FOOD, BEVERAGE, AND PHARMACEUTICAL

HIGH PERFORMANCE LUBRICATION AND MAINTENANCE SOLUTIONS

CHESTERTON®
Global Solutions, Local Service.

Reliability and Mainte

OPERATIONAL SUCCESS

Chesterton's high-performing, NSF® registered lubricants, maintenance solutions, cleaners, and degreasers offer:

- Innovative solutions designed to withstand extreme operating conditions
- Optimal levels of process performance improvements
- Extended equipment life and lower overall operational costs
- Maximized uptime and reduced maintenance time

CERTIFICATION AND QUALITY

Our advanced technologies and stringent manufacturing/testing processes provide you with superior quality products you can rely on. We have a wide range of lubrication and maintenance products registered to NSF standards. Our manufacturing and testing processes are independently audited by the International Organization for Standardization (ISO).

SAFETY AND INTEGRITY

Our NSF Registered lubrication and maintenance solutions will help you:

- Maintain the integrity of your products and comply with inspection requirements
- Comply with federal regulations
- Reduce contamination due to washout and wash off
- Permit plant wide use and standardization due to our performance-driven design

LOCAL SERVICE AND SUPPORT

Chesterton is a global company committed to local support and services. In partnership with our distributors, we provide world-class technical support with over 500 sales/service locations in 113 countries. This local services means:

- A quick turnaround on your orders
- Local expertise for plant surveys and applications-specific support
- A local representative who can best understand your unique challenges

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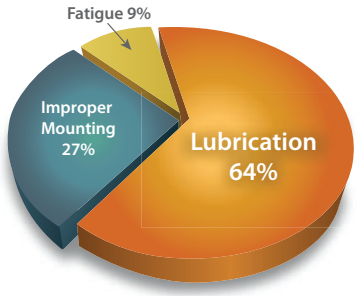
IMPROVE BEARING RELIABILITY

Food, beverage, and pharmaceutical facilities are subjected to extreme temperatures, heavy loads, high humidity, water, and chemical wash down. This often leads to displacement and degradation of lubricants and increases the occurrence of equipment failure.

Chesterton's bearing lubrication solutions address the primary causes of bearing failure, offering you the ability to significantly improve operational reliability and lower your maintenance and production costs providing:

- Exceptional water and chemical washout resistance greases
- Excellent corrosion protection
- High load carrying ability
- QBT™ (Quiet Bearing Technology)
- Automatic grease dispensing
- Reduced lubricant consumption



Sixty-four percent of bearing failures are lubrication related. Less than 9% of bearings reach their L10 design life expectancy.

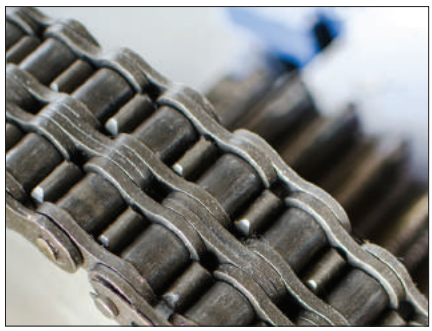
Source: American Bearing Manufacturers Association (ABMA)

EXTEND EQUIPMENT LIFE FOR CHAIN DRIVES

Most factories operate in severe conditions, so equipment wear and eventual failure is inevitable. Chains, pneumatic controls, wire ropes, open gears, and threaded parts are critical components in everyday processes and extending their life can help reduce downtime and loss of productivity that can increase operating costs.

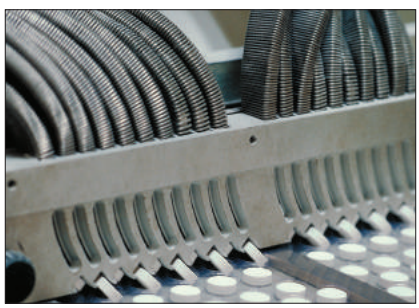
Chesterton offers a range of lubricants that extends the life of equipment by improving reliability and productivity and by reducing costs while maintaining the high quality standards required.

- Improved process efficiency
- Reduced energy consumption



MAINTAIN PLANT EQUIPMENT

Ensuring product safety is the number one priority, and this can be achieved only by maintaining plant equipment at a high level of cleanliness.



Chesterton offers a broad range of maintenance and repair technologies that work on varying levels of soils and surfaces. We provide solutions that are worker- and environmentally-safe for:

- Machinery/plant cleaning and degreasing
- Maintenance shop degreasing and cleaning
- Electrical cleaning
- Parts degreasing

Industrial Grease Technology

IMPROVE BEARING RELIABILITY

Chesterton's high performance greases offer extended bearing life and reliability even under the harshest conditions of load, temperature, water, and corrosion. We have a full line of NSF certified H1 and H2 greases that address many bearing lubrication challenges that plague the food, beverage, and pharmaceutical industry.

Bearing Lubricants

622 White Grease

Superior Quality, Multi-Purpose H1 Food Grade Lubricant

PTFE-fortified mineral oil grease for areas where clean, non-staining, food grade lubricant is required. **NSF H1**

- Virtually colorless, odorless, and tasteless
- Excellent water and corrosion-resistance

Applications: Rollers, conveyor belts, valves, carton filling equipment, and meat packing equipment.

625 CXF

Corrosion-Resistant, Extreme-Pressure Food Grease

High performance, corrosion-resistant grease with outstanding pressure capabilities and excellent water washout resistance. **NSF H1**

- Pure USP white mineral oil base
- Exceptional shear resistance
- Superior resistance to shock load and vibration

Applications: Fruit feeders, paste and sauce fillers, canning machinery, and processing and packaging machines.

629 HTWG

High-Temperature White Grease

Premium quality, pure mineral oil, and PTFE-fortified grease with excellent resistance to steam, caustics, and other cleaning agents. **NSF H1**

- Virtually colorless, odorless, and tasteless
- Smooth, tacky texture adheres to metal
- Excellent water resistance

Applications: Slides, grease-lubricated chains, textile machinery, paste and sauce fillers, canning machinery.

