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**INDUSTRY STANDARD OF THE
PEOPLE'S REPUBLIC OF CHINA**

SN/T 1353-2004

**Protocol of inspection and quarantine for import fishmeal
(English Translation)**

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Quarantine of PRC**

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Foreword

Appendix A, Appendix B, Appendix C of this standard are informative annexes.

This standard was proposed by AND shall be under the jurisdiction of the National Certification and Accreditation Administration Commission.

Drafting organization of this standard. Industrial Products Institute of China Academy of Inspection and Quarantine.

1 Scope

This standard specifies the methods for the determination of monoethanolamine, diethanolamine, triethanolamine, in cosmetics.

This standard applies to the determination of monoethanolamine, diethanolamine, triethanolamine, in skin care cosmetics.

2 Principles

Monoethanolamine, diethanolamine, triethanolamine in cosmetics are extracted with ethanol by ultrasonic; centrifugally filtered; separated and determined by gas chromatography. It is qualitative by retention time, quantitative by external standard method, confirmed by the gas chromatography-mass spectrometry method.

3 Reagents and materials

Unless otherwise stated, all reagents used are of analytical grade AND water is secondary deionized water.

3.4 Monoethanolamine, diethanolamine, triethanolamine standard stock solution.

Respectively accurately weigh 0.5 g each of monoethanolamine, diethanolamine, triethanolamine, accurate to 0.0001 g, in a 50 mL beaker.

3.5 Standard mixed stock solutions of monoethanolamine, diethanolamine, triethanolamine. Respectively accurately pipette 20 mL of each of monoethanolamine, diethanolamine, triethanolamine stock solutions, into a 100 mL volumetric flask.

3.6 Standard working solutions of monoethanolamine, diethanolamine and triethanolamine. Pipette the standard mixed stock solution (3.5), to prepare the standard working solution, whose concentrations of three ethanolamine are 50, 100, 200, 500,

5.1 Sample processing

Weigh 1.0 g of cosmetic specimen, accurate to 0.001 g. Put it in a 50 mL conical flask with stopper. Add 10 mL of ethanol accurately.

5.2.2.1 Drawing of standard working curve

Accurately pipette 1.0 μL of the standard working solution (3.6). Inject it into the gas chromatograph, in the order of concentration from thin to concentrated. Perform the measurement, according to the chromatographic conditions (5.2.1.1). Take the peak area of the chromatographic peak as the ordinate, AND the corresponding concentration as the abscissa, to draw the standard working curve. See Appendix A, for the standard gas chromatograms of monoethanolamine, diethanolamine, triethanolamine.

5.3 Blank test

Carry out the above steps, except that the specimen is not weighed.

6 Result calculation

The result is calculated, according to formula (1).

7 Lower limit of determination

The lower limit for the determination of monoethanolamine and diethanolamine, in this standard, is 0.05%; the lower limit for the determination of triethanolamine is 0.1%.

8 Recovery and precision

The recovery and precision are as shown in Table 1.

Appendix A

(Informative)

Gas chromatogram of standard substance

1 - Monoethanolamine (2.44 min); 2 - Diethanolamine (7.28 min); 3 - Triethanolamine

(10.16 min).

Appendix B

(Informative)

Characteristic ions of monoethanolamine, diethanolamine, triethanolamine

Appendix C

(Informative)

Standard total ion chromatograms for monoethanolamine, diethanolamine, triethanolamine

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ENTRY AND EXIT INSPECTION AND QUARANTINE

Determination of monoethanolamine, diethanolamine and triethanolamine in cosmetics for import and export

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