

A CSW Industrials Company

# **Coil Cleaners**

Updated and expanded product line for condenser and evaporator coils

# Coil cleaners





# Effects of dirty coils





#### **Dirty coils can cause:**

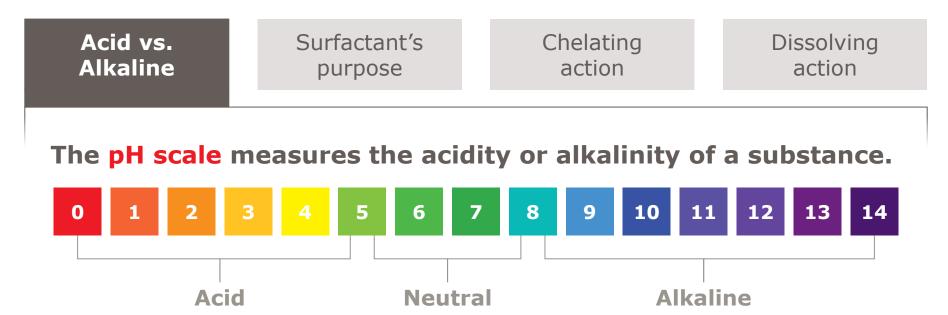
Limited heat transfer from the coils to outside air, making it harder to keep the environment at the desired temperature.

Increased energy costs due to the system working harder to compensate from reduced efficiency.

Costly repairs or replacement. The average A/C repair costs \$300. Condenser coil replacements can range from \$1,900 to 2,900.

Source: https://www.hvac.com/blog/prepared-hvac-repair-costs/





#### **Inorganic soils**

Rust, scale, hard water deposits and minerals such as sand, silt and clay. **Best removed using acid cleaners.** 

#### **Organic soils**

Fat, grease, protein; living matter such as mold, yeast and bacteria; petroleum soils such as motor oil. **Best removed using alkaline cleaners.** 

#### **Combination soils**

Often present the toughest challenge for a cleaner since the soil contains both organic and inorganic components.

Combination soils are removed with a concentrated cleaner (like Clean-N-Safe).

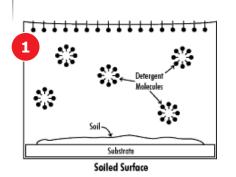


Acid vs. Alkaline

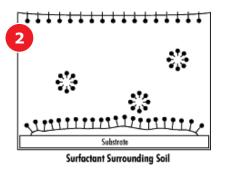
# Surfactant's purpose

Chelating action

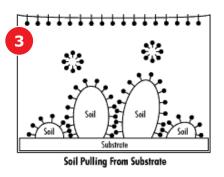
Dissolving action



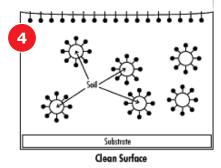
Surfactant molecules align themselves at the boundary between liquid and a solid (dirt).



Surfactant modifies the properties at the interface (where the dirt lies).



Soil pulls away from the surface or substrate.



Finally, dirt molecules are suspended in solution.

Surfactants improve the water's ability to wet the surface, seep into the dirt and suspend the dirt which allows the cleaner to do its job!



Acid vs. Alkaline

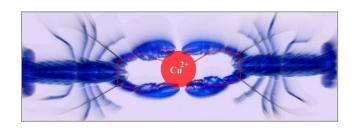
Surfactant's purpose

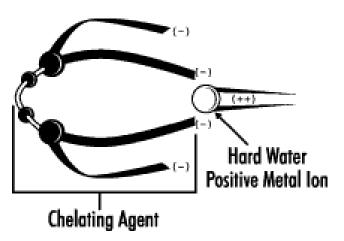
Chelating action

Dissolving action

#### Water hardness is caused by metal ions

- Made up of calcium, magnesium, iron and manganese.
- Major concern when dealing with cleaning compounds such as soap and surfactant.
- "Use up" the surfactants, making them unavailable to act on the surface to be cleaned.
- Chelated metal ions remain tied up in a harmless state solution where they will not use up the surfactants.







