

DROP TEST

NEUTRALIZING AMINE EQUIVALENCE (PPM) CHA (4); DEAE/DEEA (5); MOPA (3.8); MEA (2.5); MOR (3.8); TEA (6)

COMPONENTS:

| | |
|------------|--|
| 1 x 5072 | Instruction |
| 1 x 9198 | Sample Tube, Graduated (25 mL) w/ cap, plastic |
| 1 x R-0645 | Total Alkalinity Indicator, DB |
| 1 x R-0869 | Neutralizing Amine Titrating Solution, DB |

TO ORDER REPLACEMENT PARTS AND REAGENTS CALL TOLL-FREE
800-TEST KIT (800-837-8548).

IMPORTANT: This is an alkalinity test designed for use on pristine steam condensate, where the only alkalinity present comes from the neutralizing amine treatment itself. If carbonates or other alkaline materials enter into the condensate from boiler carryover or leaks in a condenser or heat exchanger, these substances also will be titrated as alkalinity, resulting in a false amine reading. Additionally, this test cannot be used to detect the presence of neutralizing amines outside a condensate system.

If the test suddenly reads higher than normal levels of neutralizing amine, or if there is a significant reading when the operator knows no amine has been added to the system, it is evidence of either boiler carryover or a cooling water leak introducing contaminants into the condensate.

PROCEDURE:

**CAREFULLY READ AND FOLLOW PRECAUTIONS ON REAGENT LABELS.
KEEP REAGENTS AWAY FROM CHILDREN.**

NOTE: When dispensing reagents from dropper bottles, **always** hold bottle in a vertical position.

Neutralizing Amine Test

1. Rinse and fill 25 mL sample tube (#9198) to 25 mL mark with water to be tested.
2. Add 5 drops R-0645 Total Alkalinity Indicator. Swirl to mix. Sample will turn green.

Instr. #5072

3. Add R-0869 Neutralizing Amine Titrating Solution dropwise, swirling and counting after each drop, until color changes from green to red.
4. Subtract 2 from the number of drops of R-0869 Neutralizing Amine Titrating Solution used and multiply the result by appropriate conversion factor (see CONVERSION FACTORS). Record as parts per million (ppm) neutralizing amine or ppm product.

CONVERSION FACTORS:

| To express neutralizing amine as: | Multiply drops by: |
|--|--------------------|
| Cyclohexylamine (CHA)..... | 4 |
| Diethylaminoethanol (DEAE)/ Diethylethanolamine (DEEA)..... | 5 |
| Methoxypropylamine (MOPA)..... | 3.8 |
| Monoethanolamine (MEA)..... | 2.5 |
| Morpholine (MOR) | 3.8 |
| Triethanolamine (TEA)..... | 6 |



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