

Technical Bulletin

DYNAX DX4005N FLOUROSURFACTANT

Dynax DX4005N is a highly effective and efficient fluorosurfactant, 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. DX4005N 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. DX4005N can be used without a de-foaming agent because of its low foaming tendency.

Typical Properties¹

Appearance	Clear, liquid
Ionic Character	Slightly anionic
Composition	45% actives 10-12% Hexylene Glycol Remainder: Water
Density	1.15 g/cc (@25°C)
Viscosity	20-40 cP's (Brookfield DV-E spindle #3, speed 50, temp. 25 ⁰)
Flammability	Non Flammable
pH	6-7
Solubility	DX4005N can be diluted directly in water.
Stability	At least one year if stored in original containers at temperatures not exceeding 50°C (122°F).
Storage	DX4005N should be stored at temperatures above 5°C. If frozen or a solid phase separates out, warm the product to room temperature and mix it well before use. Freezing and thawing will not affect the properties of the product or its performance.

¹Not for specifications

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

Surface Age (Seconds)	Surface Tension (dyne/cm)
0.0051	24.5
0.052	21.8
0.52	19.1
5.3	16.8
Equilibrium	16.6

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

Surface Tension Data

% Actives in distilled water	Surface Tension (dyne/cm)
0.1	15.9
0.01	16.0
0.001	21.5

By Wilhelmy Plate Method: KRÜSS Force Tensiometer K100C

Product Safety

DX4005N is not derived from PFOS (Perfluorooctyl Sulfonate) or from PFOA (Perfluorooctanoic Acid). DX4005N does not degrade into PFOS or PFOA. DX4005N meets the objectives of the US EPA 2010/15 PFOA Stewardship Program.

DX4005N is a minimal skin irritant.

DX4005N is a minimal irritant to eyes.

The acute oral LD₅₀ of albino rats is greater than 5000 mg/kg.

Precautions and First Aid

DX4005N 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.

Important Notice to Purchaser: 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.
