



HEXAFOR™ 643-D

POLYMERIC FLUOROSURFACTANT

DESCRIPTION

HEXAFOR™ 643-D is a 25% solution of polymeric non-ionic fluorosurfactant for water based and solvent based systems.

HEXAFOR™ 643-D reduces surface tension, improves wetting and leveling, reduces cratering, fish eyes, and orange peel effect.

HEXAFOR™ 643-D is based on short-chain fluorinated monomers containing 6 perfluorinated carbon atoms, that cannot decompose to PFOA in the environment.

SPECIAL FEATURES

- ❖ Specifically for water and solvent based systems
- ❖ Good reduction of surface tension
- ❖ Excellent leveling agent
- ❖ High flash point
- ❖ Low foam forming
- ❖ High thermal stability
- ❖ Improved wetting of most solvent based systems
- ❖ **HEXAFOR™ 643-D** is exempt from the obligation imposed by REACH regulation because it is classified as a polymer.

TECHNICAL INFORMATIONS

APPEARANCE	Liquid
COLOR	Yellow to light yellow
IONIC NATURE	Non-ionic
DENSITY	1.02 g/cm ³
FLASH POINT	74°C
COMPOSITION	24-26% active matter 74-76% DPM

SPECIFICATION

Non volatile content: 24 – 26%

APPLICATIONS

HEXAFOR™ 643-D is particularly suitable for all the applications where the reduction of surface tension is required.

HEXAFOR™ 643-D expresses its best properties with a dosage between 0,05% and 0,3% of active material.

Some examples of application:

- ❖ Paint and coating
- ❖ Floor waxes and polishes
- ❖ Adhesive and caulks
- ❖ Graphic arts
- ❖ Electronic
- ❖ Industrial cleaners

SURFACE TENSION IN DEIONIZED WATER AT 25°C

(Wilhelmy plate method)

- ❖ 24.2 dyn/cm a 0.01 % (active material)
- ❖ 22.7 dyn/cm a 0.05 %
- ❖ 22.4 dyn/cm a 0.1 %

SURFACE TENSION IN SOLVENTS

Solvent	% in weight of Hexafor 643-D		
	0%	0.1%	0.5%
Butyl acetate	25.0	24.3	24.2
Toluene	28.5	23.6	22.3
Ethylene glycol	47.7	23.3	23.2
Methyl ethyl ketone	24.6	24.6	24.4

FOAM VOLUME AT 40°C (in deionized water) [ml]

(Ross-Miles test according to ASTM D 1173)

	Initial	5 min
0,15% of active matter	118	10
0,5% of active matter	167	20



Via T.Tasso 12 - 24060 Castelli Calepio (BG) IT
Phone +39.035.4494311
Accounting Dept. Fax +39.035.4425249

Guarniflon S.p.A.
Maflon Division

VAT N. IT 01406020162
REA N. 203233 - Cod.Mecc. BG 003351
Cap. Sociale € 10.000.000 interamente versato

Fluorochemical Specialties
http://www.maflon.com - info@maflon.com
Technical Dept. Fax +39.035.4494331



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TECHNICAL DATA SHEET



SOLUBILITY

Solvent	% Hexafor 643-D
Water	>10%
Methyl ethyl ketone	>10%
Dimethyl formamide	>10%
Isopropanol	>10%
Methanol	>10%
Methoxy propanol	>10%
Texanol	>10%
Butyl Cellosolve	>10%
N-Metil Pirrolidione	>10%
Butyl acetate	>10%
Toluene	>10%
Xylene	>10%
Mineral spirit	Insoluble

STORAGE AND STABILITY

HEXAFOR™ 643-D is stable for two years if stored in its original drums, sealed and preserved at temperatures of 4 – 45°C (39 – 113°F).

PERSONAL SAFETY

HEXAFOR™ 643-D does not contain toxic substances. Please, consult the current **Material Safety Data Sheet** for safe use of the product.

PACKAGING

- ❖ Kg 5 – Drum
- ❖ Kg 25 – Drum
- ❖ Kg 100 – Drum



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