



# EMS Fortis

SYNTHETIC ACID, NON-SOLVENT, NON-CAUSTIC CLEANER

- Non-Corrosive
- Non-Caustic
- Acid Free
- Lifts Grease
- Cuts Animal Fats
- Cuts Vegetable Fats
- Non-Emulsifying
- One-Step Process
- Non-D.O.T. Regulated
- Safe on Paint, Metal, Glass
- Eliminates Odors
- NSF Certified

EMS' newly patented synthetic acid system, SynTech<sup>®</sup> replaces harsh and dangerous cleaners in industries from vehicle cleaning, food processing, waste and water treatment. What makes EMS cleaners unique is their ability to outperform the harshest acidic and caustic solutions while remaining non-corrosive,, non-skin irritating and non-regulated by the D.O.T. In fact, they are so safe, they carry a triple-zero HMIS score.

Fortis is a new universal cleaner specifically made to replace dangerous cleaners used in your industry. The synthetic nature of EMS' patented ingredients allows us to combine our low pH SynTech along with our high pH hydrocarbon displacement ingredient SynClean.

Fortis encapsulates and lifts petroleum-based oils, vegetable and animal fats, along with dirt, soils and grime without emulsifying. This combined with no detectable BOD limits and COD limits below 100 means that Fortis will not create additional problems in your waste water runoff.

We also include our live vegetative microbes to break down solids removes odor on contact with over 3 billion colonies per product gram of bio-enzymes and multi-cultured bacteria.

The result is a concentrated liquid that cleans, brightens, deodorizes and protects in a simple one-step process, eliminating costly steps in the cleaning process. Simply apply and rinse.

Fortis is NSF certified for a wide range of uses including A1, A2 A3, A4, A5, A8, C1, C2 and D1.

Fortis has been recognized for safer chemistry by the EPA's Design for Environment program and is certified as a direct release product.



Recognized for Safer Chemistry  
[www.epa.gov/dfe](http://www.epa.gov/dfe)



## Technical Data

NITRATE LEVEL: **0% - None**  
FORM: **Liquid**  
ODOR: **Mild Soapy Odor**  
COLOR: **Light Amber**  
DETERGENCY: **Strong**  
TOXICITY: **Non Toxic**  
WETTING ABILITY: **Excellent**  
STORAGE STABILITY: **3 Years+**  
COLD STABILITY: **26° F**

SHIPPER REGULATIONS: **None**  
FLASH POINT: **None**  
BOILING POINT: **234° F**  
SOLUBILITY IN WATER: **100%**  
BIODEGRADABLE: **Yes/100%**  
VOLATILE BY VOLUME: **N/A**  
CARCINOGENS: **None**  
VISCOSITY: **Thin**  
EVAPORATION RATE: **Slow**

## Common Uses

Fortis is a super concentrated industrial cleaner, disinfectant, deodorizer, viracide, and degreaser. Its uses are not limited to waster hauler trucks. Other uses include:

### Cleaning Uses

Spray in dumpsters to remove odors instantly. Microbes continue to work for days.

Dumps

Cargo ships

Slaughter houses

Street cleaning equipment

Processing area wash down

Mowing Equipment

Poultry Processing Plants

## Metal Studies

Dept. of Transportation (D.O.T.) Test Protocols as per Section 173.154 Exceptions for Class 8 (corrosive materials): The material being tested must be proven to be non-destructive or not to cause irreversible alterations in human skin tissue. Testing was conducted on an albino rabbit.

**Conclusion:** Fortis was proven to be NON DESTRUCTIVE on human skin tissue.

**Metal Test Limits:** D.O.T. Classifies a material to be CORROSIVE if it has a corrosion rate that exceeds 6.25 mmpy on SAE C1020 carbon steel.

Results of Fortis: SAE 1020 carbon steel = 0.00 mmpy

**Conclusion:** Fortis is NON-CORROSIVE

## Dilution Specifications

Please refer to the product label.

## Toxicity Studies

**Toxicity Limits: Test Procedure OECD 202, 48 hr.**  
LC 50 and LD 50 (rat oral) found to be NON-TOXIC

**Mutagenicity Limits: OECD Guidelines Sec. 471 Chemicals**  
Fortis was found NOT TO BE MUTAGENIC

### Dermal Irritation & Corrosion Test

A modified Draize method was used as described in OECD Guidelines for the Testing of Chemicals Sec. 404 and complies with the requirements of OECD Principles of GLP, Annex revised as of July 1992.

Fortis received a Primary Irritation Score of .3 +/-0.1 and is classified as a "Non-Skin Irritant"

### Biodegradation & Aquatic Safety

Test Procedure: Hach Reactor Digestion method for Waste Water and Sea Water. Hach Reactor Digestion Method is a semi-micro adaptation of the Standard Methods.

Test Results Conclude Fortis was found to be 100% Biodegradable

COD = **Low Detectable Limits**

BOD = **No Detectable Limits**

## Classifications & Approvals

**D.O.T., TDG, IMO, IATA, IMDG, SARA 313 311/312, California Prop 65**NON-Regulated

### FDA

Approved as Safe (GRAS)  
(CGMP) CFR 184.1923

### USDA Authorization

A1, A2, A3, A4, A8, C1

### EPA Design for Environment

Recognized for Safer Chemistry [www.epa.gov/dfc](http://www.epa.gov/dfc)

### NSF

A1, A2, A3, A4, A5, A8, C1, C2 & D1

Additional Studies & Results: When tested, Fortis showed no potential for the generation of Carbon Dioxide under NIOSH 7903, OSHA & ACGIH testing protocols governing workplace environments.