
**Fine bubble technology — Storage
and transportation of ultrafine bubble
dispersion in water**

*Technologie des fines bulles — Conservation et transport d'ultrafines
bulles en dispersion dans l'eau*

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This document was prepared by Technical Committee ISO/TC 281, *Fine bubble technology*.

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Introduction

Fine bubble technology applications have grown steadily in recent years. They now embrace a diverse range of industrial activities from enhancing the growth rates of plants in agriculture to the separation peel-off of solar panel silicon wafers in semiconductor manufacturing process.

Improved advanced cleaning purification of waste water and enhanced high throughput removal of lubricant oil on machined works and of salt stains from a surface of traffic infrastructures, have also been demonstrated.

Most of these applications are currently limited to the site where the generating system of fine bubble water is installed close to the application objects and operated simultaneously to the application. Expansion for applications where the site of bubble application is different from that of generation is being implemented by some innovative industries, but there are currently no concrete guidelines for storage and transportation of fine bubble water, as typical ultrafine bubbles (UFB) are known to have high stability once generated. The purpose of this document is to expand the scope of application of initial measurements of fine bubble quality downstream in the supply chain.

This document specifies the requirements related to the planning, equipment and operation process necessary to store and transport ultrafine bubble dispersions without significant deterioration in terms of number concentration index. This document is intended to help assessing the acceptable conditions and periods for storage and transportation that guarantee integrity of ultrafine bubble quality.

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