



## SAFETY DATA SHEET

### CON-COIL™ Foaming acid coil cleaner

#### SECTION 1 – PRODUCT AND COMPANY INFORMATION

Product Name  
Con-Coil™

Product Codes  
82622, 82624, 82628

Chemical Family  
Inorganic acids

Use  
Condenser coil cleaner

Manufacturer's Name  
The RectorSeal Corporation  
2601 Spenwick Drive  
Houston, Texas 77055 USA

Date of Validation  
January 23, 2015

Date of Preparation  
July 30, 2014

HMIS Codes  
Health 4  
Flammability 0  
Reactivity 0  
PPI X

Emergency Telephone No.  
Chemtrec 24 Hours  
(800)-424-9300 USA  
(703)-527-3887 International

Technical Service Telephone No.  
(800)-231-3345 or (713)-263-8001

#### SECTION 2 – HAZARDS IDENTIFICATION

##### Emergency Overview

##### OSHA Hazards

Target Organ Effect, Toxic by inhalation, Highly toxic by ingestion, Highly toxic by skin absorption, Corrosive

##### Target Organs

Liver, Kidney

##### GHS Classification

Acute toxicity, Oral (Category 2)  
Acute toxicity, Inhalation (Category 2)  
Acute toxicity, Dermal (Category 1)  
Skin corrosion (Category 1A)  
Serious eye damage (Category 1)

## GHS Label elements, including precautionary statements



GHS05: Corrosive

GHS06: Toxic

Signal word: **Danger**

### Hazard statement(s)

H300 + H310 **Fatal if swallowed or in contact with skin.**

H314 Causes severe skin burns and eye damage.

H330 **Fatal if inhaled.**

### Precautionary statement(s)

P260 Do not breathe dust/ fume/ gas/ mist/ vapours/ spray.

P264 Wash hands thoroughly after handling.

P280 Wear protective gloves/ protective clothing/ eye protection/ face protection.

P284 Wear respiratory protection.

P302 + P350 IF ON SKIN: Gently wash with plenty of soap and water.

P305 + P351 + P338 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.

P310 Immediately call a **POISON CENTER** or doctor/ physician.

## Summary Of Acute Hazards

Hydrofluoric acid is extremely irritating and corrosive to skin and mucous membranes. Speed in moving exposed personnel from contaminated area and in removing HF from skin or eyes is of primary importance. First aid must be started immediately, within seconds, in all cases of contact with hydrofluoric acid in any form. Inhalation of the vapor may cause ulcers of the upper respiratory tract. Concentrations at 50 to 200 ppm are dangerous. Hydrofluoric acid produces burns, which are slow in healing. The subcutaneous tissue may be affected, becoming blanched and bloodless. Gangrene of the affected areas may follow.

### SYMPTOMS OF OVEREXPOSURE BY EYE OR SKIN CONTACT, INHALATION, OR INGESTION:

Conjunctivitis, corneal burns; severe skin burns with ulceration; pain behind the breastbone, cough, spitting blood, dyspnea, difficult breathing, bronchopneumonia, cyanosis, shock, muscle spasms, convulsions, jaundice, oliguria, albuminuria, hematuria, nausea, vomiting, abdominal pain, diarrhea; burns and corrosion of mouth, esophagus, stomach and small bowel. Inhalation over exposure may cause lung damage and pulmonary edema. Toxicity from pulmonary absorption of fluoride ion may develop in the liver and kidneys.

### SUMMARY OF CHRONIC HAZARDS

Possible mutagen. Respiratory ulcers may occur. Skin injuries may result in gangrene.

### MEDICAL CONDITIONS AGGRAVATED BY EXPOSURE

Individuals with pre-existing or chronic diseases of the eyes, skin, respiratory system, cardiovascular system, gastrointestinal system, liver, or kidneys may have increased susceptibility to excessive exposure.

## SECTION 3 – COMPOSITION/INFORMATION ON INGREDIENTS

<b>Ingredient:</b>	Phosphoric Acid
Percentage By Weight:	12.29
CAS Number:	7664-38-2
EC#:	2316332
<b>Ingredient:</b>	Hydrofluoric Acid
Percentage By Weight:	9.69
CAS Number:	7664-39-3
EC#:	231-634-8
<b>Ingredient:</b>	Glycol Butyl Ether
Percentage By Weight:	1.40
CAS Number:	111-76-2
EC#:	203-905-0

