



The Nitrate Elimination Co., Inc.

TO PLACE AN ORDER:

Tel: 1-888-NITRATE (Toll Free)
1-906-296-1000

Secure OnLine: www.nitrate.com

Fax: 1-906-296-8003

Email: sales@nitrate.com

Website: nitrate.com

Mail: 217 Calumet St., Lake Linden, MI 49945 USA

NECi CATALOG of PRODUCTS

Nitrate Test Kits for:

- ✓ Consumers
- ✓ Farmers
- ✓ Crop & Soil Consultants
- ✓ Analytical Chemists
- ✓ Environmental Chemists
- ✓ Biomedical Research
- ✓ Plant & Soil science
- ✓ Oceanographers
- ✓ Environmental Monitoring
- ✓ Compliance Monitoring
- ✓ Quality Control
- ✓ Livestock Feed Safety
- ✓ **New!** Reagent Packages for Automated nitrate analysis

Measure nitrate in:

- ✓ Drinking water
- ✓ Wastewater
- ✓ Groundwater
- ✓ Streams, Lakes, Rivers
- ✓ Seawater
- ✓ Agricultural samples
- ✓ Biological samples
- ✓ **Anything** aqueous

Measuring Nitrate? Use Enzymes!

Enzyme-based nitrate analysis is accurate, reliable, economical, and environmentally benign. Safe for you and for the environment!

NECi's nitrate detection reagents and test kits are based on the enzyme nitrate reductase (NaR). Our new and improved Superior Stock Nitrate Reductase enzyme makes our technology even better: better stability, longer shelf-life, improved performance in salty samples for all our Nitrate Test Reagent products. We offer Test Kits for any skill level: from novice user to demanding lab applications.

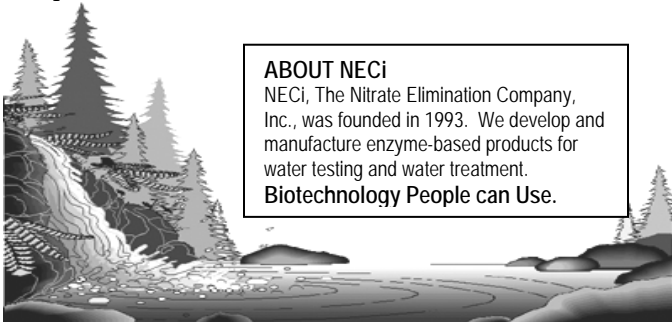
New for 2007:

- Superior Stock Nitrate Reductase (AtNaR2) a new form of NaR which is very active at 37°C.
- Discrete Analyzer Reagent Kits (D-ARK) for running NECi NaR Nitrate Analysis Method in qualified discrete analyzer instruments.
- Agricultural Nitrate Test Kits (Ag-NTK): maximize yield, stay in compliance, and protect livestock health. Try our user-friendly Nitrate Test Kits for agricultural water, soil, and plant samples.

How Enzyme-based Nitrate Analysis Works: Enzymes are biodegradable proteins, safe for the user and the environment. The enzyme used in our Nitrate Test Kits and Reagents is a purified form of Nitrate Reductase (NaR). The NaR reaction is diagrammed like this:



NADH (nicotinamide adenine dinucleotide) is a derivative of a B vitamin. Other test kits use the toxic metals cadmium or zinc for this step. A few competitors use a different form of NaR that requires more expensive NADPH as its cofactor. NECi's NaR is more stable. The resulting nitrite reacts with Color Reagents (the Griess Reaction) to form a pink color easily detected by eye or by a photometer at 540nm ± 10nm. In Home, Ag, and Environmental kits, you'll compare the color to that of the nitrate standards (supplied with each kit) to determine the nitrate content of your samples.



ABOUT NECi

NECi, The Nitrate Elimination Company, Inc., was founded in 1993. We develop and manufacture enzyme-based products for water testing and water treatment. **Biotechnology People can Use.**

Custom kits and reagent packages are available for commercial clients and OEM partners.

