

For 65 years Penray has helped customers solve problems and increase profits with innovative chemistry focused on automotive, heavy duty, marine and industrial applications.

Since 1951, Penray has helped keep cars, trucks, buses, boats and service vehicles on the road with quality products. The company is comprised of four business units covering heavy duty, automotive, custom/private label and export. Each focused on providing product and service solutions to meet our customer's needs.

Heavy-Duty: The Pencool® brand engine coolant line is well known in the industry as a supplemental coolant additive (SCA). In addition, our Need-Release® cooling system filters have been helping fleets and Owner/Operators extend their coolant service intervals. Penray offers a complete line of diesel fuel additives for improved MPG, and cold weather products to keep vehicles running through-out the winter. In addition, maintenance products that ensure your vehicle runs day in and day out keeping you on the road.

**Automotive:** The Penray brand of products is engineered for use by professional maintenance and

repair technicians. This product line helps improve gas mileage, extend engine life and improve overall performance with the consumer in mind. Technicians rely on Penray Professional Service Kits for fuel injection cleaning, power steering flush, transmission flush and other maintenance services. Penray's broad line covers fuel additives, oil additives, maintenance products, service items and winter products.

Custom/Private Label: Offering a broad array of custom formulations and packaging capabilities to accommodate customer specific requirements. Our team of chemists, marketers and production personnel are available to provide custom products and packaging designed specifically to satisfy unique requirements.

**Export:** Penray manufactures products for sale in over 20 countries worldwide. Working closely with our international partners, we provide products labeled to meet country specific requirements. If needed, Penray will provide product regulatory and compliance assistance ensuring shipments are received in-country without concern.

Penray strives to provide exceptional customer service and flexibility to meet your needs and help you achieve your goals.



Treatments, Cleaners, Filters, Test Strips, Inhibitors, Cold Weather, and Maintenance Products...

Treatments, Cleaners, Functional Fluids, Maintenance, Shop Chemicals, Professional Installer Service Kits, Cold Weather and Tire Inflators...



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#### Ethanol Stabilizer 82612

#### 4-in-1 Year Round Protection:

- > Treats and stabilizes gas for up to one year
- > Helps prevent water and ethanol separation, corrosion, and sediment during storage
- > Keeps fuel injectors clean and prevents fuel system deposits
- > Helps protect fuel system components from the harmful effects of ethanol and water
- > For use in all gas engines, including 2-cycle, small engines, boats, generators and seasonal equipment



Part#	Quantity	Net Contents	Container	Treat Rate
82612	6/Case	12 fl. oz.	Bottle	Up to 20 gallons













## Ideal For Small Engine Storage!

See how Penray Ethanol Stabilizer compares to the competition, visit www.penray.com/penray-videos or scan code to watch video.





### Fuel Injector Cleaner 2112

- > Preferred formula for use in direct injection (GDI,) multi-port (MPFI,) and throttle body (TBI) injection systems
- > Just one treatment can provide increased fuel economy, power and acceleration, improved idling, quicker starting and reduced emissions
- > Helps clean harmful deposits and carbon from fuel system to restore performance
- > For use in all grades of gasoline and ethanol blends
- > Safe for catalytic converters and oxygen sensors



Part#	Quantity	Net Contents	Container	Treat Rate
2112	12/Case	12 fl. oz.	Bottle	Up to 20 gallons



- > Premium synthetic detergent package provides exceptional cleaning to restore fuel economy
- > Cleans entire fuel system including injectors and combustion chamber
- > Removes combustion chamber deposits to improve acceleration, reduce knocks/pings, and eliminate stalling
- > Keeps engine clean to reduce octane requirement
- > Use every 3,000 miles to ensure optimum engine power and performance



Part#	Quantity	Net Contents	Container	Treat Rate
2216	12/Case	16 fl. oz.	Bottle	Up to 20 gallons





### Intake Valve Deposit Cleaner 2312

- > Removes carbon deposits from valves
- > Optimizes air/fuel ratio for improved performance
- > Multi-functional application through the rail or vacuum cleans the intake
- > Utilizes detergent and solvent technologies for maximum effectiveness
- > Helps restore performance for quieter starts and overall efficiency
- \* For professional use only. Use with special application equipment.



Part#	Quantity	Net Contents	Container
2312	12/Case	12 fl. oz.	Bottle

Special Valve Sprays From Any Angle!





#### Fuel Injector Air Intake Cleaner 2412

- > Quietly dissolves and helps remove sticky gum, varnish and resin deposits
- > Safe for protective coatings and all air intake systems
- > May also be used to clean linkages, cables, actuators, and PCV valves
- > Not for use in CA, UT or NH



Part#	Quantity	Net Weight	Container
2412	12/Case	4 oz.	Aerosol Can

# Oil System Maintenance



### **Engine Oil Treatment 3112**

- > Helps restore fuel economy and increases life of critical engine parts
- > Extends engine oil life and prevents corrosion
- > Reduces friction, heat and wear to prolong life of engine components
- > Maintains engine performance and efficiency during extended service intervals
- > Keeps engine clean when used regularly



## Protects Engine!

Part#	Quantity	Net Contents	Container	Treat Frequency
3112	12/Case	12 fl. oz.	Bottle	Each oil change

# High Mileage Oil Treatment 3182

- > Converts standard engine oil into a high mileage oil
- > Recommended for vehicles over 7 years or 75,000 miles
- > Anti-wear agents extend engine life
- > Keeps engine clean with superior detergents
- > Neutralizes acid and prevents corrosion
- > Conditions seals and gaskets
- > Reduces oil consumption and exhaust smoke



Helps Extend Engine Life!

Part#	Quantity	Net Contents	Container	Treat Frequency
3182	12/Case	12 fl. oz.	Bottle	Each oil change over 75,000 miles

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### Motor Pep 3016

- > Oil additive formulated to clean and protect the engine while driving
- > Use after oil change to help restore efficiency, reduce wear and ensure longer engine life
- > Special dual action cleaner dissolves deposits and neutralizes sludge
- > Frees and guiets valves and lifters







#### **Concentrated Motor** Flush 7501

- > Oil system flush helps remove deposits and sludge formed in internal combustion engines
- > Use after draining oil to flush before re-filling
- > Frees valves, lifters and rings, allowing engine oil to circulate freely
- > Use every 2-3 oil changes for maximum benefit



Part#	Quantity	Net Contents	Container	Treat Frequency
7501	4/Case	1 Gallon	Jug	2-3 oil changes

MOTOR FLUSH

# Oil System Cleaner 7512

- > Powerful 5 minute cleaner dissolves deposits formed by high temperatures in modern engines
- > Add to engine oil before draining
- > Frees valves, lifters and rings, allowing engine oil to circulate freely
- > Removes sludge and dirt; ideal for engine overhauls

Easy 5-Minute Cleaner!



Part#	Quantity	Net Contents	Container	Treat Frequency
7512	12/Case	12 fl. oz.	Bottle	Every 3 oil changes

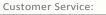


The Magnuson-Moss Warranty Act Explained

Some dealers and service centers often falsely claim that using anything other than the vehicle manufacturer's brand of chemical during the warranty period will void the warranty. THESE CLAIMS ARE NOT TRUE.

For more details ask your sales representative or visit the Federal Trade Commission site at http://bit.ly/MagnMoss





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# Power Steering System Maintenance



# Power Steering Fluid System Flush 3210

- > Cleans hydraulic systems and conditions power steering fluid
- > Keeps seals soft and pliable
- > Helps stop leaks due to drying and hardening of seals
- > Compatible with conventional power steering fluid
- \* For professional use only. Use with power steering fluid flush equipment.



