



Ref No. : 0303/7583

## CERTIFICATE OF TESTING LABORATORY ACCREDITATION

This is to certify that

*Laboratory of The Center for Scientific and Technological Equipment,  
Suranaree University of Technology  
111 University Avenue, Tambon Suranaree, Amphoe Mueang,  
Changwat Nakhon Ratchasima 30000*

Have successfully undergone assessment according to ISO/IEC 17025 : 2005  
and under the Bureau of Laboratory Accreditation, Department of Science Service  
for the requirements, regulations and criteria for the competence of testing laboratories

LABORATORY ACCREDITATION  
Accreditation Number TESTING - 0023  
BLA-DSS

The scope of accreditation is as annexed hereto

Issue date : 22<sup>nd</sup> May 2012

Expired date : 9<sup>th</sup> July 2014

Signature : *S. T. Saengchantara*

(Mr. Suthiwet T.Saengchantara)

Chairperson of Laboratory Accreditation Committee

## Scope of Laboratory Accreditation

Laboratory Name : Laboratory of The Center for Scientific and Technological  
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Changwat Nakhon Ratchasima 30000

Accreditation Number : Testing - 0023

Laboratory Status :  Permanent     Site     Temporary     Mobile

| Item Number | Test Material / Product | Test Item / Range of Testing                                                                                                                                                                         | Test Method / Technique Used                                                                                                                                                                                                                                                                                                                                                                                                                                                               |
|-------------|-------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 1           | Water                   | - Total hardness<br>(Calculated as CaCO <sub>3</sub> )<br>5 mg/dm <sup>3</sup> to 1,000 mg/dm <sup>3</sup><br><br>- pH<br>4.0 to 10.0<br><br>- COD<br>5 mg/dm <sup>3</sup> to 500 mg/dm <sup>3</sup> | Standard Methods for the Examination of Water and Wastewater, APHA, AWWA & WEF, 21 <sup>st</sup> ed., 2005, part 2340 C<br><br>In - house method : TE-504-01-08 based on Standard Methods for the Examination of Water and Wastewater, APHA, AWWA & WEF, 21 <sup>st</sup> ed., 2005, part 4500 - H <sup>+</sup> B<br><br>In - house method : TE-504-01-11 based on Standard Methods for the Examination of Water and Wastewater, APHA, AWWA & WEF, 21 <sup>st</sup> ed., 2005, part 5220 B |

Initial Issue Date 10<sup>th</sup> July 2008

Issue Number 4

Bureau of Laboratory Accreditation, Department of Science Service, Ministry of Science and Technology

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|-------------|-------------------------|-------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 2           | Wastewater              | - pH<br>4.0 to 10.0<br><br>- COD<br>50 mg/dm <sup>3</sup> to 500 mg/dm <sup>3</sup> | In - house method : TE-504-01-08<br>based on Standard Methods for the Examination of Water and Wastewater, APHA, AWWA & WEF, 21 <sup>st</sup> ed., 2005, part 4500 - H <sup>+</sup> B<br><br>In - house method : TE-504-01-11<br>based on Standard Methods for the Examination of Water and Wastewater, APHA, AWWA & WEF, 21 <sup>st</sup> ed., 2005, part 5220 B |

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|-------------|-----------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 3           | Fruit and herbal Juice            | - Aerobic plate count<br>cfu/ml<br><br>- Yeast and Mold count<br>cfu/ml                                                                                                                                               | FDA Bacteriological Analytical Manual online, Chapter 3, 2001<br><br>FDA Bacteriological Analytical Manual online, Chapter 18, 2001                                                                                                                                                                              |
| 4           | Non-precipitating matter beverage | - Benzoic acid<br>10 mg/dm <sup>3</sup> to 600 mg/dm <sup>3</sup><br>10 mg/kg to 600 mg/kg<br><br>- Sorbic acid<br>10 mg/dm <sup>3</sup> to 600 mg/dm <sup>3</sup><br>10 mg/kg to 600 mg/kg<br><br>- pH<br>2.0 to 4.0 | In - house method : TE-504-01-04 based on International Federation of Fruit Juice Producers (IFU), No.63, January 1995<br><br>In - house method : TE-504-01-13 based on Standard Methods for the Examination of Water and Wastewater, APHA, AWWA & WEF, 21 <sup>st</sup> ed., 2005, part 4500 - H <sup>+</sup> B |

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| Item Number | Test Material / Product | Test item / Range of Testing                                                              | Test Method / Technique Used                                                                                           |
|-------------|-------------------------|-------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------|
| 5           | Pasteurized milk        | - Coliforms<br>cfu/ml<br><br>- <i>E. coli</i><br>cfu/ml                                   | AOAC Official Methods of Analysis, 18 <sup>th</sup> ed., 2005, method 991.14                                           |
| 6           | Mayonnaise              | - Benzoic acid<br>20 mg/kg to 1,500 mg/kg<br><br>- Sorbic acid<br>20 mg/kg to 1,500 mg/kg | In - house method : TE-504-01-04 based on International Federation of Fruit Juice Producers (IFU), No.63, January 1995 |

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|----------------|----------------------------|---------------------------------|---------------------------------------------------------------------------------------------------------------------------------|
| 7              | Flour                      | - pH<br>4.0 to 7.0              | In - house method : TE-504-01-09<br>based on AOAC Official Methods of<br>Analysis, 18 <sup>th</sup> ed., 2005,<br>method 943.02 |

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