, most important of all, at an infinite benefit to the environment.

Janitorial & Sanitation

Bio Cleaner possesses a wide array of formulations, which are suitable for the varied and widely diverse applications of the Jan/San market. Originally produced as a general heavy duty cleaner, the concept behind Bio Cleaner's development was to create a non-toxic, non-hazardous biodegradable replacement for the conventional and potentially dangerous petrochemical based cleaning agents being sold today for commercial, industrial, governmental and household application. As Jan/San requirements became more specialized and sophisticated, Bio Cleaner evolved so that today, for example, the company has seven formulas for glass cleaners alone, which were created to handle the specific requirements of its customers.

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Its unique ability to cut through and emulsify hydrocarbons (wax, oil, grease, fat) and remove stains, makes Bio Cleaner an indispensable one-stop cleaner for schools, office buildings, government facilities and factories to restaurants and hotels. Its antimicrobial properties also make it an excellent disinfectant and sanitizer for hospitals and food processing plants.

Bio Cleaner can not only clean as well, or better, than any other product on the market, but it is much more economical and, even more important, can result in labor savings in excess of 50%. As an example, school custodians report that after applying it as a floor stripper, there is no need to rinse the floor afterwards to remove chemical residues, thereby cutting the time factor by more than half.

In one of the initial approvals resulting from the BEES evaluation process in connection with the 2002 Farm Bill (FSRIA), Bio Cleaner was informed by the US Department of Agriculture that it was the first product to have been accepted as a floor stripper and mastic remover. The 2002 Farm Bill requires that all federal agencies, buildings, departments, et.al. give preference to biobased products in connection with their cleaning and other activities. A total of some 140 product categories were placed on the list. Bio Cleaner qualifies for more than 20 of those categories.

The movement away from toxic to "environmentally preferable cleaning products" is spreading rapidly to include an ever increasing number of state schools, agencies and facilities. In New York, legislation was passed in August 2005, which made the cleaning of schools with 'green products' mandatory commencing with the September 2006 school year. Other states that are adopting or considering similar legislation are Massachusetts, Vermont, Minnesota, Pennsylvania, and Washington.

In part, this reflects the realization that MCS (multiple chemical sensitivity), which often develops into allergic reactions, may be responsible for many of the behavioral problems of children in schools. More and more medical evidence is being released attesting to this cause and effect. Once organic cleaning products have been substituted, it was found that many of these problems disappear. It's anticipated that over the next five years, an ever increasing number of states will follow this lead and outlaw the use of toxic and hazardous petrochemical based cleaners.

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The following is a partial listing where Bio Cleaner can be used to replace hydrocarbon based chemicals:

<i>Aircraft and Metal Cleaner</i>	<i>Ink Remover</i>
<i>Adult Shampoos</i>	<i>Janitorial Cleaner</i>
<i>All-purpose Cleaners</i>	<i>Kitchen & Bath Cleaner</i>
<i>Anti-Allergen Sprays</i>	<i>Marine Hull & Cargo Hold Cleaner</i>
<i>Asphalt Equipment Cleaner</i>	<i>Mastic Remover</i>
<i>Biosolvents for Cleaning Beach Oil Spills</i>	<i>Metal Cleaner</i>
<i>Carpet Cleaner</i>	<i>Metal Working Concentrate</i>
<i>Char, Grease and Burnt Residue Cleaner</i>	<i>Mold, Fungus, Mildew Remover</i>
<i>Dishwasher and Laundry Detergents</i>	<i>Oil & Grease Emulsifier</i>
<i>Disinfectants</i>	<i>Oven Cleaner</i>
<i>Filter Cleaners</i>	<i>Pre-spot Carpet Cleaner</i>
<i>Floor Cleaning Products</i>	<i>Pre-Spot Laundry</i>
<i>Fruit & Vegetable Wash</i>	<i>Printing Equipment Cleaner</i>
<i>Glass Cleaner</i>	<i>Re-usable Carburetor & Parts Cleaner</i>
<i>Glass, fiberglass polishing agents</i>	<i>Textile & Dyeing Equipment Cleaner</i>
<i>Graffiti cleaners for glass, brick, and metal</i>	<i>Trap and Drain Cleaner</i>
<i>Hand Cleaner</i>	<i>Tub & Tile Cleaner</i>
<i>Hard Floor Cleaner</i>	<i>Waterless Electronic Component Cleaner</i>
<i>HVAC cleaners</i>	<i>Waterless Hand Cleaner</i>
<i>Industrial cleaners</i>	<i>Was Stripper</i>
<i>Industrial parts washing fluids</i>	