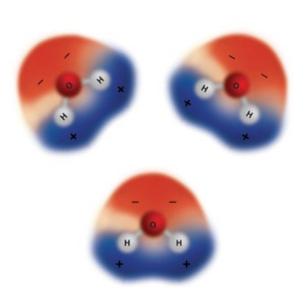
Acid vs. Alkaline

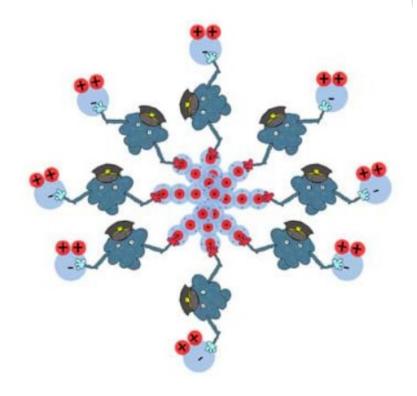
Surfactant's purpose

Chelating action

Dissolving action

Alkaline agents help emulsify the oily and greasy soil surface.





# History



Stewart Hall began making coil cleaners in 1983 with high quality products.

RectorSeal has been a market leader in coil cleaners with the acquisition of Stewart Hall since 1996.

Renewz Foam-a-Coil Con-Coil K.O. Dirt Blaster Coil-Rite

Clean-N-Safe Desolv Foam-Core











First to introduce a foaming non-acid cleaner!

RectorSeal has a long history of innovative coil cleaner products.

# Drivers of coil cleaner demand



**SURVEY BREAKDOWN** 



636 HVAC technicians



48% Residential



42% Commercial



88%

Use coil cleaners for **cleaning** 

8% degreasing

2% disinfecting

49%

**Cleaning strength** is #1 driver of purchase

87%

**Dilute cleaners** before applying to equipment

**53%** 

Use **standard foaming** 

**37%** heavy

10% non-rinsing





Cleaning strength needs to be highlighted



"Concentrated" should be clearly communicated



Level of foaming action is important

Source: RectorSeal; Coil Cleaner Survey (636 responses) 09/13/2019

# Updated coil cleaner product line













7









Coil-Cure D-Factor

Clean-N-Safe

# New additions

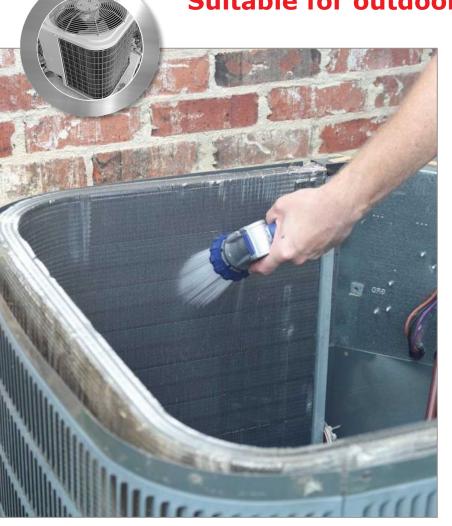


# Con-Coil Foam-Core D-Factor Renewz Brown Clean-N-Safe Coil-Cure

New products. New branding. New beginning.







- Quickly penetrates and removes greasy soils and oxidation
- Alkaline cuts grease (Sodium Hydroxide)
- Acid effective against mineral buildup (rust)
- Foaming pulls out particulates
- Must be rinsed within 5-8 mins
- Biodegradable
- Should not be used for indoor evaporative coils





#### **CON-COIL™**

#### **Acid Base ● Max Strength ● High Foaming**

Acid-based foaming, brightener and cleaner for finned, air-cooled condenser coils.

Penetrating, surfactant aided, foaming action lifts obstructing contaminants such as bugs, cottonwood, grass, lint, dirt and oxides from coils.

Can be used for cleaning electronic air filters.

Aluminum surfaces left completely clean and insulation free in less than five minutes.

