



IL SHIM FINE CHEMICALS

CEPTOL FLS 50

SHORT PERFLUORINATED CHAIN FLUOROSURFACTANT

■ DESCRIPTION

CEPTOL™ FLS50 is an anionic fluorinated surfactant that effectively reduces surface tension at very low concentrations for water based systems.

CEPTOL™ FLS50 is based on short-chain molecule containing 6 fluorinated carbon atoms, that cannot breakdown to PFOA in the environment.

Low addition levels of **CEPTOL™ FLS50** provides exceptional wetting, levelling, reduced orange peel effect, making it perfect as additive for floor polish, wax formulation, paint and coating.

■ SPECIAL FEATURES

- _ Specifically for water-based
- _ Good reduction of surface tension at very low concentrations
- _ Excellent levelling
- _ Reduced orange peel effect
- _ Improved wetting of most aqueous based systems
- _ Meets the goals of the voluntary U.S. EPA 2010/2015 PFOA Stewardship Program
- _ Targeted below LOD for PFOA (**PFOA free***)

■ SPECIFICATION

Non volatile content: 25 ~ 27%

pH: 6 ~ 8

■ APPLICATIONS

CEPTOL™ FLS50 expresses its best properties already at very low concentration (0.05 ~ 0.4%).

Some examples of application:

- _ Paint and varnish
- _ Inks
- _ Waxes and polishes
- _ Industrial and institutional cleaning
- _ Electronic
- _ Adhesives

■ TECHNICAL INFORMATION

⊙ **APPEARANCE** : Pale yellow to amber clear liquid



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- ⊙ IONIC NATURE : Anionic
- ⊙ pH : 6 - 8
- ⊙ DENSITY : 1.00 g/cm³
- ⊙ FLASH POINT : 21° C (70° F)
- ⊙ SOLID CONTENT : 25 - 27 % (wt)
- ⊙ COMPOSITION : active material 25 - 27 %
Isopropyl alcohol 49 - 51 %
Water 24-26 %

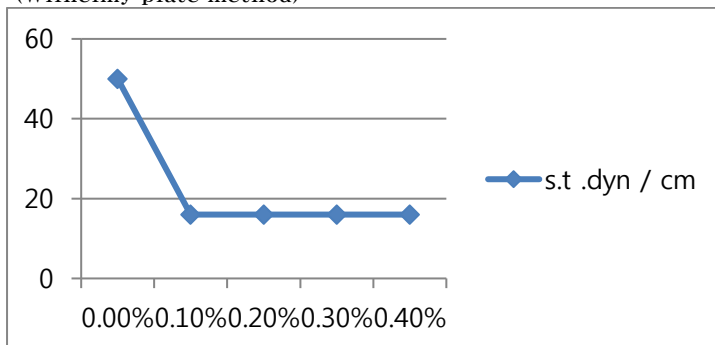
■ SOLUBILITY

- _ >2% in water and methyl alcohol
- _ 0.1% in isopropyl alcohol
- _ Insoluble in acetone, ethyl acetate, THF, toluene, heptane and chloroform

TECHNICAL DATA SHEET

■ SURFACE TENSION IN DEIONIZED WATER AT 25° C

(Wilhelmy plate method)



- _ 28.6 dyn/cm at 0.01 % (active material)
- _ 17.7 dyn/cm at 0.05 %
- _ 16.8 dyn/cm at 0.1 %

C.M.C. : 0.07% in deionized water

■ ROSS-MILES FOAM VOLUME at 40° C (in deionized water) [ml]

	Initial	5 min
0.01% of active material	39	20
0.1% of active material	393	304

■ SURFACE TENSION IN WATER-BASED RESINS

Resin	Control	CEPTOL™ FLS50	
		0.1%	0.3%
Acryl emulsion A	39.6	20.7	19.8
Acryl emulsion B	44.0	18.1	16.5
Acryl emulsion C	43.2	19.7	19.7
Acryl emulsion D	44.6	20.3	19.4



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■ STORAGE AND STABILITY

CEPTOL™ FLS50 is stable for two years if stored in original closed drums at temperatures of 4 ~ 45° C (39~113° F). Stable to freezing; heating is not recommended (flammable liquid).

■ PERSONAL SAFETY

CEPTOL™ FLS50 does not contain toxic substances.
Consult the current Material Safety Data Sheet for safety use of the product.

■ PACKAGING

- _ Kg 5 – Drum
- _ Kg 25 – Drum
- _ Kg 100 – Drum

* Wherever the term "PFOA Free" is used , it means content of PFOA is less than limit of detection (20ppb).