

EMS Elevate

NON-CORROSIVE, HIGH PH BUFFERING AGENT



- 100% Caustic Free
- Non-Corrosive
- Effectively increases pH
- Safe on Metal
- No Neutralization Step
- FDA Recognized GRAS
- Non-D.O.T. Regulated
- Non Skin Irritant
- 100% Readily Biodegradable

Until now, the hydroponics industry has been forced to use dangerous caustics for pH buffering. EMS Elevate uses the most advanced developments in green technologies to replace those dangerous chemicals with safe yet potent alternatives

Elevate has a pH of 13 and the ability to raise the pH of any liquid. Elevate is effective even at very low temperatures and is freeze-thaw stable. Elevate carries a triple-zero HMIS score, is non-toxic, non-fuming, safe on skin, eyes and equipment. Elevate can be blended with water safely with no exothermic reaction.

Because Elevate contains no traditional hydroxides, it does not leave a residue of salts after use. And because Elevate neutralizes with water, there is no need for a follow up acid wash. Elevate has no BODs and almost no CODs. Elevate is 100% readily biodegradable and is guaranteed to exceed the EPA's requirements as set forth in the Safer Choice screening process. That includes 100% biodegradation in less than 10 days. Like all EMS products, Elevate can be shipped common carrier and requires no secondary containment. Elevate can even be shipped by air freight.

Elevate boasts LC50 and LD50 scores well below regulated toxicity limits and many times less than caustics.



Technical Data

BIODEGRADABLE:
Yes/100% FORM: Liquid
ODOR: Mild
COLD STABILITY: -26° F
DETERGENCY: Excellent
PHOSPHATES: None
WETTING ABILITY: Excellent

FLAMMABILITY: Non-Flammable
BOILING POINT: 263° F
SOLUBILITY IN WATER: 100%
VOCs: None
VOLATILE BY VOLUME: N/A
CARCINOGENS: None
SHELF LIFE: 1 Year

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.

Elevate 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.

Elevate 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

NSF
A1

DOT STATEMENT

Non-D.O.T. Regulated/Non-D.O.T. Hazardous
EXEMPT as per 49 CFR 173.154(d) (1) <6.25 mmpy

D. O. T. classifies a material to be corrosive and hazardous if it has a corrosion rate that exceeds 6.25 mmpy on SAE C1020 carbon steel or 7075- Y6 Aluminum.

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