#### Acidic cleaner. Best brightener.

Comparable to: Nu-Calgon: Cal-Brite Plus

Diversitech: Pro-Kleen

ACE (Atlantic): Supreme Coil Cleaner





# **RENEWZ™ Blue**

#### **Alkaline Base ● Max Strength ● High Foaming**

Foaming action floats all loosened material out of normally inaccessible areas to where they can easily be rinsed away with low pressure water. This includes difficult to remove cooking grease found on thickly coated coils in, or near, restaurants.

Removes the need for high pressure washers, which can bend fins and wedge contaminants into deep recesses of the coil.

Leaves aluminum surfaces clean, bright and shiny.

Highly effective for cleaning electronic air filters, avoiding damage from high pressure steam cleaning.

#### Non-acidic cleaner.

Comparable to: Nu-Calgon: Nu-Brite

Diversitech: Pro-Blue ACE (Atlantic): AceBrite





#### **RENEWZ™** Brown

#### **Alkaline Base ● Max Strength ● High Foaming**

Foaming action floats all loosened material out of normally inaccessible areas to where they can easily be rinsed away with low pressure water. This includes difficult to remove cooking grease found on thickly coated coils in, or near, restaurants.

Removes the need for high pressure washers, which can bend fins and wedge contaminants into deep recesses of the coil.

Leaves aluminum surfaces clean, bright and shiny.

Highly effective for cleaning electronic air filters, avoiding damage from high pressure steam cleaning.

## Non-acidic cleaner. Removes thick buildup.

Comparable to: Nu-Calgon: Alka-Brite Plus

Diversitech: Pro-Brown

ACE (Atlantic): Foam-N-Clean, MasterClean





#### FOAM-CORE™

#### **Alkaline Base ● High Strength ● Max Foaming**

Foaming action floats all loosened material out of normally inaccessible areas to where they can easily be rinsed away with low pressure water. This includes difficult to remove grease found on thickly coated coils.

Reduces high head compressor pressures, avoids premature equipment breakdown, increases equipment efficiency and decreases power consumption and costs.

Highly effective for cleaning electronic air filters, avoiding damage from high pressure steam cleaning.

Leaves surfaces clean, bright and shiny.

#### Maximum foaming.

Comparable to: Nu-Calgon: Foam-Brite

Diversitech: N/A ACE (Atlantic): N/A



Suitable for indoor unit, evaporator coils only.



- No grease to cut down
- Some foaming to pullout particulates
- Usually self-rinsing
- Biodegradable
- Generally not strong enough for outdoor condensing coils





### **COIL-RITE™**

#### Non-acidic ● Mild Strength ● Low Foaming

Removes grime, oil, grease and dust from air conditioning coils, air handling equipment, as well as electronic and permanent air filters and all mechanical equipment in minutes.

Powerful surface-active chemicals actually lift grease and dirt off normally inaccessible surfaces.

Reduces head pressure on over-heated compressors, increases equipment efficiency and decreases power consumption and costs.

It is safe for all metals, including aluminum, when used as directed.

#### Low foaming, lower strength.

Comparable to: Nu-Calgon: Evap Pow'r-C

Diversitech: N/A

ACE (Atlantic): EvapKlean



**NEW** 





Can will spray upside down.

Source: EPA Website, 40 CFR 158.2203

# **COIL-CURE™ Aerosol**

Non-acidic ● Mild Strength ● Foaming

Self-rinsing, non-abrasive aerosol disinfectant cleans and deodorizes HVAC systems.

Virucidal against Herpes Simplex Virus Type 1 & 2, Canine Parvovirus. Disinfects against Legionella Pneumophila.

Designed specifically for HVAC equipment in homes, nursing homes, institutions, offices, schools, motels and hotels.

For use on porcelain, ceramic tile, fiberglass, formica, urinals, sinks, toilets, shower stalls, walls, floors and counter tops.

