



# TETRANYL®

## Our Ecological Softness

TETRANYL® L1/90S

TETRANYL® AT/7590

TETRANYL® AT-1/PG

TETRANYL® L6/90

TETRANYL® CO-40

TETRANYL® AT-1

TETRANYL® AO-1



The technology of KAO's softener applied to fabric care

## REGULAR

### TETRANYL® AT/7590 Partially Hydrogenated Tallow Esterquat



For many years, most softeners have been formulated with low cationic concentrations. For this reason, **TETRANYL® AT/7590** represents an innovative product which conserves the traditional essence giving a pleasant soft feel while enhancing the viscosity effect.

## CONCENTRATED

### TETRANYL® L1/90S Partially Hydrogenated Tallow Esterquat



The aim of the latest trends in fabric softeners has been to optimize all the stages from their manufacturing process to household use. **TETRANYL® L1/90S** is the recommended grade of esterquat due to its lower viscosity influence in the final

formula. Concentrated softeners are usually less viscous than regular types, to ensure their satisfactory rapid dispersion in the washing machine.

## LOW TEMPERATURE PROCESS

### TETRANYL® AT-1 Tallow Esterquat



In this highly competitive world, we have endeavoured to cut our customers production costs by launching **TETRANYL® AT-1**, which allows formulation at room temperature. Not only can it be used at low temperatures, it does not lose its easy handling properties.

# TETRANYL® RANGE

Kao Chemicals Europe is one of the biggest producers of esterquats worldwide. The **TETRANYL®** range offers the possibility of formulating diluted or concentrated softener, formulating at low temperature or choosing between a vegetable or animal origin product; even non-flammable **TETRANYL®** is available. All of them are included as biodegradable softeners.

### STORAGE, TRANSPORT AND HANDLING

#### STORAGE\*

- Recommended at 50-60 °C (maximum 65°C)
- Nitrogen is not necessary, although it is advisable, to preserve the colour
- IPA condenser is also advisable, to ensure the product quality when the storage temperature is in the upper range.
- Storage tank must have a recirculation line to homogenize temperature throughout the tank

#### TRANSPORT\*

- Must be done at 45-55 °C (maximum 60°C)

#### UNLOADING\*

- Recommended at 55-60 °C

#### INSTALLATION

- Must be antideflagrant (for IPA based EQ)
- Stainless Steel AISI-316L is the recommended material for tanks, pumps, etc., because the **TETRANYL®** range of products are not corrosive.

#### TRANSPORT REGULATION

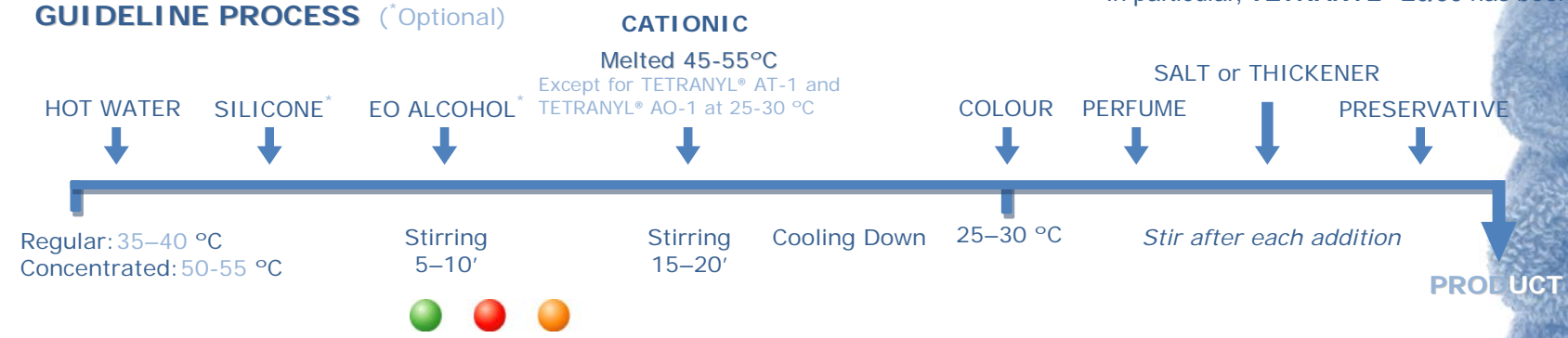
- **TETRANYL®** range with isopropanol

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- **TETRANYL®** range with propylene glycol  
NON-EU REGULATED

\* **TETRANYL® AO-1**, **TETRANYL® AT-1**, **TETRANYL® AT-1/PG** and **TETRANYL® CO-40** are exceptions in respect of handling temperatures.

### GUIDELINE PROCESS (\*Optional)



## NON-FLAMMABLE

### TETRANYL® CO-40 Dioleylethyl Hydroxyethylmonium Methosulfate

### TETRANYL® AT-1/PG Tallow Esterquat



In order to reduce the storage risks of flammable products, **TETRANYL® CO-40** and **TETRANYL® AT-1/PG** are special, non-flammable products due to the use of propylene glycol as the solvent, making their handling

safer. They are considered Non-EU Regulated, so it is not necessary to label them either for transport or for storage installations, due to the use of propylene glycol as the solvent. In addition, the process temperature is lower than that for tallow-based formulations, thus reducing the cost.

According to the different alternatives which the **TETRANYL®** range can offer, there is also the possibility to formulate a vegetable origin softener, thanks to **TETRANYL® CO-40**, **TETRANYL® AO-1** and **TETRANYL® L6/90**.

## VEGETABLE ORIGIN

### TETRANYL® CO-40 Dioleylethyl Hydroxyethylmonium Methosulfate

### TETRANYL® AO-1 Dioleylethyl Hydroxyethylmonium Methosulfate

### TETRANYL® L6/90 Partially Hydrogenated Palm Esterquat



TETRANYL® L6/90 TETRANYL® AO-1



In particular, **TETRANYL® L6/90** has been Ecocert certified.



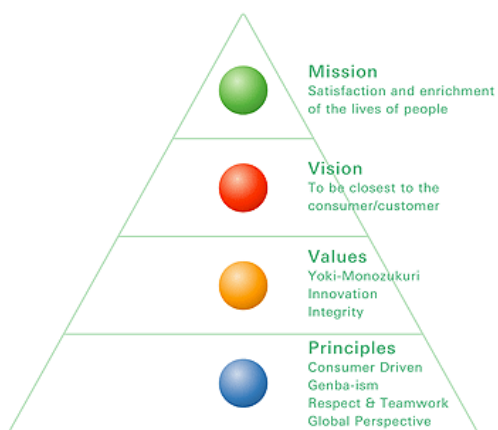
## Mission

Our Mission is “to strive for the wholehearted satisfaction and enrichment of the lives of people globally” through the Company’s core domain of value added chemicals.

Fully committed to this mission, all members of the Kao Group work together with passion to provide products of excellent value created from the customer’s perspective. In so doing, we “share joy with the customer”.

## Vision

We aim to be “a global group of companies that is closest to the customer in each market”, earning the respect and trust of all stakeholders and contributing towards the sustainable development of society.



## The Kao Way

# Kao Chemicals Europe

[www.kaochemicals-eu.com](http://www.kaochemicals-eu.com)



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