



EMS Foro SapH Etch

NON-REGULATED, SYNTHETIC ACID LOW pH CLEANER

- Non-Corrosive
- 100% Synthetic Acid
- Non-Fuming
- Non-D.O.T. Regulated
- 100% Biodegradable
- Removes Rust
- Etches Concrete
- Safe on Glass & Metal
- OSHA and EPA Compliant
- Safe on Skin
- Liquid or Gel Versions

Foro is a non-corrosive, non-skin irritant, and biodegradable cleaner capable effectively as traditional acids. Powered by SynTech[®], the world's only synthetic acid, Foro earns a triple zero HMIS score.

Foro SapH Etch can be used for a variety of uses. The Foro formulation was made to replace 32% hydrochloric acid without the dangers associated with that hazardous cleaner. Foro contains no acid and is non-corrosive. And because it is 100% synthetic, no neutralizing step is needed. Simply rinse with water.

Foro SapH Etch is the easiest etching product you have ever used. The extreme hydrogen load in Foro's active ingredient, SynTech, gives Foro the punch it needs to dissolve calcium carbonate. But because the hydrogen in SynTech has a much stronger bond to the H⁺ ion than those in acids, Foro SapH Etch has a slower spending nature. This makes it ideal for use in detailed and architectural etching. And because Foro is non-fuming, it can be used indoors where using HCl would be problematic.

Foro is non-D.O.T. regulated, and is readily biodegradable per OECD 301D. Foro is FDA GRAS and considered non-hazardous by OSHA. Foro SapH Etch is made in our GreenCircle certified factory.

Foro SapH Etch. Powered by SynTech. Safe by Design.



Technical Data

BIODEGRADABLE: Yes/100%	FLAMMABILITY: Non-Flammable
FORM: Liquid	BOILING POINT: 214° F
ODOR: Mild Soapy Odor	SOLUBILITY IN WATER: 100%
COLD STABILITY: -26° F	VOCs: None
DETERGENCY: Moderate	VOLATILE BY VOLUME: N/A
PHOSPHATES: None	CARCINOGENS: None
WETTING ABILITY: Excellent	SHELF LIFE: 1 Year

Dissolving Properties

Calcium Oxide Dissolving Properties with 3 Minute Exposure

Foro SapH Etch	17.2
HCl (Muriatic)	8.9
Urea HCL	7.2
Urea Sulfuric	6.1
Phosphoric	0.9
Citric	0.0
Lactic	0.2
Acetic	0.1
Glycolic	0.2
Oxalic	0.0
Malic	0.4

Test Conditions

200 grams of 5% active solution
1 Calcium Oxide Cube
3 Minutes @ 70° F

Clearly, Foro SapH Etch outperforms other acids when it comes to dissolving calcium oxide, including HCl (Muriatic) which is highly corrosive.

DOT STATEMENT

Non-D.O.T. Regulated/Non-D.O.T. Hazardous
EXEMPT as per 49 CFR 173.154(d) (2) <6.25 mmpy

Storage and Handling

Foro SapH Etch has a shelf life of more than one year. Product is freeze/thaw stable. Keep container closed when not in use. Safety glasses are suggested when handling this product. No special gloves or protective equipment are required. Due to the product's low pH, aluminum piping and fittings should not be used. Consult your authorized EMS representative for tank, piping, valve, hose coupling and fitting recommendations.

Foro SapH Etch is typically sold in 275 gallon totes but can be packaged in smaller containers as well as bulk delivery. Rinse empty container and discard as per federal, state and local regulations.

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

Dilution Specification

Please refer to the product label.

Toxicity Studies

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

Mutagenicity Limits: OECD Guidelines Sec. 471 Chemicals: NON-MUTAGENIC

Dermal Irritation & Corrosion

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.

Foro SapH Etch is classified as a "Very Mild 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.

Foro SapH Etch is 100% Biodegradable.

Classifications & Approvals

D.O.T., IMO, IATA, IMDG - Non-Regulated

TDG - Non-Regulated to and through Canada

SARA 313 311/312 - This product does not contain any ingredients that are subject to the reporting requirements.

California Prop 65 - This product does not contain any ingredients known to the state of California to cause cancer, birth defects or any other reproductive harm.

FDA - Recognized as Safe (GRAS)

USDA Authorization
A1, A2, A4, A8, C3