

Precision Cleaning Products

September 2011 Edition



Precision Cleaning Products

For over 25 years, Petroferm has pioneered next generation cleaning products. Marketed under the AXAREL®, BIOACT®, CleanSafe™, LENIUM® and RustSafe™ brands, these products have been specially formulated to meet the increasingly rigorous demands for exceptional performance, broad materials compatibility and low environmental impact.

Petroferm cleaning products are used in the following markets:

- Aerospace
- Appliance
- Automotive
- Defense
- Electronics
- Surface Coatings
- Metal Fabrication
- Heavy Transportation
- Medical Device
- Optics

Common applications using Petroferm cleaning products include the following:

- Removal of greases, lubricants, oils
- Removal of oxides and particulate
- Removal of surface coatings
- Removal of adhesive bonding agents
- Removal of waxes and binding agents
- Removal of solder paste and flux residues
- Cleaning prior to surface coatings
- Cleaning prior to assembly
- Cleaning prior to welding
- Cleaning prior to inspection
- Cleaning prior to final packaging
- Cleaning prior to subsequent operations

AQUEOUS CLEANERS

Petroferm offers high-performance, aqueous cleaning products designed for use in spray, immersion and ultrasonic applications. These products exhibit the lowest environmental, health and safety impact while providing the flexibility of adjusting concentrations and temperatures for optimal cleaning results.

Product	pH (10%)	Process	Features
CleanSafe 787C	11.2	Spray	<ul style="list-style-type: none"> • Lowest foaming product in marketplace • Safe for use on all metals, plastics, composites • Aerospace & SCAQMD approved
CleanSafe 7448	12.4	Spray	<ul style="list-style-type: none"> • Removes heavy greases, lubricants, oils • Safe for use on ferrous alloys only • Contains steel corrosion inhibitors
CleanSafe 686	12.3	Immersion Ultrasonic	<ul style="list-style-type: none"> • Proven cleaning ability on carbon, corrosion inhibitors, greases, lubricants, metalworking fluids, oils • Safe for use on metals and plastics • Contains steel corrosion inhibitors • Very low VOCs (0.28 g/l at 10%)
CleanSafe 585	11.2	Ultrasonic	<ul style="list-style-type: none"> • Removes coolants, oils, particulates • Safe for use on metals and plastics (PEEK, UHMWPE) • Commonly used in medical device cleaning
CleanSafe 50E Plus	5.5	Immersion Ultrasonic	<ul style="list-style-type: none"> • Cleans and brightens copper, brass, bronze • Replaces aggressive bright dip chemicals • Designed with oxidation inhibitors

SOLVENT CLEANERS

Petroferm manufactures a full range of cleaning products designed as drop-in replacements for acetone, isopropyl alcohol (IPA), methyl ethyl ketone (MEK), methyl propyl ketone (MPK), mineral spirits as well as other hazardous solvents. Benefits include lower exposure and fire risk, improved cleaning performance and reduced VOC emissions.

Product	Flash Point	Process	Features
BIOACT 105	105°F (41°C)	Manual Immersion	<ul style="list-style-type: none"> • Popular manual solvent for cleaning and surface preparation • Removes adhesives, greases, oils, silicones, waxes • Available in liquid and pre-saturated wipes
AXAREL 1000	127°F (53°C)	Manual Immersion	<ul style="list-style-type: none"> • Low odor solvent with fast dry times • Removes greases, hydraulic fluids, lubricants, oils • Low non-volatile residue (NVR)
AXAREL 2000	144°F (62°C)	Manual Immersion	<ul style="list-style-type: none"> • Drop-in replacement for mineral spirits, Stoddard solvent • Low odor solvent with moderate dry times • Preferred cleaner for hydrocarbon cleaning equipment
AXAREL 3000	205°F (96°C)	Manual Immersion	<ul style="list-style-type: none"> • Removes greases and high melt point soils • May be operated at elevated temperatures • Controlled evaporation provides corrosion prevention
BIOACT 280	285°F (141°C)	Immersion	<ul style="list-style-type: none"> • Removes wax, pitch and high melt point soils • Replaces TCE, PERC and petroleum derived solvents • Bio-based solvent with high soil loading capabilities

VAPOR DEGREASING

Petroferm offers a complete line of SNAP approved vapor degreasing solvents suitable for replacing trichloroethylene (TCE), perchloroethylene (PERC), methylene chloride (MeCl) and HCFC-225. These products were developed to operate in open-top and vacuum vapor degreasing equipment.

Product	Boiling Point	Type	Features
LENIUM XS	156°F (69°C)	<i>n</i> -Propyl bromide	<ul style="list-style-type: none"> • Highest stabilized nPB solvent in marketplace • Removes heavy greases, lubricants, oils, waxes • Tested to be compatible with all metals
LENIUM ES	154°F (68°C)	<i>n</i> -Propyl bromide	<ul style="list-style-type: none"> • Excellent solvency for polar soils including flux residues and particulate removal • Compatible with metals including those found on circuit boards • Azeotropic blend with isopropyl alcohol
LENIUM FHD	106°F (41°C)	Hydrofluorocarbon	<ul style="list-style-type: none"> • Non-ozone depleting • Removes buffing compounds, greases, oils, waxes • Tested to be compatible with all metals and some plastics

CORROSION INHIBITORS

Petroferm offers a complete line of corrosion inhibiting products designed to provide both short and long-term protection.

Product	Type	Conc.	Process	Features
RustSafe 27 SDST	Aqueous	1–5%	Immersion Spray	<ul style="list-style-type: none"> • 30-60 days protection • Ultra thin film • Low foaming • Accepts some coatings
RustSafe 2400	Solvent-based	100%	Immersion Spray	<ul style="list-style-type: none"> • Up to 2 years protection • Dry, ultra thin film • Does not stain • Water displacing



Petroferm Inc.

3938 Porett Drive
Gurnee, Illinois 60031

T 800 432 7187 or 847 244 3410

F 847 249 6346

E precision@petroferm.com

www.petroferm.com

AXAREL, BIOACT, LENIUM are registered trademarks of Vantage Specialties, Inc.
CleanSafe and RustSafe are trademarks of Vantage Specialties, Inc.

A Vantage Specialty Chemicals Business