

Material Safety Data Sheet

Number: **DMN-045**

Product Name: **Daco[®] Coil Cleaner**

Inorganic acid.

Revised: 5/16/01

Damon Industries, Inc.

Box 2120

Alliance, OH 44601

24 hour Emergency Only phone: 1-800-535-5053

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Section 2 - Composition / Information on Hazardous Ingredients

<u>Ingredient</u>	<u>C.A.S. No.</u>	<u>Percent</u>	<u>Carcinogen</u>
Phosphoric acid	7664-38-2	10 - 20%	No
Hydrofluoric acid	7664-39-3	2 - 10%	No

Section 3 - Hazards Identification

Emergency Overview: Liquid is corrosive to all body parts. Excessive inhalation of vapors causes irritation. Product is water based and does not burn. Contact with reactive metals will form hydrogen gas. Product has a low pH and more than 1 gallon should not be allowed into sewers (sanitary or storm) at one time without neutralizing. Will release chlorine gas if mixed with bleach. A blue liquid with an acidic, irritating odor.

Health Hazards: Corrosive

Physical Hazards: Reactive

Primary Routes of Entry: Through Skin Inhalation Ingestion

Potential Health Effects:

Eyes - causes severe damage and may cause blindness very rapidly.

Skin - concentrate causes severe irritation which may become serious burns with permanent damage if not rinsed off soon. Dilutions cause irritation, possibly severe, and may lead to dermatitis with repeated contact.

Swallowing - causes severe damage to mucous membranes and possibly deep tissue damage and gastrointestinal burns.

Breathing - inhalation of vapors causes irritation of the mouth, nose, throat and respiratory passages. Inhalation of mist and prolonged or excessive inhalation of vapors may cause severe damage to the respiratory system.

Section 4 - First Aid Measures

Eye Contact: Immediately flush eyes with water for at least 15 minutes, lifting upper and lower eyelids occasionally. Get medical attention immediately.

Skin Contact: Flush exposed skin with running water for 15 minutes. Remove contaminated clothing and shoes. If redness, irritation or other symptoms exist after flushing, get medical attention immediately. Wash clothing before wearing again. Throw away contaminated shoes.

Inhalation: Move the affected person to fresh air. If irritation, coughing or other symptoms persist, get medical attention.

Ingestion: If the product is swallowed, do NOT induce vomiting. If affected person is conscious, give a glass of water or milk to drink. Treat for shock by keeping the person warm and quiet. Get medical attention immediately.

Section 5 - Fire-Fighting Measures

Flash Point: None (ASTM D-56 closed cup)

Lower Explosive Limit: Not Applicable

Upper Explosive Limit: Not Applicable

Extinguishing Media: Any except carbonate dry powder due to reactivity.

Special Fire Fighting Procedures: Hydrogen fluoride gas may be liberated by the heat of a fire.

Unusual Fire And Explosion Hazards: Contact with reactive metals will form hydrogen gas.

Section 6 - Accidental Release Measures

Steps To Be Taken If Material Is Released Or Spilled: Use adequate personal protective equipment. Wash the area with an alkaline detergent or a 50% solution of baking soda. Spills of 1 gallon or less can be washed to the sanitary sewer with plenty of water. For larger spills, dike to prevent entry into sewers and spread soda ash (sodium carbonate) over the spill to neutralize and absorb. Collected material into clean pails or drums. Wash residue to a sanitary sewer with a large quantity of water.

Section 7 - Handling and Storage

Empty containers retain product residue and may be hazardous. Observe all precautions given in this data sheet and on label. Keep container closed. Store separate from alkalis, oxidizers and reactive metals in a cool, well ventilated place. Remove leaking containers. Product will etch glass, ceramic and polished or painted surfaces.

Bleach Warning: If this product contacts bleach or a cleaner containing bleach, it could produce a dangerous gas (chlorine). If your facility uses bleach, or a cleaner containing bleach, look at the MSDS on the bleach product now, to learn what to do if chlorine is accidentally produced. Your facility should decide upon the appropriate emergency action plan for accidental release of chlorine as a part of your emergency preparedness plan. Contact Damon Industries if more information is needed.