Bio Cleaner believes it has a product that is equivalent or superior to currently available and commonly used petrochemical cleaners and detergents, which are the mainstay of the Jan/San business. Not only can you now rely upon an environmentally healthy product for all your cleaning needs, you can do so knowing it will very often do a better job than what you are presently using, and will, in addition, cost you substantially less to purchase. If we add in the factor of savings in labor, which will most likely be of much greater importance than savings in product cost, it is easy to understand why

The Era of Green is about to burst upon the scene.

Industrial

The manufacturing sector provides a vast array of potential applications for Bio Cleaner's heavy-duty colloidal cleaning power. These biobased cleaners are designed to replace traditional petrochemical based toxic products, which pose a definite threat both to people and the environment. Bio Cleaner brings with it the triple threat capability of being able to do the job quicker, better and far cheaper.

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It offers the manufacturing sector a powerful and highly economical cleaner/degreaser/emulsifier that can expeditiously facilitate various aspects of the manufacturing process.

For example, it has long been common practice for a large percentage of industrial operations to use hydrocarbons or hydrocarbon-based chemicals in the manufacturing process. In the instance of the rolling of steel pipe, where friction is an issue, the pipe is often lubricated with oil or grease. The same is true of most drilling, milling and cutting operations. The components parts must then be cleaned to remove the oily residue. It is both a time consuming as well as costly procedure. This is a typical everyday situation, where operations would substantially benefit, both dollar and time wise, if the component parts were immersed in a dilute water bath treated with Bio Cleaner.

Whenever Bio Cleaner has been used in the manufacturing process, it was found to be much more efficient and cost effective than standard chemical solvents in the cleaning of greasy or oily residues, due to its very powerful ability to emulsify hydrocarbons. There are innumerable other situations within the manufacturing process, which require cleaning procedures. This is a huge market, which to date has been totally the province of toxic and hazardous petrochemical based products.

Bio Cleaner is without equal for numerous other applications, as well as other major industries. It can not only equal chemical cleaners in effectiveness, but due to its disinfecting and sanitizing properties, it can often replace the need for multiple products with just a single application. Of equal importance is the time and labor saving benefit of being able to dispense with rinsing, as unlike chemical cleaners, there are no noxious residues that require removal.

Although not brought to public attention, for obvious reasons, the hazardous waste discharges spewed forth from the countless manufacturing establishments throughout North America have resulted in the creation of 140,000 so-called 'toxic waste sites.' There are no comparable reliable statistics available for Asia and the Pacific.

One indication of Bio Cleaner's wide versatility and surprising potency was a demonstration undertaken in 2005, in which the company was asked to put it to the test at a notorious Florida toxic waste dump. The count of hydrocarbon and other volatile contaminants in the soil showed an initial 'off-the-scale' measurement of 9600 ppm. A sample of the soil was augured up from the site and placed in a rotating drum to which a Bio Cleaner solution had been added. After twenty minutes agitation, a dirt sample was withdrawn and sent to a state laboratory for analysis. The surprising result - the initial 9600 ppm number had dropped to just 25 ppm.

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Versatility – Multiple Uses

The uses in industry for Bio Cleaner's heavy duty colloidal cleaner/degreaser are almost endless. Here is just a brief sampling:

Metal Processing: Phosphating, plating, pickling, machining and forming - where it is used for cleaning and lubricating shop equipment.

