



## **GREASE-X®** 金

**Aqueous Cleaner & Degreaser**

### **GREASE PROBLEMS IN MUNICIPAL FACILITIES**

Fats, oils and grease (FOG) represent one of the largest headaches for municipal collection system workers. These hydrophobic and stable FOG substances, by their very nature, stick to and stay on collection lines, lift station surfaces and line cleaning equipment. The normal flow of collection water does nothing to remove them. In many cases, FOG build up can restrict the water flow, even to the point of causing blockage and subsequent back-ups. Animal and petroleum oil and grease soiling is a problem in many different municipal situations.

### **THE EPICORE SOLUTION**

The best way to handle FOG problems is to treat it before it becomes a problem using a biological digester like Epicore's LINEBAC™ 金 Microbial Ecosystem. When this is not possible, FOG can be efficiently removed using GREASE-X Aqueous Cleaner and Degreaser. It works well on all types of food and petroleum origin fat, grease and oil. GREASE-X can be used in jetting equipment to help unblock FOG choked lines. It is ideal for cleaning jetting equipment after use in lines.

In many instances, removal of grease, oil and petroleum products from surfaces can be very difficult. Previously, halogenated and petroleum solvents were used to clean oily surfaces. However, worker and regulatory concerns over hazardous wastes and exposure to flammable and carcinogenic solvents have dictated that industry find alternative cleaners free of hazardous and toxic substances. GREASE-X is specifically designed to provide a water-based cleaning system that penetrates surfaces and removes grease and oils without generating toxic flammable vapors.

### **PRODUCT DESCRIPTION**

GREASE-X is a water-based, concentrated heavy-duty liquid cleaner, which penetrates and softens all forms of grease, fats and oil, emulsifying them on contact with water. It contains biodegradable non-ionic surfactants, chelating agents, and water. GREASE-X additionally contains biological catalyst to enzymatically break down grease.

### **BENEFITS OF GREASE-X USAGE**

- Efficiently cleans all types of animal, vegetable and petroleum greases, fats and heavy oils from hard and porous surfaces.
- Removes dried, oxidized greases and crankcase oil trapped in porous sidewalks, driveways and concrete floors.
- Works equally well in either fresh or salt water.
- Safe to use on a variety of surfaces including plastics, metals and woods.
- Water based for ease of use and safer handling safety than solvent-based cleaners.

## APPLICATION SUGGESTIONS: GENERAL

GREASE-X is supplied as a concentrate and can be diluted with water to meet a wide range of cleaning needs. Suggested dilution rates for GREASE-X are:

	<u>GREASE-X Volume</u>	<u>Water Volume</u>
Heavy Degreasing	1 part	5 to 20 parts
Medium Degreasing	1 part	40 parts
Light Degreasing	1 part	100 parts
Concrete Degreasing	1 part	5 to 10 parts
Sewer jetting	1 part	100 parts

The most effective dilutions for each use are best determined by user experience. In some instances, agitation, scrubbing and increased contact time may be needed to achieve superior results. When used with strong agitation, GREASE-X tends to produce foam that will break when the agitation is stopped.

## APPLICATION SUGGESTIONS: SPECIFIC APPLICATIONS

### DEGREASING

GREASE-X is a highly effective penetrating and emulsifying cleaner useful in degreasing all types of equipment and surfaces where heavy grease and oil accumulate. GREASE-X should be applied to the grease-coated surface and allowed to penetrate the oily or greasy film. Afterwards, wipe the surface clean with a cloth or soft brush and rinse with water.

### CONCRETE

Removal of grease, oil and petroleum products from concrete floors, transformer pads, subsurface vaults and other concrete surfaces can be extremely difficult. GREASE-X is specifically designed to provide a water-based cleaning system that penetrates concrete surfaces to remove grease and oils.

