

FORMALDEHYDE-FREE ECO-FINISH FOR TEXTILES

(ECO ACABADO DE TEJIDOS LIBRES DE FORMALDEHIDO)

JAVIER FRANCÉS

**ASSESSORS DEL RAM
D'AIGUA S.A.
"ADRASA"**



1. THE COMPANY: ADRASA



ADRASA S.A. is a company located in Martorelles (Barcelona) and since 1984 **develops, produce and commercialize chemicals for the textile industry.**



1. THE COMPANY: ADRASA



ADRASA has a wide range of products covering the following fields of the textile industry:

Sizing - Preparation - Bleaching - Dying - Printing - Finishing

	TRADEMARKS
PREPARINGA PRODUCTS	ADRASAT, ADRALUB, ADRASUAU, ADRAPOL, ADRAZIM, ADRABLANC, ADRAMOLL, ADRANET, ADRAPUR, ADRARED, ADRAFOR
DYING PRODUCTS	ADRATINT, DRAMOLL, ADRANET, ADRAOXID, ADRARED, ADRAFIX, ADRESIL, ADRATEX ADRABUFFER, ADRABASE, ADRANIL, ADRAPREST
PRINTING PRODUCTS	ADRAPRINT, ADRA CLEAR, ADRAPLAST, ADRASIL, ADRASIU
FINISHING PRODUCTS	ADRASUAU, ADRASIL, ADRAMIN, ADRASIL-ELAST, ADRAPREST, ADRANIL, ADRAPLAST, ADRATEX, ADRAOIL, , ADRAFRE, ADRASAT, ADRAPOL, ADRAMOLL

1. THE COMPANY: ADRASA



ADRASA is based in two different market strategies:

- **Problem resolution** from customers. Being able to help with a laboratory available to find solutions in reduced times.

- **Research and development** of new products, with qualified human resources and advice services.



1. THE COMPANY: ADRASA



ADRASA owns facilities with the technological equipment to face the necessities and requirements of customers and the industry.

- **Electronic instruments laboratory**
- **Product design laboratory**
- **Textile application laboratory**



1. THE COMPANY: ADRASA



ADRASA has a wide **commercial net** around the world, being in the most important markets.

- **Europe**
 - Spain
 - Portugal
 - Italy
 - Turkey
- **America**
 - Brasil
 - Mexico
 - Peru
- **Asia**
 - Iran



1. THE PROJECT: OBJECTIVE



FORMALDEHYDE-FREE ECO-FINISH FOR TEXTILES

is a development in order to:

Research and find a solution to replace formaldehyde in Easy-Care / Wrinkle-free finishes, for another element friendly with health and environment.

Formaldehyde is related with health problems with people who deal with it:

- Respiratory problems
- Dermatological problems
- Headaches
- Formaldehyde is classified as possible carcinogen



1. THE PROJECT: DESCRIPTION

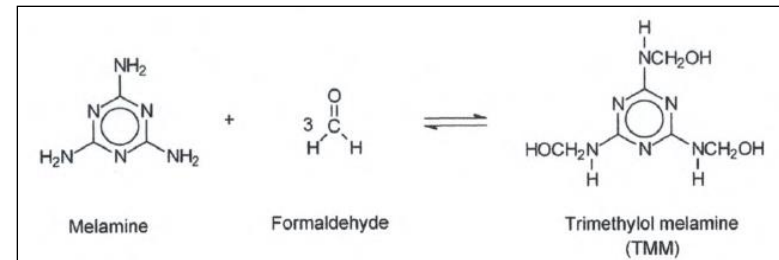
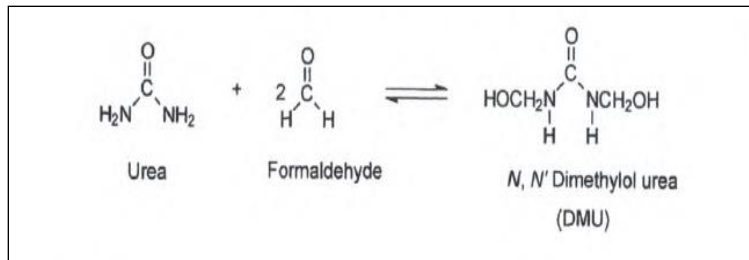


Currently, the products available for Easy-Care / Wrinkle-free finishes are all based in a combination of:

UREA + FORMALDEHYDE

or

MELAMINE + FORMALDEHYDE



*Some products have a very reduced quantity of formaldehyde, but they can't eliminate it completely and its use is expensive

1. THE PROJECT: DESCRIPTION



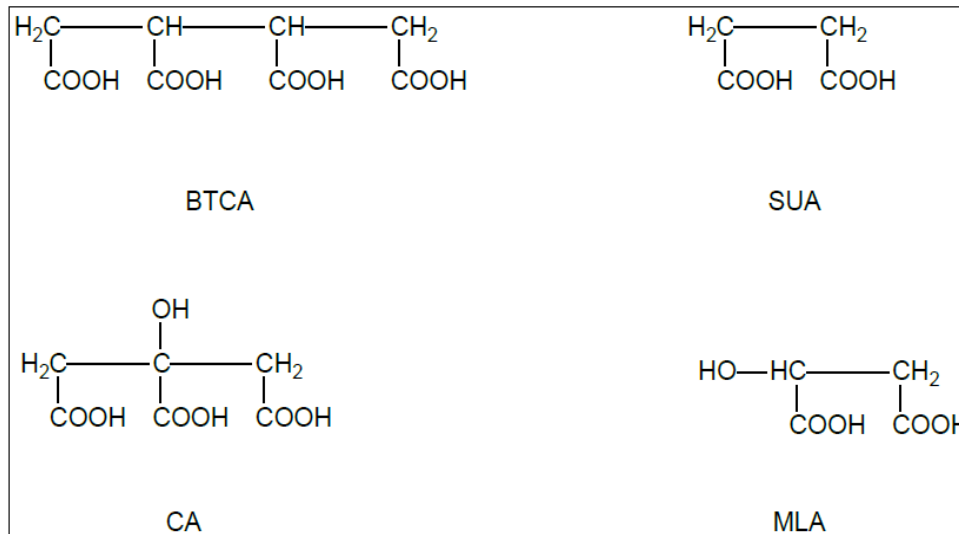
The project is going to be performed taking in account the following parameters:

- **The development is planned in order to create a new formaldehyde-free Easy-Care /Wrinkle-free finish.**
- **The project is focused in formulations for cotton fabrics.**
- **New formulations must have a similar performance than formaldehyde compounds.**
- **The new product must be economical viable and competitive with similar products in the market.**

1. THE PROJECT: INNOVATION



The use of polycarboxylic acids as BTCA, CA, SUA and MLA is going to be the main work of research of the project in order to find a compound suitable to the requirements.



It is possible to find an alternative using polycarboxylic acid along with other elements which optimize the formulation.

The result is expected to be a cheaper solution than using formaldehyde compounds as DMDHEU