Processing Cleaning: Pressure washing and steam cleaning - where it is extremely effective in cleaning parts, washers and solvent tanks. It also can remove hydrocarbon residues and dirt from building exteriors and parking structures.

Waste Water Treatment: Oil separator, heavy metal separation and reduction of BOD, turbidity, odor.

Dust Palliative: Mining, construction, road maintenance, parking lots

Mold Elimination: Transportation: Aviation, marine, rail, trucking, and automotive. Bio Cleaner's industrial cleaning line is ideal for passenger compartments, cargo holds and facilities, maintenance on large-scale cruise ships, ocean liners or cargo vessels and exterior and interior clean-up of airplanes. Additional applications include food preparation/catering facilities, fuel spill clean-up, as well as terminal and harbor maintenance. It also does a superb job in the routine cleaning of hard surfaces, upholstery and carpeting.

It degreases carbon soot from fuel exhaust areas to engine blocks and is similarly effective in the neutralizing of crude oil spills to the cleaning of mold and mildew from canvas tops and decks of boats. Unlike most caustic cleaners, Bio Cleaner products do not contain reagents that oxidize finishes, causing rust and degrading of elastic materials such as rubber or vinyl. On the contrary, it actually improves the life of hoses, seals, gaskets, paint finishes and other hard surfaces.

Miscellaneous applications include: Vehicle Wash, Carpet & Upholstery Shampoo, Engine Degreasing, Rubber & Vinyl Cleaner, Wheel Cleaner, Glass / Mirror Cleaner, Vinyl Top Cleaner, Mechanics Hand Cleaner, Odor Eliminator, Safety Solvent, Parts Washer Solution, Evaporative Brake & Electrical Cleaner, Aluminum Wheel Cleaner, Holding Tank Cleaner, Graffiti Remover.

Other Uses

- Drive-thru wash racks for buses, trucks and automobiles.
- Vehicle interior maintenance for hard surfaces and textiles.
- Cleaning fuel tanks, bilges and refrigerator containers.

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- Cleaning engine rooms and boiler fireside wash-down.
- Concrete cleaning for parking structures, maintenance hangers and depots.
- All-purpose maintenance of heavy-duty equipment.
- General degreasing applications in terminals and other production facilities.

The above is but a brief overview of some of the innumerable industrial applications for Bio Cleaner. With the capability of replacing any of the petrochemical or other toxic cleaners on the market today, Bio Cleaner offers industry an effective and environmentally friendly solution to all their cleaning problems at highly competitive pricing.

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SECTION 1: Identification

Product Name: AgriHit Bio Cleaner

Shipping Name: Liquid Soap Concentrate

Recommended Use: Cleaner/Liquid Soap Concentrate
Dilute 1 part concentrate with 30-60 parts of water prior to use

Supplier: Green Earth Nano Science Inc.
181 University Ave. Unit 2200
Toronto ON, M5H3M7,CANADA


Emergency telephone number

Supplier: (416) 800-0969 (phone)

SECTION 2: Hazard Identification

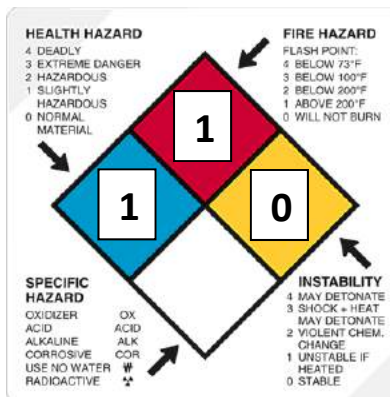
Due to its Tall Oil component, BioCleaner is classified as hazardous due to skin and eye irritation potential.

