



## TECHNICAL BULLETIN

### TAYCHEM TAF-21

#### Functional Silicone Fluid

#### Characteristics:

TayChem TAF-21 is a premium, modified, amino-functional fluid.

#### Properties:

TayChem TAF-21 yields an extremely soft hand with little to no shade change, most notably yellowing, due to normal textile processes. TayChem TAF-21 gives a less hydrophobizing effect on natural fibers than standard amino softeners. It also gives some wrinkle recovery and improved fabric elasticity.

#### Application:

TayChem TAF-21 is particularly suitable as an active substance in non-yellowing softener formulations for impregnation of fibers and textiles. It imparts a very soft and drapeable handle to woven and knitted fabrics. This product improves wash-and-wear properties, crease recovery angle, sewability, and reduces abrasion loss. The effects are fast to washing and dry cleaning.

TayChem TAF-21 has no effect on the degree of white in a softener formulation when usual application conditions are adhered to. As a rule, no adverse effect on the shade or colorfastness properties of colored goods is observed.

#### Product Data:

<b>Appearance</b>	Clear, Yellowish Oil
<b>Active Content (%)</b>	Approximately 92
<b>pH (Emulsion 5% In Water)</b>	Approximately 5-6
<b>Viscosity (mPas)</b>	Approximately 2,000
<b>Amine Number (ml 1N HCl/g Substance)</b>	Approximately 0.18
These figures are intended as a guide and should not be used in preparing specifications.	

#### Processing:

TayChem TAF-21 can be applied from solution or from emulsion. Suitable solvents are aliphatic and aromatic hydrocarbons, chlorinated hydrocarbons, esters, higher alcohols, and ketones.

Most textile processes are water-based. Hence, TayChem TAF-21 is mainly applied from emulsion. It is suitable for the formulation of micro emulsions and macro emulsions.

Emulsions made with TayChem TAF-21 are diluted to the optimum concentration for the specific fabric. Application can be done by padding or exhaustion. TayChem TAF-21 can be utilized as the active substance in softener emulsions or in combination with other components, e.g., paraffin waxes, organic softeners, etc. Compatibility of the components has to be checked in each individual case.



**Typical Formulation:**

	<b>Material</b>	<b>Parts</b>
1.	Demineralized Water	50.00
2.	Tridecyl Alcohol 6EO	5.00
3.	Tridecyl Alcohol 9EO	3.00
4.	Diethylene Glycol Monobutylether	4.00
5.	TayChem TAF-21	20.00
6.	Demineralized Water	17.90
7.	Conservation Agents	0.10
	The emulsifier is dissolved in the demineralized water. Gradually, add TayChem TAF-21 and mix until the product is clear and homogeneous. Finally, the second amount of water and conservation agents are to be added.	

**Storage:**

TayChem TAF-21 has a shelf life of at least twelve (12) months if stored in tightly-closed, original containers at 25°C. The "date of manufacture" of each batch is shown on the product label.

If the material is kept beyond the shelf life recommended on the product label, it is not necessarily unusable, but quality control should be performed on the properties relevant to the application.

**Safety Instructions:**

Comprehensive instructions are given in the corresponding Material Safety Data Sheet. This information is available upon request from TayChem Industries, Ltd.

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