



## NITRATE NITROGEN TABLET KIT

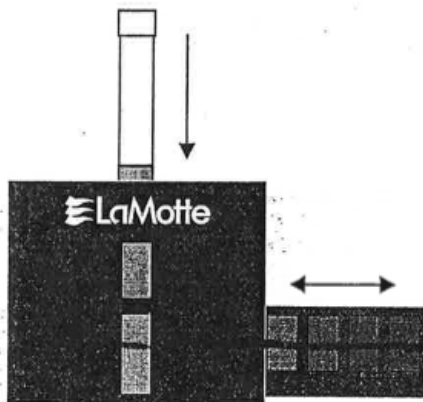
CODE 3354

| QUANTITY | CONTENTS                              | CODE        |
|----------|---------------------------------------|-------------|
| 50       | *Nitrate #1 Tablets                   | *2799A-H    |
| 50       | *Nitrate #2 CTA Tablets               | *NN-3703A-H |
| 2        | Test Tubes, plastic, w/caps           | 0106        |
| 1        | Nitrate-Nitrogen Octa-Slide, 0-15 ppm | 3494        |
| 1        | Octa-Slide Viewer                     | 1100        |

\*WARNING; Reagents marked with an \* are considered to be potential health hazards. To view or print a Material Safety Data Sheet (MSDS) for these reagents go to [www.lamotte.com](http://www.lamotte.com). To obtain a printed copy, contact LaMotte by e-mail, phone or fax.

To order individual reagents or test kit components, use the specified code number.


### USE OF THE OCTA-SLIDE VIEWER




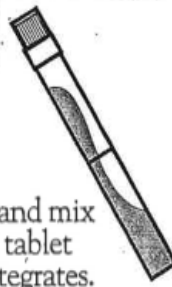
The Octa-Slide Viewer should be held so non-direct light enters through the back of the comparator. With sample tube inserted at top, slide the Octa-Slide bar through the viewer and match with color standard.


WARNING! This set contains chemicals that may be harmful if misused. Read cautions on individual containers carefully. Not to be used by children except under adult supervision

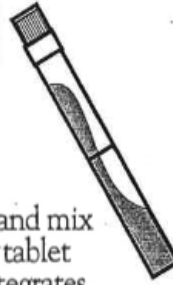
## PROCEDURE


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1. Fill a test tube (0106) to the 5 mL line with the water sample.
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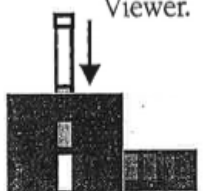
2. Add one \*Nitrate #1 Tablet (2799A).
- 


3. Cap and mix until tablet disintegrates.
- 

4. Add one \*Nitrate #2 CTA Tablet (NN-3703A).
- 

5. Cap and mix until tablet disintegrates.
- 

6. Wait 5 minutes.
- 

7. Insert Nitrate-Nitrogen Octa-Slide Bar (3494) into the Octa-Slide Viewer (1100).
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8. Insert test tube into Octa-Slide Viewer.
- 

9. Match sample color to a color standard. Record as ppm Nitrate Nitrogen.

~~To convert to Nitrate, multiply results by 4.4. Record as ppm Nitrate.~~

## LaMOTTE COMPANY

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## Nitrate Nitrogen Tablet Kit\*

LaMotte Test Kit (3354)

*\*These are teacher written directions.*

1. **Before each test, rinse each test tube with distilled water** and empty into the hazardous water bucket.
2. Shake up your collected water sample bottle. Fill a test tube to the 5 ml line with sample water.
3. Add one **Nitrate #1** tablet. Cap the tube and mix until tablet dissolves.
4. Add one **Nitrate #2** tablet to the same test tube. Cap the tube and mix until tablet dissolves. Wait 5 minutes.
5. Insert Nitrate-Nitrogen Octa-Slide into the Octa-Slide viewer. Insert test tube into Octa-Slide viewer. Match sample color to a color standard (match the degrees of pinkness). Record your data.
6. Empty the sample into the hazardous water bucket and rinse with distilled water.
7. Wash your hands.