Part#	Quantity	Net Contents	Container
3210	12/Case	12 fl. oz.	Bottle

# Global Synthetic Power Steering Fluid 3832

- > Premium synthetic fluid suitable for use in most vehicles\*
- > Exceeds European OEM specs\*
- > Exceptional viscosity stability with improved flow at low temperatures
- > Can be used as a hydraulic fluid in suspension systems, traction control units and as a shock absorber fluid
- \* Refer to Penray power steering fluid application guide for make/model specifications



Part#	Quantity	Net Contents	Container
3832	6/Case	32 fl. oz.	Bottle

### Premium Power Steering Fluid 3900's

- > Compatible with all conventional power steering fluids
- > Meets specs of GM, Ford, Chrysler and most domestic and foreign auto manufacturers\*
- > Provides protection against oxidation to prevent sludge
- > Protects against pump component wear
- > Corrosion inhibitor to protect metal components
- \* Refer to Penray power steering fluid application guide for make/model specifications



Part#	Quantity	Net Contents	Container
3912	12/Case	12 fl. oz.	Bottle
3932	12/Case	32 fl. oz.	Bottle
3964	6/Case	64 fl. oz.	Jug

Ask Your Sales Representative About Our Power Steering Application Guide!





#### **Professional Automatic** Transmission Flush 6533

- > Safely removes dirt and varnish buildup to restore performance
- > Extends life by cleaning and maintaining the system
- > Conditions seals and o-rings
- > Frees sticky valves and restores smooth shifting



Part#	Quantity	Net Contents	Container
6533	12/Case	12 fl. oz.	Bottle



#### Transmission MVP 6538

- > 3-in-1 ATF lubricant, stabilizer and converter
- > Eliminates need for multiple OEM fluids
- > Advanced synthetic technology protects most types of ATF\*
- > Enhances Dexron/Mercon ATF for use as: Chrysler ATF +3(7176), ATF +4(9602), Honda, Toyota Type T IV
- > Enhances Dexron/Mercon ATF into a highly stable fluid like Mercon V ATF
- \* Use Penray ATF guide for specifications based on make/model



Part#	Quantity	Net Contents	Container
6538	12/Case	12 fl. oz.	Bottle



# 🐰 Cooling System Maintenance

# Cool Tec® 2 - Cooling System

Treatment 1112

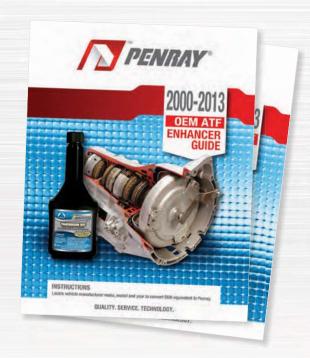
- > Neutralizes acids, inhibits rust and scale, while lubricating water pump
- > Stabilizes conventional and extended life automotive coolants
- > Protects entire cooling system including radiator and coolant sensors
- > Allows different coolant types to be mixed within one system



## **Protects** Cooling System!

Part#	Quantity	Net Contents	Container	Treat Rate
1112	12/Case	12 fl. oz.	Bottle	10-12 Qt System

Ask Your Sales Representative About Our OEM ATF Enhancer Guide!



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# Lubricants, Penetrants, and Coatings



Penray offers a variety of specialty and industrial lubricants and coatings for use in automotive, heavy duty, farm, industrial, marine and shop applications.

Most products are equipped with an extension tube for precise application.





For complete list of state VOC regulations by product, visit www.penray.com

#### Silicone Spray 3416

- > Waterproofs, lubricates, and insulates all types of mechanical equipment
- > Clear, lightweight coating ideal for rubber and metal
- > Protects and renews rubber mountings, bushings and weather stripping
- > Lubricates and prevents freezing of doors, locks, windows, and drawers
- > Won't melt, freeze, or gum-up; effective from -35° to 325°F
- > For automotive, heavy duty, farm, industrial, snow plow blades, and marine use



Part#	Quantity	Net Weight	Container
3416	12/Case	10 oz.	Aerosol can

### Rubberized Undercoat 4400's

- Quick drying, black rubberized waterproof coating
- > Protects surfaces from rust and corrosion, extreme heat & cold, dust, fumes, and road salt
- > May be painted over with no bleed-through
- > For automotive applications: use on undercarriage, frame, and wheel wells to help reduce road noise
- > General use: minor roof repairs, gutters and downspouts, foundations and driveway cracks, tree wounds



Part#	Quantity	Net Weight	Container
4424	12/Case	16 oz.	Aerosol can
4455	1/Drum	55 Gallons	Drum

# PR-3 Wrench-Eze and Lubricant 4516

- > Penetrating lubricant frees rusted and difficult to remove parts
- > Displaces water, lubricates and protects metal parts
- > Reduces friction and helps silence squeaks
- > Silicone-free formula suitable for body shop use



Pleasant Vanilla Scent!

Part#	Quantity	Net Weight	Container
4516	12/Case	11 oz.	Aerosol can



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# Lubricants, Penetrants, and Coatings



#### White Lithium Grease #4816

- > Heavy duty metal lubrication
- > Long lasting grease works well in all temperatures and weather conditions from -25°F to 150°F
- > Ideal for metal to metal contact such as gears
- > Water and heat resistant for superior corrosion and friction protection
- Automotive and heavy duty use: door, hood, trunk, latches, hinges, speedometer cables, distributor caps, seat guides
- > Marine use: boat control cables, linkages, trailer rollers, slides, guides, winches, rust proofing for storage
- > General use: garage doors and guides, farm equipment of all types, all general metal to metal contact applications where lubrication and protection are desired



Part#	Quantity	Net Weight	Container
4816	12/Case	11 oz.	Aerosol Can



#### Belt Dressing 4908

- > Preserves belts to prevent glazing and premature failure
- Increases friction to eliminate squeaking and slipping
- > For use with accessory drive and all types of "V" belts
- > Prevents premature wear



Part#	Quantity	Net Weight	Container
4908	12/Case	7 oz.	Aerosol Can

#### Red Grease 7001

- > Ideal for: large surfaces
- > Sprays evenly and cures into a light grease
- > Lubricates and forms a waterproof barrier
- > Protects surfaces from moisture and corrosion
- > Functions at extremely low and high temperatures from -25°F to 300°F
- > For use in: tools, linkages, springs, conveyors, couplings, industrial chain drives, slides, garage door tracks, rollers, and farm implements
- > Red color enables easy visual inspection
- > Helps increase equipment life



Part#	Quantity	Net Weight	Container
7001	12/Case	11 oz.	Aerosol Can



#### Open Gear Lube 7003

- > Ideal for: high pressure metal to metal contact
- > Fortified with Moly Sulfide for dramatic friction reduction
- > Stable in high and low temperature extremes from -25°F to 300°F
- > Protects against rust and corrosion
- > For use in: gears, steel cables, cutting bars, winches, rollers and presses



Part#	Quantity	Net Weight	Container
7003	12/Case	11 oz.	Aerosol Can



# Lubricants, Penetrants, and Coatings



#### Inner Slide Lube 7005

- > Ideal for: vertical sliding surfaces
- > Instantly adheres with stay-put formulation
- > Maximum Moly Sulfide content for ultimate lubrication
- > Protects against rust and corrosion
- > Prevents destructive metal to metal contact
- > For use in: Forklifts, fifth wheels, and all sliding metal surfaces



Part#	Quantity	Net Weight	Container
7005	12/Case	10.5 oz.	Aerosol Can



#### Chain Lube 7006

- > Ideal for: high velocity applications
- > Durable lightweight grease fortified with Moly Sulfide and anti-wear additive
- > For use in: any chain driven application, motorcycles, and motor bikes
- > Drys after entering chain links or cable stands
- > Quiets noise
- > Prevents oxidation leading to longer life



Great For All Chains!