630 SXCF

Corrosion-Resistant, Extreme-Pressure Food Grease

High performance, corrosion-inhibited synthetic grease with outstanding extreme pressure capabilities and excellent water washout resistance. **NSF H1**

- Contains anti-oxidants that prevent hardening or crystallization
- Excellent shear stability
- Nonreactive with all metals, rubber, and plastics
- No heavy metal additives

Applications: Suitable for all bearings operating at higher speeds or cold temperatures, electric motors, canning machinery, and packaging machines.

630 SXCF 220 #1

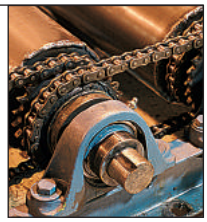
Synthetic, Extreme-Pressure, Corrosion-Resistant Food Grease

Corrosion-inhibited synthetic grease that continues to lubricate even in the presence of heat, steam, and hot water washdowns. **NSF H1**

- Easy to pump through centralized lines
- Superior water sprayoff and washout resistance
- Acid- and sanitizer-resistant
- Antioxidants that prevent hardening or crystallization

Applications: Medium to large bearings or bearings at slow speeds, bottle washers, mixers, pasteurizers, canning lines, pelletizers, and extruders.

615 HTG #1, #2, and #2-460



High-Temperature Grease

High performance, mineral base grease for use on slower moving, heavily loaded bearings. **NSF H2**

- **615 #1 and #2:**
  - Outstanding shear- and corrosion-resistance
  - Easily pumpable with automatic grease dispensers
- **615 # 2-460:**
  - Extremely low water washout
  - For slower moving, heavily loaded bearings

Applications: Bearings, conveyors, mechanical presses, blowers, crushers, mixers, augers, and screw conveyors.

635 SXC

Synthetic, Extreme-Pressure, Corrosion-Resistant Grease

Synthetic, extreme-pressure, and corrosion-resistant grease with superior high-temperature stability. Ideal for the lubrication of electric motors. **NSF H2**

- Excellent resistance to shock load and vibration
- Superior water washout resistance
- Compatible with most greases

Applications: Electric motor bearings, hot process fluid systems, fans and blowers, conveyors, and ovens.

Industrial Grease Technology Selection Guide

	615 HTG #1	615 HTG #2	615 HTG #2-460	622 White Grease	625 CXF	629 HTWG	630 SXCF	635 SXC
Thickener	Calcium Sulfonate Complex	Calcium Sulfonate Complex	Calcium Sulfonate Complex	Aluminum Complex	Calcium Sulfonate Complex	Inorganic	Calcium Sulfonate Complex	Calcium Sulfonate Complex
Base Oil	Mineral	Mineral	Mineral	Mineral	Mineral	Synthetic Mineral (PAO) Blend	Synthetic (PAO)	Synthetic (PAO)
NLGI Grade	1	2	2	2	2	2	2	2
Base Oil Viscosity	100	100	460	100	100	220	40	100
Dropping Point ASTM D2265	300°C (572°F)	318°C (604°F)	300°C (572°F)	245°C (473°F)	318°C (604°F)	260°C (500°F)	318°C (604°F)	318°C (604°F)
Service Temp.	-45°C – 204°C (-50°F – 400°F)	-40°C – 204°C (-40°F – 400°F)	-40°C – 204°C (-40°F – 400°F)	-23°C – 170°C (-10°F – 338°F)	-30°C – 204°C (-22°F – 400°F)	-34°C – 204°C (-29°F – 400°F)	-40°C – 240°C (-40°F – 464°F)	-40°C – 240°C (-40°F – 464°F)
Four Ball Wear Weld Load, ASTM D2596	620 Kg	620 Kg	500 Kg	250 Kg	620 Kg	160 Kg	620 Kg	800 Kg
Water Washout Resistance ASTM D1264	<1.0	<0.5	<3.0	2.45	<0.05	<0.2	<0.05	<0.05
Corrosion Resistance ASTM B117	>1000 hours @50 microns	>1000 hours @50 microns	>1000 hours @50 microns	500 hours @50 microns	>1000 hours @50 microns	50 hours @50 microns	>1000 hours @50 microns	>1000 hours @50 microns
Speed Factor	70000 – 300000 nDm	70000 – 300000 nDm	70000 – 300000 nDm	50000 – 300000 nDm	75000 – 250000 nDm	50000 – 300000 nDm	150000 – 800000 nDm	78000 – 500000 nDm

Advanced Oil Technology

EXTEND EQUIPMENT LIFE FOR CHAIN DRIVES

Chesterton's advanced oil technologies help to extend equipment life and improve reliability by providing long-term protection in harsh conditions and resulting in lower operating costs.

Industrial Lubricants

660 Silicone Lubricant

Low Viscosity Penetrating Food Grade Lubricant

A clear, silicone fluid that provides continuous film lubrication for mechanical parts and sliding surfaces. **NSF H1**

- Stable, long lasting lubricant
- Does not stain or leave gummy residue
- Excellent release agent
- Makes surfaces water-resistant
- Non-toxic and fire-resistant

Applications: Plastic gears, plastic conveyor belts, rollers, rubber gaskets, chains with plastic bushings.

660 is not recommended for metal-to-metal lubrication.

690 Food Grade Lubricant

USP White Food Grade, High-Penetrating Lubricating Oil

Premium quality, light oil that penetrates between the close clearance of precision parts, such as chain bushings and pins, to provide critical lubrication. **NSF H1**

- Clear, odorless, and non-staining
- No dirt, dust, or stick residue build up
- Non-drying film extends chain life two to four times
- Three times greater load carrying ability compared to mineral oil

Applications: Chain drives for assembly lines, conveyors, packaging equipment, hoist chains and links, and roller assemblies.