## SECTION 4 – FIRST AID MEASURES

If inhaled:	Exposed individuals should be carried at once into an uncontaminated atmosphere. Even in the absence of symptoms, a physician should be called immediately. If breathing has stopped, begin artificial respiration. If inhalation equipment and trained attendant are available, oxygen administration should be started at once. Patient should remain quiet—preferably lying down and kept warm and comfortable. As soon as possible, patient should be given 2.5% to 3% calcium gluconate solution by inhalation, preferably by intermittent positive pressure breathing (IPPB) using a nebulizer, or by nebulizer alone. The patient should be watched carefully for edema of the upper airway with respiratory obstruction. Delayed pulmonary edema is likely in patients with burns of the skin on the face or neck. If pulmonary edema develops, the patient should be placed in IPPB with positive end - expiratory pressure (PEEP). The administration of respiratory care should be closely supervised and performed by qualified personnel. Stimulants should not be given unless ordered by a physician. Under no circumstances should a patient be permitted (to return to work or go home.)
If on skin:	Workers who have had contact with hydrofluoric acid should be subjected immediately to a drenching shower of water. The clothing should be removed as rapidly as possible, even while the victim is in the shower, and medical assistance obtained immediately. It is essential that the exposed area be washed with copious amounts of water for a sufficient period of time to remove all hydrofluoric acid from the skin (5 minutes). Calcium gluconate gel (2.5%) should be rubbed in continuously until pain has completely subsided. Personnel who apply the gel should be sure to wear rubber gloves to prevent skin contamination with the HF. Calcium gluconate gel is the preferred treatment but an alternative treatment is using an iced aqueous or alcoholic solution, 0.13% (1:750) of benzalkonium chloride (zephiran chloride); and iced 70% alcohol solution; or and ice-cold saturated solution of magnesium sulfate (epsom salt) should be applied for at least 30 minutes. If the burn is in

such an area that it is impractical to immerse the part, then the iced solution should be applied with saturated compresses, which should be changed at least every two minutes. The physician should be available by then to administer further treatment before completion of the iced solution treatment. However, if a physician is not available by that time, the treatment with one of the iced solutions should be continued for two to four hours. In cases of overexposure due to HF, as in skin burns of greater than approximately 25 sq. inches in area, hypocalcemia may be present. Therefore, systemic administration of calcium gluconate may be necessary. Frequent monitoring of serum calcium, renal and hepatic functions are necessary.

- If in eyes: If even minute quantities of hydrofluoric acid enter the eyes, they should be immediately irrigated with running water for 5 minutes. The eyelids should be held apart during the irrigation to insure contact of water with all accessible tissue of the eyes and lids. Immediately following irrigation with water, a 1% calcium gluconate solution should be used to wash the eyes thoroughly for 5-10 minutes, and then instilled every 2-3 hours as drops. A physician, preferably an eye specialist, should be called in at once. No oils or oily ointment should be used unless ordered by the physician.
- If swallowed: Swallowing of hydrofluoric acid causes burns of the mucous membrane of the mouth, throat, esophagus and the stomach. The patient should be encouraged to immediately drink a large amount of water or milk with added milk of magnesia. Do not induce vomiting. Call a physician immediately.

## SECTION 5 – FIRE FIGHTING MEASURES

### Extinguishing Media

Use agents appropriate for surrounding fires.

**Special Fire Fighting Procedures:** Wear self-contained breathing apparatus (SCBA) and other protective clothing. Hazardous decomposition products possible (see Section 10). Evacuate immediate area.

**Unusual Fire And Explosion Hazards:** Material can generate explosive hydrogen gas on contact with certain metals and reacts violently with water. Runoff from fire control may cause pollution. Neutralize runoff with sodium bicarbonate.

## SECTION 6 – ACCIDENTAL RELEASE MEASURES

**Steps To Be Taken In Case Material Is Released Or Spilled:** Evacuate area and keep upwind until gas has dispersed. Dike spill. Dilute with water fog (direct application of alkali may cause violent splattering). Neutralize with sodium bicarbonate. Persons not wearing protective equipment and clothing should be restricted from areas of spills or leaks until clean up has been completed.

## SECTION 7 – HANDLING AND STORAGE

**Precautions To Be Taken In Handling And Storing:** Keep container closed and upright when not in use.

Do not store near heat, sparks, or open flames. This product will attack glass, concrete and certain metals.

Store only in plastic containers. DO NOT USE METAL CANS.

**Other Precautions:** Refrain from splashing product when pouring. Avoid all contact with skin or clothing. Empty containers may contain residues and vapors.

KEEP OUT OF REACH OF CHILDREN.

## SECTION 8 – EXPOSURE CONTROLS/PERSONAL PROTECTION

Ingredient	Units
<b>Phosphoric Acid</b>	
ACGIH TLV:	1 mg/m <sup>3</sup>
OSHA PEL:	1 mg/m <sup>3</sup>
<b>Hydrofluoric Acid</b>	
ACGIH TLV:	3 ppm
OSHA PEL:	3 ppm
OSHA STEL:	6 ppm
<b>Glycol Butyl Ether</b>	
ACGIH TLV:	25 ppm
OSHA PEL:	25 ppm

**Respiratory Protection (Specify Type):** In confined poorly ventilated areas, use NIOSH/MSHA approved air purifying or supplied air purifying or supplied air respirators.