Part#	Quantity	Net Weight	Container
7006	12/Case	10 oz.	Aerosol Can

### Dry Graphite Lube 7009

- > Ideal for: fine mechanisms and extreme heat up to 700°F
- > Dries in minutes to a non-stick finish
- > Reduces friction, heat and surface wear
- > Protects against rust and corrosion
- > Bonds to metal, plastics, rubber and other surfaces
- > Repells dirt and lubricates
- > For use in: locks, latches, tracks and slides, industrial furnace and oven door hinges



Part#	Quantity	Net Weight	Container
7009	12/Case	11 oz.	Aerosol Can

Product	Additional Uses
Silicone Spray	Keeps tool guides or saw fences sliding smoothly, sheds wet snow from snow plow blade
Rubberized Undercoat	Sound deadening in wheel wells or under a pickup bed, protects undercarriage from stone chips on gravel roads
PR-3 Wrench-Eze and Lubricant	Penetrates rusted threads, build-up, caked and dried grease on latches and hinges
White Lithium Grease	Lubricates moving parts in very wet environments such as off-road winches or boat trailer guide wheels and winches
Belt Dressing	Silences fan drive belts in non-automotive applications such as HVAC fan drives
Red Grease	Protects equipment stored in damp conditions. Provides a removable even coating of water and rust resistant grease to any surface.
Open Gear Lube	Provides robust lubrication in high pressure, high load equipment
Inner Slide Clings to vertical metal surfaces such as formasts or telescoping metal slides	
Chain Lube	Any chain driven application including non- automotive applications such as conveyors and other industrial equipment
Dry Graphite Lube	Creates a water resistant dry lubricating film in high heat areas such as exhaust cutouts and flexible exhaust hangers



#### Battery Protector 7011

# Hard starting and battery failure can be caused by corrosion!

- > Prolongs battery life by preventing buildup of corrosive materials on battery terminals
- > Seals out moisture and prevents oxidation
- > Color tinted to indicate area treated
- > For use in: auto, marine, agriculture, motorcycle, heavy duty, off-road and industrial applications
- > To remove buildup use 7012 Battery Cleaner



Part#	Quantity	Net Weight	Container
7011	12/Case	11.5 oz.	Aerosol Can

## Battery Cleaner 7012

- > Neutralizes acid and removes corrosion for maximum current flow
- > Helps produce positive electrical contact
- Can be used on all types of batteries, cables, terminals, and anything subject to acid corrosion
- > Spray on, wipe off
- After cleaning use Penray Battery Protector7011 to prevent future build-up and corrosion



Part#	Quantity	Net Weight	Container
7012	12/Case	15 oz.	Aerosol Can

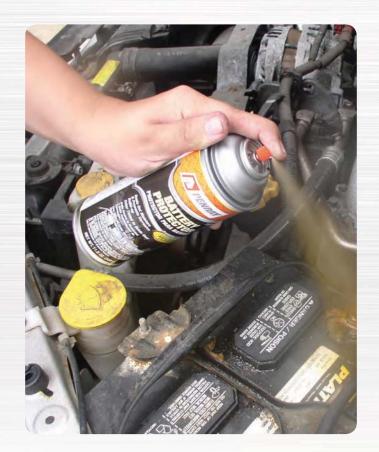
### Electric Motor Cleaner 7014

- > Non-flammable formula ideal for cleaning electrical systems
- > Easily removes grease, oil, brake fluid, and other contaminants
- > Dries quickly and leaves no residue
- Designed for electric motors, transformers and machinery





Part#	Quantity	Net Weight	Container
7014	12/Case	19 oz.	Aerosol Can



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#### Gum Solve® - Carburetor and Choke Cleaner 2214

- > Helps restore carburetor performance by removing gum, varnish, carbon deposits and dirt build-up
- > Cleans and frees linkages, cables, and actuators, fuel injection intake systems and PCV valves
- > Safe for oxygen sensors and catalytic convertors
- > Not recommended for use on plastic parts or painted surfaces
- > 50 state formula







### **Engine Cleaner and** Degreaser 4220

- > Cleans car, truck, and marine engines by removing grease, oil and grime
- > Simply spray on and rinse off with water
- > Ideal for use on lawn mowers, marine engines, farm equipment and garage floors
- > Low VOC formulation
- > Safe on all engine components

For complete list of state VOC regulations by product, visit www.penray.com or scan code.





Part#	Quantity	Net Weight	Container
4220	12/Case	14.5 oz.	Aerosol Can

# Specialty Products 🐠



#### Glass Cleaner 84150

- > Professional grade formula designed for vehicle glass cleaning
- > Especially effective in removing sap, tar, bugs, road film/dirt, cheater wax and plasticizer haze
- > Fine mist spray pattern for even application
- > 100% evaporating formula eliminates streaks, film, and light-distorting residues
- > Ammonia free, safe for tinted windows



Part#	Quantity	Net Weight	Container
84150	12/Case	18 oz.	Aerosol Can



#### 80859 Features Convenient Push-On Cone Tip!

# Tire Fix Plus<sup>®</sup>- Non-Flammable

- > Seals punctures while inflating tire
- > Contains Leak Detective™ so puncture can be found and repaired quickly
- > Prevents corrosion; safe for all wheel types and tire pressure monitor systems (TPMS)
- > Water-based formula for easy cleanup
- > Safe and easy way to temporarily repair a flat tire with no tools required





Part#	Quantity	Net Weight	Container	Туре
80859	6/Case	12 oz.	Aerosol Can	Cone
80862	6/Case	22 oz.	Aerosol Can	Deluxe Hose

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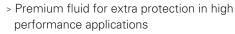
#### Super Heavy Duty Dot 3 Brake Fluid 6000's

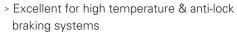
- > For disc and drum braking systems
- Recommended for anti-lock braking systems
- > Meets Federal Motor Vehicle Safety Standard No. 571.116 and SAE 1703
- > Dry boiling point exceeds 450°F
- > Wet boiling point 284°F minimum



Part# Quantity		Net Contents	Container
6012 12/Case		12 fl. oz.	Bottle
6032	12/Case	32 fl. oz.	Bottle
6001	4/Case	1 Gallon	Jug
6005	1/Pail	5 Gallons	Pail
6055	1/Drum	55 Gallons	Drum

# Synthetic Dot 4 Brake Fluid 6400's





- > Provides corrosion protection
- > Meets or exceeds Federal Motor Vehicle Safety Standard (FMVSS) No. 516.116, ISO 4925 and SAE J-1704
- > Dry Boiling Point Exceeds 466°F
- > Wet Boiling Point 311°F minimum



Part#	Quantity	Net Contents	Container
6432	12/Case	32 fl. oz.	Bottle
6405	1/Pail	5 Gallons	Pail

## **Brake Cleaners**

Penray offers a full line of brake cleaners, each specially formulated to meet specific needs. All Penray Brake Cleaners have the following features and benefits:

- Instantly dissolves and removes grease, oil, brake fluid and other contaminants from disc and drum brake components
- > Superior cleaning power extends beyond brakes
- > Cleans and degreases brake shoes, drums, cylinders, rotors, disc brakes and parts
- > Cleans without disassembly
- > Helps stop brake squeaking and can improve braking performance
- > Leaves no residue
- > Non-staining

Customer Service:

## A Brake Cleaner Of Choice For Professional Technicians

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# Non-Chlorinated Quick Dry Brake Cleaner 4500's

- > Fast drying formula
- > Not for sale in CA, UT or OTC States
- > 98% VOC





Part#	Quantity	Net Weight	Container
4520	12/Case	12.5 oz.	Aerosol Can
4505	1/Pail	5 Gallons	Pail
4554	1/Drum	55 Gallons	Drum

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#### Non-Chlorinated Brake Cleaner 4600's

- > OTC compliant; Not for sale in CA or UT
- > 45% VOC



See how Penray 4620 compares to the competition, visit www.penray.com/ penray-videos or scan to watch video.



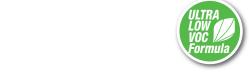


Part#	Quantity	Net Weight	Container
4620	12/Case	14 oz.	Aerosol Can
4605	1/Pail	5 Gallons	Pail
4655	1/Drum	55 Gallons	Drum

### Non-Chlorinated Brake Cleaner 4700's

- > 50 state compliant formula
- > Unlimited use in Southern California
- > 3% VOC





Part#	Quantity	Net Weight	Container
4720	12/Case	14 oz.	Aerosol Can
4705	1/Pail	5 Gallons	Pail

### **Chlorinated Brake** Cleaner 4800's

- > Non-Flammable
- > Not for sale in CA or NJ
- > 0% VOC







Part#	Quantity	Net Weight	Container
4820	12/Case	19 oz.	Aerosol Can
4855	1/Drum	55 Gallons	Drum

### Non-Chlorinated Brake Cleaner 4920

- > 50 state compliant formula
- > California Compliant: Can use up to 11.5 cans/day in CA per location
- > Maximum effectiveness for CA
- > Orange scented
- > 10% VOC



## Fresh Orange Scent!



Part#	Quantity	Net Weight	Container
4920	12/Case	14 oz.	Aerosol Can

Ph. 888.452.4053 Ph. 219.879.9225 Customer Service: www.msfoster.com sales@msfoster.com facebook.com/msfoster



### 2-Step Fuel Injection and Induction Cleaning Kit 2102

- > Provides total fuel system cleanup, including fuel injectors and intake combustion chambers
- > Helps restore MPG and removes carbon and other deposits
- > Formulated with powerful detergents for maximum performance
- > Use with 303-IV, SP302BC or SP300FI Tools
- > For professional use only

#### Step 1: 2312 Intake Valve Deposit Cleaner

Can be used with vacuum or through the rail for intake system cleaning, removing carbon deposits on valves. See page 2 for full product details.