# **EPA** registered cleaner and disinfectant destroys bacteria, fungi and viruses.

Comparable to: Nu-Calgon: Evap-Fresh No Rinse, Evap-Foam

Diversitech: N/A ACE (Atlantic): N/A







# **COIL-CURE™** Liquid

Non-acidic ● Mild Strength ● Foaming

Self-rinsing, non-abrasive liquid disinfectant cleans and deodorizes HVAC systems.

Same formula as Coil-Cure aerosol in a convenient quart spray bottle and gallon refill.

For use on porcelain, ceramic tile, fiberglass, formica, urinals, sinks, toilets, shower stalls, walls, floors and counter tops.

Product is ideal for cleanup of HVAC equipment after natural disasters given the EPA registration to inhibit mold and mildew.

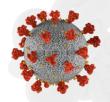
# EPA registered cleaner and disinfectant destroys bacteria, fungi and viruses.

Comparable to: Nu-Calgon: Evap-Fresh No Rinse, Evap-Foam

Diversitech: N/A ACE (Atlantic): N/A

Source: EPA Website, 40 CFR 158.2203





# **COIL-CURE™** and **COVID-19**

Coil-Cure, Evaporator Coil Cleaner and Disinfectant, EPA Reg. No. 44446-23-51219, kills similar viruses and therefore can be used against SARS-CoV-2 when used in accordance with the directions for use against Canine Parvovirus on hard, non-porous surfaces. Refer to the CDC website <a href="here">here</a> for additional information.

Coronavirus Disease 2019 (COVID-19) is caused by SARS-CoV-2. Coil-Cure has been added to the EPA list N as an EPA registered disinfectant with emerging viral pathogens AND human coronavirus claims for use against SARS-CoV-2.

Has not been tested against SARS-CoV-2, the cause of COVID-19, but it is expected to be effective based on:

- Demonstrated efficacy against a harder-to-kill virus
- Qualified for the emerging viral pathogens claim
- Demonstrated efficacy against another human coronavirus similar to SARS-CoV-2.

EPA registered cleaner and disinfectant can be used against SARS-CoV-2, the cause of COVID-19.

# Indoor and outdoor coil cleaners



Suitable for both condenser and evaporator coils.





# Indoor and outdoor coil cleaners





## **D-FACTOR™**

Max Degreasing High Strength Cleaning

Low Foaming

Removes grime, oil, grease and dust from condenser coils, evaporator coils, air handling equipment, electronic and permanent air filters and all mechanical equipment.

Extra strong heavy duty degreasing formula rapidly cleans grease and dirt off normally inaccessible surfaces.

Cleaning reduces head pressure on overheated compressors, avoids premature equipment breakdown, increases equipment efficiency and decreases power consumption and costs.

# High strength cleaner. Heavy duty degreaser.

Comparable to: Nu-Calgon: Special HD

Diversitech: N/A

ACE (Atlantic): Super D

# Indoor and outdoor coil cleaners







#### **CLEAN-N-SAFE™**

Self-rinsing ● Mild Strength ● Foaming

**OEM** approved for use on aluminum condenser and evaporator coils.

Recommended for condenser/evaporator coils, refrigeration, heat pump coils, microchannel coils. Non-acid, non-caustic coil cleaner is a safe to use, environmentally friendly coil cleaner that effectively cleans and removes soils.

Biodegradable and presents very little hazard to people, animals, aquatic life and vegetation.

CLEAN-N-SAFE™ will not chemically attack or corrode coils, surrounding metal, other HVAC equipment components or adjacent roofing materials.

# Universal cleaner. No rinse required. **OEM** approved.

Comparable to: Nu-Calgon: Evap-Green, Green Clean

Diversitech: Eco-Coil ACE (Atlantic): Evap-Kleen

# OEM approval for aluminum coil cleaning



A CSW Industrials Company

# From Goodman Technical Services:

For units equipped with an aluminum tube evaporator coil, the safest way to clean the coil is to simply flush the coil with water. Many coil cleaners and drain pan tablets contain corrosive chemicals that can be harmful to aluminum tube and fin evaporator coils.