601 Chain Drive Pin and Bushing Lubricant

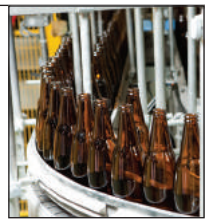
Premium, Low Viscosity Lubricant

Penetrates the pin and bushing to provide critical lubrication and wear resistance. **NSF H2**

- Corrosion-inhibiting properties
- Extends chain life up to two to four times
- Extreme pressure additives increase load carrying ability
- Keeps chain clean; does not collect dirt and dust

Applications: Chain drives for assembly and packaging lines, power transmission chains, conveyor drives, chain hoists, and forklift trucks.

652 Pneumatic Lubricant and Conditioner



High Performance, Low Viscosity Lubricant

Cleans, protects, and prolongs the life of pneumatic equipment. **NSF H2**

- Reduces sticky sludge build up
- Displaces in-line moisture
- Prolongs life of air systems
- Significantly reduces power consumption
- Cleans rust, sludge, and dirt from all air tools as it lubricates

Applications: Air tools, solenoids and cylinders, air line lubricators, and pneumatic actuators.

715 Spraflex® Gold

Adhesive Surface Lubricant

Provides long-lasting, non-extruding "wear shield" to protect equipment operating under heavy loads. **NSF H2**

- Does not slide off like grease
- Protects against corrosion
- Non-drip, self-adhering flexible lubricant
- Does not wash off, even under water

Applications: Chain drives, open gears, hoists, wire ropes and cables, rotary feeders, and conveyor chains.

– = Not Applicable

◊ = Not Determined

Advanced Oil Technology Selection Guide

	601 Chain Drive Pin and Bushing Lubricant	652 Pneumatic Lubricant and Conditioner	660 Silicone Lubricant	690 FG	715 Gold
Base Oil	Mineral	Mineral	Silicone	Mineral	Semisynthetic
ISO VG (ASTM D2422)	22	22	–	22	–
Operating Temperature	-23°C – 150°C (-10°F – 300°F)	-23°C – 150°C (-10°F – 300°F)	-40°C – 205°C (-40°F – 401°F)	-9°C – 120°C (16°F – 248°F)	◊
Specific Gravity	0.90	0.90	0.98	0.88	0.89
Viscosity @ 40 C (cSt) (ASTM D445)	22	22	377	22	9600
Viscosity @ 100 C (cSt) (ASTM D445)	4	4	156	<4	393
Viscosity Index (ASTM D2270)	58	58	447	49	179
Pour Point (ASTM D97)	-25°C (-13°F)	-25°C (-13°F)	-50°C (-58°F)	-40°C (-40°F)	◊

Automatic Lubrication Dispensers

Over- and under-lubrication can cause havoc on bearings and equipment reliability. Lubri-Cup™ Automatic Lubricant Dispensers delivers a precise amount of industrial grease or oil at specific intervals, which addresses the primary cause of premature bearing failure. The automatic dispensers are ideal for applications where reliability is critical. The ideal temperature range for an alkaline battery is -15˚C – 60˚C (5˚F – 140˚F) and for a lithium battery it is -40˚C – 60˚C (-40˚F – 140˚F).

Lubri-Cup™ EM Series

Electromechanical Automatic Grease Dispenser

Our most powerful and sophisticated dispenser. Microprocessor controlled and electromechanical automatic lubricator equipped with a divider block to lubricate multiple bearings. These robust units have a compact, convenient, and sturdy design that is simple to install, operate, and maintain.

EM: Primary Unit, Microprocessor "Pulse" Delivery System

EM-S: Operation is Machine Synchronized

EM-SP: Machine Synchronized, External Machine Powered

EM-VS: Vibration Sensing Machine Synchronized

- Replaceable service packs
- Lubricates up to 8 bearings with divider block
- Single-point dispensing up to 10 M (33 ft)
- LCD with visual feedback
- Multiple point dispensing up to 6 M (19 ft)

Lubri-Cup™ OL 500 Oiler

"Pulse" Delivery; Automatic Lubrication System

Delivers a precise amount of oil lubrication to the vital parts of rotating or sliding equipment.

- Easily refillable
- Lubricates up to 4 points up to 6 M (19 ft)
- Single-point dispensing up to 10 M (33 ft)
- Diagnostic feedback on LCD screen

Lubri-Cup™ VG/VG Mini

Variable Gas, Single-Point Automatic Lubrication System

Compact, reliable, easy to use set. Micro-processor controlled and actuated with thermally stable nitrogen gas to automatically deliver grease to bearings. Ideal for areas that are difficult to reach for regular lubrication.

- Disposable unit, direct mount to equipment
- Remote installation: up to 1 M (3 ft)

Maintenance Specialties

MAINTAIN PLANT EQUIPMENT

Daily equipment maintenance often requires the use of many different MRO products these are critical to performing high quality, fast turnarounds. Chesterton's maintenance specialty products provide superior performance the first time, which result in improved productivity and quality.

Bolting Reliability and Sealing Solutions

723 and 723FG Sprasolvo™

Fast-Acting, Penetrating Oil

A convenient, non-flammable propellant aerosol can. Excellent for hard-to-reach areas where rust, tar, grease, and dirt may prevent easy removal of nuts, bolts, and fittings. **723** is **NSF H2; 723FG** is **NSF H1**

- Extremely low surface tension
- No irritating vapors
- Creeps into microscopic spaces
- Contains no aromatics, ketones, or chlorinated solvents

Applications: Plumbing, machinery, trucks, pipelines, railroads, tractors, steam and gas fittings, valves, and pumps.