#### Step 2: 2112 Fuel Injector Cleaner

Add to fuel tank. See page 1 for full product details.

\*Available with additional products in kits 2103 and 8101





#### **Fuel Injectors**





Fuel injectors work with small openings that can easily become clogged. The smallest deposits on these openings can have a large negative effect on injector spray pattern. Keeping injectors clean is critical to maximize fuel economy and engine performance.



Scan for video demo

Quantity Container 10/Case Carton

http://bit.ly/1Gld9H0



- > Provides all the benefits of 2102, plus cleans and renews engine oil performance
- > Use with 303-IV, SP302BC or SP300FI Tools
- > For professional use only

#### Step 1: 2312 Intake Valve Deposit Cleaner

Can be used with vacuum or through the rail for intake system cleaning, removing carbon deposits on valves. See page 2 for full product details.

#### Step 2: 2112 Fuel Injector Cleaner

Add to fuel tank. See page 1 for full product details.

#### Step 3: 3016 Motor Pep Tune-Up Treatment

Add to engine oil. See page 3 for full product details.



### 3-Step Fuel Injection and Induction Cleaning Kit 2103

#### **Intake Valves**





Dirt, varnish build-up, corrosion and carbon deposits restrict the flow of air and fuel to your fuel-injected engine.

Extend Vehicle Life!

7
_

Part#	Quantity	Container
2103	8/Case	Carton

Customer Service:

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Ph. 219.879.9225

www.msfoster.com

sales@msfoster.com



### 3-Step Fuel Injection and Air Intake Cleaning Kit 8101

- Lifetime **Preventive** Maintenance **Protection** Plan
- > All the benefits of 2102, plus cleans air intake
- > Use with 303-IV, SP302BC or SP300FI Tools
- > For professional use only

#### Step 1: 2312 Intake Valve Deposit Cleaner

Can be used with vacuum or through the rail for intake system cleaning, removing carbon deposits on valves. See page 2 for full product details.

#### Step 2: 2112 Fuel Injector Cleaner

Add to fuel tank. See page 1 for full product details.

#### Step 3: 2412 Air Intake Cleaner

Spray directly into air intake system. See page 2 for full product details.



#### **Throttle Body**





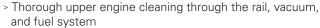
The throttle body connects the air intake to the engine. It contains the throttle control plate which opens to direct air flow into the engine. Maintaining a clean throttle body will prevent carbon buildup which causes rough idle and poor performance.

Maximize Vehicle Performance!



Part#	Quantity	Container
8101	4/Case	Carton





- > Cleans combustion chamber deposits
- > Helps restore fuel economy
- > Increases power and performance
- > Use with 303-IV, SP302BC or SP300FI (vacuum) and SP305DC or SP304TR (rail) Tools
- > For professional use only

#### Steps 1 & 2: 2312 Intake Valve Deposit Cleaner

Can be used with vacuum or through the rail for intake system cleaning, removing carbon deposits on valves. See page 2 for full product details.

#### Step 3: 2216 Total Fuel System Cleaner

Add to fuel tank to clean fuel injectors, filter and combustion chamber. See page 1 for full product details.

Lifetime **Preventive** Maintenance Protection Plan

Most Comprehensive Fuel System Cleaning!

3-Step Premium Fuel System Cleaning Kit 2503

#### Combustion Chamber





Carbon deposits build up in the combustion chambers causing pre-ignition, knock and increase the octane requirement of your engine.

Helps Restore Fuel Economy!



Part#	Quantity	Container
2503	6/Case	Carton

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#### 2-Step Engine Re-Charge Kit 7502

- > Cleans the entire oil system
- > Reduces engine heat and wear to prolong the life of engine components
- > Boosts detergents and additives to extend engine oil life
- > Extends engine component life
- > Maintains engine performance and efficiency
- > Prevents corrosion and keeps engine clean
- > For professional use only

#### Step 1: 7512 Oil System Cleaner

Add to engine oil and run for 5 minutes before draining. See page 3 for full product details.

#### Step 2: 3112 Engine Oil Treatment

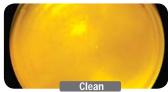
Add to crankcase after draining. See page 2 for full product details.





#### **Engine Oil**



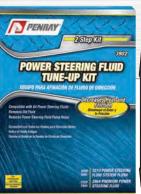


Exposure to internal combustion and soot wear down motor oil, making it less effective. Once it starts to wear down, the degraded protection produces tiny metallic particles which grind against surfaces causing wear, friction, poor efficiency and wasted power.



🗶 🗖 Scan for video demo

Part#	Quantity	Container
7502	10/Case	Carton







### 2-Step Power Steering Fluid Tune-Up Kit 3902

#### > Cleans and replenishes power steering systems using conventional fluid

- > Decreases heat and friction to prolong component life
- > Reduces power steering fluid pump noise
- > Meets specs of GM, Ford, Chrysler and most domestic and foreign auto manufacturers\*
- > Use with PSX3000, PSX2000, or PSX2500 fluid exchange machine \* Refer to PSF application guide for make/model specifications

#### Step 1: 3210 Power Steering Fluid System Flush

Use a fluid exchange machine, remove 12oz of PSF, add 3210, and circulate for 5 minutes. See page 4 for full product details

#### Step 2: 3964 Premium Power Steering Fluid

Using a fluid exchange machine, remove all PSF, and refill system with 3964. See page 4 for full product details.

#### **Power Steering Fluid**





Deterioration in power steering fluid is easily identified by a change in color. Clean power steering fluid optimizes steering performance and protects all the system components.



Scan for video demo

https://youtu.be/iEFGjBNPl84



Part#	Quantity	Container
3902	6/Case	Carton

Customer Service:

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Ph. 219.879.9225

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# Professional Service Kits





- > Cleans and conditions entire transmission system
- > Restores smooth shifting
- > Conditions seals and O-rings; reduces friction and wear
- > Frees sticky valves
- > Use with TSD440 or TSD450 fluid exchange machines
- > For Professional Use Only

#### Step 1: 6533 Professional Automatic Transmission Flush

Use fluid exchange machine, remove 12oz of ATF, add 6533, circulate for 10 minutes. See page 5 for full product details.

#### Step 2: 6536 Universal ATF Protectant

Synthetic technology helps reduce micro-pitting on internal gears and components. Add to newly filled ATF for conditioning. Only available in kit.





#### **Transmission Fluid**





As fluid ages, contaminants build up and viscosity breaks down leaving the transmission unprotected. New fluid protects the sophisticated technology in present day transmissions. Clean fluid helps to reduce component failure while improving performance and increasing vehicle longevity.



video demo

https://youtu.be/oI0c3zHnsRw



Quantity Container 10/Case Carton







### 2-Step Cooling System Re-Charge Kit 1102

#### > Safely cleans the entire cooling system

- > Designed for automotive coolants
- > Eliminates overheating and scale build-up
- > Inhibits rust and scale formation
- > Use with VACFILL3 or CVAC3 fluid exchange machine
- > For Professional Use Only

#### Steps 1: 1212 Cool Prep Cooling System Cleaner

Removes, dissolves and disperses deposits including corrosion, sludge, and oil. Pour entire contents into radiator and run on idle for 10-15 minutes before draining. Only available in kit.

#### Step 2: 1112 Cool-Tec® 2 Cooling System Treatment

Add to coolant during/after re-filling system. Stabilizes and maintains coolant pH levels and prevents corrosion and scale formation. See page 5 for full product details.

