

(Garuda)

Certificate No. 20T105/1083

Certificate of Laboratory Accreditation

By virtue of National Standardization Act B.E. 2551 (2008)

Secretary – General, Thai Industrial Standards Institute

Issues this Certificate to

UBE Chemicals (Asia) Public Company Limited

Laboratory address

140/6 Moo 4, Sukhumvit Road, Taphong, Mueang Rayong, Rayong

This laboratory is accredited for testing

in accordance with the Thai Industrial Standard TIS 17025-2561 (2018) (ISO/IEC 17025 : 2017)

General requirements for the competence of testing and calibration laboratories

Accreditation No. TESTING 0302

The scope of accreditation is as annexed hereto.

Valid from 12th June B.E. 2563 (2020)

Valid until 11th June B.E. 2566 (2023)

Issue date 23th June B.E. 2563 (2020)

(Signature)

(Mr. Verakit Rantakittanawat)

Deputy Secretary – General

For Secretary – General

Thai Industrial Standards Institute

Translation approved



(Mr. Ekanit Romyanon)

Director

Office of the National Standardization Council

Date : 6th August 2020

Ministry of Industry, Thai Industrial Standards Institute

Translation Note: In the event of doubt or misunderstanding, the original in Thai shall be the authoritative.



Scope of Accreditation for Testing

Certificate No. 20T105/1083

Laboratory name Testing Laboratory, UBE Chemicals (Asia) Public Company Limited

Address 140/6 Moo 4, Sukhumvit Road, Taphong, Mueang Rayong, Rayong

Accreditation No. TESTING 0302

Laboratory status ☒ Permanent ☐ Site ☐ Temporary ☐ Mobile

Field of Testing	Parameter	Test Method
Chemical field		
1. Caprolactam : flake and molten	<ul style="list-style-type: none"> - Permanganate number 5 000 sec to 45 000 sec - Iron content 0.01 mg/kg to 0.10 mg/kg - Water content 0.010% to 0.190% by weight - Free base / Free acid 0.02 meq/kg to 2.50 meq/kg - Ultraviolet transmission 80.0% to 100.0% - Crystallizing poing 69.0 °C to 69.5 °C - Color number 1 Hazen units to 10 Hazen units - Volatile base 0.1 meq/kg to 0.5 meq/kg 	<ul style="list-style-type: none"> - TIS 1777-2558 (2015) clause 8.2 - TIS 1777-2558 (2015) clause 8.3 - TIS 1777-2558 (2015) clause 8.4 - TIS 1777-2558 (2015) clause 8.5 - TIS 1777-2558 (2015) refer to ISO 7059 : 1982 - In-house method : WI-QC9-16-004 based on TIS 1777-2558 (2015) refer to ISO 1392 : 1977 - TIS 1777-2558 (2015) refer to ISO 8112 : 1984 and Standard Methods for the Examination of Water and Wastewater, APHA, AWWA, WEF, 23rd edition, 2017, part 2120 B - TIS 1777-2558 (2015) refer to ISO 8661 : 1988

Scope of Accreditation for Testing

Certificate No. 20T105/1083

Accreditation No. TESTING 0302

Laboratory status



Permanent



Site



Temporary



Mobile

Field of Testing	Parameter	Test Method
Chemical field		
2. Ammonium sulphate : white and color	<ul style="list-style-type: none"> - Ammoniacal nitrogen 20.3% to 21.3% by weight - Free acidity (as H_2SO_4) 0.005% to 0.050% by weight - Water content 0.10% to 1.00% by weight - Residue on sieve % by weight <ul style="list-style-type: none"> • Sieve size > 1.00 mm • Sieve size > 1.40 mm • Sieve size > 2.00 mm • Sieve size > 2.80 mm • Sieve size > 3.35 mm - Total sulphur 23.0% to 25.0% by weight 	<ul style="list-style-type: none"> - TIS 1771-2542 (1999) - ISO 3332 : 1975 - TIS 2021-2543 (2000) - ISO 2993 : 1974 - AOAC, 19th edition, 2012, 950.01 - JIS K 0069-1992 - In-house method : WI-QC9-16-041 based on Notification of Ministry of Agriculture and Cooperatives subjected to the Determination on Methods of analysis for the chemical fertilizer B.E. 2559 (2016) dated 25th November B.E. 2559 (2016)

Issue date 23th June B.E. 2563 (2020)

(Signature)

(Mr. Verakit Rantakittanawat)

Deputy Secretary – General

For Secretary – General

Thai Industrial Standards Institute

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