785 FG Parting Lubricants

Food Grade Anti-Seize Compound

For extreme conditions of temperature and pressure to assist in the assembly and disassembly of threaded parts. **NSF H1**

- -34˚C – 1204˚C (-29˚F – 2200˚F)
- Contains no toxic heavy metals
- Water and chemical resistance
- Prevents bolt seizure for easy disassembly

Applications: Bolts, screws, studs, pipe threads, press fits, and pump sleeves.

800 GoldEnd® Tape

100% Pure PTFE Sealant Tape

Heavy-duty, high-density, tear-resistant, moldable, PTFE sealing tape for metal or plastic threads, pipes, or bolts. Requires fewer wraps. Meets MIL-T 27730A. **NSF H1, P1**

- -240˚C– 260˚C (-400 – 500˚F)
- Adjustable up to 90˚
- Can be used with virtually all chemicals

Applications: Seals all plumbing and most industrial piping threads and pneumatic and hydraulic fittings up to 690 bar (10000 psi).

860 Moldable Polymer Gasketing

Flexible Gasketing Material

Two-part, flexible gasket material which fills in surface irregularities, and never sticks to surfaces after curing. **Conforms to FDA standards 21CFR 175.300 and 177.2600. NSF P1**

- Up to 260˚C (500˚F)
- Gap filling up to 6 mm (1/2")
- Remains elastic and stable
- Molds to any shape flange

Applications: For sealing complex mechanical assemblies, gearboxes, inspection covers, transmissions, bearing housings, and speed differentials.

3500 Valvelon™

PTFE Packing/Sealant

A dense, multi-layered, 100% PTFE sealant used as a non-hardening valve packing or flange gasket. The unique construction allows it to squeeze in all directions to fill voids and conform to surface shapes. **NSF P1**

- -240˚C – 260˚C (-400˚F – 500˚F)
- Pressure up to 35 kg/cm^2 (500 psi).
- pH range 0 – 14
- Non-reactive to most chemicals except oxygen

Applications: Utility system valves such as water, vacuum compressed air, lubrication lines, hot water, steam, process valves, and valve packing

Corrosion Inhibitors and Compounds

Chesterton offers three solutions for cost-effective protection of critical replacement parts.

740 Heavy Duty Rust Guard

Heavy-Duty Corrosion Preventative Coating

Long-term, corrosion-preventative coating provides heavy-duty metal protection without critical surface preparation to all areas constantly exposed to humidity and corrosive fumes. **Conforms to MIL-C-16173D, Grades 1 and 4**

- Does not crack or peel
- Protection for up to two years

Applications: Parts in storage such as machinery, tubing, castings, rods, jigs and fixtures, stampings, pumps, fittings, valves, and indoor structural steel.

Product can be easily removed with Chesterton's 276 Electronic Component Cleaner or 274 Industrial Degreaser.

775 Moisture Shield

Ultra Thin, Anti-Corrosion Coating

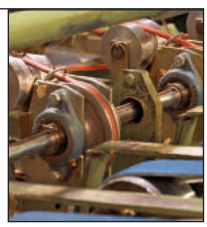
Clear, moisture displacing, anti-corrosion film that protects metal parts and equipment for months. **Conforms to MIL-C-16173D, Grade 3. NSF H2**

- High coverage 30 m^2/l (1200 ft^2/gal)
- Dry film, does not collect dust

Applications: Parts in process, transit, or storage; electrical systems; and the marine industry.

775 is easily removed with Chesterton's water or solvent-based cleaners. Use Chesterton's 740 Heavy Duty Rust Guard where long-term protection is needed.

730 Spragrip®



Belt Dressing

Superior, energy-efficient belt dressing in a convenient aerosol package. Reduces belt slippage for all V, flat, and round belts. Protects against degradation from UV rays, chemical fumes, and water. **NSF P1**

- Non-staining
- No glazing or hardening
- Waterproofs and protects against slipping even under the most humid conditions

Applications: Belt drives, fans, industrial equipment, package conveyors, conveyor belts, generators, pumps, compressors, and indoor or outdoor applications.

Metalworking Fluids

390 Cutting Oil

Oil-Based Cutting Fluid for All Types of Metal Cutting and Forming

A high viscosity, oil-based lubricant reinforced for heavy-duty machining applications. **NSF H2**

- Extends tool life
- Excellent lubricity and heat dissipation

Applications: Broaching, boring, drilling, sawing, reaming, milling, tapping, and countersinking.

Seal Equipment Easily with 860 Moldable Polymer Gasketing

- Excellent resistance to oils, water, chemicals, and solvents
- Never sticks to surfaces and disassembles cleanly
- Conforms to FDA standard 21 CFR 175.300 and 177.2600
- Ideal applications: Inspection covers, gearboxes, bearing housings, fittings, casings, electrical boxes, and pneumatic systems
- Fills voids and scratches up to 6 mm (1/4") deep
- Remains elastic

Cleaners and Degreasers

MAINTAIN PLANT EQUIPMENT

Chesterton offers a range of water- and solvent-based cleaners and degreasers perfect for your cleaning and maintenance needs.

Water-Based Cleaners/Degreasers

360 Phosphate-Free Cleaner*

Cleaner for Natural Oils, Fats, and Organic Residues

A powerful, water-based degreaser optimized to remove natural oils and fats commonly used in the food industry. **NSF A1, A4**

- Biodegradable, non-flammable and phosphate free
- No EDTA, Butyl Cellosolve®, or toxic solvents
- Removes inorganic and light-to-medium organic soils
- Saponifies natural oils and animal fats

Applications: Removing natural oils and greases from process equipment, plant walls, and floors.

803 Industrial and Marine Solvent II*

Emulsifies Grease and Oils

A nonsolvent-based degreaser with advanced surfactant technology for maximum efficiency in soil removal. **NSF A1**

- Biodegradable and non-flammable
- Fast removal: petroleum oil and grease
- No EDTA, 2-Butoxyethanol, or toxic solvents
- Compatible with pressure washers and oil tanks

Applications: General degreasing of plant equipment, concrete floors, masonry walls, and other hard surfaces.