#### Radiator





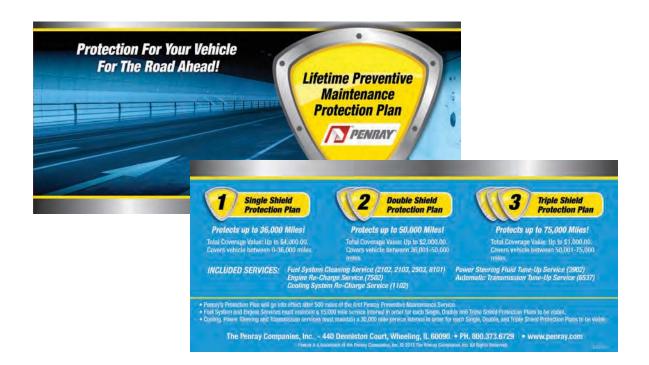
Coolant is very important, it prevents the #1 cause of breakdowns - cooling system failures. A clean and stable cooling system will prevent overheating and prolong the life of all cooling system components.

Part#	Quantity	Container
1102	10/Case	Carton

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# Preventive Maintenance Protection Plan



All Penray Professional Service Kits Are Backed By Our Lifetime Preventive Maintenance Protection Plan



Single Shield Protection - Protects up to 36,000 miles! Total coverage up to \$4,000



**Double Shield Protection - Protects up to** 50,000 miles! Total coverage up to \$2,000



**Triple Shield Protection** - Protects up to 75,000 Miles! Total coverage up to \$1,000



#### **Intake Valve Cleaning Kit** 303IV



Part#	Quantity
303IV	1/Case

#### Fuel Injection Canister SP300FI

Injects liquid cleaner into a vacuum line. Can be used on kits: 2102, 2103, or with product 2312 Intake Valve Deposit Cleaner.

Part#	Quantity
SP300FI	1/Case



#### Pro Sure Shot Sprayer SP301BC

Easily converts any aerosol into a liquid.



SP302BC Injects liquid cleaner into a vacuum line. This tool is to be used through the vacuum only. Can be used on kits: 2102, 2103 and 8101.

**Fuel Injection Cleaning Canister** 

Part#	Quantity
SP302BC	1/Case



#### Through-The-Rail Fuel Canister w/S-Tool SP304TF

Cleans through the rail (GM, Ford, Chrysler)

Part#	Quantity
SP304TR	1/Case

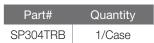
### 4PC Adapter Set for SP304TR SP304TRA

For SP304TR (GM, FORD, CHRYSLER), for through-therail cleaning.

Part#	Quantity
SP304TRA	1/Case

#### Complete Adapter Set SP304TRB

Complete adapter set for SP304TR and SP305DC.





### **Dual Canister Thru-the-**Rail & Intake Cleaner SP305DC

Injects liquids through the rail and also can be used with S-Tool. Can be used on kits: 2102, 2103, 2503 and 8101 or with product 2312 Intake Valve Deposit Cleaner.

Part#	Quantity
SP305DC	1/Case

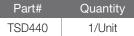
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# 🔁 Fluid Exchange Equipment

For More Information On These Machines Contact Flo-Dynamics Ph. 800-303-5874 • www.flodynamics.com

## Transmission Exchange Dipstick Only TSD440





### Transmission Exchange In-Line & Dipstick TSD450

Part# Quantity TSD450 1/Unit



#### **Power Steering Flush PSX2000**

Part#	Quantity
PSX2000	1/Unit

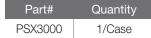


### Power Steering Flush with Cart PSX2500

Part#	Quantity
PSX2500	1/Case



#### **Power Steering Flush** with Cart & Pendant PSX3000





#### **Coolant Vacuum Fill** VACFILL

Part#	Quantity
VACFILL	1/Case



#### Coolant Vacuum Fill and Flush CVAC3





#### **Brake Flush BRAKEMATE**

Part#	Quantity
BRAKEMATE	1/Case



#### Nitrogen Generator TYGER3

Part#	Quantity
TYGER3	1/Case



#### **Automatic AC Machine** CCST288

Part#	Quantity
CCST288	1/Case



#### Auto AC Machine w/ Printer & Automatic Oil Inj. CCST388

Part#	Quantity
CCST388	1/Case



#### Maximize Sales With These Additional Point Of Purchase Items!

- FlyersService Cards
- Counter Mats

Download at www.penray.com or ask your sales rep. for more information



Customer Service:

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## Light Duty Diesel Treatments and Cleaners



### Diesel Fuel Prep™ 81012

- > Concentrated diesel fuel conditioner for auto, light duty engines and generators
- > Cleans fuel injectors to maximize fuel economy and restore power
- > Enhances lubricity to improve injector life
- > Improves overall performance
- > Prevents corrosion
- > Lifts cetane up to 8 numbers for easier starts
- > One bottle treats 20 gallons for an 8 cetane\* number lift, 40 gallons for a 4 number lift
- > Biodiesel compatible and ULSD compliant

#### BioReady™





Part#	Quantity	Net Contents	Container	Treat Rate
81012	6/Case	12 fl. oz.	Bottle	20-40 Gallons *Treat 20 gallons for 8 number lift, 40 gallons for 4 number lift.

#### Winter Cetane™ - Diesel Anti Gel 82012

- > Prevents water separation and ice crystal formation
- > Cleans injectors to maximize fuel economy
- > Lifts Cetane up to 6\* numbers to increase fuel quality and improve cold weather starting
- > Improves cold weather operability by as much as 30°F
- > Prevents fuel gelling in temps as low as -50°F
- > ULSD compliant
- > Treats 20 to 40 gallons\*





Part#	Quantity	Net Contents	Container	Treat Rate
82012	6/Case	12 fl. oz.	Bottle	20-40 Gallons *Treat 20 gallons for 6 number lift, 40 gallons for 3 number lift.

#### **Diesel Engine Oil Treatment** 83112

- > Concentrated oil treatment replenishes diesel oil additives to ensure performance during extended change intervals
- > Maximum strength formula helps protect new and old engines
- > Disperses sludge to keep engine clean
- > Neutralizes acid deposits/build-up to prevent corrosion
- > Helps prevent excessive wear, reduces friction and heat to prolong life of engine components
- > To fortify conventional diesel engine oils, add one bottle at each oil change
- > For high mileage engines with advanced wear, excessive oil burning or heavy deposits, use two bottles
- > Will not cause stiction



Part#	Quantity	Net Contents	Container	Treat Rate
83112	6/Case	12 fl. oz.	Bottle	15 Quarts

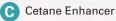
## Place Your Order Online!





Save time and place orders via our online order system, PenAccess. This tool allows you to place your orders 24/7, track your orders through the system, and view records of past orders! Enter PenAccess through www.penray.com to set up your account and begin ordering today.

#### See Page 26 For Diesel Fuel **Additive Benefit Chart**

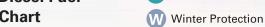




Cleaner



**Emergency Treatment** 





Effect on Water





### POW-R 365® - 5 in 1 Diesel Cleaner & Treatment 207064

- > Cleans injectors to improve fuel economy
- > Enhances lubricity to prevent excessive wear
- > Prevents corrosion to protect engine components
- > Lifts Cetane 1 number increasing fuel quality, power, and cold weather starting
- > Provides up to 20 degree reduction in cold filter plug point to prevent gelling\*
- > ULSD compliant & Biodiesel compatible
- \* For temperatures below -10°F use Winter Pow-R® Plus



**Bio**Ready<sup>™</sup>



Part#	Quantity	Net Contents	Container	Treat Rate
207064	6/Case	64 fl. oz.	Bottle	250 Gallons

# 5 Great Benefits!





Learn how POW-R 365 cleans injectors to improve fuel economy! Visit https://youtu.be/ye\_FJBnhRWE or scan code to watch video.

