

Technical Bulletin

DYNAX DX4000 FLUOROSURFACTANT

Dynax DX4000 is a highly effective and efficient product, especially designed to provide rapid spreading, wetting and leveling performance to various water-based coating systems, such as paints, inks, floor polishes, etc., on low surface tension substrates that are difficult to wet out. DX4000 provides both superior dynamic and equilibrium surface tensions compared to conventional surfactants including fluorochemical and silicone surfactants: it quickly lowers the surface tension of aqueous solutions down to 16 dynes/cm at a very low concentration. DX4000 can be used without a defoaming agent because of its low foaming tendency.

Typical Properties¹

Appearance	Clear, yellow liquid
Ionic Character	Slightly cationic
Composition	35% actives 12% hexylene glycol 51% water
Density (@25°C)	1.17 g/ml
Flash Point	>100°C (PM Closed Cup)
pH	6.0 - 7.0
Solubility	DX4000 can be dispersed directly in water.
Storage stability	DX4000 is chemically stable, but should be stored at temperatures above 10°C. If frozen, warm the product to room temperature and mix it well before use. Freezing should not affect the properties of the product or its performance.

¹ Not for specifications

Dynamic Surface Tension Data (@0.1% actives in water)*

Surface Age (Seconds)	Surface Tension (dyne/cm)
0.005	21.1
0.051	19.5
0.52	17.8
5.2	16.7
Equilibrium	16.6

*Dynamic surface tensions were measured using Kruss Bubble Pressure Tensiometer BP2

Product Safety

DX4000 is not derived from PFOS (Perfluorooctyl Sulfonate) or from PFOA (Perfluorooctanoic Acid). DX4000 does not degrade into PFOS or PFOA. DX4000 is made from a C6 fluorotelomer which is not subject to either the EPA's fluoropolymer/fluorotelomer stewardship program or a TSCA consent order.

DX4000 is minimal skin irritant. DX4000 is severe irritant to eyes. The acute oral LD₅₀ of albino rats is greater than 2,500 mg/kg.

Precautions and First Aid

DX4000 should be handled with good industrial precautions. Safety goggles and rubber gloves, as well as protective clothing suitable to avoid skin contact should be worn. In case of contact with eyes, flush eyes with plenty of water and consult a physician. In case of skin contact, wash skin with plenty of water and soap.

<p><i>Important Notice to Purchaser:</i> All statements, technical information and recommendations contained herein are based on information and tests we believe to be reliable. The accuracy or completeness thereof is not guaranteed. Since conditions of use are outside our control, the purchaser should determine the suitability of the product for his intended use and assumes all risk and liability in connection therewith.</p>