Use Chesterton 235 SSC for steam cleaning applications

820 KPC and 820N KPC

Eco-Friendly, Powerful Degreaser

Ideal choice for process degreasing. **820 KPC is NSF A1; 820N KPC is NSF A1, A4**

- Moderate pH, phosphate free
- Safe on most metals
- Effective for dip tank cleaning when heated
- May be used in temperatures up to 82˚C (180˚F)

Applications: Oil deposits, soot and exhaust residue, metalworking fluids, animal and vegetable fats, lubricants, and soils common in production areas.

Electrical Cleaners/Degreasers

273 Electric Motor Cleaner

Non-Flammable, Non-Conductive

A non-corrosive, solvent-based degreaser. Product can be used on operating equipment and electrical systems to cut through tough grease, dirt, grime, tar, and oil found in industry. **NSF H2**

- High dielectric strength
- Fast penetration, high solvency
- Non-flammable

Applications: Cleans electrical equipment, electric motors, fuse holders, and blowers.

276 Electronic Component Cleaner

Fast-Evaporating, Industrial-Strength, Solvent-Based Cleaner/Degreaser

Contains no ozone depleting solvents. Product is compatible with most surfaces; to remove dust, dirt, oil, and other soils. **NSF K2**

- Cleans quickly, evaporates rapidly
- Halogen-free and no ozone-depleting chemicals
- Low residue

Applications: Spray cleaning, switches, controllers, panel meters, circuit boards, contacts, levers, and control panels.

279 PCS** and 296 Electronic Contact Cleaner

Fast Evaporating, High-Purity, Low-Residue Cleaner

Environmentally responsible alternative to hazardous solvents. Removes dust, dirt, and organic residues from electrical and optical components. **NSF K2**

- Fast evaporating, no residue
- No ozone-depleting chemicals
- No plastic attack

Applications: Controllers, panel meters, circuit boards, contacts, motorized instruments, and control panels.

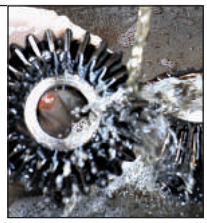
CHESTERTON Global Solutions, Local Service.

** Chesterton 360 and 803: Should not be used on aluminum or metals sensitive to high alkalinity*

*** Chesterton 279 PCS is non-flammable*

Solvent-Based Cleaners/Degreasers

274 Metal Surface Degreaser



Industrial Degreaser

An industrial-strength, hard surface degreaser which will dissolve grease, oil, and other similar water insoluble residues. Product can be applied by spray, brush, or dipping and does not contain any ozone depleting substances. **NSF C1, K1, K2**

- Low odor
- Safe for use on all metals
- No chlorinate solvents

Applications: Production operations, maintenance departments, parts washers.

277 Metal Surface Degreaser

Industrial-Strength Degreaser

Fast evaporating, solvent-based degreaser for hard surfaces. Removes oil, grease, wax, and other organic soils. **NSF C1, K1**

- Low residue and aromatic content
- Flash point: -6˚C (21˚F)
- Does not damage most materials including common plastics

Applications: Cleaning oil and grease from bearings, gears, valves, chains, molds, and electro-mechanical assemblies.

292 Precision Degreasing Solvent

Industrial-Strength Solvent Cleaner

Industrial-strength solvent blend that cleans equipment before assembly, maintenance, and repair. Removes oil, grease, wax, and other organic soils. **NSF K1, K2, K3**

- Fast removal of heavy oil and grease
- Safe for all metals
- Low odor, residue, and aromatic content
- Flash point: 40˚C (105˚F)
- Moderate evaporation rate

Applications: Cleaning bearings, valves and fittings, chains, cables, molds, lathes, presses, non-energized electrical equipment, and production tools.

Test 292 before using on rubber and plastics

294 Critical Surface Degreaser (CSD)

Powerful Industrial Degreaser

Safe, fast evaporating, solvent-based degreaser cleans the most difficult oily residues, adhesives, and glues **NSF C1, K1, K3**

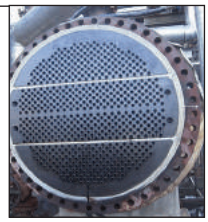
- Rapid cleaning
- Low aromatic content
- Flash point: -18˚C (-4˚F)

Applications: Precision cleaning of bearings, pulleys, valves and fittings, chains, electromechanical assemblies, molds, presses, production tools, and finished parts.

Test 294 before using on paint, rubber, and plastics

Acid-Based Cleaners/Degreasers

338 Super Rust Remover



Highly Concentrated, Leaves Metal Paint-Ready

Superior, acid-based cleaner for safe removal of rust, metal, deposits, and other oxides. Protects against subsequent rusting. **NSF A3**

- Can be used on all metals
- Removes metal oxide layer
- Rinses clean with water
- Inhibited to protect base metals

Applications: Machine tool frames, machined parts, restores rusted inventory restoration, nuts/bolts, threaded assemblies, internal corrosion, shafts, and cast housings.

346 Descaler and Chemical Cleaner***

Acid-Based Cleaner, Biodegradable; Saves on Labor

Concentrated, multi-use, acid-based cleaner for removing inorganic soils and coatings such as hard water deposits. Also able to effectively etch concrete, mineral scales, and metal oxides. **NSF A3**

- Dissolves rust and scale while protecting base surface
- Inhibits attack on metals

Applications: Steam boiler tubes, condenser water systems, water circulating equipment, concrete etching, stained concrete cleaning, and mineral scale removal.