# ONE BOTTLE, ONE TRUCK!

## Fuel Prep™ Biocide 1002's

- > Fast acting single dose biocide
- > Stops 90% of microbial activity in as little as 6 hours
- > Protects the entire fuel system from corrosion caused by microbial growth
- > Helps prevent fuel filter plugging to reduce maintenance costs and prevent downtime
- > Stops microbial activity in the storage tank before the fuel works its way into a vehicle
- > Effective in all diesel fuels, including ULSD and Biodiesel





\* Follow with Fuel Prep™ Diesel Fuel Conditioner to maintain a clean and healthy fuel system

Part#	Quantity	Net Contents	Container	Treat Rate
100216	12/Case	1 Pint	Bottle	1 Pint treats 1,250 Gallons
100201	4/Case	1 Gallon	Jug	1 Gallon treats 10,000 Gallons

Fuel

Rag Layer

Water

Sediment



How do bugs grow? Fuel storage tanks are a perfect breeding ground for microorganisms (bugs). The bugs have an abundant food supply of hydrocarbons in the fuel. The "rag layer" indicated above is an emulsion of water and fuel supporting growth of bugs. Once the bugs begin to grow they double in population every 20 minutes. As the bugs multiply they produce waste products. The waste products produce sludge, acids and other harmful by-products impacting the fuel and the storage tank. Eventually a black, brown or green slime will form clogging filters, corroding metal and causing hoses to swell and blister.

# See Page 26 For Diesel Fuel



Cetane Enhancer



Cleaner



**Emergency Treatment** 

Additive Benefit Chart





Effect on Water

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Customer Service:



# Fuel Doctor Program





# A Year-Round Preventative Diesel Fuel Plan To Treat And Maintain Healthy Fuel Storage Tanks

The Penray Fuel Doctor Program offers complete, expert fuel testing and analysis followed up by our Fuel Doctors with customized treatment plans.

#### WHY?

- Untreated fuel leads to significant problems in storage tanks including separation, tank corrosion, oxidation, sludge, microbial growth and sediment
- Impact is clogged fuel filters, expensive clean out costs, leaking tanks, premature tank replacement, unhappy customers and lost profits
- These issues can be very difficult to detect and require routine testing and tank maintenance
- The Penray Fuel Doctor plan ensures your fuel and storage tanks are at optimum health

#### WHEN?

#### Penray recommends year-round maintenance

- Spring: test for microbial activity
- Fall: test for cold weather properties and microbiological activity

#### Typical warning signs of fuel issues include:

- Slow flow rate, clogged filters, sulfurous odor, slime coating on metal parts or blistered hoses
- Any of these symptoms require immediate attention

#### HOW?

- Contact your regional Fuel Doctor or call Penray at Ph. 800.323.6329 x5000
- Schedule a fuel check-up
- Penray Fuel Dr. will visit your site to collect samples for analysis
- Results will be available within 10 days
- Your Penray Fuel Dr. will discuss the results, recommend treatment and ensure your fuel is healthy

• See Page 25 For Fuel Test Kits









## Diesel Fuel Treatments and Cleaners

### Fuel Prep™ - Diesel Fuel Conditioner 1000's

- > Anti-oxidant technology stabilizes fuel
- > Restores fuel economy by cleaning injectors
- > Enhances lubricity to prevent wear
- > Protects against corrosion
- > Helps eliminate conditions conducive to bacterial and fungal growth
- > Separates water from fuel for easy collection
- > ULSD compliant & Biodiesel compatible



BioReady™



FUEL PREP

	Part#	Quantity	Net Contents	Container	Treat Rate
	100012	12/Case	12 fl. oz.	Bottle	12 oz. treats 50 Gallons
1	100032	12/Case	32 fl. oz.	Bottle	32 oz. treats 250 Gallons
ı	100005	1	5 Gallons	Pail	5 Gallons treats 7,500 Gals.
	100055	1	55 Gallons	Drum	55 Gallons treats 82,500 Gals.

#### Fuel Prep™ - Diesel Fuel Conditioner 2012's

- > Concentrated version of Fuel Prep for bulk fuel treatment
- > Anti-oxidant technology stabilizes fuel
- > Restores fuel economy by cleaning injectors
- > Enhances lubricity to prevent wear
- > Protects against corrosion
- > Helps eliminate conditions conducive to bacterial and fungal growth
- > Separates water from fuel for easy collection
- > ULSD compliant & Biodiesel compatible



BioReady™





Part#	Quantity	Net Contents	Container	Treat Rate
201201	4/Case	1 Gallon	Jug	1 Gallon treats 12,500 Gals.
201205	1	5 Gallons	Pail	5 Gallons treats 62,500 Gals.

#### Pow-R Performance® -Diesel Fuel Enhancer 208005

- > Anti-oxidant technology stabilizes fuel
- > Cleans injectors to improve fuel economy
- > Enhances Lubricity to prevent excessive
- > Prevents corrosion to protect engine components
- > Lifts Cetane 1 number increasing fuel quality, power, and cold weather starting
- > ULSD compliant & Biodiesel compatible



BioReady™



IN 1993

Part#	Quantity	Net Contents	Container	Treat Rate
208005	1	5 Gallons	Pail	5 Gallons treats 7,500 Gals.

### Total Diesel Fuel System Cleaner 1050's

- > Extremely powerful fuel system cleaner
- > Cleans and helps prevent fuel filter and injector plugging
- > Formulated to dissolve and disperse "Asphaltenes" (black fuel)
- > Helps improve lubricity and prevent corrosion
- > Attacks extreme cases of dirt, grime and sludge
- > ULSD Compliant & Biodiesel compatible

BioReady™

Premium Cleaner Helps Restore Fuel Economy!







	Part#	Quantity	Net Contents	Container	Treat Rate
	105032	12/Case	32 fl. oz.	Bottle	32 oz. treats 250 Gallons
	105005	1	5 Gallons	Pail	5 Gallons treats 7,500 Gallons
į	105055	1	55 Gallons	Drum	55 Gallons treats 82,500 Gals.

# See Page 26 For Diesel Fuel



Cetane Enhancer



Cleaner



**Emergency Treatment** 

Additive Benefit Chart



Winter Protection



Effect on Water

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Customer Service:



## **Cold Weather Diesel Treatments**

Patented Technology For BioDiesel to Keep You On The Road In Cold Weather!

#### Winter Pow-R® Plus -Diesel Anti-Gel 2020's

- > Utilizes HAFI®, a hybrid polymer technology to:
  - Prevent fuel gelling
  - Prevent wax crystal formation
- > Reduces cold filter plug point by as much as 30°F
- > Contains cetane and restores fuel economy
- > Helps improve lubricity and prevent corrosion
- > Prevents ice crystal formation
- > ULSD compliant & Biodiesel compatible



Lowest Cost Per Treated Gallon!



Part#	Quantity	Net Contents	Container	Treat Rate
202012	12/Case	12 fl. oz.	Bottle	12 oz. treats 50 Gallons
202032	12/Case	32 fl. oz.	Bottle	32 oz. treats 250 Gallons
202055	1	55 Gallons	Drum	55 Gallons treats 82,500 Gals.

#### Winter Pow-R® Plus -BioDiesel Treatment 2026's

- > Utilizes HAFI®, a hybrid polymer technology to:
  - Prevent fuel gelling
  - Prevent wax crystal formation
- > Reduces cold filter plug point by as much as 30°F
- > Contains cetane and restores fuel economy
- > Helps improve lubricity and prevent corrosion
- > Prevents ice crystal formation
- > US Patent #8,349,033 ULSD compliant & Biodiesel compatible



BioReady™







Part#	Quantity	Net Contents	Container	Treat Rate
202612	12/Case	12 fl. oz.	Bottle	12 oz. treats 50 Gallons
202632	12/Case	32 fl. oz.	Bottle	32 oz. treats 250 Gallons
202605	1	5 Gallons	Pail	5 Gallons treats 7,500 Gals.
202655	1	55 Gallons	Drum	55 Gallons treats 82,500 Gals.

Compare The Value Of Penray Winter Pow-R® Plus Against Any Other Brand.

### **Penray Offers The Lowest Cost Per Treated Gallon!**

	COST	÷	TREAT RATE	i = (	COST/GAL.
202032	\$	÷	250 GALS.	=	\$
Other Brand	\$	÷		=	\$

Super concentrated product to give you the most for your money. Compare our products to any other. Do you really get all this anywhere else?

