

# JIS

**JAPANESE INDUSTRIAL STANDARD**

**Testing methods for determination  
of the inhibition of the mobility  
of Daphnia by chemicals**

**JIS K 0229**—1992

**Translated and Published**

**by**

**Japanese Standards Association**

In the event of any doubt arising,  
the original Standard in Japanese is to be final authority.

## JAPANESE INDUSTRIAL STANDARD

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Testing methods for determination of  
the inhibition of the mobility of *Daphnia* by chemicals

K 0229-1992

1. Scope This Japanese Industrial Standard specifies the methods to test the determination of the inhibition of the mobility of *Daphnia magna* or *Daphnia pulex* (Cladocera, Crustacea) (hereafter referred to as "*Daphnia*"), by such as chemicals, industrial waste, surface water, or ground water.

- Remarks 1. Because the sensitivity of organisms to the toxicity of substances is considerably different depending on species, the influences on *Daphnia* by water-soluble material as chemical substance, mentioned in this Standard, cannot be applicable to other species.
2. The method specified in ISO 6341 is shown in Annex.
3. The standards cited in this Standard are as follows.

JIS B 7411 Etched-stem liquid-in-glass thermometers, total immersion type

JIS K 0094 Sampling methods for industrial water and industrial wastewater

JIS Z 8802 Methods for determination of pH of aqueous solutions

4. The International standard corresponding to this Standard is as follows.

ISO 6341-1989 Water quality—Determination of the inhibition of the mobility of *Daphnia magna* straus (Cladocera, Crustacea)

2. Definitions The definitions used in this Standard are as follows.

- (1) stock solution Original solution of chemical substance or industrial wastewater from which test solution will be prepared by dilution.
- (2) dilution water The water for dilution of stock solution to prepare specified test solution.
- (3) test solution Service water, making each test division, prepared by mixing stock solution and dilution water.
- (4) initially set concentration Either the concentration of chemical substance or dilution ratio of industrial wastewater, which has been set at test beginning. In this time, the initial concentration by which 50 % of *Daphnia* are immobilized in 24 hours is marked as 24h – EC(I)50, and the initial concentration by which 50 % of *Daphnia* are immobilized in 48 hours can be similarly obtained, so this is marked as 48h – EC(I)50.

It is desirable to mark both the lowest concentration by which the mobility-inhibition rate of *Daphnia* is 100 % and the highest concentration by which it is 0 %.