****Chesterton 346: Not for use on aluminum, painted enamel, stainless steel, or decorative metals*

Cleaners and Degreasers

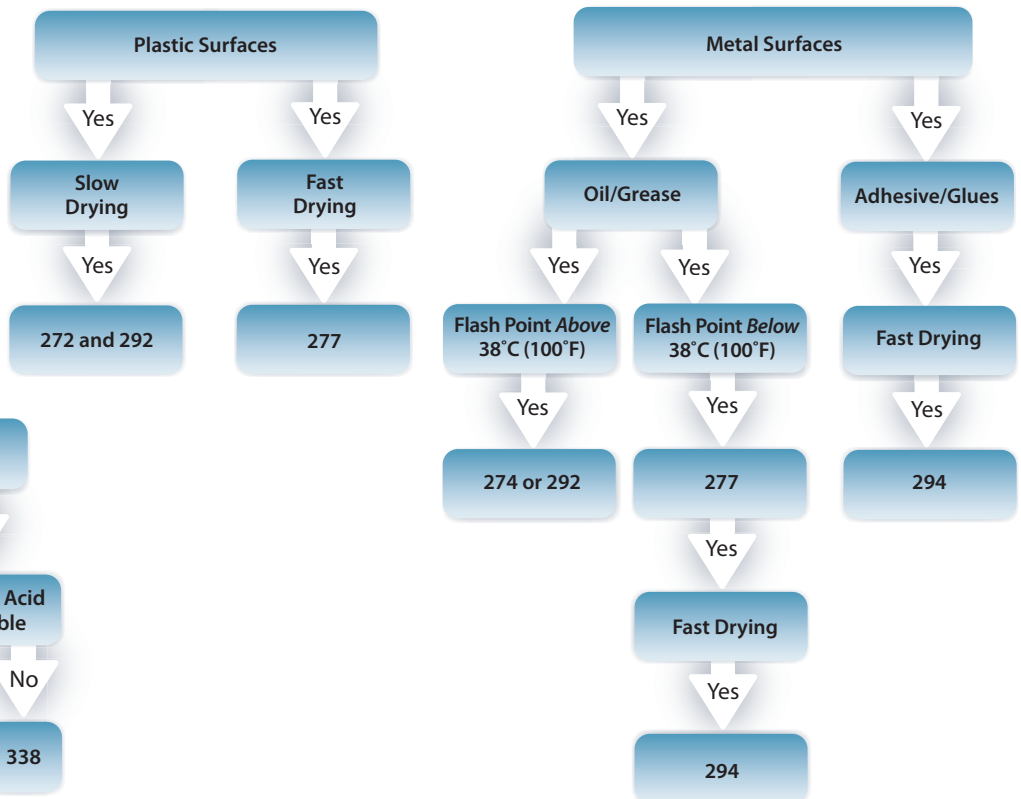
Water-Based Cleaners/Degreasers			Acid-Based Cleaners/Degreasers Removes Scale and Rust		Alkali-Based Cleaners/Degreasers Cleans Petroleum Oil, Greases, Natural Oils, Dirt and Dust; Biodegradable		
			338 Super Rust Remover	346 Descaler and Chemical Cleaner*	360 Phosphate-Free Cleaner	803 IMS II and 235 SSC**	KPC 820 and 820N
Soil/Deposit		Heavy Oil, Adhesives, Glues	NR	NR	—	✓+	✓
		Grease, Petroleum Oil, Dirt	✓	NR	—	✓+	✓+
		Natural Oils—Animal Fat, Vegetable Oil	NR	NR	✓+	✓	✓
		Scale	✓	✓+	NR	NR	NR
		Rust	✓+	✓	NR	NR	NR
Application	Parts Degreasing	Manual Brush or Wipe	✓	✓	✓	✓+	✓+
		Parts Degreasing Station	NR	NR	✓	✓	✓
		Dip Tank	✓+	✓	✓	✓	✓
		Steam Cleaning	NR	NR	NR	✓	✓+
		Pre-Cleaning Parts/Machinery	✓	✓	NR	✓	✓
		Agitated Tank	✓	NR	NR	NR	✓
		Pressure Washing	NR	NR	NR	✓	NR
		Ultrasonic	NR	NR	NR		✓
	Machinery/Plant Cleaning	Closed Circulation, Pipeline	✓	✓	✓	✓+	✓
		Tanks and Vessels	✓	✓	✓	✓	✓
		Food Processing Equipment	✓	✓	✓+	✓+	✓
		Building Structures, Floors, Walls	✓	✓+	✓	✓	✓
		Floor Scrubbers	NR	NR	NR	NR	✓+
		Coolers, Condensers, Heat Exchangers	✓	✓+	NR	✓	✓
		Electrical Motors—Non-energized	NR	NR	NR	✓	✓

✓+ = Excellent

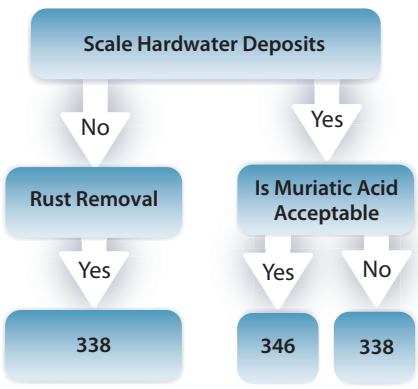
✓ = Good

NR = Not Recommended

Solvent-Based Cleaners/Degreasers



Acid Cleaners



*Chesterton 346: Not for use on aluminum, painted enamel, stainless steel, or decorative metals

**Use Chesterton 235 SSC for steam cleaning applications

CHESTERTON Global Solutions, Local Service.