# ONE BOTTLE, **ONE TRUCK!**

	Pour Point	CFFP
Untreated Diesel Fuel	-15°F	-4°F
Penray 202032	-50°F	-24°F

Untreated Biodiesel	-5°F	-2°F
Penray 202632	-35°F	-6°F

See Page 26 For Diesel Fuel Additive Benefit Chart



Cetane Enhancer



Cleaner



**Emergency Treatment** 



Winter Protection



Effect on Water



## Diesel Fuel Treatments and Cleaners

# Winter Blend - Diesel Fuel Treatment 2030's

- > Utilizes HAFI®, a hybrid polymer technology to:
  - Prevent wax crystal formation
  - Prevent fuel gelling
- > Reduces cold filter plug point by as much as 30°F
- > Helps restore fuel economy
- > Helps improve lubricity and prevent corrosion
- > Prevents ice crystal formation
- > Highly concentrated for bulk fuel tanks
- > ULSD compliant & Biodiesel compatible



#### BioReady™



WINTER BLEND

Part#	Quantity	Net Contents	Container	Treat Rate
203025	2/Case	2.5 Gallons	Jug	2.5 Gallons treats 7,500 Gals.
203055	1	55 Gallons	Drum	55 Gallons treats 165,000 Gals.

# Winter Thaw® - Emergency Diesel Treatment 2021's

- > Emergency treatment de-ices frozen filters and fuel
  - Use one quart per 25 gallons
  - Use 1 gallon per 100 gallons
- > Prevents ice crystal build-up
- > Prevents fuel filter icing (use one quart per 125 gallons)
- > Reduces fuel line and filter clogging
- > Especially effective in biodiesel blended fuels
- > Extends filter life
- > Prevents water separation from fuel
- > ULSD Compliant & Biodiesel compatible

Works Instantly!



#### BioReady™



Part#	Quantity	Net Contents	Container	Treat Rate
202132	12/Case	32 fl. oz.	Bottle	32 oz. treats 125 Gallons
202101	4/Case	1 Gallon	Jug	1 Gallons treats 500 Gallons



# Winterizing Your Diesel Engine?

For more info scan the code to left with your smart phone or go to http://bit.ly/WinterDiesel



## **Diesel Fuel Test Kits**

#### Microbial Diesel Fuel Test BUGTEST6

Dip slide test shows bacteria and mold contamination in fuel within 48 hours



Part# Quantity
BUGTEST6 6/Case

#### Diesel Fuel Winter Test Kit WINTEST1

Fuel test for cold weather protection properties: Cold Filter Plug Point (CFPP,) Pour Point, and Cloud Point



Part# Quantity
WINTEST1 1/Case

Learn About Our Fuel Doctor Program On Page 22!

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# Diesel Fuel Treatments and Cleaners



	Penray Diesel Fuel Additives										
Bes	t For:	All Season			Winter			Light Duty			
Produc	ct Name	POW-R 365	POW-R Performance	Fuel Prep	Fuel Prep Biocide	Total Diesel Fuel System Cleaner	Winter POW-R Plus	Winter Blend Concentrate	Winter Thaw	Winter Cetane	Diesel Fuel Prep
Part N	umbers:	207064	208005	1000XX 2012XX	1002XX	1050XX	2020XX 2026XX	2030XX	2021XX	82012	81012
Feat	tures:										
	3-8 numbers per bottle									х	х
Cetane Enhancer:	One number per bottle	Х	Х								
©	Contains Cetane Enhancer					Х	х				
	Up to 30° CFPP reduction						X	Х		X	
Winter Protection:	Up to 20° CFPP reduction	X									
w	Emergency Treatment								Х		
	Disperses Wax	Х					X	×		Х	
Cleaner:	Cleans Up	Х	Х	Х		Х				Х	Х
(CL)	Helps Keep Clean						Х	Х			
Effect on	Water Neutral	х			х		Х	Х		×	
Water:	Disperses Water								Х		
	Displaces Water		Х	Х		Х					Х
	Enhances Lubricity	Х	Х			Х	Х	Х			Х
	Corrosion Control	Х	Х	Х	X	Х					Х
Additional Benefits:	Helps Control Microbes*		х	Х							
	Eliminates Microbes				Х						
	Stabilizer / Anti- Oxidant		×	Х							

<sup>\*</sup>Eliminates conditions conducive to microbial growth



## Starting Fluid #5301 And Premium Starting Fluid 5315

- > 5301 Starting Fluid designed for gasoline engines
- > 5315 Premium Starting Fluid designed for diesel engines
- > Produces quick, smooth starting of engines down to -70°F
- > Works under extreme cold conditions
- > Contains upper cylinder lubricant and corrosion inhibitors
- > Saves battery and ignition during cold weather



Part#	Quantity	Net Weight	Container	Ether Content
5301	12/Case	11 oz.	Aerosol Can	Standard
5315	12/Case	11 oz.	Aerosol Can	High

# Windshield Washer Antifreeze 5000's

- > Concentrated formula protects in temperatures as low as -30°F
- > Cleans and de-ices windshield and wiper blades
- > Saves expense of shipping water





Protects To -30°F!

Part#	Quantity	Net Contents	Container
5032	12/Case	32 fl. oz.	Bottle
5005	1	5 Gallons	Pail
5055	1	55 Gallons	Drum

# Air Brake Antifreeze 5600's

- > Protects air lines from moisture and freezing
- > Air dryer and rust/corrosion inhibitor
- > High purity formula provides protection to system components





Part#	Quantity	Net Contents	Container
5632	12/Case	32 fl. oz.	Bottle
5601	4/Case	1 Gallon	Jug
5655	1	55 Gallons	Drum

# Nox-Ice - Gas Line Antifreeze 5113

- > For gasoline and diesel engines
- > Unique formula absorbs twice as much moisture as methanol based products
- > Excellent in all fuel injected engines
- > Ensures trouble free winter starts

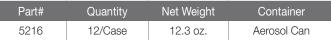




## Windshield Spray De-Icer 5216

- > Defrosts and melts ice instantly
- > Thaws frozen locks
- > Sprays in even the coldest temperatures (-25°F)
- > Safe for all car finishes
- > Harmless to painted rubber components









# Cooling System Filters

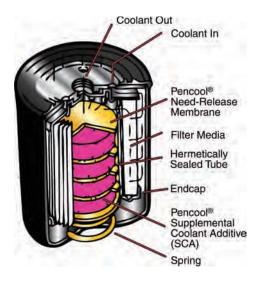
#### Need Release® - Extended Service Cooling System Filters & Element

- > Releases Supplemental Coolant Additives (SCA's) into the cooling system only when needed
- > Triple layer synthetic media filtration lasts 150K miles, 15 months, or 3K hours
- > Unique design senses the corrosivity of the coolant, keeping the system protected at all times
- > Extended service saves on labor costs and reduces filter inventory
- > Designed for use with conventional coolant

Part#	Quantity	Treats	Specifications
NF2088SM	12/ Case	8-20 Gals.	Standard filter bracket including Detroit Diesel, Caterpillar, Cummins, International engines. Thread size 11/16 X 16, OD 3.69"
NF20891SM	12/ Case	8-20 Gals.	Mack Mid-Liner, Mack V-8, 65, and Econo-Dyne series engines. Thread size ¾ X 20, OD 3.69"
NF2095SM	12/ Case	8-20 Gals.	Cummins ISX engine. Thread size M36 X 2.0, OD 3.75"
NF2096SM	12/ Case	8-20 Gals.	Mack MP7, MP8, Volvo D11, D13, and D16. Thread size M16 X 1.5, OD 3.69"
NF3088SM	12/ Case	8-20 Gals.	DD13, DD15, DD16. Drop-in cartridge



Tri-Lingual For Sale In USA & Canada!



### Pencool® 3000 - Cooling System Filter with Stabil-Aid® NF3000

- > Filter with one pint equivalent (single charge) of Pencool® 3000 (Supplemental Coolant Additive)
- > Includes cooling system corrosion inhibitor and stabilizer
- > Stops coolant gel formation and helps control foaming
- > Recommend coolant testing/ filter replacement every 30,000 miles
- > Compatible with conventional coolants



Same Great Pencool® Product In A Filter!