Call us to discuss discount pricing for bulk orders.

Dealer and distributor inquiries are always welcome.



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NECi PRODUCT LIST

Superior Stock Nitrate Reductase (NaR)

NECi Item #	Description	Price (US \$)	Qty
YNaR-1	1.0 unit Affinity-purified enzyme. Supplied freeze-dried. <i>One unit reduces 1 μmol nitrate/minute @ 25°C</i>	20.00	
AtNaR-1 NEW!	1.0 unit Affinity-purified enzyme. Supplied freeze-dried. <i>One unit reduces 1 μmol nitrate/minute @ 37°C</i>	20.00	

NEW! Nitrate Autoanalyzer Reagent Kits (ARK)

Superior Stock Nitrate Reductase Reagents for Discrete Analyzers (D-ARK)			
Qualified Discrete Analyzers include Kone Lab 60 and Lachat AP300*			
D-Ark-1	Reagents (AtNaR2 & NADH) for 330 samples in KoneLab instruments	66.00	
D-Ark-1PB	Reagents (Phosphate-EDTA Buffer, AtNaR2 & NADH) for 330 samples in KoneLab instruments	82.50	

*Hach Co. supplies reagents for the Lachat AP300 Discrete Analyzer.

Superior Stock Nitrate Reductase Reagents for automated nitrate analysis (FIA, CFA)			
Replace your cadmium column with reliable and environmentally benign enzyme reagents			
CFA-Ark-1	Reagents (YNaR + NADH) for 4 hours of analysis in CFA eqmt	20.00	
FIA-Ark-1	Reagents for up to 50 samples in most FIA eqmt	20.00	

Reagents for Experienced Users

NaR Reagent Packs: 1.0 unit of enzyme plus calibrated quantities of reaction cofactors, all in freeze-dried form. Each Pack is sufficient for 20 – 50 assays depending on your assay design.			
NaR-PkY	YNaR1 + NADH	25.00	
Corn Leaf NADH: NaR [EC 1.7.1.1]			
NaR-1	Immunoaffinity-purified <i>Zea mays</i> NaR, freeze-dried One vial, 0.5 unit/vial	20.00	
Antibodies	Monoclonal and polyclonal Antibodies to higher plant NADH:NaR Abs for dicots and monocots are available	Please inquire.	
L-NaRA-100	NADH:NaR Activity Assay Kit	150.00	



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NEW! Nitrate Test Kits for Agriculture (Ag-NTK)

Test Kit	Product Description	Pack Size (suffix & Price)				Price
		-100	-108	-120	-2xx	
Order by Pack size suffix	-100: Four samples + one nitrate standard -108: Eight pack (8 samples + 2 standards) -120: Twenty pack (20 samples + 5 standards) -2xx: Custom pack size, Inquire	\$29.95	\$49.90	99.80	Ask!	
AW-NTK	Runoff, wells, water samples					
P-NTK	Plant Samples for nutrient levels, harvest decisions etc					
S-NTK	Soil testing, NMP, PSNT					
LF-NTK	Livestock Feed: corn stalks, silage, standing hay					

Nitrate Test Kits for Home, Farm and Environmental Users

Consumer Test Kits (C-NTK): no skill or equipment needed

NECi Item #	Description	Price (US \$)	Qty
C-NTK-101	One test: does your water sample and one nitrate standard	12.95	
C-NTK-105	Five tests: Five water samples and one nitrate standard	49.95	

Environmental Field Test Kits

Test Kit	Product Description	Pack Size (see Ag-NTK)				Price Per kit
	Test environmental samples: water, salt water, rivers, lakes, streams, wells	-100 \$19.95	-108 \$29.95	-120 \$59.95	-2xx Ask!	
E-NTK	Standard Range: 0.5 – 10.0 ppm					
CM-NTK	Low Range: 0.05 – 2.0 ppm nitrate-N					

Accessories:

P-50	Pipettor, 50µl, for more accurate measurements	15.00	
PT-50pk	Packet of 50 pipet tips (for above P-50)	3.75	
Uni-45	4-pack Filter vials for soil or plant samples – can be re-used	20.00	
GP-1	Garlic press for plant sample prep, aluminum	12.00	
Char-5	Activated charcoal for plant sample preparation, 5 gram	7.50	

Extra reagents: See Lab Reagents for Experienced Users on previous page

Notes on Nitrate Units: Nitrate units can be confusing. Use this table to interconvert units.