Signal Word(s): WARNING

Product Classification	Hazard Statement(s)	Pictogram
HEALTH		
Skin Irritation	May Cause Skin Irritation	
Eye Damage/Irritation	May Cause Eye Irritation	

SECTION 2: Hazard Identification (continued)

HMIS Rating (Scale 0-4):	Health = 1	Fire = 1	Physical Hazard = 0
NFPA Rating (Scale 0-4):	Health = 1	Fire = 1	Reactivity = 0



Precautionary Statement(s):

Prevention Statements:

- Do not get in eyes, on skin, or on clothing
- Wear protective gloves, protective clothing, eye and face protection
- Wash hands after handling
- Provide adequate ventilation

Response Statement(s):

- If skin irritation occurs, get medical advice/attention
- If in eyes, rinse cautiously with water for several minutes. Remove contact lenses if present and easy to do. Continue rinsing.
- If eye or skin irritation persists, get medical advice/attention.
- Remove contaminated clothing and wash before reuse.

Disposal Statement(s):

- Dispose of in accordance with country, state/province, and local regulations

SECTION 3: Composition/Information on Ingredients

Mixture

Chemical Name	Cas #	EC#	Wt. %
Tall Oil - Tall Oil Fatty Acid	8002-26-4	232-304-6	50-65
Inert Ingredients – Proprietary Mixture*	none	none	variable

NOTE: Composition of Tall Oil is variable and depends on raw material sources

* Compiles with OSHA 29 CFR - 1910.1200 Section (i)

"TRADE SECRETS", Contains no hazardous components under current OSHA Definitions.

100% BIOBASED Product ingredients:

Fatty Acid, and ingredients from the FDA GRAS, EAFUS and FDA Food Additive Inert List.

SECTION 4 – First Aid Measures

Symptoms or Effects: May cause irritation to the eyes and skin. Respiratory symptoms may include coughing, difficulty breathing, and shortness of breath.

Ingestion	Immediately contact local poison control before giving anything by mouth. Ingestion may cause irritation, discomfort, and burning of the mucous membranes of the gastrointestinal tract. Symptoms may include nausea, vomiting, difficulty swallowing, diarrhea, and abdominal pain. Do not induce vomiting unless directed to do so by medical personnel.
Skin	May cause irritation following prolonged contact. Flush skin with water. Wash clothing and shoes thoroughly before reuse. If skin irritation occurs, seek medical advice.
Inhalation	Inhalation may cause respiratory tract irritation. Symptoms may include coughing, difficulty breathing and shortness of breath. Move victim to fresh air. Administer oxygen and seek medical advice if breathing is difficult.
Eye Contact	Immediately flush with water for 15 minutes. Remove contact lenses if present and easy to do so. Continue rinsing. If eye irritation persists, seek medical advice.

Note to Physician: Treat symptomatically. Contact poison treatment specialist immediately if large quantities have been ingested or inhaled.

SECTION 5 – Fire-fighting Measures

Suitable Extinguishing Media: Foam, carbon dioxide, dry chemical, water, or sand is recommended. Carbon dioxide can displace oxygen. Use caution when applying carbon dioxide extinguishers in enclosed spaces.

Specific Hazards, Anticipated Combustion Products: Carbon monoxide, carbon dioxide, and oxides of sulfur and nitrogen may be produced as products of combustion

Autoignition Temperature: NAV

Special Firefighting Equipment/Procedures: As in any fire, wear NIOSH-approved self-contained breathing apparatus and appropriate protective clothing for the situation.

Unusual Fire and Explosion Hazards: NAV

SECTION 6 – Accidental Release Measures

Immediately notify safety and environmental personnel.

Personal Precautions: Wear appropriate protective equipment (see section 8 below). Do not walk through spilled material as it will present a slip hazard.

Environmental Precautions: Avoid runoff to waterways and sewers

Containment/Clean-Up: Absorb or cover with dry earth, sand, or other non-combustible material and transfer to containers. Dike ahead of large liquid spills for later disposal

SECTION 7 – Handling and Storage

Wear appropriate personal protective equipment and follow the exposure control measures recommended in Section 8 below. Avoid contact with eyes and skin and prolonged breathing of vapor. Avoid contact with strong acids and strong oxidizers. Follow good hygiene and housekeeping practices especially before eating, drinking, or smoking.