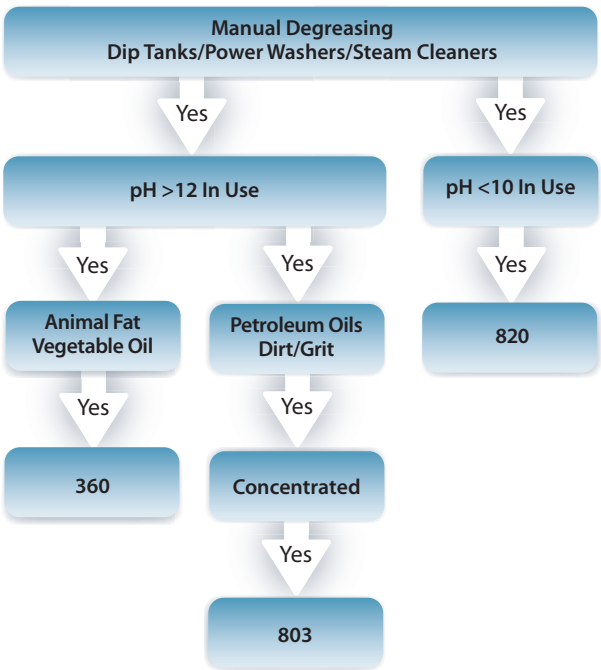
Product Selection Guides

Solvent-Based Cleaners/Degreasers		274 Industrial Degreaser	292 Metal Surface Degreaser	277 Precision Degreasing Solvent	294 CSD
Surface	Paint- and Plastic-Safe	✓+	✓+	✓+	✓+
Tough Soil	Heavy Oil, Adhesives		✓	✓	✓+
Equipment and Method	Dip Tank	✓+	NR	NR	NR
	Ultrasonic	✓+	✓	NR	NR
	Manual Brush or Wipe	✓	✓+	✓+	✓+
	Closed Circulation, Pipeline	✓	NR	NR	NR
General Purpose and Applications	Food Processing Equipment	✓	✓	✓	✓
	Molds, Patterns, Presses	✓	✓+	✓+	✓+
	Vehicles and Transportation	✓	✓+	✓	✓+
	QC and Inspection	NR	✓	✓+	✓+
	Packaging	✓	✓	✓	✓+
	Parts Preparation Cleaning	✓	✓+	✓+	✓+

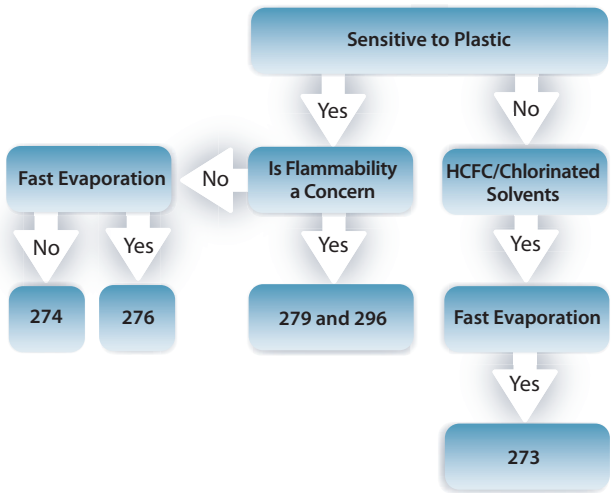
Electrical Cleaners		273 Electric Moto Cleaner	276 Electronic Component Cleaner	279 Electronic Contact Cleaner	296 Electro Contact Cleaner
Surface	Paint and Plastic Safe	NR	✓+	✓+	✓+
	Sensitive Metal Safe	✓	✓+	✓+	✓+
Soil	Grease, Petroleum Oil, Dirt	✓+	✓+	✓	✓
Cleaning Purpose	Electrical Motors—Energized	✓+	NR	✓+	✓
	Electrical Motors—Non-Energized	✓+	NR	✓	✓
	Electrical Components—Energized	✓+	NR	✓+	✓
	Electrical Components—Non-Energized	✓+	✓	✓	✓

✓+ = Excellent	✓ = Good	NR = Not Recommended

Water-Based Cleaners



Electrical Cleaners/Degreasers



NSF® Category Code Letters

The following code letters designate the permissible use for each authorized compound, and conditions for use are restricted by the category in which it is placed.

NOTE: *In several categories, reference is made to the need for rinsing with potable water. FIAD accepts water used in federally inspected plants as being potable when such certification is made by state health agency authorities.*

A. Cleaning Compounds

A1 – Compounds for use as general cleaning agents on all surfaces, or for use with steam or mechanical cleaning devices in all departments.

Before using these compounds, food products and packaging materials must be removed from the room or carefully protected. After using these compounds, surfaces must be thoroughly rinsed with potable water.

A2 – Compounds for use only in soak tanks or with steam or mechanical cleaning devices in all departments

Before using these compounds, food products and packaging materials must be removed from the room or carefully protected. After using these compounds, all surfaces in the area must be thoroughly rinsed with potable water.

A3 – Acid Cleaners for use in all departments

Before using these compounds, food products and packaging materials must be removed from the room or carefully protected. After using these compounds, all surfaces in the area must be thoroughly rinsed with potable water.

A4 – Floor and Wall Cleaners for use in all departments

Before using these compounds, food products and packaging materials must be removed from the room or carefully protected. After using these compounds, all surfaces in the area must be thoroughly rinsed with potable water.

C. Compounds Used in Inedible and Non-processing Areas

C1 – Compounds for use on all surfaces in inedible product processing areas, non-processing areas, and/or exterior areas

These compounds must not be used to mask odors resulting from unsanitary conditions. They must be used in a manner that prevents penetration of any characteristic odor or fragrance into edible product areas.

Permission for use of these compounds on loading docks and other similar areas is left to the discretion of the inspectors in charge of the plants.

H. Lubricants

H1 – Lubricants

These compounds may be used as a lubricant or anti-rust film on equipment and machine parts in locations in which there is exposure of the lubricated part to edible products. They may also be used as a release agent on gaskets and seals of tank closures. The amount used should be the minimum required to accomplish the desired technical effect on the equipment. If used as an anti-rust film, the compound must be removed from the equipment surface by washing or wiping as required to leave the surface effectively free of any substance which could be transferred to the food being processed.