Nitrate is reported in different units depending on your field of use and where you live.

	US EPA	Europe, California	Molar
Low range limit	1.0 ppm nitrate-N	4.4 ppm nitrate	71 µM nitrate
Standard range limit	10.0 ppm nitrate-N	44 ppm nitrate	710 µM nitrate

NECi uses the US EPA unit of ppm nitrate-N (nitrate-nitrogen). The EPA limit for potable water is 10.0 ppm nitrate-N.



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NECi

Laboratory Nitrate Test Kits (L-NTK/M-NTK)

for quantitative data

All kits come with nitrate standards

Lab Kits (L-NTK) – Test Tube Format			
L-NTK-201	Standard Range, 25 tests	35.00	
L-NTK-202	Low Range, 25 tests	35.00	
L-NTK-203	Standard Range, 100 tests	110.00	
L-NTK-204	Low Range, 100 tests	110.00	
Micro Plate Format (M-NTK) One 96-well plate			
M-NTK-301	Standard Range, 96 tests	125.00	
M-NTK-302	Low Range, 96 tests	125.00	
You will need pipets, photometer for reading Absorbance at 540 nm [± 10 nm], reagent grade water, 3 N HCL.			

CHOOSING THE RIGHT NITRATE TEST KIT (NTK):

NECi NaR-based Nitrate Test Kits are safe, accurate, and easy to use. No special safety protection or waste-disposal precautions are required. Reliable information, no toxic waste.

Agricultural NTK (Ag-NTK): Designed for fast results in the field.	There's an Ag-NTK for any type of ag sample: Plants, soils, well, feed, runoff. Let us help you maximize yield <u>and</u> stay in compliance. <ul style="list-style-type: none"> • Use P-NTK series for plant tissue testing • Use S-NTK series for soils • Use AW-NTK for well water, ponds, and ag runoff • Use LF-NTK series to test feed for nitrate toxicity
Consumer NTK (C-NTK): Simple kit for any user.	Designed to enable well owners to test drinking water for safety.
Environmental Field NTK (E-NTK): New design based on our Ag Kit line. Simplicity, accuracy and safety in Field Nitrate testing.	Designed for on-site and classroom use. Fresh or salt water, any aqueous extract. E-NTK reagents are an ETV®-verified technology! <ul style="list-style-type: none"> • Use E-NTK-series to test for compliance with EPA standards • Use CM-NTK-series to test environmental water samples • Skill level: advanced middle school and up • Accuracy: ~1 ppm for Std Range, ~0.1 ppm for Low Range kits. <i>Salt water, too! Just ask!</i>
Lab NTK (L-NTK/M-NTK): For the demanding user with lab equipment. <ul style="list-style-type: none"> • Test tube and 96-well microplate kit formats. • ARK Reagent Packs for autoanalyzers (CFA, FIA). • Or design your own assay. 	The best nitrate test kits available. These kits and reagent packs provide quantitative data, even in difficult samples. Fresh and salt water – anything aqueous. <ul style="list-style-type: none"> • <i>Standard Range NTK</i> are unaffected by highly colored samples, common water contaminants, or pH extremes. • <i>Low Range NTK</i> let you test nitrate levels down to 0.05 ppm in the lab or in the Field, <i>even in salt water!</i> • Skill level: use of pipets and a colorimeter required. • Accuracy: to 2 decimal places (e.g. 0.55 ppm).

Store All Kits refrigerated or in a cool, dry place (below 75°F)