Section 8 - Exposure Controls / Personal Protection

<u>Ingredient</u>	<u>C.A.S. No.</u>	<u>Percent</u>	<u>TWA(source)</u>	<u>STEL</u>	<u>Ceiling</u>
Phosphoric acid	7664-38-2	10 - 20%	1 mg/m ³ (1,2,3,4)	3 mg/m ³ (2,3,4)	-
Hydrofluoric acid	7664-39-3	2 - 10%	3 ppm (1,2)	6 ppm (2)	3 ppm (3,4)

IDLH (Immediately dangerous to life and health): Phosphoric acid: 100 ppm; Hydrofluoric acid: 30 ppm
 (1)=OSHA (2)=NIOSH (3)=ACGIH (4)=CANADA TWA=8 hr Time Weighted Average STEL=15 minute TWA Ceiling=Instantaneous

Ventilation: If used indoors, provide good room ventilation. Use mechanical exhaust if required to maintain airborne concentrations below the exposure limits.

Respiratory Protection: If the exposure limit will be exceeded or fumes are irritating during use, wear a NIOSH approved respirator with an acid vapor cartridge.

Protective Gloves: Use rubber, latex or PVC gloves. Do not use disposable latex gloves. Disposable Nitrile gloves are good.

Eye Protection: Wear safety glasses with side shields or chemical goggles or face shield.

Other Protective Equipment: If splashing is likely to occur wear aprons, protective clothing or boots as the situation calls for. An eyewash station and safety shower should be located within 10 seconds travel time. If this is not possible on roofs and in remote locations have a portable eyewash available to start rinsing and/or a hose for drenching. Immediate drenching for a minute or two before moving the victim to an eyewash or shower could prevent otherwise serious damage.

Section 9 - Physical and Chemical Properties

Boiling Point: 225° F.	Vapor Pressure: Not Available
Specific Gravity: 1.09	Vapor Density: Not Available
Percent Volatiles: 100%	Evaporation Rate: < 1 (Water = 1)
Solubility In Water: Complete	pH: concentrate 1.0 ± 0.5
Appearance and Odor: A blue liquid with an acidic, irritating odor.	

Section 10 - Stability and Reactivity

Incompatibility: Alkalis, bleach, oxidizers, reactive metals. **Hazardous Decomposition Products:** None

Section 11 - Toxicological Information

Target Organs: None.

Section 12 - Ecological Information

Do not dispose of concentrate in the environment.

Section 13 - Disposal Considerations

Waste Disposal Method: Up to 1 gallon may be washed to the sanitary sewer with a large amount of water. Larger amounts should be neutralized to within pH limits of your waste water system and then disposed of in the sanitary sewer. Check to see if absorbent material is hazardous waste in your area or not.

Section 14 - Transport Information

D.O.T. Hazard Class: Compounds, Cleaning, Liquid, 8, UN 1760, P.G. II (Contains phosphoric and hydrofluoric acids)

Section 15 - Regulatory Information

The components of this product are on the TSCA inventory of chemical substances.

Section 313 Supplier Notification: This product contains the following toxic chemicals subject to the reporting requirements of Section 313 of the Emergency Planning and Community Right-to-Know Act of 1986 and CFR 372.

<u>Chemical Name</u>	<u>C.A.S. No.</u>	<u>% By Weight</u>	<u>Lbs./Gallon</u>
Hydrofluoric acid	7664-39-3	2.5%	0.225

Section 16 - Other Information

NFPA / HMIS Estimates:	Health: 3	Flammability: 0	Reactivity: 2
0 = Insignificant, 1 = Slight, 2 = Moderate, 3 = Serious, 4 = Severe			

Replaces sheet dated 3/24/89. Converted to ANSI format. Phosphoric acid removed from 313 Notification.

The information accumulated herein is believed to be accurate but is not warranted to be. Recipients are advised to confirm in advance that the information is current, applicable, and suitable to their circumstances.