On concrete surfaces, GREASE-X can be applied directly as a concentrate or diluted 1:3 with water, depending on how long the oil or grease has been in contact with the concrete and its level of penetration. It can be poured or sprayed on the contaminated area. After the GREASE-X has been applied, allow it to set for approximately 10 to 30 minutes to penetrate. Brush the surface thoroughly with a stiff brush, rinse with a high-pressure water hose and dry the surface. If necessary, repeat the process.

A variety of factors affect cleaning efficiency including porosity and whether or not the concrete was previously sealed. On porous concrete where the penetration is deep, some of the stain may not come out completely. If the concrete is no longer oily to the touch or sealing tape sticks to the surface, the concrete has been adequately cleaned and may be sealed or painted.

### AUTOMOTIVE

GREASE-X is an excellent general purpose cleaner that rinses streak and spot free with water. Road film, road tar, insects, cinders and diesel smoke are easily removed. GREASE-X will not harm the finish if the GREASE-X solution is removed by rinsing or wiping with a water soaked sponge soon after application.

To clean and degrease automotive parts in dip tanks, use GREASE-X diluted 1:4 with water. The time required for grease and oil removal varies with the degree of cleaning required. In a soaking application, GREASE-X will penetrate and lift the paint of valve covers to bare metal in 24 hours. If only oil or grease

removal is required, less exposure time is required. Agitating the dip tank solution helps speed the process. Following cleaning, parts should be rinsed with water and dried.

## **MACHINE SHOPS**

Due to its ability to penetrate and emulsify petroleum grease, GREASE-X has a wide variety of uses in machine shops. It helps disperse water-soluble oils by eliminating the formation of oil curds and congealing.

The addition of GREASE-X to sump systems cleans the sump and pressure lines, which helps to reduce maintenance costs. As an emulsifying cleaner for sumps, add GREASE-X to the system and circulate for 30 minutes. While the sump is being cleaned, the same solution may be used to wash the exterior of the equipment. Through its degreasing activity, this mixture helps remove metal filings blocking pressure lines and pumps. When cleaning is finished, drain the sump and rinse with water to help remove any residual metal filings.

## **JETTING OPERATIONS**

GREASE-X use in jetting operations will help more completely remove accumulated FOG. GREASE-X wets and penetrates the grease thereby allowing the jet water stream to more completely remove the grease. For best results,

1. Mix GREASE-X at 1% by volume (i.e. 5 gallon GREASE-X per 500 gallons jetting water).
  - Fill the jetting tank with water and then add GREASE-X, not the reverse order.
  - This 500 gallon mixture will treat 500 feet of line up to 10 inches in diameter.
2. Spray mixture at high pressure until the spray reaches the opposite manhole.
3. Turn off sprayer for ten minutes to allow GREASE-X to penetrate the grease. For exceptionally heavy grease accumulation or exceptionally hard grease allow extra time.
4. Spray back at high pressure to clear the line.

## **PRODUCT DATA**

### **Typical Value**

pH (concentrate)	approx. 11.5
pH (1% dilution)	approx. 8.9
Appearance	clear solution
Color	light yellow
Odor	sweet
Specific Gravity	approx. 1.05 (at 20°C)
Flash Point	>200°F

**PACKGING:** GREASE-X is supplied in 5-gallon plastic pails containing 40 pounds net weight and in cases of ten quart plastic bottles that contain 2.1 pounds net weight each.

**PRODUCT STORAGE:** Store in original container.

## **ENVIRONMENTAL ACCEPTABILITY**

- Does not contain petroleum solvents or halogenated solvents such as trichloroethylene or carbon tetrachloride.
- Environmentally friendly and biodegradable.
- Non-caustic and non-polluting.
- Non-flammable

## **SAFETY and COMPATABILITY**

Users are advised to consult the Material Safety Data Sheet for information and guidance. Skin and eye contact should be avoided.

Diluted solutions of GREASE-X can be safely mixed with the majority of other products formulated for use in cleaning and sanitation. Concentrated GREASE-X should not be mixed with acids or cleaning products containing acids.

**For institutional and industrial use only.  
Keep out of reach of children.**

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4/06

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