H2 – Lubricants

These compounds may be used as a lubricant, release agent, or ant-rust film on equipment and machine parts or in closed systems (e.g., hydraulic systems) in locations in which there is no possibility of the lubricant or lubricated part contacting edible products.

K. Solvent Cleaners

K1 – Solvents and Solvent Degreasers for use in non-processing areas

Following the use of these compounds, equipment and utensils must be thoroughly washed and rinsed with potable water before being returned to a processing area.

K2 – Solvents for cleaning electronic instruments.

These compounds are chemically acceptable for cleaning electronic instruments and devices that will not tolerate aqueous cleaning solutions. Before using these compounds, food products and packaging materials must be removed from the area or carefully protected. These compounds must be used in a manner so that all odors associated with the compound are dissipated before food products or packaging materials are re-exposed in the area.

K3 – Solvents for removing adhesives/glues

These products are acceptable for removing adhesive or glue from food packaging materials in and around food processing areas, where its use is not intended for direct food contact. Before using these compounds, food products and packaging materials must be removed from the area or carefully protected. After using these compounds, all surfaces must be thoroughly washed with an acceptable detergent solution and rinsed with potable water. This compound must be used in a manner so that all odors associated with the compound are dissipated before products or packaging materials are re-exposed in the area.

P. Compounds Requiring Letter Indicating Authorized Use

P1 – Miscellaneous

Compounds listed in this category are to be used in accordance with the conditions set forth in the letter of acceptance. Copies of the acceptance letter must be supplied to federal inspectors as proof of the acceptable use(s) of the compound.

Chesterton NSF® Registered Products

Visit NSF.org/USDA/Listings for all Registered Chesterton Products

Cleaner and Degreaser Products	NSF	FDA
235 SSC	133964	A4
273 Electric Motor Cleaner	133975	K2
273 Electric Motor Cleaner (aerosol)	133976	K2
274 Industrial Degreaser	133955	C1, K1, K2
274 Industrial Degreaser (aerosol)	133949	C1, K1, K2
276 Electronic Component Cleaner (aerosol)	133973	K2
276 Electronic Component Cleaner (bulk)	133974	K2
277 Metal Surface Degreaser (aerosol)	134008	C1, K1
277 Metal Surface Degreaser (bulk)	134007	C1, K1
279 PCS	134012	K2
292 Precision Degreasing Solvent	134003	K1, K2, K3
292 Precision Degreasing Solvent (aerosol)	134004	K1, K2, K3
294 Critical Surface Degreaser	143867	C1, K1, K3
296 Electro Contact Cleaner	134002	K2
338 Super Rust Remover	160030	A3
346 Descaler and Chemical Cleaner	133962	A3
360 Phosphate-Free Cleaner	133961	A1, A4
803 Industrial and Marine Solvent II	133966	A1
820 KPC	133963	A1
820N KPC	133977	A1, A4

Maintenance Specialties Products	NSF	FDA
3500 Valvelon™	134013	P1
715 Spraflex®	133938	H2
715 Spraflex® (aerosol)	133934	H2
715 Spraflex® Gold	133930	H2
715 Spraflex® Gold (aerosol)	133931	H2
723 FG Sprasolvo™	134006	H1
723 Sprasolvo™	133939	H2
785 FG Parting Lubricant	132237	H1
785 Parting Lubricant	133960	H2
787 Sliding Paste	133956	H2
800 GoldEnd® Tape	134016	H1, P1
860 Moldable Polymer Gasketing (cartridge)	134017	P1
860 Moldable Polymer Gasketing Curing Agent	134018	P1

Lubricant Products	NSF	FDA
601 Chain Drive Pin and Bushing Lubricant (aerosol)	133927	H2
601 Chain Drive Pin and Bushing Lubricant (bulk)	133979	H2
610 Synthetic Lubricating Fluid (aerosol)	133972	H2
610 Plus Synthetic Lubricating Fluid	153827	H2
615 HTG #1	133941	H2
615 HTG #2	133940	H2
615 HTG #2-460	159252	H2
622 White Grease	133929	H1
625 CXF	138414	H1
629 High Temperature White Grease	133936	H1
630 SXCF (aerosol)	142462	H1
630 SXCF (bulk)	158844	H1
630 SXCF 220 #1	157331	H1
635 SXC	159251	H2
651 Detergent Lubricating Oil (aerosol)	133928	H2
651 Detergent Lubricating Oil (bulk)	133946	H2
660 Silicone Lubricant (aerosol)	133970	H1
660 Silicone Lubricant (bulk)	133932	H1
690 FG Lubricant (aerosol)	133933	H1
690 FG Lubricant (bulk)	133969	H1

Metalworking Fluids Products	NSF	FDA
390 Cutting Oil (aresol)	134947	H2, P1

Corrosion Protection Products	NSF	FDA
775 Moisture Shield (aerosol)	134015	H2

NSF International launched its voluntary Nonfood Compounds Registration Program in 1999 to reintroduce the previous authorization program administered by the U.S. Department of Agriculture (USDA). Products eligible for NSF registration include all compounds used in and around food establishments (nonfood compounds), such as disinfectants and lubricants, and those used for preprocessing of food proprietary substances, such as fruits/ Guidelines (formerly USDA Guidelines for Obtaining Authorization of Compounds to Be Used in Meat and Poultry Plants).

Global Solutions, Local Service

Since its founding in 1884, the A.W. Chesterton Company has successfully met the critical needs of its diverse customer base. Today, as always, customers count on Chesterton solutions to increase equipment reliability, optimize energy consumption, and provide local technical support and service wherever they are in the world.

Chesterton's global capabilities include:

- Servicing plants in over 113 countries
- Global manufacturing operations
- More than 500 Service Centers and Sales Offices worldwide
- Over 1200 trained local Service Specialists and Technicians

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Form No. EN22425
Food, Beverage, and Pharmaceutical Brochure
11/19