An alternate cleaning method is to use one of the products listed to clean the coils. The cleaners listed are the only agents deemed safe and approved for use.

Many RectorSeal coil cleaners are acceptable for aluminum coils!

#### ALUMINUM COIL CLEANING APPROVED CLEANERS' LIST

TECHNICAL PUBLICATION

TP-109B August 2016

#### ATTENTION INSTALLING PERSONNEL

As a professional installer you have an obligation to know the product better than the customer. This includes all safety precautions and related items.

Prior to actual installation, thoroughly familiarize yourself with this Instruction Manual. Pay special attention to all safety warnings. Often during installation or repair it is possible to place yourself in a position which is more hazardous than when the unit is in operation.

Remember, it is **your** responsibility to install the product safely and to know it well enough to be able to instruct a customer in its safe use.

Safety is a matter of common sense...a matter of thinking before acting. Most dealers have a list of specific good safety practices...follow them.

The precautions listed in this Installation Manual are intended as supplemental to existing practices. However, if there is a direct conflict between existing practices and the content of this manual, the precautions listed here take precedence.



#### HIGH VOLTAGE!

DISCONNECT ALL POWER BEFORE SERVICING OR INSTALLING THIS UNIT. MULTIPLE POWER SOURCES MAY BE PRESENT. FAILURE TO DO SO MAY CAUSE PROPERTY DAMAGE, PERSONAL INJURY OR DEATH.



#### ALUMINUM INDOOR COIL CLEANING (QUALIFIED SERVICER ONLY)

For units equipped with an aluminum tube evaporator coil, the safest way to clean the coil is to simply flush the coil with water. This cleaning practice remains as the recommended cleaning method for both copper tube an aluminum tube residential evaporator coils.

It has been determined that many coil cleaners and drain pan tablets contain corrosive chemicals that can be harmful to aluminum tube and fin evaporator coils. Even a one-time application of these corrosive chemicals can cause premature aluminum evaporator coil failure. Any cleaners that contain corrosive chemicals including, but not limited to, chlorine and hydroxides, should not be used.

An alternate cleaning method is to use one of the products listed below to clean the coils. The cleaners listed are the only agents deemed safe and approved for use to clean round tube aluminum coils. TP-109\* is also available on the web site in Partner Link > Service Toolkit.

NOTE: Ensure coils are rinsed well after use of any chemical cleaners.

Approved Coil Cleaners		
Manufacturer	Trade Name	Product#
Atlantic Chemical, ACE	Evap-Klean Plus	FEK-32
Atlantic Chemical, ACE	Eco-Kleen	EKC-1
Atlantic Chemical, ACE	Eco-Kleen	EKC-32
Atlantic Chemical, ACE	Eco-Power	EKP-1
Atlantic Chemical, ACE	Foaming Coil Cleaner	FCA
Diversitech	Eco-Coil	ECO-COIL
Nu-Calgon	Evap-Green	4191-08 (41910)
Quest Vapco	Greenscapes	2720
Rectorseal	Foam-A-Coil	82632
Rectorseal	Clean-N-Safe	83780
Simple Green	Extreme Simple Green	13412, 13406, 13405

Approved Pan Tabs		
Manufacturer	Trade Name	Product #
Nu-Calgon	PurCool Tablets	61053 or PC200
RectorSeal	Nu Line	97690

# Mini-split cleaners







## Desolv™

#### **Biodegradable ● High Strength ● Non-Foaming**

Non-corrosive coil cleaner specifically designed to safely clean mini-split evaporator coils.

Biodegradable and presents very little hazard to people, animals, aquatic life and plants.

Unlike strong acid and caustic cleaners, it won't corrode coils, adjacent roofing materials, or application tools.

Will not harm aluminum, copper or steel and acts as a corrosion inhibitor with no heat transfer loss.

May be left in sprayer and will not corrode parts.