### Use of the Octa-Slide Viewer

The Octa-Slide viewer should be held so non-direct light enters through the back of the comparator. With sample tube inserted at top, slide the color bar through the viewer and match with color standards.

**Note:** Samples colors appearing between whole numbers on the Octa-Slide may be recorded as 0.5 values (for example 1.5). Nitrates are sometimes not found in measurable levels in our watersheds. Sometimes you will get zero for your results. This is not unusual and is OK.

**• Never wash the Nitrates test tubes with soap of any kind as this may contaminate the results.**

# Nitrate Data Sheet

**Step #1:** Fill out all the information below

School: \_\_\_\_\_  
 Teacher: \_\_\_\_\_  
 Names of Monitors: \_\_\_\_\_  
 Stream Name: \_\_\_\_\_  
 Test Location: \_\_\_\_\_

Weather: \_\_\_\_\_  
 Air Temperature: \_\_\_\_\_  
 Test Kit: (Hach, LaMotte or other) \_\_\_\_\_  
 Date: \_\_\_\_\_  
 Time: \_\_\_\_\_

**Step #2:** Record at least 3 replicate sample values in the chart below. Values should be similar, re-test any samples with values at least 1.0 mg/L unit different from other replicates. Do **NOT** multiply by 4.4.

| Replicate #1 | Replicate #2 | Replicate #3 | Replicate #4 |
|--------------|--------------|--------------|--------------|
| _____ mg/L   | _____ mg/L   | _____ mg/L   | _____ mg/L   |

**Step #3:** Record the **average** of your 3 replicate samples in the box below. Record any comments or observations.

|  |            |  |
|--|------------|--|
| <b>Test Result</b><br>(record the average) | _____ mg/L | <b>Comments:</b> _____<br>_____<br>_____ |
|--|------------|--|

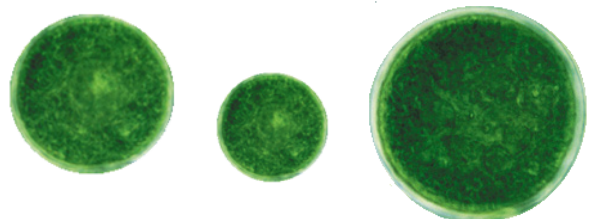
**Step #4:** Record two turbidity test results from previously recorded data for your site in table below. **Step #5:** Record comments from your comparison.

|                                    |            |  |
|------------------------------------|------------|--|
| <b>Test Results</b><br>Date: _____ | _____ mg/L | <b>Comments:</b> _____<br>_____<br>_____ |
| <b>Test Results</b><br>Date: _____ | _____ mg/L |  |

**Step #6:** Have the recorder sign once each step is complete.

Test Completed \_\_\_\_\_  
 Date: \_\_\_\_\_  
 Data Reviewed \_\_\_\_\_  
 Date: \_\_\_\_\_  
 Data Transferred to  
 Master Data Sheet \_\_\_\_\_  
 Date: \_\_\_\_\_

**Optimal Nitrate Values:** Nitrate values in unpolluted water bodies should generally be below 1.0 mg/L. High nitrate values can artificially stimulate plant growth resulting in algal blooms which speed up the aging process of aquatic systems. The main sources of nitrates are from failing septic systems, fertilizers, and runoff from pet wastes, cattle feedlots, dairies, and barnyards.



**Streamside Vegetation**

|   | None/Sparse              | Occasional               | Common                   |
|---|--------------------------|--------------------------|--------------------------|
| <b>Conifers</b>                             | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| <b>Deciduous</b>                            | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| <b>Small trees<br/>and shrubs (&lt;20')</b> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| <b>Grasses</b>                              | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |

**Vegetation appears**    **natural**     **or cultivated**

**Average width of riparian corridor in feet**     **ft.**

**Extent to which trees and other vegetation shade stream:**

0-25%     25-50%     50-75%     75-100%

**Presence of logs or other large woody debris in stream:**

none     occasional     common