General Handling

- Do not get in eyes, on skin, on clothing.
- Avoid breathing vapor.
- Do not swallow.
- Wash thoroughly after handling.
- Keep container closed.
- Use with adequate ventilation.

Ventilation

- Provide general and/or local exhaust ventilation to control airborne levels below the exposure guidelines. Store in an upright container to avoid leakage.

Storage

- Store in cool, well-ventilated area.
- Avoid exposure to low temperatures.

SECTION 8 – Exposure Controls/Personal Protection

Ingredient Name	Exposure Limits
Tall Oil	None (OSHA, ACGIH)

SECTION 8 – Exposure Controls/Personal Protection (continued)

Appropriate Engineering Controls: Use only with adequate ventilation. Use process enclosures, local exhaust ventilation or other engineering controls to keep worker exposure to airborne contaminants below any recommended or statutory limits. The engineering controls also need to keep gas, vapor or dust concentrations below any lower explosive limits. Use explosion-proof ventilation equipment.

Environmental Exposure Controls: Emissions from ventilation or work process equipment should be checked to ensure they comply with the requirements of environmental protection legislation.

Hygiene Measures: Wash hands, forearms and face thoroughly after handling chemical products, before eating, smoking and using the lavatory and at the end of the working period. Appropriate techniques should be used to remove potentially contaminated clothing. Wash contaminated clothing before reusing. Ensure that eyewash stations and safety showers are close to the workstation location.

Eye/Face Protection: Safety eyewear complying with an approved standard should be used when a risk assessment indicates this is necessary to avoid exposure to liquid splashes, mists, gases or dusts. If contact is possible, the following protection should be worn, unless the assessment indicates a higher degree of protection: chemical splash goggles.

Hand Protection: Chemical-resistant, impervious gloves complying with an approved standard should be worn at all times when handling chemical products if a risk assessment indicates this is necessary. Considering the parameters specified by the glove manufacturer, check during use that the gloves are still retaining their protective properties. It should be noted that the time to breakthrough for any glove material may be different for different glove manufacturers. In the case of mixtures, consisting of several substances, the protection time of the gloves cannot be accurately estimated.

Body Protection: Personal protective equipment for the body should be selected based on the task being performed and the risks involved in handling this product.

Other Skin Protection: Appropriate footwear and any additional skin protection measures should be selected based on the task being performed and the risks involved in handling this product.

Respiratory Protection: Use a properly fitted, air-purifying or supplied air respirator complying with an approved standard if a risk assessment indicates this is necessary. Respirator selection must be based on known or anticipated exposure levels, the hazards of the product and the safe working limits of the selected respirator.

Other Hazards: When spilled, the product will leave a residue on floors which may be or become slippery. This may be remedied by flushing with water and drying.

SECTION 9 – Physical and Chemical Properties

Appearance and Odor	Amber liquid, Ammonia Odor
Boiling Point	202.3 F
Evaporation Rate	Not Tested
Freezing Point	25.7 F
Flash Point	Greater than 205.0 F
Solubility	Miscible with water
Specific Gravity	8.9
Vapor Density/Pressure	Not Tested

Method	Parameter	Results	Units
EPA 160.4	Total Solids	0.4	Percentage (%)
AOAC 978.02	Total Nitrogen	3.42	Percentage (%)
AOAC 920.03	Nitrogen, Ammonia cal (N)	0.024	Percentage (%)
AOAC 958.01	Phosphorous	<0.16	Percentage (%)

ATOMIC ABSORPTION:

Parameter	Results	Units
Iron	<2.1	mg/Kg
Magnesium (Mg)	<2.7	mg/Kg
Potassium (K)	<2.3	mg/Kg
Sodium (Na)	15.0	Mg/L

Clean Air Solvent: VOC is 1.0 g/L. Meets CAS criteria

SECTION 10 – Stability and Reactivity

Product is stable at normal room and working temperatures. No incidence of polymerization reported. No special conditions or materials to avoid. No incidence of hazardous decomposition of products reported.