# For indoor evaporator of mini-split units.

Comparable to: Nu-Calgon: N/A

Diversitech: N/A ACE (Atlantic): N/A

# Other cleaners





# **K.O.** Dirt Blaster™

#### Quick Dry Solvent ● Heavy Duty ● No CFC's

High-pressure no-rinse condenser cleaner that quickly dissolves grease and oil on refrigeration coils, oil burner surfaces, and other machine parts.

Non conductive: Will not short out electrical equipment such as switches, relays, circuit breakers, motors, and electrical components.

Particularly effective on restaurant grease and other greasy surfaces.

# Heavy-duty, safety degreaser solvent. Non-flammable. No CFC's.

Comparable to: Nu-Calgon: NuBlast

Diversitech: N/A ACE (Atlantic): N/A

# Why RectorSeal's coil cleaners?







RectorSeal has a history of **coil cleaner market leadership** and innovation.



New **complete line of products** for all HVAC coil cleaning maintenance and applications.



Properly maintained systems save money by **improving energy efficiency, extending the life of equipment and delaying costly replacement.** 

# Additional products: Turbo-Kleen™



# **Turbo-Kleen™ A/C system flush**

Cleans refrigeration line sets when installing new compressors after burnouts or when converting to R-410A refrigerant.

- Removes oil, sludge, carbon and other deposits found inside A/C and refrigeration linesets
- Chemically and mechanically cleans
- Stays active during the entire cleaning process
- Scrubbing action cleans more completely than chemicals alone
- · Cost effective, reusable system

Code	Size	Quantity
82450	1 gallon	4
82500	Kit Reusable injector nozzle and canister, flushing tool, clear plastic connecting line, 16 oz. of chemical solution	6
82400	1 pint	12



# A/C Leak Freeze® PRO



## A/C Leak Freeze PRO

Revitalizes A/C, Mini-split, and refrigeration systems by permanently sealing small, hard-to-find micro gas leaks.

- Does not contain polymers
- OEM approved
- Compatible with all refrigerants
- Infuses into system through standard service ports
- Non-clogging nano formula

**Designed for < 6-ton units** 

- Magic Frost formula enhances system performance, reduces compressor noise and extends compressor life
- UV formula enables UV light source to detect larger leaks for system assessment



Code	Size	Qty
45316	1.46 oz. nano	12
45317	1.46 oz. nano Magic Frost	12
45318	1.46 oz. UV	12

Code	Size	Qty
45309	0.5 oz./15 mL nano Mini-split	12
45308	0.5 oz./15 mL UV Mini-split	12

Designed for < 2-ton units

# GulfClean™ maintenance chemicals



#### **GulfClean™** coil cleaner and salt reducer

RectorSeal has partnered with Modine to manufacture warranty-approved maintenance chemicals designed for ElectroFin & Insitu OEM applied coil coating.

#### **Coil Cleaner**

- Cleans evaporator coils, condenser coils, refrigeration units
- Non-acid, noncaustic
- · Removes soils
- Powers off dirt
- Biodegradable
- Deep cleaning foam
- Environmentally friendly



#### Salt Reducer

- Cleans evaporator coils and condenser coils
- Aids in the removal of soluble salts
- Non-flammable
- Does not interfere with the adhesion of protective coatings
- No VOC's
- Biodegradable



Code	Size	Quantity per Case
80406	1 gallon (3.76 Liters)	4

Code	Size	Quantity per Case
80408	1 gallon (3.76 Liters)	4

# GulfCoat™ Contractor Series Coil Coating



# **GulfCoat™ contractor series coil coating from Modine**

Protection against corrosion and UV rays. Perfect for DIY application.

- Designed for the protection of HVAC coils and components
- Formulated to improve adhesion, moisture resistance, UV protection, and corrosion resistance
- Extends the life and efficiency of HVACR equipment
- Can be applied on-site or at premises after HVAC units have been manufactured and installed







Code	Description	Quantity per Case
80401	12 oz. (340g) Aerosol Blue	6
80400	12 oz. (340g) Aerosol Clear	6

# Coil cleaner selector guide



