

TECHNICAL DATA SHEET

DISPERSION FOR LATEX APPLICATIONS



TUBALL™ LATEX H₂O is a suspension based on TUBALL™ single wall carbon nanotubes produced by OCSiAl. TUBALL™ LATEX H₂O suspensions are available in several versions, with various surfactants. TUBALL™ single wall carbon nanotubes are a unique additive that provides electrical conductivity at low dosages not achievable with any standard conductive additive. These low dosages enable reductions in the electrical resistivity of the material with minimal impact on the host matrix, including retaining and even improving mechanical properties, minimally increasing density, and limiting the influence on the rheological properties and colour.

TUBALL™ LATEX H₂O 0.2% is a suspension specifically designed to provide electrical conductivity for different types of latex articles. Improvements in properties such as modulus and tensile strength can be achieved, while elongation at break can be retained.

Note: For more information about the dosage and mixing conditions of TUBALL™ LATEX H₂O, see the processing guidelines.

Before use, ensure that the suspension is stirred vigorously.

Adjust the pH of the suspension to be equal to or higher than the pH of the latex in which it will be used.

Dispersion composition

TUBALL™ single wall carbon nanotubes	0.2 %
Water	98.8 %
Disodium methylenebisnaphthalenesulphonate (or leukanol)	1.0 %

Typical properties

Appearance	Black coloured liquid
Density at 25°C, g/cm ³	1.01
Stability	≥ 0.85
Viscosity*, mPa·s	< 30
pH	~ 7-8.5
Optical absorption**, 500 nm	≥ 0.45

* Viscosity measured at 20 rpm is recorded. Sample temperature must be in 24-25°C range.

**Measurements at a concentration of 0.001% and an optical length of 10 mm.

Packaging

Plastic cans (1, 5, 10, 20, 200 litre). OCSiAl provides TUBALL™ LATEX H₂O test samples in plastic cans (1 litre) upon signing of the Material Transfer Agreement, whereby the recipient agrees to disclose test results to OCSiAl.

Storage and transportation

The product is stable in its unopened original packaging when stored under normal temperature conditions. The recommended storage life is up to 12 months when stored as directed.

Safety

To ensure safe handling, the appropriate safety regulations should be observed. OCSiAl recommends that every user should be able to apply the safe handling procedures necessary for the user's applications before any handling or manufacturing takes place. A Material Safety Data Sheet outlining the hazards and handling methods for TUBALL™ LATEX H₂O is available.

Warranties and disclaimer

The Products correspond to the chemical composition indicated in the Technical Data Sheet and the Material Safety Data Sheet supplied with the Product. The information contained in this document (Information) is based on trials carried out by OCSiAl and may contain inaccuracies or errors that could cause injury, loss or damage.

OCSiAl gives no further warranty and makes no further representation regarding the Products and/or the accuracy of Information and/or suggestions for any particular use of the Products or Information, or that suggested use will not infringe any patent. The Products and Information are supplied on an "as is" basis. These express provisions are in place for all warranties, representations, conditions, terms, undertakings and obligations implied by statute, common law, custom, trade usage, course of dealing or otherwise (including implied undertakings of satisfactory quality, conformity with description, fitness for purpose and reasonable skill and care), all of which are hereby excluded to the maximum extent permitted by applicable law.

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