Part#	Quantity	Treats	Specifications
NF3000	12/ Case	8-20 Gals.	Standard filter bracket- Detroit Diesel, Caterpillar, Cummins, International, etc. engines. Thread size 11/16 X 16, OD 3.69"

#### Synthetic Media Blank Coolant Filter NF2999SM & Element NF3999SM



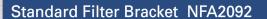
- > Triple layer **synthetic** media filtration
- > Long life filter lasts 150K miles, 15 months, or 3K hours
- > For use with ELC (Extended Life Coolants) and conventional coolants
- > Features inner shell with durable epoxy coating to prevent internal filter corrosion



Part#	Quantity	Treats	Specifications
NF2999SM	12/ Case	8-20 Gals.	Standard filter bracket- Detroit Diesel, Caterpillar, Cummins, International, etc. engines. Thread size 11/16 X 16, OD 3.69"
NF3999SM	12/ Case	8-20 Gals.	DD13, DD15, DD16. Drop-in cartridge.

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# Heavy Duty Cooling System Products



> Fits thread size 11/16 X 16, OD 3.69"



Part# Quantity NFK2092

## Cummins ISX Filter Adapter NFA1000

> For use with NF2088SM, NF3000 or NF2999SM filters



Part# Quantity NFA1000

### Volvo Filter Adapter VFA1000

> For use with NF2088SM, NF3000 or NF2999SM filters



Quantity Part# VFA1000

#### Coolant Lab Test Kit PTK103

> Expert lab coolant analysis



Expert Test Data Report Color and Appearance \* pH by ASTM D12871 Varies by inhibitor Family 6 Antifreeze from chart 40-60% is generally recom reezing Point<sup>2</sup> by ASTM D33211 ron (4g/g B) ASTM D 6130 pH buffer ybdenum (µglg Mo) ASTM D 61301 lles (mgll) by ASTM D 58271 ales (mgll) by ASTM D 58271 sphate (mg/l) by ASTM D 5827 on (ug/g SI) by ASTM D 6130

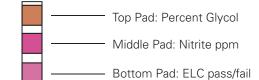
### Refractometer CTX1, CTX2

> Tests Coolant freezing points of Ethylene & Propylene Glycol



Part#	Quantity	Type
CTX1	1	Centigrade
CTX2	1	Fahrenheit

# **Coolant Test Strips**





- > For use in nitrited heavy duty coolants, including extended life coolant (ELC)
- > Accurate results in 2 minutes
- > Tests for dilution/contamination and chemical protection in extended life coolant
- > Quick and accurate results in minutes
- > Effectively tests freeze point of conventional coolants
- > Accurately tests SCA (nitrite) concentrations in conventional coolants



Part#	Quantity Per Bottle	Quantity Per Case
TS200	25 Strips/Bottle	12 Bottles/Case



### 2-Way Heavy Duty Test Strips TS100

- > For use in nitrited (fully formulated) conventional heavy duty coolants
- > Accurate results in 2 minutes
- > Determines freeze point and nitrite levels



Part#	Quantity Per Bottle	Quantity Per Case
TS100	50 Strips/Bottle	12 Bottles/Case

#### Not Sure What To Do?

Scan code or visit http://bit.ly/CoolantGuide Let our online coolant service guide direct you.



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# Liquid Supplemental Coolant Additive (SCA) Treatments

### Pencool® 2000 - Cooling System Treatment 2000's

- > Reduces corrosion, cavitation erosion, and liner pitting
- > Lubricates water pump and other metal surfaces to reduce wear
- > Controls formation of harmful scale deposits



Designed For Marine And Water-Only Cooling System Applications

PENCOOL 20

Part#	Quantity	Net Contents	Container
200016	12/Case	16 fl. oz.	Bottle
200064	6/Case	1/2 Gallon	Jug
200005	1	5 Gallons	Pail
200055	1	55 Gallons	Drum

Protects Metals In All Conventional Heavy Duty Cooling Systems

### Pencool® 3000 With Stabil-Aid® -Cooling System Treatment 3000's

- > Stabil-Aid® prevents the formation of gel deposits that plug radiator passages, aftercoolers, and oil coolers
- > Maintains proper cooling system heat transfer characteristics resulting in longer engine life
- > Reduces corrosion, cavitation erosion, and liner pitting
- > Lubricates water pump and other metal surfaces to reduce wear
- > Controls formation of harmful scale deposits
- > Buffers pH to protect against acid caused by glycol degradation



Part#	Quantity	Net Contents	Container
300016	12/Case	16 fl. oz.	Bottle
300064	6/Case	1/2 Gallon	Jug
300005	1	5 Gallons	Pail
300055	1	55 Gallons	Drum

# **Cooling System Cleaners**

### 2001 On-Line Cooling System Cleaner 2001's

- > Cleans diesel engine cooling systems while remaining in service
- > Add to cooling system every 20,000 miles before drain and fill
- > Can also be used as a 20-minute flush
- > Removes scale, corrosion, mineral and oxide deposits
- > Cost effective, time-saving alternative to off-line cleaning
- > Safe for seals and metals
- > Safe for use with all coolant formulations



Part#	Quantity	Net Contents	Container
200164	6/Case	1/2 Gallon	Jug
200105	1	5 Gallons	Pail
200155	1	55 Gallons	Drum

### Oil Purge Cooling System Cleaner 200264

- > Specialized cleaner removes oil, hydraulic and transmission fluid from the cooling system
- > Removes dropout, silicate gel, scale buildup and other deposits
- > Low suds detergent flushes easily from system with 1-2 rinses
- > Safe for seals and metals
- > Safe for use with all coolant formulations



Part#	Quantity	Net Contents	Container
200264	6/Case	1/2 Gallon	Jug

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# Heavy Duty Cooling System Products

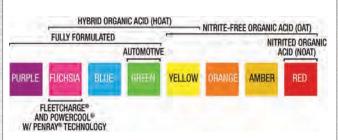
# Off-Line Cooling System Cleaner and Conditioner 201549

- Off-Line Engine Cooling
  System Conditions
  System Conditions
- > Twin Pac includes 2010 Cleaner and 2011 Conditioner
- > Provides deep cleaning for entire cooling system
- > Eliminates all deposits to restore cooling system to "like-new" condition
- > Removes dropout, oil, corrosion and harmful deposits such as hard water and heavy scale
- Ideal for industrial applications such as mining and off-road construction equipment
- > Safe for use with all coolant formulations



Part#	Quantity	Net Contents	Container
201549	2 Twin Pacs/ Case	Each Twin Pac contains one 8 lb. bottle of 2010 and 2011	Bottle

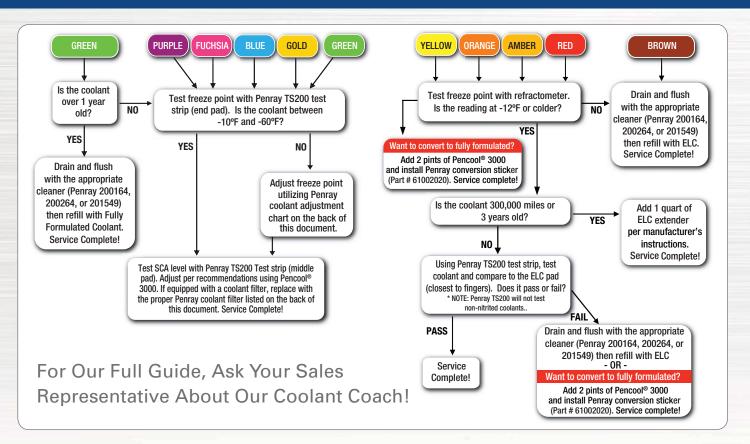
## Coolant Colors



Color should not be used to determine the type of coolant. The colors to the right generally fall into the shown categories, but not always. Penray recommends the use of an antifreeze that meets TMC RP 329 or ASTM D-6210 specifications.

For a tested and proven cooling maintenance procedure, use Penray's FILL-FOR-LIFE® program. Utilize NEED-RELEASE® filters to protect your engine for 150,000 miles, or use PENCOOL® cooling system liquids and maintenance filters.

## **Coolant Coach**





For 65 Years Penray Has Offered A Full Line Of Chemical Products To Meet Your Automotive, Heavy Duty, Marine And Industrial Needs.























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