SECTION 11 – Toxicological Information

Carcinogens and Toxins: Does not contain any known carcinogens in concentrations as per Code of Federal Regulations 29CFR 1900.1000 series, OSHA.

No information is available relating to any teratogenicity, mutagenicity, skin sensitization or respiratory tract sensitization.

SECTION 12 – Ecological Information

Toxicity: No data available

Persistence and Degradability: No data available.

Bioaccumulative Potential: No Data Available

Mobility in Soil: No Data Available

Other Adverse Effects: No known deleterious effect on environment.

SECTION 13 – Disposal Considerations

The generation of waste should be avoided or minimized wherever possible. Disposal of this product, solutions and any by-products should comply with the requirements of environmental protection and waste disposal legislation and any regional local authority requirements. Dispose of surplus and non-recyclable products via a licensed waste disposal contractor. Waste should not be disposed of untreated to the sewer unless fully compliant with the requirements of all authorities with jurisdiction. This material and its container must be disposed of in a safe way. Care should be taken when handling empty containers that have not been cleaned or rinsed out. Empty containers or liners may retain some product residues. Avoid dispersal of spilled material and runoff and contact with soil, waterways, drains and sewers.

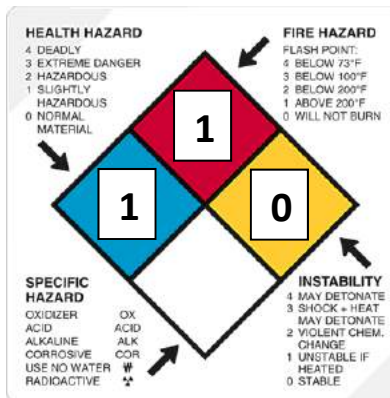
SECTION 14 – Transport Information

Correct Shipping Name: LIQUID SOAP

Transport in accordance with regulations of the code for Transport of Non-Dangerous Goods by Road and Rail, the IMO Regulations for sea freight and the IATA Regulations for air freight.

Application	Cleaning Agent
Dangerous Goods Class	N/A
Poisons Schedule	Non-poisonous
Hazchem Code	N/A

Hazard Rating (0 = Insignificant; 1 = Slight; 2 = Moderate; 3 = High; 4 = Extreme)



SECTION 15 – Regulatory Information

Toxic Substances Control Act (TSCA): All components of this product are on the TSCA Inventory or are exempt from TSCA Inventory requirements.

This material (in its concentrated form) is considered hazardous by the OSHA Hazard Communication Standard (29 CFR 1910.1200) as an irritant.

SECTION 15 – Regulatory Information (continued)

Canadian Domestic Substances List (DSL): All substances contained in this product are listed on the Canadian Domestic Substances List (DSL) or are not required to be listed.

Superfund Amendments and Reauthorization Act of 1986 Title III (Emergency Planning and Community Right to Know Act) Section 313: To the best of our knowledge this product does not contain chemicals at levels which require reporting under this statute.

SECTION 16 – Other Information

Revision Date: 08/29/2017

The technical data generated by the Supplier has been edited to avoid disclosure of proprietary information and to avoid redundancy. Technical data was generated from 2007 through date of issue.

The information contained in this Safety Data Sheet comes from sources believed to be accurate or otherwise technically correct. It is the user's responsibility to determine if the product is suitable for its proposed applications(s) and to follow necessary safety precautions. The user has the responsibility to ensure that the most current SDS is used.

All inquiries regarding the content of this document should be directed to the Supplier.

Abbreviations:

ACGIH	American Conference of Governmental Industrial Hygienists
CAS	Chemical Abstract Service
CFR	Code of Federal Regulations
N/A, NAV	Not Applicable or Not Available
NIOSH	National Institute for Occupational Safety and Health
NTP	National Toxicology Program
OSHA	Occupational Safety and Health Administration
PEL	Permissible Exposure Limit
STEL	Short-term Exposure Limit
TLV	Threshold Limit Value
TWA	Time Weighted Average