

# Emerald™ HD

Emerald HD is a clear, heavy duty, mildly alkaline general-purpose maintenance cleaner intended for industrial and institutional cleaning tasks. The product is water soluble, non-flammable and free of petroleum and chlorinated solvents, caustics, borates, and phosphates. Emerald HD is formulated with a biodegradable surfactant system derived from sustainable resources offering superior wetting, emulsification, and dispersion. Because of its unique formulation, Emerald HD will clean a variety of oils, fats, and particulate soils.

## Features & Benefits

Wetting agents are derived from sustainable sources and are biodegradable	Recognized by US EPA/DfE for improved health, safety & environmental qualities
Easily waste treated	Contains no chelating agents
Emulsifies most oils	Good particulate soil removal characteristics

## Typical Applications

- Floor cleaning in manufacturing plants
- Machinery cleaning; stamping, drawing, milling, etc.
- Glass cleaning
- General maintenance cleaning
- Transportation cleaning
- Steam cleaning

## Operating Conditions

Emerald HD may be used as a spray on, wipe or brush-on cleaner, or as a soak cleaner. It is not recommended for use in helical spray or turbo washers, as foam levels may be excessive. Emerald HD 2 or Emerald IC P 1 should be considered when a lower foaming product is required for use in these industrial parts cleaning applications.

Floor cleaning in floor scrubbing machines dilute 1-part Emerald HD with 15 to 20 parts water.



Light soils on painted surfaces, dilute 1-part Emerald HD with 10 to 19 parts water, spray, or wipe on then rinse or wipe off with clean cloth. For heavier dirt, dilute 1 part to 5 parts of water.

Machinery cleaning dilute 1-part Emerald HD with 1 to 4 parts for light oil and soils, spray or wipe on then rinse or wipe off with a clean cloth. For heavy oil and soil removal, dilute 1 to 1.

Soak tank cleaning of clean metal parts, tools, filters, etc. use at 10% to 20% by volume. Heating solution (up to 180°F) will speed cleaning. Most metals are not harmed when using the dilutions recommended above. Emerald HD is not recommended for use on aluminum substrates at elevated temperatures.

Steam cleaning dilute 1-part Emerald HD with 50 to 99 parts water.

Glass cleaning use at 0.5 to 1.0 % by volume (1 to 2 fluid ounces per gallon).

Transportation cleaning, for heavy soils dilute one-part Emerald HD with 20 parts water. For light soils dilute one part with 30 to 50 parts water.

Emerald HD is a heavy duty alkaline cleaner. Most surfaces can be safely cleaned with when used as directed. Rinsing or wiping off should be done as quickly as possible. When using on painted surfaces it is always advisable to keep contact times to a minimum.

## Waste Disposal

Used solutions and rinse waters should be discharged to a permitted wastewater treatment system in accordance with all applicable local, state, and federal environmental regulations.

## Caution

Emerald HD is a mildly alkaline material so always wear goggles, rubber gloves and protective clothing when working with the product. It is important to read and understand the material safety data sheet prior to working with Emerald HD.

In case of skin or eye contact flush exposed areas immediately with clean, cold water. Contact a doctor in case of eye contact or injury.



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## Our People. Your Problem Solvers.

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