



JAPANESE
INDUSTRIAL
STANDARD

Translated and Published by
Japanese Standards Association

JIS K 0350-20-10 : 2001
(JIWA/JSA)

**Testing methods for detection and
enumeration of coliform organisms
in industrial water and waste water**

ICS 07.100.20; 13.060.25; 13.060.30; 13.060.70

Descriptors : biological water pollutants, count methods (microbiology), water testing,
water purification, escherichia coli, water resources

Reference number : JIS K 0350-20-10 : 2001 (E)

Foreword

This translation has been made based on the original Japanese Industrial Standard established by the Minister of Economy, Trade and Industry through deliberations at the Japanese Industrial Standards Committee according to the proposal of establishing a Japanese Industrial Standard from Japan Industrial Water Association (JIWA)/the Japanese Standards Association (JSA), with a draft of Industrial Standard based on the provision of Article 12 Clause 1 of the Industrial Standardization Law.

Date of Establishment: 2001-01-20

Date of Public Notice in Official Gazette: 2001-01-22

Investigated by: Japanese Industrial Standards Committee

Divisional Council on Environment

JIS K 0350-20-10:2001, First English edition published in 2002-06

Translated and published by: Japanese Standards Association
4-1-24, Akasaka, Minato-ku, Tokyo, 107-8440 JAPAN

In the event of any doubts arising as to the contents,
the original JIS is to be the final authority.

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Printed in Japan

Contents

	Page
1 Scope	1
2 Normative references	1
3 Matters in common	1
4 Sample	3
4.1 Sampling and collection of bacteria	3
4.2 Handling of sample and bacteria	5
5 Expression of results	5
6 Test of number of coliform group bacteria	5
6.1 Test by plate culture medium	5
6.2 Test by the liquid culture medium (most probable number test)	9
6.3 Presumption test and determination test	13
7 Test of fecal coliform group bacteria	16
Attached Table 1 Normative references	19

Testing methods for detection and enumeration of coliform organisms in industrial water and waste water

1 Scope This Japanese Industrial Standard specifies testing methods for detection and enumeration of coliform organisms in industrial water and waste water.

2 Normative references The Standards given in Attached Table 1 contain provisions which, through reference in this text, constitute provisions of this Standard. The most recent editions of the Standards (including Amendments) shall apply.

3 Matters in common

3.1 General rules The general matters common to chemical analysis shall be in accordance with **JIS K 0050**.

3.2 Definitions For the purposes of this Standard, the definitions shall be in accordance with **JIS K 0101**, **JIS K 0102**, **JIS K 0550** and **JIS K 0211**, and the following definition shall apply.

- a) **coliform group bacteria** Gram's stain negative sporeless bacillus, that is, aerobic or facultative anaerobic bacteria which can decompose lactose to generate acid and gas.

3.3 Water Water used in this Standard shall be **A2** water or **A3** water⁽¹⁾ specified in **JIS K 0557**.

Note ⁽¹⁾ Water which is refined with the still made from silica glass or borosilicate glass-1.

3.4 Reagents Reagents shall be as follows:

- a) When the name of reagent is specified, the most excellent grade specified in **JIS** shall be used, and when there is no reagent specified in **JIS**, the reagent giving no hindrance shall be used.
- b) For the concentration of the solution of reagents, in general, the mass concentration shall be expressed in the unit of g/L or mg/L or the molality in the unit of mol/L or mmol/L.

In addition, on treating compounds, the mass as anhydride shall be used.

- c) The concentration indicated in parentheses following the name of the solution of reagents refers to the rough value of concentration in other case of the reference solution. For example, sodium hydroxide solution (1 mol/L) refers to sodium hydroxide solution of approximately 1 mol/L.
- d) The concentration of liquid reagents shall be expressed in the mixture ratio [reagents ($a+b$)] with water (or other liquid reagents). This expression indicates that reagents of a ml and water (or other liquid reagents) of b ml are mixed.