



TOC Glycol Company Limited

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CERTIFICATE OF ANALYSIS

ORIGINAL

1 DECEMBER 2013

COMMODITY: MONO ETHANOLAMINE (MEA) Batch : MEAA191113
QUANTITY: 10.29 TONS
TYPE/SOURCE OF SAMPLE : Running sample from
08-Q3012
SAMPLE DRAWN AND SUBMITTED BY : Sampling on 19 November 2013
EA Operators
SAMPLE TESTED AT : PTT Chemical (Plant I-4) Laboratory, Map Ta Phut,

The following results were those obtained in the laboratory indicated above.

The tests were witnessed by EA staff.

| ITEMS | UNIT | TEST METHOD | RESULTS |
|-------------------|---------|--------------------------------------|---------|
| Monoethanolamine | % wt | ST-35.180-94 | 99.88 |
| Diethanolamine | % wt | ST-35.183-00 | <0.01 |
| Water Content | % wt | ST-31.53-02 | 0.098 |
| Colour Pt-Co unit | mg Pt/L | Inhouse Method Base on ASTM D1209-00 | 1 |
| Iron | ppm | Inhouse Method Base on ASTM E 394-00 | 0.27 |
| Chloride | ppm | ST-5.50-85 | <1.00 |



**TOC GLYCOL COMPANY LIMITED
BY MANUFACTURER**