**Ventilation – Local Exhaust:** Acceptable

**Special:** N/A

**Mechanical (General):** Preferable

**Other:** N/A

**Protective Gloves:** Wear acid resistant gloves (neoprene, PVC, butyl rubber).

**Eye Protection:** Full-face shield and chemical splash goggles (ANSI Z-87.1 or equivalent).

**Other Protective Clothing Or Equipment:** Acid resistant vinyl or polyethylene coated coveralls.

**Work/Hygienic Practices:** Where use can result in skin contact, wash exposed areas thoroughly before eating, drinking, smoking, or leaving work area. Launder contaminated clothing before reuse.

## SECTION 9 – PHYSICAL AND CHEMICAL PROPERTIES

Boiling point:	> 212°F (100°C) @ 760mm Hg
Specific gravity (H <sub>2</sub> O = 1):	1.09
Vapor pressure (mmHg):	17 @ 68°F (20°C)
Melting point:	N/A
Vapor Density (Air = 1):	N/A
Evaporation rate (Ethyl Acetate = 1):	< 1
Appearance/Odor:	Clear pink liquid/Irritating odor
Solubility in water:	Soluble
Volatile Organic Compounds (VOC) Level:	< 10 g/L per SCAQMD Test Method 316A
Flash point:	None
Lower explosion limit:	N/D
Upper explosion limit:	N/D

## SECTION 10 – STABILITY AND REACTIVITY

**Stability:** Stable

**Conditions To Avoid:** Uncontrolled contact with water and active metals. Excessive heat will cause pressure build-up in container.

**Incompatibility (Materials To Avoid):** Alkalies, most metals, cyanides, sulfides, glass and ceramics.

**Hazardous Decomposition Products:** Fluorides and hydrogen gas on contact with certain metals; these fumes can be highly corrosive.

**Hazardous Polymerization:** Will not occur, however, non-hazardous endothermic polymerization may occur in both the liquid and gaseous phases.

## SECTION 11 – TOXICOLOGY INFORMATION

**Chronic Health Hazards**

No ingredient in this product is an IARC, NTP or OSHA Listed carcinogen.

## Toxicology Data

## Ingredient Name

**Phosphoric Acid**

Oral-Rat LD50:	1530 mg/kg
Inhalation-Rat LCLo:	N/D

**Hydrofluoric Acid**

Oral-Rat LD50:	5045 mg/kg
Inhalation-Rat LC50:	966 PPM/1H

Toxicology Data (cont.)

**Glycol Butyl Ether**

Oral-Rat LD50: 470 mg/kg  
 Inhalation-Rat LC50: 2900 mg/m3

SECTION 12 – ECOLOGICAL INFORMATION

**Ecological Data**

Ingredient Name: **Phosphoric Acid**  
 Food Chain Concentration Potential: None  
 Waterfowl Toxicity: N/A  
 BOD: None  
 Aquatic Toxicity: 138 ppm/24 hr/mosquito fish/TLm

Ingredient Name: **Hydrofluoric Acid**  
 Food Chain Concentration Potential: None  
 Waterfowl Toxicity: N/A  
 BOD: None  
 Aquatic Toxicity: 60 ppm/fish/lethal

Ingredient Name: **Glycol Butyl Ether**  
 Food Chain Concentration Potential: None  
 Waterfowl Toxicity: N/A  
 BOD: 26%  
 Aquatic Toxicity: 1000 ppm/24 hr/brine shrimp/TLm

SECTION 13 – DISPOSAL CONSIDERATIONS

**Waste Classification:** Corrosive(D002)

**Disposal Method:** Neutralization

RCRA classified hazardous waste. Dispose of absorbed materials and liquid waste in accordance with all local, state and federal regulations.

**SECTION 14 – TRANSPORTATION INFORMATION**

DOT: UN3264, Corrosive Liquid, Acidic, Inorganic, N.O.S. (Hydrofluoric and Phosphoric Acid), Class 8, PG II, ERG#154

Ocean (IMDG): UN3264, Corrosive. Liquid, Acidic, Inorganic, N.O.S. (Hydrofluoric and Phosphoric Acid), Class 8, PG II, EMS-No: F-A, S-B

Air (IATA): UN3264, Corrosive Liquid, Acidic, Inorganic, N.O.S. (Hydrofluoric and Phosphoric Acid), Class 8, PG II, ERG#154

WHMIS (Canada): Class E

**SECTION 15 – REGULATORY INFORMATION**

**Regulatory Data**

Ingredient Name: Phosphoric Acid

SARA 313 Yes

TSCA Inventory Yes

CERCLA RQ 5,000 lb.

RCRA Code N/A

Ingredient Name: Hydrofluoric Acid

SARA 313 Yes

TSCA Inventory Yes

CERCLA RQ 100 lb.

RCRA Code N/A

Ingredient Name: Glycol Butyl Ether

SARA 313 Yes

TSCA Inventory Yes

CERCLA RQ N/A

RCRA Code N/A

**SECTION 16 – OTHER INFORMATION**

This document is prepared pursuant to the OSHA Hazard Communication Standard (29 CFR 1910.1200). The information herein is given in good faith, but no warranty, expressed or implied is made.

Consult RectorSeal for further information: (713) 263-8001